

# The North Italian Cotton Industry 1200-1800

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## A) 1100-1300

The silk and cotton industries of medieval Italy were transplanted industries based on technological transfers and raw materials from the Islamic world. In contrast to silks which found ready purchasers among traditional European elites long accustomed to luxury cloth, cotton goods from the outset were geared toward mass consumption. The success of the cotton industry required the opening of markets and the creation of consumer demand for a new line of affordable fabrics. This in turn required cost-effective solutions to the transport and processing of large quantities of cotton fiber.

While the northward migration of some varieties of the cotton plant (*Gossypium herbaceum*) from the tropical zone can be traced from an early date, a sustained expansion of Old World cotton cultivation occurred between 700 and 1600 when the acreage devoted to this crop reached its maximum historical extension stretching from southern Spain to South-east Asia. An initial impetus to this development came from an expanded knowledge of agronomy and irrigation techniques disseminated across the Islamic world.<sup>1</sup> Artisans in royal *tiraz* factories and private workshops borrowed tools and techniques from Byzantine and Persian

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<sup>1</sup> Andrew M. Watson, *Agricultural Innovation in the Early Islamic World: The Diffusion of Crops and Farming Techniques 700-1100* (Cambridge, 1983), pp. 31-41.

craftsmen, notably the spinning wheel and the raised horizontal treadle loom, in addition to the bow, reel and cotton gin received from India. The application of sophisticated weaving and dyeing techniques allowed the creation of a novel line of plain and patterned fabrics ranging from sheer muslins and lawns to hybrid fabrics in which cotton was mixed with linen, silk and wool. Islamic sumptuary laws favored the use of cotton garments among adherents to the faith. The versatility of cotton and its adaptability to a wide range of climatic conditions ensured a steady demand among urban and rural consumers linked by extensive commercial networks. In the early Islamic empire, cotton was transformed from a luxury commodity into an ordinary article of daily use.<sup>2</sup>

The reception of these techniques in southern Europe in the wake of the Islamic conquests gave rise to new centers of cotton weaving based on imitations of Islamic fabrics. In Barcelona, Marseilles and several Italian ports, artisans specialized in coarse fabrics and sailcloth. In zones of cotton cultivation such as Sicily, Calabria and Apulia, local weavers produced inexpensive fabrics, apparel and household goods for domestic or regional markets and, in some cases, for export to Spain and France. In this region the consumption of cotton and linen cloth appears to have overshadowed woolens.<sup>3</sup>

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<sup>2</sup> Maureen Fennell Mazzaoui, *The Italian Cotton Industry in the Later Middle Ages 1100-1600* (Cambridge, 1981), pp. 7-27, 73-76.

<sup>3</sup> Stephan R. Epstein, "The Textile Industry and the Foreign Cloth Trade in Late Medieval Sicily (1300-1500): A 'Colonial Relationship' ?," *Journal of Medieval History* 15 (1989), pp. 156-157, 172; Mario Del Treppo, *I mercanti catalani e l'espansione della corona aragonese nel secolo XV* (Naples, 1972-73), p. 201.

However, a large-scale, export-oriented industry first took firm root in northern Italy in the populous towns of the Po Valley, which were already important centers of woolen cloth production. The ports of Venice and Genoa, the Po and its tributaries, and the Alpine passes constituted vital commercial arteries for an industry of mass production which was dependent upon imported supplies of raw materials and international outlets for manufactured goods.<sup>4</sup>

Underpinning the success of the Italian, and indeed the entire emerging cotton industry of late medieval Europe was a highly evolved maritime traffic in raw cotton that linked the major areas of supply to major and minor ports in the Mediterranean and eventually the Atlantic and North Sea. Northern Italy was at the epicenter of a burgeoning Mediterranean trade in crude cotton, dominated by Venetian and Genoese merchants. The provisioning of raw materials required a high level of capital investment and innovative solutions to the logistical challenges of transporting large quantities of a voluminous, lightweight commodity at a contained cost. A prime example is the regulated convoys of cargo ships and coordinated sailing dates of the Venetian *muda gothonorum*. However, large volumes of cotton were also carried on unregulated cogs of Genoa, Pisa, Ancona, Barcelona, Marseilles and Ragusa and other maritime cities which were linked to a system of cabotage serving minor ports.<sup>5</sup>

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<sup>4</sup> Mazzaoui, *Italian Cotton Industry*, pp. 59-72.

<sup>5</sup> For an overview of the Mediterranean cotton trade see, Mazzaoui, *Italian Cotton Industry*, pp. 28-55. On the organization of the Venetian *mude* see the following studies by Frederic C. Lane: *Venetian Ships and Shipbuilders of the Renaissance* (Baltimore, 1934) pp. 45-6; "Fleets and Fairs" in *Venice and History* (Baltimore, 1966) pp. 128-41; "Rhythm and Rapidity of Turnover in Venetian Trade in the Fifteenth Century" in *Venice and History*, pp. 109-127.

In the face of intense western demand, commercial cultivation expanded in the principal cotton growing zones of the Mediterranean. While the prime grades of Syria, Armenia and Cyprus were heavily represented in cargoes of Venetian and other ships, lesser qualities of cotton from Greece, Turkey, and southern Italy (Apulia, Malta, Calabria and Sicily) as well as Egypt and North Africa figured prominently in an ever widening radius of traffic. The various grades of cotton were never mixed but were employed separately for distinct types of fabric.<sup>6</sup>

Italian merchants successfully launched a broad array of cotton fabrics modeled on well-known Islamic prototypes, often preserving the original Arabic name, into European and Mediterranean trading channels. Cotton goods competed in price with linens and light woollens. Cottons also complemented linens and woollens by offering consumers of all means the widest possible choice of fabrics for a variety of applications in apparel and household furnishings. The low cost and versatility of cottons, available in a series of pure and mixed fabrics (with warps of wool, silk, linen and hemp), ranging from sheer veils to buckram, heavy denim, canvas and quilted materials, help to explain the great elasticity of demand for cotton cloth. Especially popular were fustians (from the Arabic *fushtan*) which combined a linen warp with a cotton weft in various combinations. Plain and dyed fustians, some with napped surfaces, were prized for their durability, variety of colors and woven

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<sup>6</sup> On the role of Syrian cotton in Venetian Levant trade, see Eliyahu Ashtor, "The Venetian Cotton Trade in Syria in the Later Middle Ages," *Studi Medievali* XVII (1976)pp. 675-715, repr.in *Studies in the Levantine Trade in the Middle Ages* (Aldershot, 1978).

designs which included stripes, ribs, checks and other geometric patterns. Consumers were offered quality products at affordable prices through a dense distribution network that extended from international dealers to urban retailers and itinerant vendors in country fairs and weekly markets. The quality and provenance of recognized “brands” was guaranteed by registered trademarks and guild seals.<sup>7</sup>

Cotton required fewer steps in processing than wool, thus allowing higher volumes of production, upwards of 60-70,000 bolts per year in major urban centers. The capacity of the industry to consistently deliver high levels of output of standardized low-cost goods for mass markets required coordination of the activities of thousands of urban and rural workers across a broad geographical zone. The cotton-producing towns of northern Italy constituted an industrial complex characterized by a regional subdivision of labor in spinning, warping, and bleaching and an intense traffic in semi-processed raw materials.<sup>8</sup>

From the early twelfth century the cotton industry was established alongside woollen manufacture as one of the most important sectors of the urban economy. Its presence can be noted in virtually every town of significance and even some of minor importance: Genoa, Venice, Milan, Cremona, Piacenza, Pavia, Brescia, Monza, Bergamo, Parma, Mantua, Verona, Padua and Bologna.<sup>9</sup>

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<sup>7</sup> Mazzaoui, *Italian Cotton Industry*, pp. 87-104. In contrast to Indian painted and printed cottons, medieval European textiles had designs woven into the fabric with colored thread or yarns of different counts, or were dyed in the piece. For samples of Milanese trademarks that were traded and even sub-divided see Emilio Motta, “Per la storia dell’arte dei fustagni nel secolo XIV,” *Archivio Storico Lombardo*, ser. II, vol. vii, anno xvii (1890), pp. 140-5.

<sup>8</sup> Mazzaoui, *Italian Cotton Industry*, pp. 105-126.

<sup>9</sup> Mazzaoui, *Italian Cotton Industry*, p. 62.

The hub of the entire complex was the flax-producing region of Lombardy. Cotton beating and weaving and the finishing processes of dyeing and pressing were carried on by urban artisans under the supervision of specialized masters. Capital for these enterprises was supplied through partnerships with merchants who were leading members of the fustian guild.<sup>10</sup> Bleaching in the lake district was in the hands of independent contractors, employing a seasonal, largely female labor force. The spinning of cotton, linen and hemp yarn in a range of numbered counts and the preparation of linen and hemp warp threads (*cavezzzi*) according to strict guild prescriptions regarding length, weight and density were tasks put out to peasant women in the countryside. The supervision of spinning and warping fell to specialized wholesale thread merchants called *filaroli* or *telaroli* who worked on commission, or for their own account. There were heavy concentrations of spinners in the flax-growing districts around Milan (Gera d'Adda, Gallarate, Somma Lombardo), and in the vicinity of Novara, Pavia (Pizzighettone) and Cremona (Casalmaggiore, Castellone, Piadena, e Regazolo). The city of Cremona was a major distribution center for crude cotton, thread and prepared warp threads. Spinners and warpers also had access to hemp from Piedmont and Burgundy that was mixed with cotton and linen yarn in the production of canvas and sailcloth.

The distribution of *cavezzzi* to fustian producers by the *telaroli* paralleled the use of prepared warps for mixed fabrics in the woolen and silk industries, although on a far larger scale. *Cavezzzi* of a prescribed length and fineness and weft yarn of a determined count were

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<sup>10</sup> Maureen Fennell Mazzaoui, "Industria lombarda del cotone e politica economica dei duchi di Milano nella seconda metà del secolo quindicesimo," in *Milano nell'età di Ludovico il Moro; Atti del Convegno Internazionale 28 febbraio- 4 marzo 1983* (Milan, 1983) pp.174-6.

employed for specific varieties of cloth, thus allowing the standardization of brand-name fabrics in weight, dimensions and tactile characteristics. The implementation of the system required a precise alignment of looms, heddles, interchangeable loom reeds, and warping frames, based on uniform linear measures and weights across the entire zone of production. In the wake of organized migrations of Lombard artisans carrying the techniques of cotton production to other cities in the Veneto, Romagna, Tuscany, Umbria, the Marches and Lazio, new centers aligned their linear measurements, loom reeds and other implements to the Lombard standard.<sup>11</sup>

The availability of yarn and prepared linen warps allowed the spread of fustian weaving to smaller centers, including many located within non-flax-producing areas in northern and central Italy. In some cases output was limited. Cotton workers in Mantua, for example, produced a mere 300 pieces of fustian a year for the domestic market.<sup>12</sup> In contrast, cotton weaving assumed considerable importance in Tuscany and Central Italy where artisans concentrated on niche products for export such as sheer veils, sailcloth, articles of apparel and decorative household goods, utilizing Lombard linen warps and cotton imported through Venice, Pisa and Ancona. Cloth from this area was well represented in the cargos of ships destined for France and Spain. Fustian workers organized into minor guilds or affiliated with woolen corporations can be identified in a wide swath of territory including

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<sup>11</sup>Mazzaoui, *Italian Cotton Industry*. pp. 66-72, 116-121. Yarn counts were numbered 1 to 7 for heavy thread and 7 and above for fine thread. Maureen Fennall Mazzaoui, "La diffusione delle tecniche tessili del cotone nell' Italia dei secoli XII-XVI" in *Tecnica e Società nell' Italia dei secoli XII-XVI: Atti dell' undicesimo Convegno Internazionale di studio tenuto a Pistoia 28-31 ottobre 1984* (Pistoia, 1987) p. 159, n.5..

<sup>12</sup> ASMN Archivio Gonzaga, Arte della Lana, busta 3234, fos. 6-7.

many ports and interior cities such as Florence, Arezzo, Siena, Lucca, Pisa, Cortona, Poggibonsi, Pontremoli, Città di Castello, Sansepolcro, Perugia, Forlì, Cesena, Perugia, Assisi, Orvieto, Terni, Narni, Foligno, Todi, Ancona, Ascoli Piceno, Fano, Civitanova and Rome.<sup>13</sup> Specialty fabrics from the Kingdom of Naples, where cotton production had an early and independent development, also achieved visibility in commercial channels.<sup>14</sup>

## **B) 1300-1600**

After two centuries of rapid expansion, the north-Italian urban industry reached the peak of its development around 1300. In the early fourteenth century, Italian fustian producers (*fustagnari*) faced new competition from rural linen centers of Germany where there was a gradual shift toward fustian weaving. When the Italian economy was expanding, such new entrants to the field would have had little impact on the “giants” of the industry. However, higher transaction costs were starting to take a toll on the Italian industry. In 1338 the *fustagnari* of Milan complained about declining exports of some types of fabric to Germany, owing to a run-up in the wholesale price of unfinished fustians. The guild attempted to fix

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<sup>13</sup> Mazzaoui, *Italian Cotton Industry*, p. 62 and “La diffusione,” pp. 158-162. Adding to my original list, Bruno Dini has identified several other localities: “L’industria tessile italiana nel tardo Medioevo,” *Saggi su una economia-mondo: Firenze e l’Italia Mediterraneo ed Europea (secc. XIII-XVI)* (Ospedaletto, 1995) pp. 13-49. The list will undoubtedly require further expansion. According to Professors Thomas Blomquist and Michael Bratchel, there are numerous references to fustian artisans in the notarial acts of Lucca. On the importance of the fustian industry of Arezzo and the commerce in fustians of central Italy, see Bruno Dini, *Arezzo intorno al 1400: produzioni e mercato* (Arezzo, 1984), pp.56, 67.

<sup>14</sup> Luciana Frangioni, *Milano fine trecento: il carteggio Milanese dell’Archivio Datini di Prato* (Florence, 1994), vol. I, p. 186.



the price in order to limit speculation by wholesalers and bleachers. They also sought relief from impost duties on thread and *cavezzzi*.<sup>15</sup>

In a revealing statement issued in 1347, just a few months before the plague struck Europe, the *fustagnari* of Milan attributed the high costs of raw cotton to speculative transactions between wholesale merchants. The guild attempted to restrict cotton sales to its own members. Caps were placed on the amount of cotton purchased weekly by guild members. The number of looms owned by individual masters was limited to fifteen, while new entrants to the guild were allowed only four to five.<sup>16</sup>

Speculation in raw materials, a practice the *fustagnari* of Milan considered so detrimental to their interests, was heightened in the second half of the fourteenth century when German firms made large purchases of raw cotton in Venice and Milan to provision an expanding Swabian industry, which was actively promoted by the Emperor Charles IV. According to a complaint by officials of the *Fondaco dei Tedeschi* in 1373, German merchants purchasing Levant cotton in Venice were guilty of manufacturing cheap imitations of Italian brands, complete with counterfeit copies of well known trademarks used by Italian producers.<sup>17</sup>

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<sup>15</sup> Antonio Noto, ed. *Liber Datii Mercantie Communis Mediolani*(Registro dek secolo XV), (Milan, 1950) pp. 105-6; Gino Barbieri, *Origini del Capitalism Lombardo: studi e documenti sull' economia Milanese del periodo ducale* (Milan, 1961), pp. 59-60.

<sup>16</sup> Barbieri, *Origini*, pp.. 60-2. 75-7; Cesare Cantù, *Scorsa di un Lombardo negli Archivi di Venezia* (Milan and Venice, 1856) pp. 149-51;

<sup>17</sup>G.M. Thomas, *Capitulare dei Visdomini del Fontego dei Tedeschi in Venezia*, pp. 73 f., 77, cc. 168, 176; Wolfgang von Stromer, *Die Gründung der Baumwollindustrie in Mitteleuropa* (Stuttgart, 1976), pp.157-9. As noted in this document, some German weavers at this early stage of development may have been using inferior cotton yarn imported from Syria and distributed through Venice.

Despite the use of counterfeit trademarks, Swabian *Barchent* offered a narrower band of cloth types, with minimal refinements in finishing and limited differences in price, as compared to the numerous options offered by Italian fustian producers.<sup>18</sup>

The aggressive marketing of low-priced Swabian *Barchent* affected primarily exports of medium and low-grade Italian cottons to Germany and Central Europe. Large consignments of high-quality Lombard fabrics were still transported over the Alpine passes to south Germany, for shipment to the Hanse towns, and to Prague and Vienna. However, the trade was now increasingly dominated by German and Swiss merchants.<sup>19</sup>

In the late fourteenth and early fifteenth centuries, import-substitution industries in cotton goods were established in the Rhineland, Bavaria, Austria, Bohemia, Silesia, Hungary and Poland. While not all these experiments were successful, the proliferation of minor centers of production contributed to saturated markets for plain cloth. These new entrants also placed upward pressure on the price of raw cotton which was further exacerbated by trade

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<sup>18</sup> The German fustian centers used four common marks or brands, namely the ox, the lion, the grape and the wheel. There were also a half dozen or so specialty fabrics associated with certain localities (including Milan) that were widely imitated in a number of towns. For a detailed list see Stromer, *Die Gründung*, pp. 149-151. The prices of Memmingen *Barchent* in 4 tiers of quality purchased by merchants of Regensburg in 1515-17 ranged from 2 gulden 16 shillings for the lowest-cost unfinished cloth to a high of 3 gulden for first quality cloth. In the same period specialty “raincloth,” a felted and fulled cotton cloth in large dimensions fetched 7 gulden. Aloys Schulte, *Geschichte der grossen Regensburger Handelsgesellschaft 1380-1530* (Stuttgart, 1923; repr. Wiesbaden, 1964), II, pp. 97-8.

<sup>19</sup> Mazzaoui, *Italian Cotton Industry*, p. 142.

wars between Venice and Sigismund of Luxembourg, King of Hungary, as well as ongoing conflicts between Venice and the Visconti of Milan.<sup>20</sup>

In the early 1400s, sizeable exports of German cottons to Spain, France, Switzerland and the Netherlands eroded traditional outlets for middling to lower quality Italian products. The combined impact of a flood of Italian and German cottons into Spanish markets put severe pressure on the venerable industry of Barcelona. In 1441 the city council expressed alarm at the sharp decline in cotton working in the city where only 6 to 10 workshops remained from the more than 300 firms operating at the height of the guild's prosperity. In a series of protectionist measures, the council sought to ban all retail sales of foreign fustians within the city walls. The city also subsidized the annual production of 1,000 pieces of fustian in three varieties valued between 38 and 45 soldi per piece to be supplied by local weavers. This figure was adjusted downward to 900 pieces in 1443. However, following complaints from tailors and haberdashers about inadequate supplies and poor quality of cotton fabrics, the program was abandoned and the restriction on imports of foreign cottons was lifted. Deprived of public subsidies, the cotton industry sank to the level of a small domestic manufacture devoted to the manufacture of sailcloth for the fleet.<sup>21</sup>

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<sup>20</sup> For a list of localities see Stromer, *Die Gründung*, pp. 135, 149-51. For the attempt by Sigismund to sponsor an alternative route for imports of Levant cotton via the Black Sea ports see Wolfgang von Stromer, "Die Kontinentalsperre Kaiser Sigismunds gegen Venedig 1412-1413, 1418-1433 und die Verlagerung der transkontinentalen Transportwege." In *Trasporti e Sviluppo Economico secoli XIII-XVIII* ed. Anna Vannini Marx, Atti della Quinta Settimana di Studio dell'Istituto Internazionale di Storia Economica F. Datini, 4-10 maggio 1973, (Firenze 1986).

<sup>21</sup> Mazzaoui, *Italian Cotton Industry*, pp. 146-7; Claude Carrère, *Barcelone, centre économique à l'époque des difficultés 1380-1462* (Paris and the Hague, 1967), pp. 370-1, 811-18. Cfr. Antonio de Capmany y de

The simultaneous invasion of Italian markets by German *Barchent* also elicited a series of protectionist measures. In 1417, noting the deleterious effects of imports of German cloth on the industries of the hinterland, Doge Michael Steno levied a heavy tax on imports of “foreign” fustians from Germany and other parts of Italy. An exception was made for the fustians of Milan and Cremona that were destined for exportation overseas. In 1477 Venice banned all imports of fustians, bedding and ready-made apparel such as cotton doublets and tunics unless they were for the export trade.<sup>22</sup> In 1499 access to internal markets was allowed for the fustians of Cremona when that city passed under Venetian rule. The resulting flow of contraband Lombard cloth required special inspection procedures on the frontier. In 1515 following the loss of Cremona, this dispensation was revoked.<sup>23</sup>

In Lombardy, protectionist measures were directed against the export of yarn and *cavezzi* and implements such as loom reeds and heddles. In 1414 Milan issued a ban on the unlicensed export of thread and *cavezzi* from the duchy. The ban was reinstituted in 1425 and in 1444 when new regulations required all yarn and *cavezzi* to be transported to the capital city before a license for export could be granted. On August 9, 1448 under the Ambrosian Republic, the fustian guild of Milan condemned the illicit export of cotton and linen yarn and warp threads to Cremona and Florence, to the detriment of “innumerable poor persons” who derived a living from the fustian industry of Milan. According to the petitioners, since the death of Filippo Maria Visconti, the trade by both subjects and foreign merchants had

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Montpalau, *Memorias históricas sobre la marina, comercio y artes de la Antigua ciudad de Barcelona* (1742; revised ed., Barcelona, 1961-3), I, pp. 630-1 (doc. 434).

<sup>22</sup> ASVR *Casa dei Mercanti*, reg. 2, cc. 145v-152r; *Camera Fiscale*, 116, c. 31 v.

<sup>23</sup> BMC *Mariegola de Fustagneri e Coltreri*, cc. 32-36, 75-76.

increased, with great damage to government revenues. A new decree banned all exports without a license, with an exception granted to those transporting yarn and warp threads to Saronno, Gallarate, and Varese which served as centers of distribution for the entire duchy.

<sup>24</sup> On August 26 of that same year severe penalties were assessed for the illegal transport of *cavezzzi* or linen or cotton yarn outside the confines of the duchy. The fines were five florins for each set of warp threads and 20 soldi per pound of linen or cotton yarn. Also merchants or carters who transported from the city of Milan any fustians or other cotton fabrics which lacked the requisite trademarks and seals of inspection were subject to a fine of 50 gold ducats per bale. Merchant producers of the fustian guild were required to update the registration of their company trademarks to avoid fraud. Use of unauthorized trademarks was punishable by a stiff fine of 50 gold ducats.<sup>25</sup>

While contraband was rife, measures restricting the export of *cavezzzi* undoubtedly resulted in higher yarn prices for cities dependent on Lombard supplies.<sup>26</sup>

Protectionism also signaled the breakdown of the integrated system of production that had sustained north-Italian cotton manufacture until the end of the fourteenth century. The combined impact of German competition and the higher cost of Lombard yarn and warp threads led to the collapse of cotton production in many traditional centers of the Veneto and the Romagna. The industry was virtually extinct in Verona and Bologna by the early

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<sup>24</sup> Mazzaoui, *Italian Cotton Industry*, pp. 148-9, 220 n.54; Alfio R. Natale, *Acta Libertatis Mediolani* (Milan, 1987) pp. 72-5.

<sup>25</sup> Natale, *Acta*, pp. 410-12.

<sup>26</sup> According to Salvatore Ciriaco, the paucity of flax cultivation in the Veneto was perceived by the authorities as damaging to the economic interests of the state, especially in view of the restrictions on linen warp threads from Lombardy: "Industria e Artigianato" in *Storia di Venezia* (Venice, 1996) V, pp. 551, 587, n. 151.

sixteenth century. In 1585 Bergamo requested an exemption from the ban on foreign fustians, given the total absence of production in that city. In 1599 the *fustagnari* of Venice opposed the lifting of the ban, with the dubious claim that the 170 looms in the port city were sufficient to satisfy local demand.<sup>27</sup> By calculating the annual output of a loom at 30 pieces a year we arrive at a total production of c. 5,100 pieces, of which 2,000 were destined for the Arsenal. That is a sharp drop from the more than 60,000 pieces woven in Venice in the late fourteenth century.<sup>28</sup> At the end of the sixteenth century only 45 looms for the weaving of cotton cloth were said to be operating in the city of Venice. As a result of interruptions in the supply of Levant cotton caused by warfare and diplomatic reverses, weavers were (at least temporarily) using spun cotton of unstated origin imported through Germany.<sup>29</sup> By 1788 the total work force in the Venetian fustian industry had been reduced to 346 (comprising foremen, laborers and apprentices) who were clearly incapable of supplying the domestic market.<sup>30</sup>

The urban industries of Milan and Cremona maintained a competitive edge over German producers by virtue of their superior dyeing and finishing techniques. Milanese fustians were actively traded throughout Germany and the Netherlands and at the fairs of Geneva and Lyons. They were also well represented in the markets of Vienna, Prague and Buda where

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<sup>27</sup>BMC *Mariiegola di Fustagnari*, cc. 119-22, 129-31, 137-9; Mazzaoui, "La Diffusione," pp. 168-9.

<sup>28</sup> ASF *Carte Strozzi* s. I, 148, c. 26 (Lettera da Venezia april 16, 1621): "...□ di ditto fustagno ma piū fisso e grosso questi che se ne servono per far le vele per le loro galere 9 ne consumano 2000 pezze l'anno. Cfr. Mazzaoui, *Italian Cotton Industry* pp. 114, 212, n.52.

<sup>29</sup>Ciriacono, "Industria e Artigianato," pp. 551-2.

<sup>30</sup> Salvatore Ciriaco, "Mass Consumption Goods and Luxury Goods: The De-industrialization of the Republic of Venice from the Sixteenth to the Eighteenth Century," in *The Rise and Decline of Urban Industries in Italy and the Low Countries (Late Middle Ages-Early Modern Times)* (Louvain, 1988) pp. 54-55.

they sold for prices well above German *Barchent*. In some instances, Milanese fustians were exempt from protectionist measures aimed at German fabrics that competed with the products of nascent cotton industries in Central Europe. There was a heavy demand for the quality cottons of Milan and Cremona in Barcelona, Valencia and other Spanish markets. In the fifteenth century, Lombard producers found new outlets for their cottons (and light woolens) in the Ottoman empire.<sup>31</sup>

However, these successes masked a sea change in the structure of north-Italian cotton manufacturing. In the course of the fifteenth century, the entire landscape of the industry was profoundly altered by the rise of new competing centers of cotton cloth production in

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<sup>31</sup> Mazzaoui, *Italian Cotton Industry*, pp. 138-53, 219 n. 45. In 1438 the newly established *Barchent* weavers of Vienna petitioned the city council for a ban on imports of cotton fabrics from Ulm, Augsburg, Regensburg, Kirchdorf, and Passau which competed with local products. An exception was made for Italian cottons [i.e. from Milan and Cremona] marketed through Venice which were of a superior quality. Josef Kallbrunner, "Zur Geschichte der Barchentweberei in \_sterreich im 15. und 16. Jahrhundert." *Vierteljahrschrift f\_ür Sozial-und- Wirtschaftsgeschichte* xxiii (1930) p. 81. In a tariff of 1562 preserved in the Hungarian national archives in Budapest, "Barchent" of Milan is assessed at 20 d. per bolt and that of Ulm at 10. The dimensions are not noted. Fol. Lat. 928: Limitatio Nova Vectigalium pro Tricesimis Regni Hungarice (January 13, 1562). Imports of fustians from Milan, Ulm and Augsburg into Hungary via Sopron are also mentioned in a sixteenth-century mercantile account book: *Das Gesch\_äftsbuch der Kr\_ämers Paul Moritz (1520-1529)*, ed. Karl Mollay, Sopron V<ros T<rt\_öneti Forr<sai, Quellen zur Geschichte der Stadt \_denburg, ser. B, vol. I, passim (Sopron, 1994). Milanese black and bleached fustians sold for higher prices than South German fustians in Austria in the early sixteenth century: Othmar Pickl, *Das \_lteste Gesch\_äftsbuch \_sterreichs. Die Gew\_erberegister der Wiener Neust\_ädter Firma Alexius Funck (1516-ca. 1538) und verwandtes Material zur Geschichte des steirischen Handels im 15./16. Jahrhundert* (Graz, 1966), pp. 68,108. Cfr. Maureen Mazzaoui, "The Italian Cloth Trade in Eastern Europe and the Levant 1300-1600" in *Issues and Resources for the Study of Medieval Central Europe*, The CARA-CEU Summer Institute 2000 (Budapest and Cambridge, MA, 2001) pp. 95-100.

rural Lombardy. In the same period, a cheaper line of products was developed in Piedmont and Savoy that aimed at the lowest tier of the export market. Incentives offered to immigrant workers helped to establish the industry in Asti, Pinerolo, Alba and Ceva. It later spread into Alba and Ceva. The duke of Savoy recognized the cotton guild of Chieri in 1482. Cotton workers are also recorded in Chamberry, Novara and Valessia in the 1500s. In the early sixteenth century, 6-7,000 bales of Piemontese fustians were exported annually through Genoa. By 1560 the annual output of Chieri reached 100,000 pieces, comparable to the output of Ulm in the same period.<sup>32</sup>

The rapid rise of rural fustian weaving, new to this zone, was facilitated by importations via Venice of pre-spun cotton from the Levant. As early as 1373 officials of the Fondaco dei Tedeschi in Venice had prohibited German merchants from exporting cotton beaten and spun in Venetian territory. However, they were permitted to freely export spun cotton from the Levant to provision their fledgling industries.<sup>33</sup> By 1421, according to Doge Tommaso Mocenigo, exports of cotton yarn accounted for 30,000 ducats or *circa* ten percent of the total trade in cotton with Lombardy, which was valued at 280,000 ducats.<sup>34</sup> According to the account books of the Venetian merchant Andrea Barbarigo (1432-49), imported cotton

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<sup>32</sup> Rinaldo Comba, "Produzioni tessili nel Piemonte tardomedievale", *Bollettino Storico-bibliografico Subalpino* LXXXII (1984), pp. 28-34 and "Per una storia della produzione tessile nel Piemonte dei secoli XIII-XVI" in *Antichi tessuti della Pinacoteca Civica* (Asti, 1982), pp. 77-85; V. Balbiano di Aramengo, ed., *Statuti dell'arte del fustagno di Chieri* (Turin, 1966), Introduction by A.M. Nada Patrone, pp. 11\*-13\*. Cfr. Mazzaoui, "La diffusione," pp. 169-70.

<sup>33</sup> Stromer, *Die Gründung*, pp. 157-9. Cfr. N. 17 above.

<sup>34</sup> Marino Sanuto, *Vite de' duchi di Venezia* in L.A. Muratori, *Rerum Italicarum Scriptores* (Milan 1723-51) xxii, col. 954.



yarn came from Acre and Hama.<sup>35</sup> In 1503 a commercial manual noted that spun cotton transported via Venice was destined for Turin and all of Piedmont.<sup>36</sup> The use of commercial yarn allowed the employment of less skilled weavers and reduced the need for large numbers of sorters, beaters and spinners. It thus gave an advantage to industrial centers in an early stage of development. However, when the yarn was of variable quality, it resulted in non-uniform fabrics with irregular and uneven weaves. Thus the substantial maritime traffic in commercial yarn from the principal cotton producing areas raises larger issues regarding specialization and product differentiation within the early European cotton industry.

Commercial yarn from Syria, Greece, southern Italy and North Africa appears in import registers and tariffs in Barcelona, Marseilles, Venice, Pisa, Ancona and other Mediterranean ports, and also in Bruges and Antwerp.<sup>37</sup> The yarn trade was clearly a response to long-term growth in consumer demand for affordable cotton cloth. However, in a separate, high to mid-level sector of the market, pre-spun cotton was deliberately eschewed by the established manufacturing centers in Lombardy and southern Germany. Commercial yarn from foreign sources failed to meet the rigid quality controls regarding counts and content essential to the reputation of standardized brands backed by mercantile, guild and city trademarks. It also was a threat to the livelihood of beaters and thousands of country spinners dependent on the

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<sup>35</sup> Frederic C. Lane, *Andrea Barbarigo, Merchant of Venice 1418-1449* (New York, 1967) pp. 187-93.

<sup>36</sup> Batholomeo di Paxi de Venetia, *Tariffa di pesi e di misure* (Venice, 1503), p. 129 r: “Da Venesia se traze per Torino e per tutto il Piemonte gotoni filadi...”; Mazzaoui, “La diffusione,” p. 169.

<sup>37</sup> The price of spun cotton was 1.5 to 3 times the price of raw cotton of the same quality. Mazzaoui, *Italian Cotton Industry*, p. 176, n. 12. On the commerce in spun cotton, see Mazzaoui, *Italian Cotton Industry*, pp. 176, n.17, 178, nn. 34, 36, 37; p. 179, n. 45; p. 181, nn. 55. 56.

industry. It was not until the early 1570s, when Ottoman military advances temporarily disrupted the supply of cotton from Cyprus, that the City Council of Ulm lifted its ban on the use of spun Syrian cotton and also on Brazilian cotton imported through the port of Marseilles.<sup>38</sup>

Ultra-cheap fabrics from Piedmont and Savoy, *cotonias*, *cotonines*, *bombasines* etc., made from imported cotton yarn with warps of hemp or linen, undercut ordinary German fustians in key distribution markets. In Lyons in the sixteenth century, fustians from Piedmont and Savoy represented 60% of cotton products sold in that city, with Milanese fabrics accounting for 20%, and *Barbent* from Ulm 12%. In 1552-53 the toll rate on Milanese cottons was 12 sous or twice that of Piemontese and Savoyard fustians (6 sous), whereas cottons of Ulm paid 10 sous per bale. In 1569 Milanese fustians were charged a toll of 40 sous per bale as opposed to 15 for cottons from Piedmont and Savoy. Fustians from F9tigny (Franche-Comt9) were valued at 13 sous per bale, below those of Piedmont and Savoy.<sup>39</sup>

In the fifteenth century Genoese merchants organized cotton weaving in rural districts around Acqui, Alessandria, Gavi, Serravalle, Bussala, Voltaggio and Savona. The region was known for its heavy, coarse fabrics and denims (*jeans*) that combined local flax and hemp with cheap grades of Italian and Turkish cotton. A flood of low-priced cottons from Liguria and Piedmont shipped through the port of Genoa captured market share in Spain at the expense of German *Barbent*. Large quantities were also shipped to France and England.

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<sup>38</sup> Eugen Nηbling, *Ulms Baumwollweberei im Mittelalter* (Leipzig, 1890) pp. 166, 168-9.

<sup>39</sup> Richard Gascon, *Grande commerce et vie urbaine au XVIe siēcle: Lyon et ses marchands* (Paris and The Hague, 1971), I, p. 74.

In the sixteenth and seventeenth centuries a steady stream of fustians was exported from Naples, en route to Spain and the New World.<sup>40</sup>

As low-cost Italian and French producers competed with Swabian merchants for market

share in a burgeoning trade in cheap fabrics, a potentially greater challenge to the urban industries of Milan and Cremona came from imitations of brand-name fabrics made in the rural districts of Lombardy. While these two cities retained a monopoly over fine cloth production, a proto-industrial industry expanded in the Lombard countryside. Beginning in the early fourteenth century, the fiscal levies of the Visconti dukes on textile production, combined with the high cost of labor, drove some fustian producers into provincial towns and boroughs. In 1425 the duke of Milan recognized the rights of *fustagnari* of Melegnano to freely export yarn and *cavezzzi* from the city of Milan to provision their weavers. Dyeing and finishing were to be done exclusively in Milan.<sup>41</sup> In 1448 under the Ambrosian Republic, the merchants of Saronno, Gallarate and Varese gained recognition of these localities as supplementary centers for the distribution of yarn and cavezzzi to other parts of the duchy, thus by-passing Milan.<sup>42</sup> Subsequently *fustagnari* from Busto Arsizio, Monza, Melegnano and other boroughs were granted the privilege of inscription as full members of the Milanese guild, with rights to maintain shops in the capital and enter into partnerships with leading

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<sup>40</sup> Mazzaoui, *Italian Cotton Industry*, pp. 153.

<sup>41</sup> A. Noto, *Liber Datii Mercantie Communis Mediolani. Registro del secolo XV* (Milan, 1950), p. 122.

<sup>42</sup> ASM *Archivio Panigarola*, reg. 5, cc. 30r-31r; *Lettere Ducali*, reg. VII, cc. 138r-140v; Natale, *Acta*, pp. 72-75..

masters. They also assumed apprentices from the district who helped to spread skills and know-how to the countryside.<sup>43</sup>

The reformed statutes of the Milanese cotton guild in 1467 sanctioned the employment of artisans in the district subject to the issuance of a license and the registration of all masters and workers with the heads of the guild. Weavers within and outside the capital were officially registered as full members of the fustian guild of Milan. Guild officials were empowered to inspect the shops of cotton producers in the district to ensure compliance with the technical prescriptions of the guild. All cloth was to be transported to the capital for final inspection and the affixing of seals by guild officials.<sup>44</sup>

These concessions were a prelude to a restructuring of the cotton guild. The original corporation comprised masters, beaters and weavers in the city and suburbs with jurisdiction over spinners in the countryside. It was now reconstituted as a guild of licensed master producers both in Milan and throughout the duchy. Affiliated guilds of weavers, nappers (*cimatori*) and beaters inscribed both urban and rural workers. All masters and workers in these occupations were registered with the fustian guild. The abbots of the latter were empowered to inspect all workshops and private domiciles of licensed members to ensure conformity to guild norms of production. The final inspection and sealing of all fustians produced in the duchy was reserved exclusively to the abbots of the guild of *fustagnari* in Milan.<sup>45</sup> The restructuring reflected the growth of proto-industrial enterprises in the

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<sup>43</sup> Barbieri, *Economia*, pp. 10, 197. Maureen Fennell Mazzaoui, "Industria lombarda," pp. 174-77.

<sup>44</sup> ASCM, *Materie*, cartella 428, fasc. 11; *Statuta Mercatorum Bombacis et Fustanei*, cc. 21v, 23v.

<sup>45</sup> Mazzaoui, "Industria lombarda," p. 174.

Lombard countryside that controlled the entire cycle of production from spinning and warping through the finishing processes of bleaching, dyeing and pressing. Production was targeted at medium quality fustians that could compete effectively in price with German products.

The interests of Milan and the new rural centers inevitably diverged. In a series of petitions dating from 1478, the guild abbots complained repeatedly about defects in dyeing and finishing of imitation Milanese cottons fabricated in Monza, Melegnano and other localities. They adamantly rejected claims to immunity from guild regulations by practitioners in the district.<sup>46</sup> Despite these pleas, in 1497 Ludovico il Moro recognized the economic importance of rural producers when he abolished all import and export levies on the commerce in fustians throughout the entire duchy.<sup>47</sup>

In 1546 the guild attempted to reestablish the city's monopoly over cotton beating (and by extension over the trade in crude cotton) by banning beaters from carrying on this activity in any city, borough, *castello*, district or village outside the city of Milan, including those centers where this process was already well established.<sup>48</sup> This set the stage for violent encounters between the guild and rural artisans in the sixteenth century. In 1548 new sanctions imposed by the abbots on masters and workers in the borough of Abbiategrasso were fiercely resisted. Residents rejected attempts by the guild to fix the length, weight and density of cloth produced in the borough and to force all fustians to be brought to Milan for sealing,

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<sup>46</sup> ASM *Archivio Panigarola*, reg. 9G, cc.153v-155v (March 10, 1478).

<sup>47</sup> ASCM *Lettere Ducali*, 1497-1502, cc. 52r-95v.

<sup>48</sup> ASCM Materie, Cartella 49, fasc. 11. The regulation of 1546 is recorded in the *Capitoli dell'Universit  dei Battitori di Bombace* of 1627.

noting that adherence to these rules would damage the livelihood of “thousands” of workers in the borough.<sup>49</sup>

These regulations were clearly ineffective. In the statutes of the guild of *fustagnari* of 1585, masters, beaters and weavers in Milan and elsewhere in the Duchy were obliged to register with the guild in order to guarantee the collection of dues and fees, given that many workers “in remote places” withheld payment. In an obvious drive to expand supervision, masters were prohibited from employing unregistered weavers and beaters.<sup>50</sup> In 1603 the guild recognized the right of new entrants formally inscribed in these guilds to open a workshop anywhere in the duchy.<sup>51</sup>

The extent of the displacement of cotton manufacturing toward the Lombard countryside is clearly described in the statutes of 1585, where the guild claimed jurisdiction over fully seventeen small towns, boroughs and industrialized villages located in a wide arc around the city of Milan. These included Monza, Melegnano, Cassino Scanasio, Senago, Magnago, Biate, Buscate, Venzago, Legnano, Busto Arsizio, Borsano, Gallarate, Castellanza, Abbiategrasso, Samarate, Verghera and Olgiate.<sup>52</sup> In the 1600s, production expanded into Maleo Lodigiano where *traidaine*, *bombasine*, *valessi* and other types of cotton fabric were woven with yarn and warp threads imported from Gera and Pizzighettone.<sup>53</sup> Small fustian

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<sup>49</sup> ASCM *Materie*, Cartella 428, fasc. 11; Cartella 429, s.d,

<sup>50</sup> ASM *Commercio*, p.a., Cartella 263, fasc. 13: *Ordines et Statuta Universitatis Fustaneorum* (1585), c. 47.

<sup>51</sup> ASCM *Materie*, Cartella 49: *Statuta della Universit  dei Battitori* (1603), cc. 2, 3.

<sup>52</sup> ASM *Commercio* p.a., Cartella 263, fasc. 13: *Ordines et Statuta Universitatis Fustaneorum* (1585), c. 42r.

<sup>53</sup> ASM *Commercio* p.a., Cartella 248, fasc. 9.

industries also arose in Bormio, Tortona, Lecco, Vigevano and Riviera di Salò.<sup>54</sup> Notably there is very little overlap between occupational zones of cotton and linen manufacturing and those of woolen and silk weaving which suggests a very high degree of industrial specialization in the Lombard countryside in the sixteenth century.

As capital and labor moved from city to country, new networks of distribution arose for both raw cotton and finished goods that often bypassed the capital city. Interruptions in supply and rising prices for prime grades of Levant cotton, owing to political and military vicissitudes, took a toll on traditional producers in both Italy and Germany. The momentum lay with low-cost rural weavers in Lombardy, and with their counterparts in Piedmont, Savoy and Liguria who relied on lower-valued varieties of Turkish, Sicilian, Maltese and North African cotton, imports of spun Levantine grades and, at times, even New World cotton.

In the sixteenth century, *fustanes*, *cotonias*, *cotones* and heavy “jeans” from Piedmont, Savoy and Liguria, as well as the costly cottons of Milan and Cremona and medium grade fustians from Lombardy found markets north of the Alps in direct competition with German *Barchent* and with cotton fabrics produced in newer manufacturing centers in Europe. Large quantities of Italian fustians were shipped to France, England, the Netherlands and Spain, of which a portion was re-exported in transatlantic trade. A steady stream of Neapolitan

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<sup>54</sup> S.R. Epstein, *Freedom and Growth: The Rise of States and Markets in Europe 1300-1750* (London and New York, 2000), pp. 118-119. For a map showing the distribution of the Lombard linen and fustian industries 1350-1550 see Figure 6.2.

fustians, including many specialty fabrics, were exported to England, Spain and the New World in the sixteenth and seventeenth centuries.<sup>55</sup>

### C. 1600-1800

The decline of the south-German fustian industry during the Thirty Years' War did not redound to the benefit of the North Italian urban producers who still faced competition from a proliferation of new centers making low-cost cotton fabrics. High wages and fiscal imposts, including tolls and direct levies, limited the ability of Italian urban producers to lower prices. In the early seventeenth century traditional suppliers also faced a slump in cloth sales to the Ottoman market, owing to diminished consumer purchasing power and the availability of cheaper, local cotton goods supplied by an expanding domestic industry.<sup>56</sup> The subsequent introduction of painted cottons into Europe and the craze for *indiennes* that favored the plainer cottons of country looms in the late 1600s signaled a shift in taste that dealt a further blow to the struggling urban industries of northern Italy, which had already entered a stage of irreversible decline.

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<sup>55</sup> Mazzaoui, *Italian Cotton Industry*, pp. 150, 153, 187, n. 4.

<sup>56</sup> Domenico Sella, *Commerci e industrie a Venezia nel secolo XVII* (Venice, 1961) pp. 60-1 and *Italy in the Seventeenth Century* (London and New York, 1997, p. 35. Cfr. Ciracò, "Rise and Decline," p. 51. On the expanding Ottoman industry see Murat FızakHa. "Incorporation of the Middle East into the European World Economy," *Review* 8 (1985), pp. 368-9, reprinted in Maureen Fennell Mazzaoui, ed., *Textiles: Production, Trade and Demand in An Expanding World : The European Impact on World History 1450-1800* (Aldershot, 1998). Cfr. S. Faroqi, "Notes on the Production of Cotton and Cotton Cloth in XVIth and XVIIth Century Anatolia." *Journal of European Economic History* VIII (1979), pp. 405-417.



In Cremona the number of cotton manufacturing firms fell from a peak of 138 in 1627 to 60 in 1631 following the plague, declining further to 41 in 1648. In that year the remaining guild members declared themselves too “poor and miserable” to pay their share of the fiscal levy imposed on the guild. The guilds of bleachers and doublet-makers were said to be almost extinct. In a separate document of 1627, the guild noted a loss of artisans to Brescia owing to the Venetian ban on foreign fustians sold in its territory, which kept Cremona’s fustians from retail outlets. The redactors claimed that trade in fustians in the city had virtually “ceased” in the face of foreign competition. In 1749 a post-mortem assessment of the long-term decline of cotton manufacturing in the city, then under Austrian rule, noted the ineffectiveness of bans on imports of German cloth and of prohibitions against the export of warp threads that had greatly damaged the industry. While acknowledging the impact of warfare and the epidemic of 1630, the report also cited the burden of direct levies on commerce and industry. Particularly onerous were the heavy tolls on the movement of goods within the state, especially on imports into the capital city of Milan, which the redactors claimed were much higher than those of neighboring states.

In 1761 the city, which in the early 1400s had produced over 60,000 bolts of cloth, including 40,000 exported to Venice alone, proved capable of mustering no more than 8,000 pieces of fustian for foreign markets. An industry that once employed thousands of laborers now provided work for a mere three hundred.<sup>57</sup> Still, that figure compares favorably with the minimal output in Pavia, where the industry was virtually moribund by 1714. A royal

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<sup>57</sup> Ubaldo Meroni, *Cremona fedelissima: Studi di storia economica e amministrativa di Cremona durante la dominazione spagnola* (Cremona, 1951-7), II, pp. 13-21, 105-12; Mazzaoui, *Italian Cotton Industry*, pp. 155-6.

proposal to revitalize cotton production in the city through the repatriation of departed artisans was rejected as impractical by the heads of the College of Merchants.<sup>58</sup>

The level of taxation was again the object of complaint by the ten still active cotton firms employing 300 workers in Milan in 1676. The petitioners decried the stiff competition from sales of fustian and *bombasine* (a mixed cotton/linen fabric) by merchants of Lyons and Flanders. They also cited the illicit trade in foreign fustians by local merchants and haberdashers. The *fustagnari* also attempted to curb the illegal sales of cotton yarn and cloth by weavers and hosiers, a trade traditionally reserved to members of the cotton guild.<sup>59</sup>

Approximately a century later in 1798, the few remaining fustian firms of Milan assessed the damage caused to the industry by taxes imposed by the Habsburg monarchy in 1780 on fustians, bombasine and other types of cotton cloth which amounted to one third the value of the goods. They noted that over one-half the traffic in cotton goods was then carried on by merchants of Busto Arsizio, Gallarate and other surrounding localities. In fact, seventy families from Milan -“victims of necessity”- had emigrated to Busto Arsizio alone, thus augmenting a work force that had already reached 5-6,000 in the seventeenth century. In the view of guild officials, the lack of expertise of rural workers was offset by their ability to acquire prepared warp threads and yarn from surrounding districts, free of tolls.<sup>60</sup> In that period the combined annual output of both Busto Arsizio and Gallarate, where weaving was

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<sup>58</sup> ACP Pacco 510 MS dated June 1, 1714.

<sup>59</sup> ASCM *Materie* Cartella 429 printed document dated July 23, 1576. For jurisdictional disputes between the *fustagnari* and the corporations of weavers, hosiers and haberdashers, see the relevant documents in *Materie* Cartelle 428 and 429.

<sup>60</sup> ASCM *Materie*, Cartella 429, MS document dated 1798.

carried on in virtually every household, was 100,000 bolts of fustian. The industry utilized cotton imported from Milan, Genoa and Leghorn..<sup>61</sup> Rural fustian and linen production continued to support a number of bleaching establishments along the shores of Lake Maggiore in the late eighteenth century.<sup>62</sup>

In his assessment of the decline of the north Italian urban cotton industries, Domenico Sella downplays the role of protectionism and taxes, pointing instead to the high wage scales prevalent across all sectors of the urban economy. He also cites the failure of urban guilds to adjust to shifts in consumer demand and competition from new, low-cost centers in Northern Europe.<sup>63</sup> From a longer term perspective, S.R. Epstein credits political and institutional factors, notably the loosening of urban and feudal economic and fiscal controls over boroughs and rural communities, in promoting the growth of rural industry. In his view, jurisdictional factors rather than relative production costs played a key role in determining industrial relocation during the second wave of “ruralization” in the 1600s that followed the initial restructuring of economic activities in the countryside during the late medieval economic crisis.<sup>64</sup>

To be sure, any description of country-based crafts from the vantage point of guildsmen in declining sectors of the urban economy distorts the overall picture of dynamic rural growth

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<sup>61</sup> Bruno Caizzi, *Industria, commercio e banca in Lombardia nel secolo XVIII* (Milan, 1968) pp. 33 ,89; Domenico Sella, *Crisis and Continuity: The Economy of Spanish Lombardy in the Seventeenth Century* (Cambridge, Mass. and London, 1979) ,pp. 113-14.

<sup>62</sup> ASM *Commercio*, p.a. Tele, p.g. *Relazione sull' Imbiancatura della tela a Intra e Pallanža* (1758).

<sup>63</sup> Sella, *Italy in the Seventeenth Century* ,pp. 35-41.

<sup>64</sup> S.R. Epstein, “The Peasantries of Italy, 1350-1750” in *The Peasantries of Europe*, ed. Tom Scott (London and New York, 1998), pp. 101-06.

encouraged by government policies. In northern Italy cotton was just one of many enterprises, including wool, silk, metallurgy and glassmaking, that benefited from a reallocation of capital and labor away from larger towns into boroughs and villages. While capital cities could strive for a time to offset these losses by concentrating on luxury industries, the real losers, as Sella points out, were the second-tier towns such as Como, Cremona, Pavia and Ferrara which suffered severe demographic losses in the seventeenth century.<sup>65</sup>

The sustained expansion of the rural fustian industry in Lombardy, Piedmont, Savoy and Liguria bears comparison with other regions in central and southern Italy, where localities with a long-standing tradition of producing specialty cotton fabrics for export never achieved “critical mass.” As S.R. Epstein notes, rural fustian weaving failed to “take off” in Tuscany, owing to the monopolistic policies of towns, while in Sicily, export capacity was hampered by the lack of guild traditions and an adequately trained labor force.<sup>66</sup> For the Kingdom of Naples, which had an important export trade in fustians in the sixteenth and seventeenth centuries, the picture is more nuanced. According to a 1789 report on the economy of Naples under the Bourbon dynasty, the district of Cava still supported 1,000 looms which consumed 1,500 cantars of cotton for an annual output of 15,000 bolts of cotton fabrics, valued at 150,000 ducats. Weavers in Gallipoli, Taranto, Nardò and Tropea produced a variety of sheer muslins, napped cottons as well as silk/cotton and cotton/linen fabrics. From Tropea decorative coverlets, doublets and silk/cotton cloth were exported to France. Francavilla specialized in dyed cottons. However many more communities in the

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<sup>65</sup> Sella, *Italy in the Seventeenth Century*, pp. 29-49.

<sup>66</sup> Epstein, *Freedom and Growth*, pp. 138-143.

provinces of Bari and Lecce were producing coarse cotton, linen and hemp fabrics or hybrid cloth from local raw materials for local consumption. Noting the lack of infrastructure, the author postulated that upgrading local textile manufactures to the quality of other European centers would require training, capital, incentives and protection.<sup>67</sup>

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<sup>67</sup> Giuseppe Maria Galanti, *Della Descrizione geografica e politica delle Sicilie* (repr. Naples, 1969), II, pp. 171-2.

## LIST OF ABBREVIATIONS

ACP	Archivio Civico di Pavia
ASCM	Archivio Storico Civico di Milano
ASF	Archivio di Stato di Firenze
ASM	Archivio di Stato di Milano
ASMN	Archivio di Stato di Mantova
BMC	Biblioteca del Museo Civico Correr (Venice)