# PLAGUE AND ECONOMIC CHANGE IN FLORENCE, 1427: A COMPARISON OF THE CITY'S WOOL AND SILK INDUSTRIES IN A TIME OF ECONOMIC RECOVERY

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# PREFACE

Economic contraction, war, and above all the effects of the Black Death characterized the economic environment of Europe during the latter half of the fourteenth and the first half of the fifteenth century. Though the relative effects of these situations have been the subject of some debate, historians have reached a consensus concerning mortality in the fourteenth century, during which the Black Death claimed between one-third and one-half of the population.[1] Such a great number of deaths had numerous effects on European society, among them: a redistribution of wealth, social dislocation leading to rural and urban revolutions, and altered patterns of consumption.

These events also had a significant influence on the woolen and silk textile industries, which were among the most important commercial gilds in Europe. As a result of the plague and its impact on society, the silk industry became more profitable than the production of woolens as consumers with greater percentages of disposable income turned to luxury products in preference to woolens. By 1427 this trend had become evident in Florence, though the transition from woolen to silk production was still incomplete. During the first quarter of the fifteenth century the Florentine silk merchants were on the average younger and wealthier than their counterparts in the woolen gild, which resulted in a greater potential for increased wealth in the silk gild. Unlike others who became gild merchants for political reasons yet kept most of their wealth in land or the public debt, the silk merchants invested heavily in commerce, and in order to expand textile production they recruited skilled labor from Italy and Europe. In 1427 these immigrant laborers were the youngest and poorest textile workers in Florence, but by the mid-1400s their economic situation had substantially improved as the Florentine silk industry matured and these workers assimilated into their new society. In contrast, the woolen gild suffered from a surplus of labor due to a lessened demand for its product, and the proportion of young men who became gild merchants in the fifteenth century was significantly less than among those in the silk gild. These circumstances were indicative of a change in Florentine society away from medieval toward modern institutions, and would be replicated elsewhere in western Europe, particularly Lyons, France, as a result of events that took place in the fourteenth century.

The woolen gild, though in a state of decline in 1427 as compared to the silk gild, was still an influential political and economic force with a long and illustrious history. Even without its own port during the thirteenth century, Florence possessed a large woolen gild that bought cloths woven in Flanders and finished them for export. Due to the quality of its textiles, this gild, the Arte di Calimala, established Florentine commercial connections throughout Europe. During the early fourteenth century, though, the Florentines produced more woolens from raw wool than they imported to finish, and thereafter the Arte della Lana which produced these cloths became the most important textile gild in the city. During the 1330s, according to the Florentine chronicler Giovanni Villani, this gild produced between 70,000 and 80,000 cloths and employed over 10,000 persons.[2] However, when the woolen workers revolted and gained control of Florence forty years later, they mandated a production quota of 24,000 cloths per annum in order to keep their fellow laborers in the city employed. This decline continued through the early fifteenth century, when the household heads involved in the woolen industry numbered less than 1,400 people.[3]

In contrast, the Florentine silk gild was far younger than the woolen gild, and due to the nature of its product never employed many people. Florence did not even pioneer silk manufacture in Italy; the Lucchese were credited with its founding. Due to civil strife among the Lucchese, the town did supply the Florentines with much of their early labor force and skills in silk manufacture. During the late fourteenth and early fifteenth century, as the amount of silk textiles produced in Florence increased, the city attracted labor from places beyond Tuscany, like Germany and

Flanders. These immigrants, most of whom were young men, brought their skills to an expanding craft and by 1427 the Arte della Seta was one of the wealthiest gilds in Florence and also was one of the youngest in terms of its members' ages.[4] Like others of the seven merchant gilds in Florence, the silk merchants financed the construction of public buildings in order to demonstrate their affluence. The Hospitale degli Innocenti, built in the early fifteenth century, was a testament to the new wealth of these merchants.[5]

Although very little research has been conducted on how the Black Death affected these textile gilds, sources are plentiful concerning the general conditions of Florentine society during the late fourteenth and early fifteenth centuries. Among the most important of the contemporary accounts of events in Florence was the Chronica of Giovanni Villani. Villani was a lanaiaoulo, a woolen merchant, who also had served in the Florentine government as an officer of the city's bureau of provisionment and supply, which gave him access to many statistics concerning the city's trade and needs. As a result, Villani's work contained much detailed information concerning the population of Florence, its size, requirements, and employment.

Gregorio Dati's history of Florence and the histories written by Niccolo Machiavelli and Giovanni Guicciardini also provide important insights into Florentine society. Gregorio Dati was an active silk merchant during the time of the Ciompi revolution, and was among the household heads listed in the Catasto census. Like many of the wealthier Florentines, Dati had to support very heavy taxes. Possibly as a result of the taxes he had to bear, Dati's history closely detailed the expenses of war and the huge sums the Florentines paid to finance these conflicts. While Villani and Dati were tradesmen, Macchiavelli and Guicciardini were members of the Florentine bureaucracy in the late 1400s. Due to their participation in politics, their histories were more devoted to the political activities of the Florentine state than to its commercial or fiscal activities, though their works demonstrate the close connection between wealth and political power that existed in fourteenth and fifteenth century Florence.[6]

Apart from the history of their city, family life and lineage were important to the Florentines, who devoted a wide range of literature to this topic. Dante's _Divine Comedy_ contained references to contraception in Florence, and to the Florentines' pride in their family and civic history. Also concerned with domestic life were the sermons given to the Florentines by Saint Bernardine of Siena, which chided the Florentines for their small families. Among the lay population of Florence there were numerous authors of books devoted to family life and child rearing. Leon Battista Alberti's book, _Il Libro della Famiglia_, involved among other topics how to manage the household, rear children, and maintain a family that would not become so small as to become extinct. This was a great concern to the Florentines in the late fourteenth and early fifteenth centuries, for Alberti's book was one of many such texts authored in this period.[7]

A great many texts concerning social, political, and economic conditions in Europe have been written, and among these, four books have proven to be particularly useful in understanding conditions in late fourteenth and early fifteenth century Europe. Two books focused on this time period were James Westfall Thompson's Economic and Social History of Europe in the Later Middle Ages and Wallace K. Ferguson's Europe in Transition, both of which were good descriptive texts. The book edited by William M. Bowsky entitled The Black Death, a Turning Point in History?, was a collection of monographs concerned with the impact of the plague in fourteenth century Europe. The articles contained in this book discussed the significance of the plague in a variety of locations in Europe and presented a broad range of theses on the topic. One book, The Economy of Early Renaissance Europe by Harry A. Miskimin, provided a good overview of the European economy and was one of the few works that discussed the effects of events in fourteenth century Europe on the woolen and silk industries.[8]

Among the general histories of the Florentine state in the fourteenth and fifteenth century, the text written by Ferdinand Schevill provided a good overview of the city from its founding through the fifteenth century. Marvin Becker's two volume history entitled Florence in Transition discussed the development of Florence in the fourteenth century from a town to a territorial state. This book also related the transition in Florentine administrative policy from that of a resticted, but benevolent, aristocracy to an impersonal government administered by merchants who lacked the social traditions of those they replaced. This, according to Becker, was both a result and a requirement of territorial expansion. Gene Brucker's The Civic World of Early Renaissance Florence and Lauro Martines' The Social World of the Florentine Humanists, 1390-1460 discussed Florentine affairs after 1382, when the gild merchant oligarchy overcame the Ciompi regime. Brucker's work discussed the political and economic aspects of this period in Florentine history while Martines' book was primarily concerned with the social aspects of humanism in Florence and the lives of those men who were among the Florentine humanists.

Two other books were of a broader scope, but they were able to provide connections between events in Florence and adjacent states in Italy. Daniel Waley's The Italian City Republics and Gino Luzzatto's An Economic History of Italy from the Fall of the Roman Empire to the Sixteenth Century rendered an account of events in the Italian peninsula, which helped to integrate events in Florence with the broader areas in Italy and Europe. However, the most important secondary source was David Herlihy's Tuscans and Their Families, a Study of the Florentine Catasto of 1427.

This text, and the many articles on this topic authored by Herlihy and his colleague in the compilation of the Catasto Survey, Christiane Klapisch-Zuber, have been most valuable concerning the Catasto itself and Tuscany in the early fifteenth century.[9]

Works such as these, in conjunction with the Catasto Survey itself, have presented a view of European and, in particular, Florentine society in the late fourteenth and early fifteenth century, as Europe recovered and adjusted to the depopulation it experienced as a result of the Black Death. However, the Catasto Survey itself, the main source of this study, was the most detailed document on the lives of the Florentines in the early fifteenth century and through the wealth of information this source has provided it is possible to accurately recreate the families, occupations, and wealth of those who lived in the province of Tuscany. Concerning the woolen and silk gilds of Florence, the Catasto Study is the best source of information on their lives and wealth. Gild statutes, merchant reference texts, and private ledgers are able to give information in limited areas, but the comprehensive nature of the Catasto Study permits a fairly detailed study of these and other occupations in their totality, and through its information allows the researcher to analyze the ways these merchants adapted to the changing circumstances in late fourteenth and early fifteenth century Europe.

## ENDNOTES

[1]William M. Bowsky, "Introduction," in _The Black Death: A Turning Point in History?_ ed. William M. Bowsky (New York: Holt, Rinehart and Winston, 1971), p. 2; Joseph H. Dahmus, _A History of Medieval Civilization_ (Indianapolis: The Odyssey Press, 1964), p. 352; Philip Ziegler, _The Black Death_ (New York: John Day Company, 1969), p. 228.

[2]Giovanni Villani, _Chronica fiorentina_, ed. Francesco Gherardi-Dragommani (Florence: R. Bemporad and Son, 1845), 10. 94.

[3]David Herlihy and Christiane Klapisch-Zuber, principal investigators, _Census and Property Survey of Florentine Domains in the Province of Tuscany, 1427-1480: A User's Guide to the Machine Readable Data File_ (Madison: University of Wisconsin Data and Program Library Service, 1981) (hereafter cited as the _Catasto Study_).

[4]Ibid.

[5]Gino Corti and Jose Gentil Da Silva, "Notes sur la production de la Soie de la quienzieme Siecle," _Annales -- Economies, Societies, Civilizations_, 30 (1965):309-312.

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[7]Bernardine of Siena, _Opera omnia_, vol. 1-3 ed. M. Peratini, vol. 4-9 ed. Augustine Sepinski (Florence: Ad Claras Aquas, 1950-1965); Michele Barbi, et al., ed., _Le opere di Dante: Testo critico della Societa Dantesca Italiana_ (Florence: R. Bemporad and Son, 1921); Renee New Watkins, ed. and trans., _The Family in Renaissance Florence, "Il libro della famiglia" of Leon Battista Alberti_ (Columbia, South Carolina: University of South Carolina Press, 1969).

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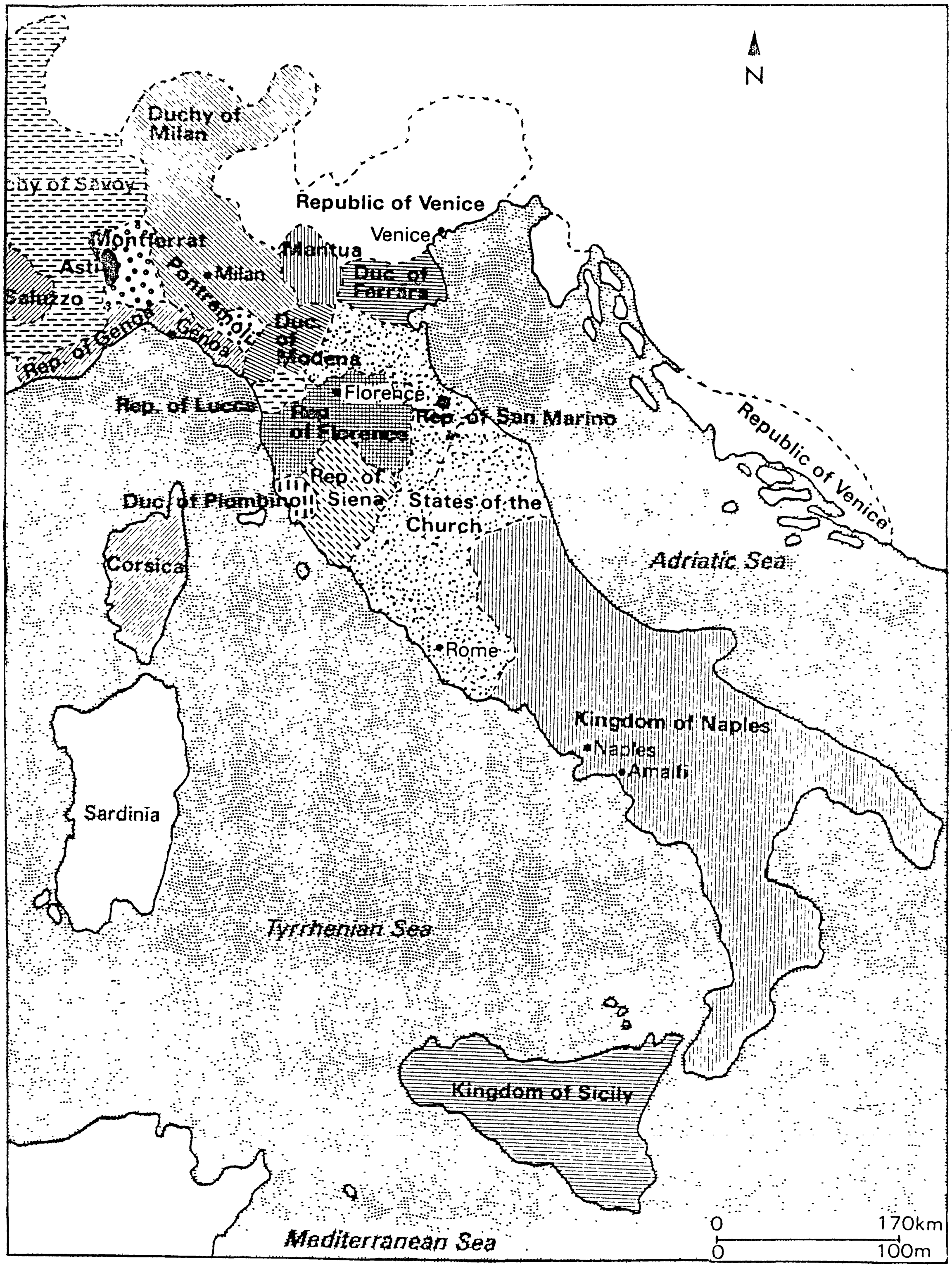
# CHAPTER I

## INTRODUCTION

In 1427 the Florentine state comprised a territory of approximately 8,000 square miles on the western shore of Italy less than 20 miles north of Elba. This area contained a number of towns apart from Florence itself, among them Pisa, Pistoia, Arezzo, Prato, Volterra, and Cortona (Figure 1). Of these towns only Pisa was a seaport, which along with its location on the Arno downstream from Florence made it an object of Florentine conquest in 1406. With the addition of Pisa to the subject territories the population of the Florentine city state exceeded 260,000, of which nearly one-half were from Florence itself or its *contado*, a rural area adjacent to the city and under its direct control. This territory controlled by the city of Florence bordered the Papal States, Lucca, Siena, and the Duchy of Modena. As with Pisa, Florence attempted to absorb Lucca and Siena during the fourteenth and fifteenth centuries, but failed to subjugate these towns and so gain all of the province of Tuscany.

Coupled with efforts at territorial expansion, from the twelfth through fifteenth centuries the Florentine state exerted a considerable influence on the economy of western




Source: Historical Maps on File (New York: Facts on File Publications, 1984), p. 2.034.

Figure 1. Renaissance Italy

Europe that belied its small size as compared to other economic powers in Europe. International finance was one of the most important aspects of this influence. During the thirteenth century, the Frescobaldi banking firm loaned 2,000,000 florins to Edward I and also traveled to Scotland to oversee the collection of the Papal tithe. Later, in the first half of the fourteenth century, the banks of the Bardi and Peruzzi collectively loaned over 1,000,000 florins to Edward III.[1] King Edward placed restrictions upon the departure of bullion from his kingdom, but this did not disturb the Florentine banks, for many of them were cloth manufacturers as well and were happy to receive both wool and customs exemptions as part of their repayment. However, in 1339, Edward III demonstrated the risks of loaning such large sums to heads of state when he defaulted on both interest and principal, which caused the collapse of both houses as well as that of numerous other firms in Florence.[2] Though the bankruptcy of the Bardi and Peruzzi was a reversal for the Florentine financial community and its prestige abroad, the Medici in the fifteenth century were able to regain the eminence of older financial establishments and furthered the influence of Florentine bankers in matters of international finance.

Another aspect of the city's commercial power was the minting of the gold florin in 1252, which helped trade and finance between the Florentines and other states. In the mid thirteenth century silver coinage was the primary unit of currency. In the fourteenth century governments frequently debased this coinage in order to maintain a bullion reserve in the treasury and still pay debts. Due to the varying silver content of silver coinage in Europe, no stable exchange rate existed, which hampered international trade. Unlike silver currency, the gold content of the florin remained constant, which made it among the most popular coins in Europe and enhanced Florentine prestige in the international economy.[3]

In conjunction with banking, and assisted by the popularity of the florin, Florentine export industries contributed substantially to the city's wealth and participation in European commerce. Three gilds comprised the most important manufacturing enterprise of Florence, textile production. The eldest of these industries, the cloth finishers' gild or Arte di Calimala, imported unfinished woolens from Flanders and France for sale abroad, which helped to establish commercial relations with northwestern Europe. The Arte della Lana, or woolen gild, produced cloth from raw wool and eventually became the greatest textile manufacturer in Florence. The Arte della Seta, or silk gild, though not an industry characterized by massive output as was the woolen industry, experienced increasing production in the late fourteenth and early fifteenth centuries to became one of the city's most profitable industries.

These gilds established markets for their products in northwest Europe and the Levant. Though the dominance of the Hanseatic League, itself a cloth manufacturer, hindered Florentine exports to Germany and Eastern Europe, the city provided labor for German weavers. Florentine banks also loaned money to gain trade concessions, which enhanced the Florentines' competitiveness in the cloth market. Florentine textiles gained markets in northwest Europe and the Levant through the ports of Pisa and Venice, until Florence gained its own port when it captured Pisa in 1406. With the acquisition of Pisa, the Florentine merchants gained greater independence and a potential source of public revenue, which by the fifteenth century was a particularly important consideration.[4]

The funding for the conquest of Pisa was a result of gild merchant control of government, for Bankers and textile merchants comprised the major occupational groups in the administration. These men had an interest in Pisa as a Florentine controlled seaport and a source of revenue through taxation. Of these condiderations, taxation of conquered Pisan territories was very attractive, due to the Florentine state's pressing need for increased revenue. After 1252, with the institution of the first Florentine republic, the numerous regimes of the city had to execute foreign policy, conduct wars, and define the status of the various groups that comprised Florentine society. One of the greatest problems of Florentine government was recurrent warfare, which created a massive drain on the city's treasury.[5] Also, policies inherent in the Florentine system of public finance aggravated existing fiscal requirements and posed a threat to the solvency of the city.

These situations made revenue a central concern of the Florentine government, which prior to 1427 had three methods of gaining revenue. Beyond the city proper, a direct tax called the estimo was the primary method of producing capital. Within Florence itself, indirect taxes such as duties at the city gates, a tax on wine sold at retail, and the government's salt monopoly produced income that supposedly should have covered the ordinary expenses of government, including the liquidation of loans to the camera, the civic treasury. However, warfare placed unexpected demands on the treasury and by the early fourteenth century forced loans, or prestanze, became a common means of acquiring the cash necessary to maintain the state's solvency.[6]

In the first half of the 1300s, military expenditures and the interest payments on outstanding loans outstripped the city's ability to keep up interest payments on prestanze and maintain public confidence in its fiscal policies, thus requiring innovative methods of generating revenue. After 1315 the estimo had been abolished in Florence, though it remained effective in Florentine possessions beyond the city walls.[7] With this loss of revenue, the city's government relied more heavily on prestanze. These loans to the treasury carried between 5 and 15 percent interest, which forced the administration to make high interest payments to its creditors thereby increasing the financial needs of the state. With the higher communal expenses of the 1300s and the loss of the estimo in the city, the Florentine treasury had to exploit additional sources of wealth in order to maintain confidence in its system of public finance. This was vital, for without public support of its revenue policies, the city could not expect its citizens to pay their prestanze, which would bankrupt the government.

The many loans to the treasury carried varying interest rates, some of which were quite high, and were difficult to manage. In 1345 the government attempted to correct the problems of forced loans to the treasury through the creation of the Monte Commune, which consolidated all loans to the treasury and fixed interest payments on these loans at 5 percent.[8] The Monte was one of many measures the government took in an effort to maintain its solvency, and from its basic structure the city's government devised other methods, of which the Catasto Survey was the most ambitious, to meet the ever increasing need for money inherent in their system of public finance.

The administration that directed public finance in the fifteenth century was essentially a coalition of merchant gilds, which among others included the woolen and silk drapers (Table I). However, during the mid to late fourteenth century the craft gilds attained greater

TABLE I

WEALTH AND POPULATION OF THE SEVEN MAJOR GILDS IN FLORENCE, 1427

| Gild | n | Average Wealth in Florins | Standard Deviation |
|---|---|---|---|
| Bankers | 22 | 10,695.9 | 9,884.6 |
| Calimala Merchants | 6 | 4,426.0 | 4,948.9 |
| Silk Merchants | 100 | 4,229.7 | 6,900.5 |
| Wool Merchants | 229 | 3,751.2 | 5,355.7 |
| Doctors and Apothecaries | 114 | 1,135.3 | 1,770.7 |
| Judges and Notaries | 321 | 931.2 | 1,276.5 |
| Furriers | 90 | 477.7 | 708.7 |

Source: *Catasto Study*.

representation in Florentine politics. The increased participation of the craft gilds in Florentine politics ended in 1382 with the removal of the Ciompi regime, which began as a revolt of the Florentine cloth workers four years earlier.[9] The gild merchants reassumed their political control, and by 1427 political power in Florence was even more restricted than it was prior to the advent of increased craft gild participation in politics.

Families like the Albizzi, whose wealth and social status permitted them to direct civic policy, were among the principal creditors of the state. The loans they made to the Florentine treasury established their political involvement. As communal creditors their concern with administrative policies was indeed acute, since their fortunes depended upon the continued well being of the state.[10] Apart from their political activities, many of these families were among the greater gildsmen, the <u>arti maggiori</u> who controlled the textile gilds which employed roughly one-sixth of the household heads in the city.

The woolen industry, which employed 1,076 household heads, possessed by far the most populous of these crafts due to the many processes that had to be performed in order to manufacture woolen cloth.[11] As many as twenty-seven steps were necessary to produce woolens, and according to the quality of the cloth some of these procedures had to be repeated. The first step that had to be performed after the wool merchant received the raw wool was to have it beaten in order to remove dust and larger amounts of waste. Next, the wool was sorted according to its quality and washed, then carefully cleaned by hand using scissors to remove smaller items attached to the wool. If the wool was to be dyed prior to weaving it was then delivered to a dyer. If not, the cleaned wool was beaten again and sprayed with water to finish the cleaning. Once cleaned, the wool was oiled then combed or carded depending on whether it was a long or short stapled fiber, then arranged on distaffs for spinning.[12]

These processes were usually carried out in the merchant's shop under the supervision of a foreman. Those who worked in the shop, day laborers who were among the poorest of the wool workers, rarely possessed their own tools and were considered by some researchers to be an early example of an urban proletariat. Among this group were the Ciompi, who combed, carded, and sorted the wool. These wool workers were the poorest of all laborers in the woolen industry and comprised nearly half of its population.[13]

Craftsmen of somewhat greater independence from the gild merchants performed the remaining tasks, the first of which was the spinning of the wool into yarn. Many of these spinners were wives of farmers in the rural areas surrounding the city who augmented their husband's income. After being spun, the yarn was wound onto reels then delivered to a warper who measured off the dimensions of the cloth and arranged on a frame the proper number of threads that ran the length of the fabric. This was an important step, for the number of these longitudinal threads varied according to the variety of cloth being made, and a poor job of warping made the weaving of a cloth difficult if not impossible.

After warping the arranged yarn was given to a weaver, who produced the cloth itself. After being woven, the textile was first combed with a prickly instrument to remove knots and rough places in the fabric, washed and scoured, then immersed in a large vat filled with a variety of substances that included fuller's earth and urine. This process, called fulling, shrunk the wool fibers and made the weave tighter. Due to the lack of swift streams about Florence to provide water power, fullers trod or beat the cloth with paddles to aid in the process then removed the fabric after it had shrunk sufficiently and turned it over to a stretcher. The stretcher simply stretched the cloth on a framework to make sure that the textile adhered to its legal dimensions. While the cloth was still wet and on the stretching framework, it was combed with another prickly instrument called a teasel to raise a nap on the fabric.

After this was done another worker sheared the nap as close to the fabric as possible. If the textile required dyeing, it was delivered to a dyer at this time. If the cloth was woven from dyed yarn, the process of napping and shearing was repeated as many as four times, depending upon the quality of the cloth. Finally, menders repaired defects in the cloth such as missing threads and holes, then a final, very light napping was given to the cloth followed by cold pressing and folding for sale.[14]

In contrast to the many procedures neccesary to manufacture woolen cloth, far fewer steps were required to produce silks. The first step in silk production involved the unwinding of the silk cocoon, which involved letting the cocoons float in warm water to dissolve the mastic binding the filament, finding the end filament of the cocoon, and winding the filaments from many cocoons onto reels to form skeins of raw silk. Imported silk, which accounted for the majority of silk used in Florence, was purchased in this fashion. Next, a silk thrower wound the silk from the skeins onto bobbins which fed a silk throwing machine that formed threads from these filaments. Following the throwing process, the silk threads were boiled in soapy water and steamed in order to remove the gum that held them together in a cocoon. This process resulted in a 25 percent reduction in the weight of the silk, but left it smooth and lustrous. If the silk threads were to be dyed, the skeins of boiled silk were delivered to a dyer at this time. If the silk was to be woven prior to dyeing, the threads were delivered to a warper who performed much the same function as his counterpart in the woolen industry. However, unlike the woolen industry, weaving was the final process in the manufacture of silks apart from dyeing the cloth due to the fineness of the silk threads, which precluded the mending, napping, and shearing that helped disguise minor flaws in the yarn or weave of woolens.[15]

Due to the number of independent procedures necessary to manufacture cloth, the merchants of the woolen and silk gilds controlled those individuals involved in the various aspects of textile manufacture. The merchants who controlled the raw materials and marketed the finished product dictated standards of workmanship and wages for the various occupations in cloth production. The Mercanzia, a court staffed by the gild merchants, enforced these laws. This tribunal was independent from the city's court, and stipulated its own penalities for breaches of gild regulations that included denying an offender employment, corporal punishment, imprisonment, and death.

The textile workers who were under the jurisdiction of these merchants, though by far outnumbering them, had no voice in gild policy, and could not combine to form a confraternity on any pretense under penalty of death. Both the Church and the government of Florence regarded such a combination of workers as a criminal, monopolistic entity that jeopardized the liberty of the merchants.[16] Also, the drapers paid their workers in silver, yet kept their accounts in gold florins. The depreciation of Florentine silver currency, a common method of preserving bullion reserves in the treasury, damaged the laborers' real income though the nominal amount remained static.[17] However, some of the cloth workers had a capital investment in their craft and were employers, and a few were merchants themselves. This did little though to mitigate their relationship with the cloth drapers who controlled both the production and sale of the product.

## ENDNOTES

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[2]Ferdinand Schevill, History of Florence from the Founding of the City through the Renaissance (New York: Harcourt, Brace, and Company, 1936), p. 264.

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[15]Florence Edler De Roover, "Andrea Banchi, Florentine Silk Manufacturer and Merchant in the Fifteenth Century", Studies in Medieval and Renaicssance History, 3 (1966): 237-252.

[16]De Roover, Medici Bank, p. 184.

[17]De Roover, Medici Bank, p. 185.

# CHAPTER II

## DEMOGRAPHY OF FLORENCE

After 1300, the general trend observed in the Florentine population was one of relatively constant decline. In 1300 the city of Florence contained 100,000 people, then decreased to 90,000 in 1339 and 80,000 immediately prior to the Black Death in 1348.[1] This decrease was common throughout Europe, a result of rapid population expansion during the thirteenth century followed by a succession of poor harvests caused by inclement weather. In 1348, after famine had weakened and reduced the population of the Florentine state, the Black Death appeared in Florence and killed more than half of the citizenry, reducing their population to 30,000.[2] Florence experienced six recurrences of the plague, once every twelve years between 1349 and 1427, which caused the population of the city to fluctuate widely. In 1375, 75,000 people lived in Florence, whereas 50 years later the population dwindled to 38,000. In 1520, the population then increased to over 75,000, largely a result of immigration from the countryside as people sought opportunities in the city.[3]

Although the Florentine population demonstrated resiliency after the ravages of the plague, the city did not attain its preplague population level in the 1500s, as did Milan and Venice.[4] People who sought economic opportunity and were willing to risk the infectious environment of Florence moved from surrounding districts to the city, but their numbers still did not replace those lost due to the plague.[5] A number of factors helped attenuate the Florentines' ability to repopulate their city. The availability of food, its distribution, the frequency of epidemics, and the level of economic prosperity influenced the city's population, as did the marital practices and family life of its citizenry.

In 1427, the customs most Florentines followed concerning marriage and their families discouraged the formation of large families. Certain demographic features of Florentine society were common to rich and poor alike in the early fifteenth century. The majority of all Florentine males married late in their lives, and were more than a decade older than their wives, most of whom were younger than twenty when they married. Those Florentines who married had small families. In conjunction with the high infant death rate and the overall high mortality rate in the city, the small average family size of the Florentines was insufficient to result in any population growth at the time of the Catasto in 1427, let alone replace those who had died.[6]

Immigration from other states and the Florentine countryside failed to reverse the population decline in the city partly due to the adoption of family formation patterns that typified Florentine society. Among those who came seeking employment were notaries from the rural districts of Florence and textile workers from Italy and northern Europe. Though all of these individuals found economic opportunity in the city, they quickly adopted the family formation patterns that typified Florentine society. Giovanni Ulivieri, a silk weaver from Europe, assimilated into the Florentine society quite well. He was thirty-two years old, and had an eighteen year old wife and a one year old daughter. His debts also exceeded his assets. Zanobi di Piero Zanobi, a twenty-six year manservant, came to Florence from the city's rural district amd though he lived with his employer, his economic status was better than over one-third of the city's population. Both men, although immigrants, rapidly adopted the domestic lifestyles common to all of Florence, where men married late in life and had small families.[7]

The degree to which such family characteristics manifested themselves in Florence varied, as did the motivations underlying this behavior. The delaying of marriage by young men was primarily the result of economic pressure. The rich, in order to advance their career and conclude favorable political alliances, were willing to forego marriage until they located a prospective mate with a large dowry and high social status. In order to be considered marriageable by a successful woolen or silk merchant, a young lady had to possess a dowry in excess of 1,000 florins, equal to the average wealth of a household in the city.[8] Due to this willingness on the part of wealthy men to postpone marriage until they found a mate whose dowry would aid their career, most married in their middle to late thirties.[9]

For the poor, the matter of the wife's dowry was of comparatively little consequence. The laborers and petty artisans of Florence had little chance for economic advancement through matrimony, nor did their families possess political influence sufficient to benefit from such alliances. However this did not cause them to marry any earlier. The primary concern of a poor Florentine when he married was his ability to support a family. This made the cost of housing a major consideration when a poorer Florentine wished to marry, and forced him to postpone marriage until he could live apart from his parents, due to the fact that extended households of more than one generation were not common among the poor in Florence.[10]

With Florentine men delaying marriage until they were in their thirties, Florentine families averaged less than four persons (Table II). Yet, this was not the sole factor that determined family size. Contemporary moralists and clergymen lamented the dwindling population of Florence, attributing this not only to the high number of unmarried men but also to various contraceptive practices. Those women whose first child was less than a year old averaged

TABLE II

FLORENTINE HOUSEHOLD SIZE AND WEALTH IN 1427

| Household Size | Average Patrimony in Florins | Number of Households | Percent |
|---|---|---|---|
| 1 | 411 | 1,933 | 19.8 |
| 2 | 480 | 1,778 | 18.2 |
| 3 | 668 | 1,448 | 14.8 |
| 4 | 365 | 1,233 | 12.6 |
| 5 | 889 | 1,010 | 10.3 |
| 6 | 1,291 | 765 | 7.8 |
| 7 | 1,432 | 557 | 5.7 |
| 8 | 2,113 | 394 | 4.0 |
| 9 | 3,227 | 224 | 2.3 |
| 10 | 3,418 | 134 | 1.4 |
| 11 | 3,656 | 88 | 0.9 |
| 12 | Over 5,000 | 180 | 1.8 |
| Missing cases | --- | 36 | 0.4 |
| Totals | 1,300 | 9,780 | 100.0 |

Source: Catasto Study.

twenty-six years old. Also, the fertility of the married women in Florence decreased sharply after the age of twenty-seven.[11] Evidently, some factor artificially limited the females' reproductive potential in Florence. Though little is known as to what methods the Florentines used to control their population, men such as Dante and the clergyman Antoninus of Florence claimed that sodomy between husband and wife were a factor in the inability of the city to maintain its numbers.[12] Regardless of what methods the Florentines used to control their population, these limitations existed, and created a society that could not maintain its numbers without relying upon immigration to supplement a dwindling population.

Though the average family size in Florence was indeed small, large households were not a rarity. Over 10 percent of all households in the city contained eight or more people. The rich, who could support more family members, were more likely to have such families. Those individuals whose household contained eight or more people were among the wealthiest 5 percent of the population while the poorer half of the city averaged just over two persons per household.[13] Multiple family households were not common though, for nuclear families comprised over 90 percent of all Florentine households.[14] Even among the richest 4 percent of the population, whose households were most likely to contain more than one family unit, nearly 80 percent contained but a nuclear family (Table III).

TABLE III

COMPOSITION OF FLORENTINE HOUSEHOLDS POSSESSING MORE THAN 3,000 FLORINS

| Number of Nuclear Families in the Household | Number of Households | Percent |
| --- | --- | --- |
| 1 | 364 | 77.1 |
| 2 | 74 | 15.7 |
| 3 | 25 | 5.3 |
| 4 | 8 | 1.7 |
| 5 or more | 1 | 0.2 |
| | 472 | 100.0 |

Source: Christiane Klapisch-Zuber, "Household and Family," p. 279.

Another feature common to the population of Florence was the brevity of an individual's productive life, which due to mortality comprised a two decade span after the age of twenty-five. Those under twenty-five years of age constituted the majority of the Florentine population and were the greatest contributors to the total number of deaths in the city, for half of all those who died in 1427 were in this age group. Between the ages of twenty-five and forty-five, the chances of survival were the greatest, with 80 percent of those attaining the age of twenty-five living twenty more years. After the age of forty-five, the mortality rate increased drastically.[15] Less than half of the Florentines who were forty-five years old survived their seventieth birthday. Bernardine of Siena, who delivered sermons in Florence at the time of the Catasto, described the visible effects of old age as beginning after the age of forty, which was consistent with Dante's opinion a century earlier concerning the onset of old age.[16] The short life expectancy of those older than forty-five and the high mortality rate among the young greatly limited the productive life of the Florentines, which had numerous effects on their society.

An event which tended to coincide with the material productivity of most Florentine men was marriage and the rearing a family. A number of variables, among them wealth, age, and custom, determined several aspects of marriage and family life. One concern of a Florentine when he wished to marry was the availability of eligible women to wed. If he wished to marry someone close to his own age, the search was difficult. Apart from the clergy, men outnumbered women of the same age in the population of Florence (Table IV), and the difference became more pronounced as age and wealth increased. Among the infants of those who possessed more than 1,600 florins, an amount half again as large as the average patrimony, there existed but a slight majority of males. Yet, as age increased so did the surplus of males within any given age group up to the age of thirty-nine. At this age there were 173 men per 100 women. After thirty-nine years of age, the preponderance of wealthy Florentine men as compared to women of the same age and economic status decreased until both sexes were in their seventies, at which time the number of men and women was more or less equal. In contrast, the sex ratio of those Florentines with no taxable wealth was far less divergent.[17]

The major cause underlying the disappearance of Florentine women from wealthy families was the cloistering of unmarried young women by their parents. In order to keep their patrimony intact, many wealthy families bequeathed a large dowry to one daughter and allocated comparatively small sums for the marriage of her sisters. Also, unmarried daughters rarely stayed with the family. If they did not marry they had to live in convents, for their support was a drain on one of the family's most precious commodities, its wealth. In 1427, the average age of a girl when she first

TABLE IV

FLORENTINE SEX RATIOS BY AGE IN 1427

| Age Groups | Men | Women | Men per 100 Women |
|---|---|---|---|
| 0-7 | 4,550 | 3,945 | 115.3 |
| 8-17 | 4,036 | 4,408 | 122.0 |
| 18-27 | 2,939 | 2,217 | 132.5 |
| 28-37 | 2,678 | 1,897 | 141.1 |
| 38-47 | 1,992 | 1,564 | 127.3 |
| 48-57 | 1,468 | 1,420 | 103.3 |
| 58-67 | 1,254 | 1,220 | 102.7 |
| 68-77 | 559 | 671 | 83.8 |
| 78-87 | 185 | 222 | 83.3 |
| 88-97 | 26 | 34 | 76.4 |

Source: Herlihy, "Tuscan Town," p. 100.

married was 17.6 years of age, and 86 percent of the women between the ages of eighteen and twenty-two had married. After the age of twenty-two, only 5 percent of the women listed in the Catasto were neither married nor widowed.

In contrast, the average age at first marriage for a Florentine male was thirty-one, and less than half of the men younger than thirty-three had married.[18] Those Florentines who wished to marry, apart from being considerably older than their prospective wives, were also fewer in number due to the mortality rate in Florence. In the Catasto, there were 16 percent more women between the ages of fifteen and nineteen than men between thirty-one and thirty-five, the ages at which each sex was most likely to marry. If the bulk of the men and women married within the years mentioned for each, roughly one-sixth of the women did not marry. Most of these single women were consigned to convents, removing them from both the marriageable population and the census rolls of the Catasto.[19] This phenomenon primarily affected the wealthy, as demonstrated by the sex distribution of their population. Many poor Florentines instead retained their daughters, for among other reasons they could not afford the expense of sending them to a convent. Due to the presence of these unmarried daughters from poor families on the census rolls of the Catasto, the sex distribution differed between rich and poor.

Besides affecting the gender distribution of the Florentine population, the age difference between a husband and wife had an adverse effect on the family's fertility and the rearing of its children. Of those babies born during the redaction of the Catasto census in 1427, half of their fathers were thirty-eight years old or older, while the infants' mothers were in their middle twenties.[20] In 1427, a thirty-nine year old man had a life expectancy of seventeen years. As a result, most fathers did not live to care for their children into adulthood. Also, the comparatively advanced age of the husband was a factor that limited his wife's reproductive span during their marriage. Given the age difference of the father and the fact that men in general died younger than women by about a year, the husband typically preceded his wife in death by about fourteen years.[21] Many widows, due to custom and a recurrent surplus of marriageable women in the population, never remarried despite their young age (11 percent of the women between the ages of thirty-three and thirty-seven were widows) which further hindered the city's ability to maintain its population independent of immigration.[22]

Unlike the difference between the age of a husband and wife, or the length of a Florentine's productive life, household composition and family size varied widely within the Florentine population, and was primarily a factor of wealth. Multiple family households though, were not common to any group in Florence and were especially rare among the poor, for those households that possessed 400 florins or less averaged under three people (Table V). These households constituted nearly 70 percent of the city's population and contrasted strongly with the richest 4 percent of the population whose patrimony exceeded 3,200 florins. The composition of some wealthy households was also more complex, a result of the way the Catasto officials determined a taxable household. Over 20 percent of the households that possessed more than 3,200 florins contained more than one family, while only 5 percent of the households with an assessed patrimony of under 100 florins were multiple family households. However, the preponderance of multiple households among the wealthy contained no more than two families. Usually, these households contained stem families, the family of the parents and that of one of their children, many of those parents being widows with children.

Very few households in the Florentine population contained more than three related families, for less than 0.1 percent of all households in Florence were so complex in their organization.[25] The Tower Societies of certain Florentine families were an example of the extreme in household organization. Each of these households comprised a very cohesive structure that contained numerous families linked by blood, marriage, and politics. However, though such consortorie as the Alberti, Albizzi, Medici, and Strozzi were conspicuous in the course of Florentine

TABLE V

SIZE OF FLORENTINE HOUSEHOLDS
BY VALUE OF ASSETS IN 1427

| Assets in Florins | Number of Houses | Mean Household Size |
|---|---|---|
| 0 | 3,081 | 2.8 |
| 1-100 | 1,552 | 2.5 |
| 101-400 | 2,148 | 2.7 |
| 401-1,600 | 2,002 | 3.6 |
| 1,601-3,200 | 581 | 5.4 |
| 3,201 and above | 472 | 6.3 |

Source: Christiane Klapisch-Zuber, "Household and Family," p. 277.

history, their representation was negligible in the typology of the city's household structures in 1427.[26]

ENDNOTES

[1]Marvin B. Becker, The Decline of the Commune, Vol. I of Florence in Transition (Baltimore: John Hopkins Press, 1967), pp. 103, 197; John Larner, Italy in the Age of Dante and Petrarch, 1216-1380 (London: Longman Group Limited, 1980) p. 261.

[2]Gene Brucker, Florentine Politics and Society, 1343-1378 (Princeton: Princeton University Press, 1962), p. 315.

[3]Ibid.; Larner, Dante and Petrarch, p. 261.

[4]H. van Werveke, "The Rise of the Towns" in Economic Organization and Policies in the Middle Ages, Vol. III of The Cambridge Economic History of Europe (Cambridge: Cambridge University Press, 1971), pp. 38-39; Harold Miskimin, The Economy of Early Renaissance Europe, 1300-1460 (Cambridge: Cambridge University Press, 1975), p. 76.

[5]David Herlihy, "The Tuscan Town in the Quattrocento: A Demographic Profile," Medievalia et Humanistica, n.s. 1 (1970):87, 90-92.

[6]David Herlihy and Christiane Klapisch-Zuber, principal compilers, Census and Property Survey of the Florentine Domains in the Province of Tuscany, 1427-1480: A User's Guide to the Machine Readable Data File (Madison: University of Wisconsin Data and Program Library Service, 1981) (Hereafter cited as Catasto Study).

[7]Ibid.

[8]Alison Brown, Bartolomeo Scala, 1430-1497, Chancellor of Florence: The Humanist as Bureaucrat (Princeton: Princeton University Press, 1979), pp. 225, 245.

[9]Catasto Study; Christiane Klapisch, "Household and Family in Tuscany in 1427" in Household and Family in Past Time, ed. Peter Laslett and Richard Wall (Cambridge: Cambridge University Press, 1972), p. 279.

[10]Klapisch, "Household and Family," p. 277.

[11]Herlihy, "Tuscan Town," p. 96.

[12]Dante Aligheri, Paradiso, Vol. III of The Divine Comedy, trans. Charles S. Singleton, Bollingen Series no. 80 (Princeton: Princeton University Press, 1970), p. 169 (15.102-108).

[13]Catasto Study.

[14]Klapisch, "Household and Family," p. 279.

[15]David Herlihy, "Vieillir a Florence au quattrocento," Annales -- Economies, Societes, Civilizations, 24 (1969):1351.

[16]Bernardine of Siena, Sermones de Tempore et de Diversis, Vol. VII of Opera Omnia, ed. Augustine Sepinski (Florence: Ad Claras Aquas, 1961), pp. 243-262; Dante Alighieri, "Convivio," in Le Opere Di Dante, ed. Societa Dantesca Italiana (Florence: R. Bemporad and Son, 1921), p. 299 (4.24).

[17]David Herlihy, Les Toscans et leurs familles: Une etude du Catasto florentin de 1427 (Paris: Ecole des Hautes Etudes en Sciences Sociales, 1978), p. 343.

[18]Herlihy, "Tuscan Town," p. 90.

[19]Herlihy, "Vieillir a Florence," p. 1348.

[20]Herlihy, "Tuscan Town," p. 95.

[21]Herlihy, "Vieillir a Florence," p. 1342.

[22]Herlihy, "Tuscan Town," p. 95.

[23]Ibid., p. 87; Klapisch, "Household and Family," p. 275.

[24]Klapisch, "Household and Family," p. 277.

[25]Ibid., p. 279.

[26]Catasto Study.

## CHAPTER III

## DEMOGRAPHIC CHARACTERISTICS OF THE WOOLEN AND SILK GILDS

Family formation patterns in Florence were sensitive to a number of influences, among them wealth. The merchants and workers in the woolen and silk gilds possessed characteristics similar to that of the Florentine population with respect to what influence wealth had on their families, but the family structure among the merchants and workers was not homogenous, the result of a newer, more lucrative gild developing in Florence. During the late fourteenth and early fifteenth centuries, the attractiveness of the silk industry created a small group of merchants who were considerably younger than those in the woolen industry, even though both were among the youngest and most successful groups in Florentine society. On the average, at forty-two years of age, the setaiouli were four years younger than those who marketed woolens. Within the merchants' productive life, the masters of the seta gild were again younger than those who sold woolens (Table VI). Due to the number of both woolen and silk merchants between twenty-five and forty-five years of age, this greater percentage of

TABLE VI

AGE DISTRIBUTION FOR FLORENTINE HOUSEHOLD HEADS IN THE WOOLEN AND SILK GILDS

| Age Groups | Merchants | | | | Workers | | | | Florence | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Silk | | Wool | | Silk | | Wool | | | |
| | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) |
| 0-24 years | 11 | (11.22) | 10 | (4.49) | 7 | (10.76) | 64 | (6.09) | 861 | (8.80) |
| 25-35 years | 29 | (29.60) | 42 | (18.83) | 15 | (23.10) | 201 | (19.08) | 1,701 | (17.40) |
| 36-45 years | 19 | (19.38) | 57 | (25.56) | 21 | (32.30) | 267 | (25.35) | 1,995 | (20.40) |
| Above 45 years | 39 | (39.80) | 114 | (51.12) | 22 | (33.84) | 521 | (49.48) | 5,223 | (53.40) |
| TOTALS | 98 | (100.0) | 223 | (100.0) | 65 | (100.0) | 1,053 | (100.0) | 9,780 | (100.0) |

Source: Catasto Study.

*setaiouli* in the first half of their career was substantial when compared to the masters of the *lana* gild.[1]

The age distributions of the laborers in both textile gilds were similar to that of their employers. However, the distribution of the silk weavers who were in their productive life did not conform to the pattern so far established between the gilds. One anomalous feature of the *seta* weavers' age distribution accounted for the disproportionately high number who were in the latter half of their career. Those silk weavers who were forty years old comprised fully one-fifth of the occupation. This accounted for the fact that though the mean age of the silk weavers was younger than that of the wool workers, a higher proportion of the silk weavers were in the latter half of their productive life.[2]

The large number of silk weavers who were the same age had no parallel in the textile industries, and suggested a prior influx of workers in response to developments within the silk industry. The manufacture of silks began in Florence in the early 1300s. A century later, Gino Capponi introduced the technique of weaving metallic threads in silks.[3] Most likely, with the introduction of this technique came those who were versed in its execution. Given the modal age of the silk weavers in 1427, they were in their mid twenties when the technique of weaving brocades came to Florence, normally the age when they began their career.

The women associated with the wool and silk gilds constituted no more than 6 percent of all household heads in both gilds. Among the occupations though, there was substantial variation in the number and age of these women. The woolen industry had the lowest percentage of female household heads at 6 percent for both merchants and workers, whereas the silk industry had a proportion of female household heads twice as great as that of the woolen industry. The average age of all these women was fifty-four, nine years older than the mean age of the males. Of the ninety-five female household heads though, five were girls whose deceased fathers had been silk merchants. These three heiresses averaged nine years of age and affected the age distribution of the female household heads who were either widows or daughters of deceased silk merchants. Female household heads among the setaiouli averaged thirty-nine years of age due to the inclusion of these girls, whereas the mean age of all other women associated with the woolen and silk industries in Florence averaged between fifty-four and fifty-seven.[4]

The age of these women was a reflection of their marital status, for most were widows. The occupation with the least percentage of widows was that of the silk merchants. Only six of eleven female household heads among the silk merchant were widows. The remaining women were either children or their marital status was unknown. The only occupation that contained females besides widows or heirs in their childhood was that of the wool workers. Along with six female wool workers who were married household heads, the Catasto census listed eight other female wool workers whose status was not recorded.[5]

In contrast, only 3 percent of all male household heads throughout the woolen and silk industries were widowers. With the exception of eight boys under guardianship, all other males were either married or did not list their marital status. The mean age of the married male household heads, forty-six to forty-seven years, was consistent for both the woolen merchants and workers as well as the silk merchants. The silk weavers, though, were on the average six years younger.[6]

The comparative youth of the married silk weavers was not indicative of the occupation's potential for making its members wealthy. Rather, it was a response to employment opportunities in Florence. A Lucchese silk weaver who came to Florence left a town not much larger than Pistoia, then a client town of Florence. In Tuscany, where one lived influenced the age when he or she married; in smaller towns citizens married younger. In Pistoia, 82 percent of the men who were between the ages of thirty-two and thirty-seven were married as compared to only 65 percent of the Florentines in the same age group. Immigrant silk weavers who came from small towns such as Lucca were most likely married before they came to Florence. The age at which they married, contrary to Florentine practices, caused the average age of married silk weavers to be substantially younger than that of the other occupations in the woolen and silk industries.[7]

In the various occupations of the woolen and silk textile industries of Florence, the Catasto census listed no adult male as unmarried, though the average age at first marriage for Florentine men indicated the presence of many who had yet to marry. Many adult males apparently did not list their marital status in the census and property declaration of the Catasto. These men constituted 13 percent of the household heads in both industries and averaged between thirty and thirty-six years of age.[8] Given the average age at first marriage for the male population of Florence, it was quite likely that most of the merchants of indeterminate marital status in the woolen and silk industries were single. Apart from those male household heads who did not list their marital status, there also were eight females whose marital status was also indeterminate. By the time Florentine women were in their middle to late twenties, over 95 percent had married.[9] As a result, the eight female household heads who failed to list whether or not they had married in their declaration were most likely widows. Among those listed in the Catasto as being widows of merchants or workers, not all were of an age to be living alone. Though the ages of the widows of merchants and workers averaged between fifty-seven and sixty, the age distribution of their population indicated the presence of a number of widows who still retained the guardianship of their children.[10]

Among the merchants of the textile gilds, those who failed to list their marital status in their Catasto declaration were a major factor in the composition of solitary households. When compared to the woolen gild, more merchant households among setaiouli contained but one person and the silk merchants also had a greater proportion of household heads whose marital status was indeterminate. The wool merchant household heads younger than forty who did not list their marital status constituted half of the solitary households in their occupation. For the silk merchants, the same proportion was 15 percent greater, which was consistent with the comparative youth of the setaiouli. Fewer silk merchants were of an age to marry, and as a result those save the few who sheltered younger siblings or widowed mothers lived alone. Other merchants, like the lanaioulo Naldino di Bonocorso Borghi and the silk merchant Corsino di Zanobi, lived alone and were unlikely to ever marry, for their respective ages were fifty-four and forty-four. Men who were this old and did not list their marital status were the exception though, for the average age of woolen and silk merchants who failed to list their marital status was thirty and thirty-one respectively.[11]

Though the widowed household heads in the silk gild constituted a smaller percentage of their population than did those among the woolen merchants, a greater proportion of widowed people among the *setaiouli* lived alone. Recent developments in the silk industry attracted a number of young men, merchants and workers alike. Most of the silk merchants who chose their career in response to these new opportunities were at the time of the Catasto either still single or just beginning their families. This large and youthful segment of the silk merchants' population contained few widows and widowers. However, though the silk gild was a considerably newer institution in Florence than the woolen gild, it was over a century old and the few widows that existed in the population averaged sixty years of age. In contrast, the widows of woolen merchants averaged three years younger.

The mean ages of all these persons was sufficiently advanced for them to have lived alone, but some of them had children under their care. Of the thirty-three widowed persons in the *lana* gild, seventeen were men and they along with all but three females had families while each of the two widowers among the *setaiouli* had dependents. More of the *setaiouli* widows lived alone, which was consistent with their older age. The younger age of the woolen widows signified the presence of children still at home, as was the case with Pagola, widow of the wool merchant Pagnino. She had a twenty-seven year old son living with her, along with two male grandchildren who were twelve and three years of age. Her son was old enough to have lived independently, but she was too old to care for the two boys by herself.

That, along with the family's modest economic position (they possessed 746 florins), probably kept the eldest son home to aid in the rearing of the boys.[12]

For the laborers of the textile gilds, the correlation of age to the percentage of household heads who were widows or living alone was not as strong as among the merchants. The silk weavers, who averaged six years younger than the wool workers, had a higher proportion of solitary households and they also had more widows. The average age of the widows in both occupations did not vary, yet a substantially greater percentage of silk weavers' widows lived alone. Of the nine widows among the silk weavers, five lived alone. In comparison, less than a fifth of those widows whose husbands had been wool workers lived alone. Even for those household heads with an unknown marital status who were textile workers, the proportion of solitary households among both gilds did not vary despite the comparative youth of the silk weavers.

Given the comparative youth of the silk weavers, more of their number should have been unmarried and fewer widows should have existed in their population. However, factors other than age influenced who lived alone among the laborers of the textile industries. The silk weavers on the average possessed only one-fourth the wealth of the wool workers. The extreme poverty of the silk weavers affected many aspects of their life, including their lifespan and the number of children they had. The silk weavers had smaller households and due to their poverty (no other occupation save the one gravedigger who listed his occupation as such had a lesser average patrimony) probably did not live as long as the wool workers. The proportion of widows was higher among silk weavers than among wool workers and more of these widows lived alone. They comprised the solitary households that normally should have been headed by young unmarried silk weavers, but the poverty of the occupation kept many young men at home who otherwise would have lived apart from their parents.[13]

Age was a strong though not consistent factor in the differing household sizes of merchants of the woolen and silk gilds. The comparative youth of the _setaiouli_ created more single households and couples without children than among the masters of the _lana_ gild. Those households that contained between three and ten people and were headed by a wool merchant comprised 72 percent of all _lanaioulo_ households. In contrast, only 55 percent of the households headed by a master of the _seta_ gild were that large (Table VII). However, this higher ratio of large wool merchant households did not continue as family size exceeded ten people for eleven of the one hundred silk merchant households contained more than ten members while only 6 percent of the wool merchants households were this large. The largest household headed by any textile merchant was that of a _setaioulo_ which contained twenty-three people; this family was an anomaly, for the next largest household

TABLE VII

COMPARISON OF HOUSEHOLD SIZES
FOR THE WOOL AND SILK GILDS
IN FLORENCE, 1427

| Persons in Household | Merchants | | | | Workers | | | | Florence | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Silk | | Wool | | Silk | | Wool | | | |
| | n | (%) | n | (%) | n | (%) | n | (%) | n | (%) |
| 1 | 17 | (17.00) | 16 | (6.81) | 11 | (16.70) | 100 | (9.30) | 1,933 | (19.76) |
| 2 | 10 | (10.00) | 17 | (7.24) | 16 | (24.20) | 215 | (19.98) | 1,778 | (18.18) |
| 3-10 | 62 | (62.00) | 187 | (79.57) | 39 | (59.10) | 747 | (69.42) | 5,801 | (59.32) |
| 11 and above | 11 | (11.00) | 15 | (6.38) | 0 | (0.00) | 14 | (1.30) | 268 | (2.74) |
| TOTALS | 100 | (100.0) | 235 | (100.0) | 66 | (100.0) | 1,076 | (100.0) | 9,780 | (100.0) |

Source: Catasto Study.

of that silk merchant contained seven fewer persons. The largest woolen merchant household comprised seventeen people, only two more than the next largest.[14]

For the *sottoposti*, the most signal difference in their household sizes concerned each occupation's maximum. The largest household of a silk weaver contained eight people, whereas the largest household of a wool worker contained twenty-one. Apart from this difference in maximum household size, the relationship between the household sizes of the occupations could be explained by the greater age of the wool workers. Wool worker households averaged four persons, one more than that of the silk weavers. Both occupations had the same mode of two members, although those households of silk weavers containing three members constituted the same percentage of their population as those with two people. Nearly half of all silk weaver households contained two or three people. Given the comparative youth of male silk weavers who had married and the mean age of a Florentine male when he became a father, the proportion of weavers in those households containing two and three people was not unexpected. However, compared to the wool workers there were relatively few silk weaver households of more than three members. The percentage of silk weaver households containing four people, 13 percent of the population, was 11 percent fewer than the modal family size. This sharp decrease did not correspond to the distribution of the household sizes among the other occupations, nor did any other demographic variable help explain this phenomenon.[15]

The comparative youth of those involved in the silk industry influenced many of the characteristic differences between the textile gilds of Florence. The younger age of the silk merchants and weavers gave them greater opportunities for career advancement as compared to those engaged in the woolen industry, of whom many were nearing an age when they would normally lessen their occupational activities. However, not all aspects of the silk industry's youth were positive. Those in the silk gild had smaller families and more household heads lived alone than their counterparts in the _lana_ gild. In contrast, despite the younger age of the _setaiouli_, a greater precentage of these merchants headed large households that exceeded ten people in size. For the _sottoposti_ there existed similar discrepancies. Though the silk weavers were younger than the wool workers, a higher proportion of widows were present in the weavers' population. Concerning the household size of both gilds' _sottoposti_, the wool workers had a larger mean and median household size consistent with their greater age, but some influence in addition to that of age accounted for the steep decline in the proportion of silk weaver households exceeding three people. In a like manner, the percentage of _setiaoulo_ households containing eleven or more people was not an attribute of their youth, but of another variable, wealth.

## ENDNOTES

[1]David Herlihy and Christiane Klapisch-Zuber, Principal Compilers, Census and Property Survey of the Florentine Domains in the Province of Tuscany, 1427-1480: A User's Guide to the Machine Readable Data File (Madison: University of Wisconsin Data and Program Library Service, 1981) (Hereafter cited as Catasto Study).

[2]Ibid.

[3]Bella Duffy, The Tuscan Republics with Genoa (New York: G. P. Putnam's Sons, 1893), p. 240.

[4]Catasto Study.

[5]Ibid.

[6]Ibid.

[7]David Herlihy, "The Tuscan Town in the Quattrocento: A Demographic Profile," Medievalia et Humanistica, n.s. 1 (1970):87, 91.

[8]Catasto Study.

[9]Herlihy, "Tuscan Town," p. 91.

[10]Catasto Study.

[11]Ibid.

[12]Ibid.

[13]Ibid.

[14]Ibid.

[15]Ibid.

# CHAPTER IV

## FORTUNES OF WOOLEN AND SILK MERCHANTS

The gild patriciate, of which the woolen and silk merchants were a part, controlled Florentine affairs through a strict control of the city's wealth, most of which was concentrated among members of their class. One hundred families, the wealthiest 1 percent of the Florentine population, alone controlled one-quarter of the wealth in Florence and one-sixth of all the capital in the province of Tuscany. The patrimonies of this group averaged 19,000 florins, and the least wealthy household head in this category possessed 7,000 florins. In contrast, 31 percent of the Florentine citizenry possessed nothing at all or their debts exceeded their assets, which according to the stipulations of the Catasto rendered them exempt from the imposition.[1]

Of the more than 10,000,000 florins worth of real estate and chattels that comprised the wealth of the Florentine population, nearly 60 percent represented moveable property and commercial investments. The principal sources of the Florentines' wealth, banking and cloth manufacture, required a substantial investment in cash or inventory. This, along with the fact that over half of the

Florentine population was too poor to afford anything other than chattel property accounted for the high proportion of Florentine capital devoted to movables and commerce, the highest of any city in Tuscany.[2] In order to invest in their business, many of the greater gildsmen could not afford to buy a home. For example, the lanaioulo, Schiatta di Lorenzo was 29 years old in 1427 and was just starting his career, as evidenced by his youth, wealth, and investments. He and his brother lived with others, presumably relatives, and Schiatta devoted all of the 569 florins he possessed to commerce.[3] Usually, Florentines who possessed less than 3,200 florins owned their own home, which was their principal investment as well as a tax shelter. Due to the regulations of the Catasto the value of the household head's personal residence, regardless of the dwelling's size or appointments, was deducted from the household head's fortune prior to the determination of his taxable income. Those Florentines who possessed over 3,200 florins, like Vanozzo di Giovanni Serragli, were so wealthy that other investments exceeded the value of their real estate purchases. Vanozzo, a 78 year old silk merchant, invested over half of the 22,000 florins he possessed in commerce. Of the 10,000 florins that remained he used 3,400 florins to purchase shares in the Monte while the remaining capital represented cash and the assessed value of his farms.[4]

Apart from the size of a household head's fortune, his age influenced the extent to which he invested in real estate. In order to preserve the family patrimony, many Florentines emancipated their sons at a young age. When these boys became economically independent of their parents' household, they received properties from their parents, frequently real estate, which served as a surety for the boys' investments.[5] After all of the children left home, the household head was normally quite aged. For these individuals, who no longer wished to participate in the more speculative aspects of commerce, real estate offered an attractive option. For both the very young and very old, real estate, especially agricultural properties, provided a relatively safe investment.

In the fifteenth century few men owned the farms they operated, and instead farmed the land for owners who lived in the city. This system of tenant farming, known as mezzadria, comprised a contractual agreement in which the landlord provided the land, buildings and their maintenance, along with a portion of the working capital and chattels in return for the services of the mezzadro, the tenant farmer. The owner and tenant each typically received 50 percent of the farm's produce, thus the derivation of the contract's name, for the landlord and tenant customarily divided the profits a mezza.[6] The returns from this agreement generally fluctuated less than commerce, yet also created less revenue than business per amount of capital invested. Monte investments were also more stable than commercial ventures, but over the course of the fifteenth century the repeated inability of the Florentine treasury to meet the shareholders' demands made Monte investments less attractive than farm rents. This comparative stability of investments in agricultural properties suited the requirements of those who only required an income for their personal maintenance, and was the choice of many elderly Florentines who no longer wished to concern themselves with a family and the advancement of their career.[7]

While such an investment was satisfactory for the needs of those Florentines who wanted a stipend to support them in their old age, others, mostly young men just starting their careers, wished to increase what wealth their parents bequeathed them. These young men, apart from their desire to continue living in a manner to which they had become accustomed while under their parents' care, needed to augment their capital in order to maintain the status of their family. Leon Batista Alberti, a fifteenth century moralist, described the close relationship between money and honor, as well as the duty of sons to become wealthy so as not to shame the family name.[8] However, few families possessed a patrimony sufficient to bequeath great wealth to all the children of each generation without being driven to penury in the process. While the funds parents gave to their daughters became dowries that permitted the girls to marry well and enjoy the comforts of their husband's home, the sons' patrimonies only provided them with wealth, which if carefully managed, allowed them to maintain their status and that of their family. Profligate behavior squandered many inheritances, such as that of Filippo Velluti, who though of wealthy parentage died a poor man due to his numerous excesses. Other individuals were sufficiently astute to increase their inheritance and extend the honor of their family.[9]

The career of Andrea di Francesco di Banco, a silk merchant, was an example of success through careful management of capital and sound investments. In 1390, when Andrea Banchi was eighteen years old, he inherited a silk retail shop from his father. Banchi matriculated in the silk gild in 1401 and worked for an uncle until 1413, when his uncle passed away. Then he formed a partnership with a cousin. This arrangement did not work out and Banchi dissolved the partnership, from which he received 3,000 florins. In 1428, when Andrea Banchi was fifty-six years old, he again took a partner, Piero Petrini, to manage his retail shop while Banchi set up another enterprise in order to manufacture silks. Banchi did not remove any of the profits he realized from his partnership with Petrini, but used the funds to increase the capitalization of the partnership, and by 1438 Banchi's investment in the retail silkshop exceeded 9,000 florins. Five years after he began the partnership with Petrini, Banchi took another partner to help him operate his manufacturing concern. Bernardo dalla

Palla, Banchi's second associate, contributed only his services to the shop while Banchi provided the capital.

Banchi's income from these two shops was quite high, and he returned most of it to his business. Between May 1432 and October 1434 Banchi's share of the profits from the silkshop managed by Petrini amounted to 1,806 florins, all of which Banchi returned to that shop. During this same period Banchi began the partnership with dalla Palla and contributed 2,500 florins to the association. Thus Banchi's commercial investments over the two year period exceeded 4,000 florins in excess of prior commitments. Andrea Banchi was careful not to use his businesses as a source of ready cash, as did other less astute merchants, and he chose his partners carefully, removing those who were not effective. Due to his sound business practices and moderate lifestyle Andrea Banchi provided a good example for others to follow, for he lived into his nineties and became one of the wealthiest silk merchants in Florence.[10]

Unlike Andrea Banchi, whose political activities were not noteworthy, other Florentines were quite interested in politics, which required both a respected family name and a great investment in the Monte. One such person, Palla di Nofri Strozzi, was the patriarch of an ancient Florentine family and the greatest single Monte investor in 1427.[11] Apart from the political influence Palla Strozzi could wield due to his public investments, he was heavily involved in politics as a prominent member of the ruling Albizzi faction in Florence. In order to fulfill the gild membership requirement for public office Palla Strozzi listed his occupation as that of messere, which described a man who was either a university graduate such as a judge or notary, a high ecclesiastic, or a knight. Due to his wealth and family history Messer Strozzi was most likely a knight, which in 1427 was a title of social distinction that did not necessarily convey military prowess.[12] Palla Strozzi's wealth, which was the greatest in Florence at the time of the Catasto, amounted to over 162,000 florins. Only 15,000 florins of this wealth represented commercial ventures, while 94,671 florins comprised Monte investments and the remaining 53,034 florins represented real estate.[13] Although commercial ventures returned greater profits and landed properties were the most risk free of all investments Messer Strozzi chose to place most of his capital in the Monte, indicating his interest in Florentine politics.

In the late fourteenth and early fifteenth centuries the increasing demands of the Florentine treasury created a small group of individuals who were the principal creditors of the city. Due to the nature of public finance in Florence, which made the state somewhat like a corporation, these men were the major shareholders in the state. Their Monte investments, which the state sorely needed, were not just another way to make money, but a means to gain influence in politics. Men such as Palla Strozzi and Cosimo de Medici did not put so much of their wealth in the Monte solely out of concern for the welfare of their state, though patriotism was most likely an aspect of their expenditure. Nor were Monte credits able to return as much profit as commerce. The Monte investments of the Florentine political leaders demonstrated their concern over the continued prosperity of the state, if only due to the funds they left in the treasury, and their continued purchase of Monte shares denoted their continued ties to the welfare of the treasury and so of the state. As a result of these investments and the power it gave to the few who could afford such, these men had far greater influence than those who had little or no money invested in the Monte.

Among those who devoted much of their wealth to the public debt were the masters of the wool and silk gilds. These household heads, though they represented only 3 percent of the Florentine population, owned one-seventh of the total wealth in the city of Florence, including Monte shares. Of the two gilds, the _setaiuouli_ averaged 461 florins wealthier than the woolen merchants, whose mean assets before deductions amounted to 3,768 florins per household.[14] The merchants of the _lana_ and _seta_ gilds also invested their money differently. Though both the woolen and silk gilds were active in Florence during the fourteenth century, changing economic conditions in Europe after the Black Death made the silk industry more attractive to investors, provided they possessed sufficient wealth to exploit the increased demand for silks through international trade.

Those setaiouli who benefitted from the expanded market for silks invested differently than their counterparts in the woolen gild, for the mean expenditure of the setaiouli was higher than that of the lanaiouli in all categories of wealth listed in the Catasto save that of the funded public debt. (Table VIII). Though a greater proportion of the silk merchants invested in the Monte, the average amount of their holdings was less. Of the woolen merchants who invested in the public debt, 45 percent devoted over 1,000 florins of their wealth to the Monte. Considerably fewer silk merchants invested so highly in the civic treasury, for only 28 percent of those who purchased Monte shares spent this amount.[15]

This higher level of public investment among woolen merchants was the result of a combination of factors, the most important of which were their longer gild history and greater political activity as compared to the setauouli. During the 1300s many of the leaders in Florentine government were woolen merchants who placed large sums of money in the Monte to maintain their influence in civic affairs. These Monte shares were a relatively safe investment that passed to heirs, among them the Strozzi, Albizzi, and Cavalcanti, among whom were lanaiouli. These families maintained the politically motivated investments of their forebears and placed a greater proportion of their

TABLE VIII

BREAKDOWN OF SILK AND WOOL MERCHANTS' INVESTMENTS

| | PERCENT OF GILD MERCHANTS INVESTING | | PERCENT OF GILD MERCHANTS' GROSS ASSETS INVESTED | | MEAN FLORINS INVESTED | |
|---|---|---|---|---|---|---|
| | Silk (n=100) | Wool (n=235) | Silk | Wool | Silk | Wool |
| Commerce | 95.0 | 94.1 | 48.0 | 46.6 | 2034.7 | 1757.3 |
| Monte | 69.0 | 59.1 | 25.0 | 28.1 | 1040.1 | 1058.2 |
| Land and Cash | 87.0 | 92.0 | 27.0 | 25.3 | 1130.7 | 955.1 |
| Gross Assets | 94.0 | 94.5 | 100.0 | 100.0 | 4229.7 | 3768.4 |

Source: Catasto Study.

wealth in the Monte. In contrast, those _setaiouli_, though of equal wealth, were members of a younger gild that lacked this tradition of politically oriented investment.[16]

Real estate, on which the woolen and silk merchants spent approximately 25 percent of their fortunes, was an area of investment in which the merchant communities of these two gilds were most alike with regards to the funds they invested. The silk merchants on the average devoted 1,130 florins of their wealth to real estate, just 175 florins more than the average expenditure of the _lanaiouli_ for land. However, apart from the poorest quarter of the silk merchants' population, these _setaiouli_ consistently spent a greater proportion of their wealth on land than the woolen merchants. The silk merchants could have invested more heavily in the Monte than did the _lanaiouli_, but preferred to invest in land instead.

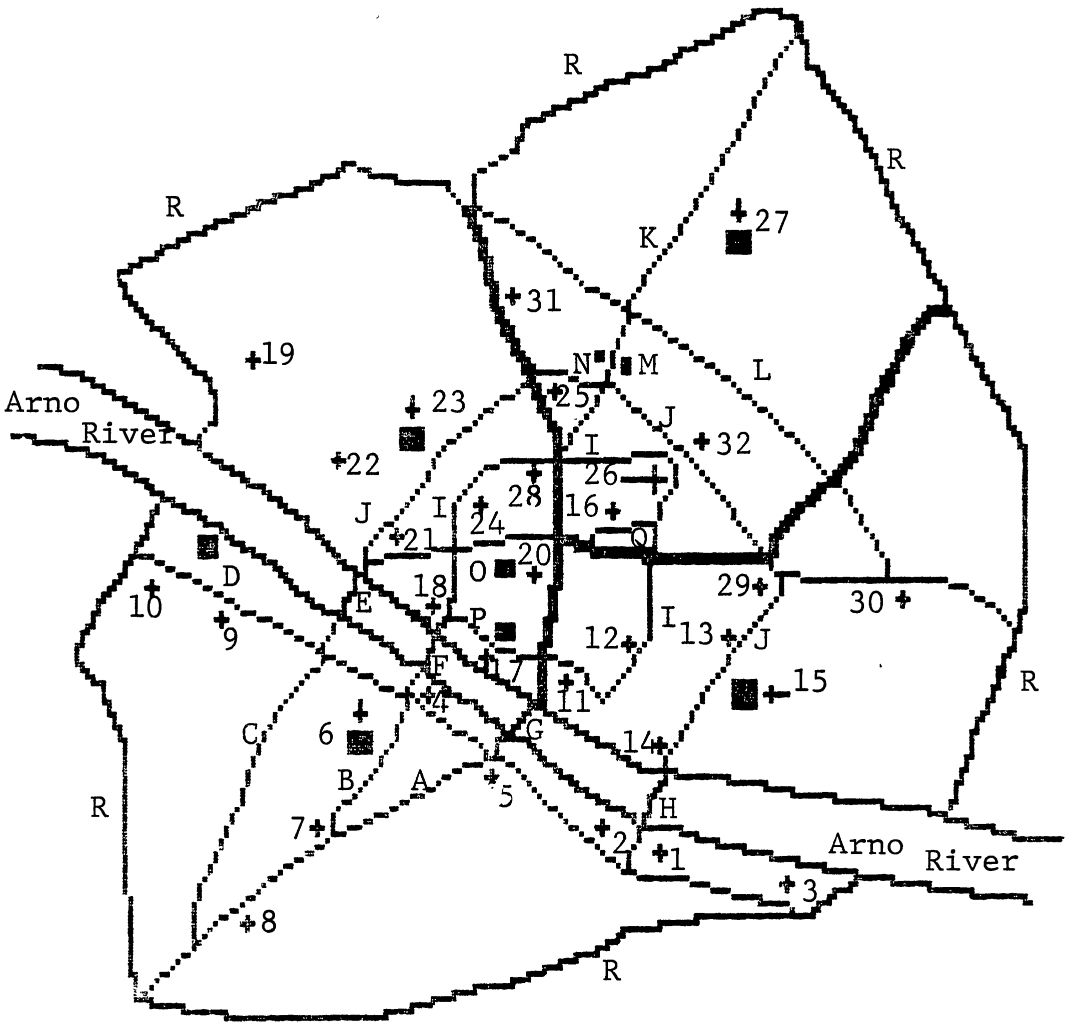
However, the silk merchants' comparatively higher level of real estate investment was not consistent in all categories of wealth. Among the poorest 25 percent of those household heads associated with the _seta_ gild were a widow and a child heiress, whose inheritances consisted solely of Monte credits. These two individuals were among the wealthiest of their group, and their fortunes accounted for nearly half of the Monte credits owned by the poorest quarter of the _setaiouli_. These two patrimonies significantly affected the distribution of wealth among the investments of silk merchants in this asset category, and accounted for the anomoly in the otherwise consistent preference silk merchants had for real estate.[17]

While the Monte investments of woolen and silk merchants differed as a result of the woolen merchants' longer tradition of political activity, the dissimilarity in their commercial investments was a result of the greater expense of silks as compared to woolens. The average investment of the <u>setaiouli</u> in their business, 2,034 florins, exceeded that of the woolen merchants by nearly 300 florins.[18] Silk was substantially more expensive than wool, and in order to maintain a selection of fabrics even a petty retail merchant had to spend heavily. The wealthier <u>setaiouli</u> who engaged in textile manufacture had to support even higher costs. Metallic threads, imported silk, wages, and the speculative nature of merchant venturism entailed a large investment in materials, cash to fund shipments abroad, and a large selection of fabrics to satisfy the tastes of wealthy consumers.

In comparison, woolen fabrics did not cost as much to manufacture and were far more commonly worn. Though some woolens were indeed luxurious fabrics, most woolens were of a quality that was affordable by many consumers, while even the least expensive taffeta had a market restricted to the few who could afford its cost. In this case, the status of silks made their sale a more speculative enterprise than the marketing of woolen fabrics. Silk was, and still is, more fashionable than utilitarian. Those wealthy enough to afford the most expensive silks had particular tastes, which sometimes left a _setaioulo_ who failed to anticipate their wishes with some expensive fabrics that had to be sold elsewhere, at a greater cost to the merchant.

In conjunction with the woolen and silk merchants' like status and occupation, the locations of their households in the city were also similar. As of 1345 the city of Florence comprised four quarters and each quarter was further divided into four _gonfalones_, or flags, which provided men for the civic militia (Figure 2). Prior to 1427 these _gonfalones_ were also the geographical units for the payment of _prestanze_. San Spirito, the quarter across the Arno from the rest of the city, contained a larger proportion of woolen and silk merchants than any other quarter (Figure 3). One factor in this concentration of cloth merchants, specifically the _lanaiouli_ was the gild ordinance that relegated the manufacture of woolens made from coarser grades of wool to the Oltr'Arno district of Florence, which was in the San Spirito quarter. Also, at the end of the thirteenth century large numbers of foreign wool workers came to Florence, and in order to avoid overcrowding they were housed in this new area beyond the city's walls, San Spirito.[19]

While the residence patterns of the woolen and silk merchants differed little, the relationship between the investment priorities of these two populations differed in two areas. _Setaiouli_ invested more heavily in commerce and




POINTS OF INTEREST

Major Streets:

Via Cavour............................K
Via de' Serragli......................C
Via Guelfa............................L
Via Maggio............................B
Via Romana............................A
Via San Martino
(Wool production center)..............Q

Bridges:

Ponte alla Carria.....................E
Ponte alla Grazie.....................H
Ponte San Trinita.....................F
Ponte Vecchio.........................G

Figure 2. Florence in 1427

Markets:
Mercato Nuovo.........................P
Mercato Vecchio.......................O

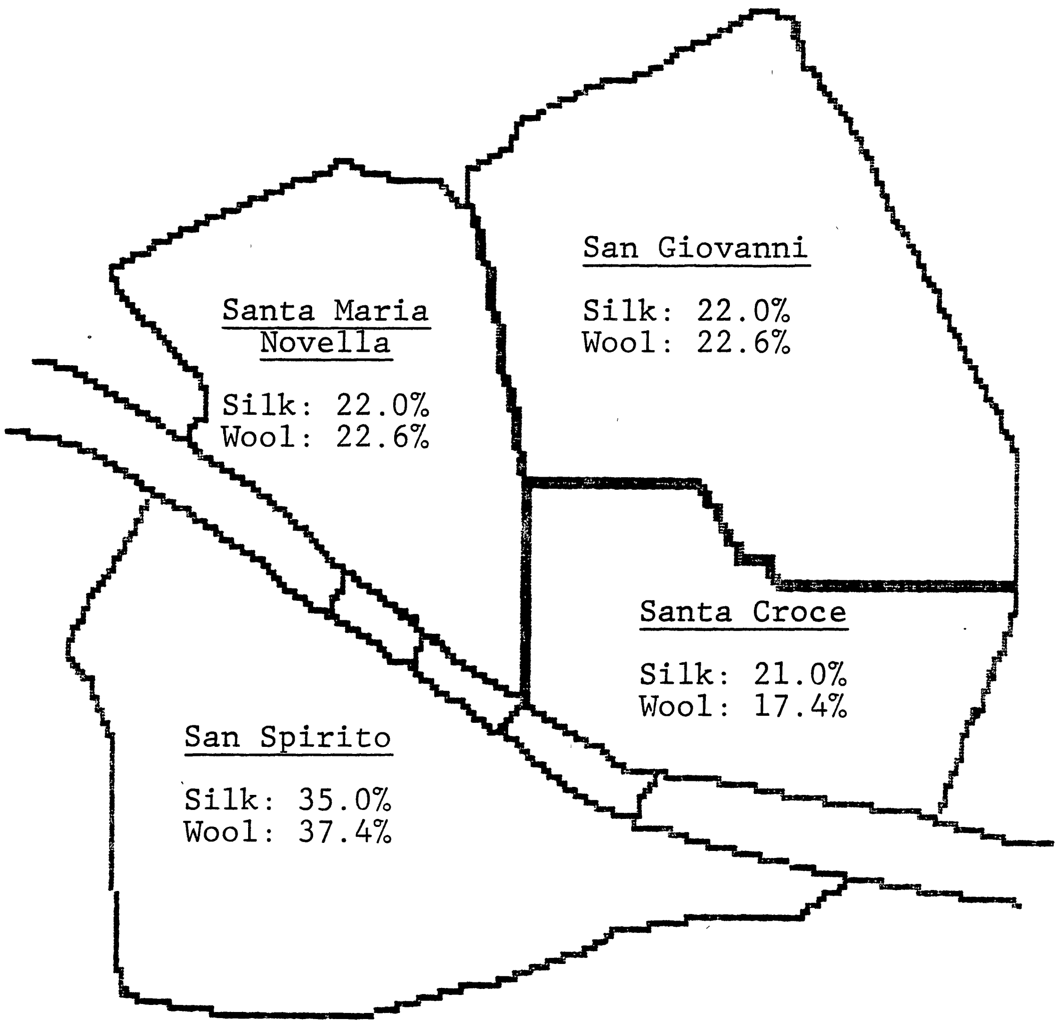
City Walls:
First Wall............................I
Second Wall...........................J
Third Wall............................R

Major Buildings:
Jiratorio Vecchio.....................D
Palazzo Levi..........................N
Palazzo Medici........................M

Churches:
San Gregorio..........................1
Santa Lucia dei Bardi.................2
San Niccolo...........................3
San Iacopo Sopr' Arno.................4
San Felicita..........................5
San Spirito...........................6
San Felice ia Piazza..................7
San Pier Gattolino....................8
San Frediano..........................9
Santa Maria in Verzaia...............10
San Stephano al Ponte................11
San Piero Scheraggio.................12
San Simone...........................13
San Iacopo Tra le Fosse..............14
Santa Croce..........................15
San Martino..........................16
San Spirito Apostoli.................17
San Trinita..........................18
Santa Lucia Ognissanti...............19
San Andrea...........................20
San Pancrazio........................21
San Paolo............................22
Santa Maria Novella..................23
San Michele Berteldi.................24
San Lorenzo..........................25
Santa Maria del Fiori................26
San Marco............................27
Santa Maria Maggiori.................28
San Piero Maggiori...................29
San Ambrogio.........................30
San Iacopo in Campo Corbolini........31
San Michele Visdomini................32

Source: Guiseppe Bouchard, "Pianta della citta di Firenze" (Florence, 1755; reprint Ithaca: Historic Urban Plans, 1969).

Figure 2. (Continued)




Source: <u>Catasto Study</u>.

Figure 3. Map of Percentage of Wool and Silk Merchants in Each Quarter of Florence, 1427

land, while lanaiouli placed a larger proportion of their disposable wealth in the Monte. However, the differences between the investments of the woolen and silk merchant populations were relatively small. The lanaiouli and setaiouli were the least similar in their Monte investments, yet the proportion of their wealth they invested in the Monte varied by only 4 percent. The distribution of wealth between the gilds was not so close though, nor were the investment patterns of those woolen and silk merchants who possessed similar patrimonies, particularly with regards to their commercial investments. The differing markets for silks and woolens, and the capital requirements of each gild, were among the factors that influenced both how the woolen and silk merchants invested their fortunes and the distribution of wealth among the merchants of each gild. In 1441, the capitalization of two Medici woolshops amounted to nearly 4,000 florins per shop. The funds invested in a silk manufacturing concern were still higher, for the setaioulo Andrea Banchi devoted nearly 12,000 florins to his two silk shops in the 1400s.[20]

In both the woolen and silk gilds, a few household heads controlled much of the wealth due to the fortunes they made from international trade and banking. During the 1300s, two of these families, the Bardi and Peruzzi, collected papal revenues in England and extended loans to Edward III in order to gain favorable terms on the purchase of wool, which they wove for sale abroad. This close relationship between international finance and commerce continued in the fifteenth century, when wealthy families such as the Strozzi and Capponi operated both banks and textile manufactories.[21] The profits to be realized from both operations were great, but the amount of working capital required was also very high.

The banks that many successful merchants operated in conjunction with their textile business bore little resemblance to the modern institution. Instead, a Florentine commercial bank consolidated assets for further investment, coordinated the operation of various enterprises, and marketed products through its branches abroad. An example of such a bank was one begun by the Gondi in 1493. Three brothers were the major partners of this bank, the initial capitalization of which exceeded 10,000 florins.[22] Partnerships, such as the Gondi's bank, were a common means of business organization for firms that required a substantial starting investment. These enterprises, due to the great amount of capital necessary to fund their operation, were also not common in 1427, for the Catasto census listed but twenty-two household heads who were bankers. Their average fortunes exceeded 10,000 florins, more than twice the average wealth of either a woolen or silk merchant.[23]

For most of the woolen and silk merchants though, the funds they allocated to commerce did not allow them to retain a major interest in a shop that made cloth, let alone a bank. Over half of the woolen and silk merchants possessed 2,500 florins or less, and on the average invested less than 600 florins of their patrimony in commerce, which was far below the amount necessary to fund cloth manufacture. While both the woolen and silk merchants in this asset category were restricted to the sale of cloth and not its manufacture, the lanaiouli were comparatively wealthier (Table IX). Of those woolen and silk merchants whose patrimonies amounted to no more than 2,500 florins, less than half of the woolen merchants possessed less than 1,000 florins, as compared to 57 percent of the setaiouli.[24]

One reason for the greater wealth of those lanaiouli who possessed 2,500 or less was the nature of the woolen and silk markets themselves. Woolens were cheaper and more practical to wear, whereas silks always had been an expensive luxury. This high cost of silks lowered consumer demand and increased competition among setaiouli for the market. Different areas in Europe had particular tastes concerning silks, and their desires changed what fabrics would sell in a given area. Also, these differing regions frequently favored a particular production center, such as Milan, Venice, or Lucca. As a result, those silk merchants who could not afford a large selection of fabrics to please the varying tastes of wealthy consumers, or the venture capital to explore different markets, simply could not compete with the wealthier setaiouli who maintained a larger inventory and could afford the risks entailed in the attempt

TABLE IX

COMPARISON OF MERCHANTS' WEALTH
BY AREA OF INVESTMENT

| Wealth in florins | n | Per Cent | Commerce | Monte | Land and Cash | Gross Assets |
|---|---|---|---|---|---|---|
| Silk Merchants | | | | | | |
| 0-2,500 | 56 | 56.0 | 489.9 | 161.6 | 378.0 | 953.5 |
| 2,501-5,000 | 21 | 21.0 | 1,729.7 | 643.4 | 1,150.6 | 3,638.5 |
| 5,001-10,000 | 16 | 16.0 | 3,780.5 | 1,473.4 | 1,733.8 | 6,987.8 |
| 10,001-50,000 | 7 | 7.0 | 11,317.8 | 8,876.8 | 5,714.2 | 25,909.0 |
| Wool Merchants | | | | | | |
| 0-2,500 | 129 | 54.9 | 560.8 | 119.7 | 396.4 | 1,072.8 |
| 2,501-4,000 | 57 | 24.3 | 1,694.3 | 724.1 | 986.7 | 3,387.2 |
| 5,001-10,000 | 29 | 12.3 | 3,186.0 | 2,058.5 | 1,856.0 | 7,100.6 |
| 10,001-50,000 | 20 | 8.5 | 7,582.6 | 6,613.5 | 3,231.7 | 17,409.9 |

Source: Catasto Study.

to create a niche for their own goods in established markets abroad. Conversely, far more people purchased woolens than silks, and areas such as the Oltr'Arno district produced woolens of a coarser grade that many poorer citizens of Florence could afford. This greater affordability of woolens in general as compared to silks allowed a greater number of retail woolen merchants to prosper in Florence, while retail setaiouli had to contend with far fewer consumers and more intense competition from other retail merchants.

Woolen merchants who possessed between 2,500 and 5,000 florins were comparatively more numerous but they were no longer wealthier. In this group, the gross assets of woolen merchants averaged 251 florins less than the mean assets of the setaiouli. The average commercial investment of the lanaiouli in this range of wealth was 1,694 florins, also less than the mean of 1,729 florins that setaiouli of equal wealth devoted to their trade.[25] However, the average commercial investment of these woolen merchants was sufficient to fund textile manufacture, whereas the capital silk merchants devoted to commerce was still too low to control cloth production. The woolshop that Bernardo d'Antonio de Medici established in the Oltr'Arno district of Florence had a capitalization of only 1,550 florins, yet produced textiles. These cloths however, were woven from Spanish or Italian wool which was inferior in quality to the woolens produced in the San Martino district, where only fine English wool could be used. The Medici bank operated two woolshops in San Martino, and their level of investment in these two shops reflected the superior quality of their textiles.[26] There were different grades of raw silk as well, but the cost of making any silken fabric, even the cheapest taffeta, relegated many of the setaiouli to retailing or working in the shop of another silk merchant.

Though the greater capital requirements of a silkshop prevented many of the silk merchants who possessed between 2,500 and 5,000 florins from owning their own shop, the distribution of commercial investments among the setaiouli was such that some could have been major partners in a manufacturing firm. The Medici silkshop, which was of average size, had an initial capitalization of 5,000 florins while other manufacturing firms had a value of 3,000 florins. Of the silk merchants who possessed between 2,500 and 3,000 florins, 43 percent invested over 2,000 florins in commerce, an amount that would have allowed them to retain a majority interest in many of the Florentine silkshops. Comparatively fewer woolen merchants, 30 percent, devoted this amount of capital to commerce. Instead, 43 percent of the lanaiouli invested between 1,000 and 2,000 florins in their trade, with which they could own a woolshop.[27]

The textile merchants whose wealth ranged between 5,000 and 10,000 florins were nearly all producers of textiles. The mean commercial investment of the setaiouli in this category of wealth exceeded 3,700 florins, while woolen merchants of similar wealth put over 3,100 florins in commerce. The greater commercial investment on the part of the silk merchants was not indicative of their greater wealth though, for their patrimonies averaged 113 florins less than those of their counterparts in the woolen industry. Due to the comparative antiquity of the woolen gild and the position of political leadership it held in Florentine society, many of the wealthier lanaiouli were either members of the old nobility, such as the Rucellai and the Cavalcanti, or, in the case of the Niccolini, Capponi, and Serragli families, were among the merchant patriciate and had a long history of participation in Florentine politics. These men inherited large patrimonies that had been accumulated over a far longer period of time than the wealth of many of their counterparts in the silk industry, and the lineage of these woolen merchants affected their attitude toward business. Due to their family backgrounds, many of them were not as interested in commerce as others who lacked their family history, like the woolen merchant Lodovico Salvestro Ceffini, and chose to place a majority of their wealth in the public debt and land (Table X). Ceffini, who possessed only 5,738 florins before deductions, placed 2,969 florins in commerce, more than any of these other families.[28]

In contrast, the setaiouli in this range of wealth were more uniform with respect to how they invested their wealth, for most of them invested a major portion of their wealth in

TABLE X

WEALTH OF SIX PATRICIAN LANAIOULI WITH FORTUNES OF 5,001 - 10,000 FLORINS

| | Gross Assets | Monte | Commerce | Land |
|---|---|---|---|---|
| Capponi | 9042 | 3729 | 4091 | 1222 |
| Cavalcanti | 5503 | 1352 | 1352 | 2361 |
| Gini | 6105 | 3243 | 1318 | 1544 |
| Niccolini | 8531 | 3704 | 2754 | 2073 |
| Rucellai | 6834 | 45 | 1037 | 5752 |
| Serragli | 9926 | 5229 | 2772 | 1855 |
| MEAN | 7656.8 | 2883.6 | 2220.6 | 2467.8 |

Source: Catasto Study.

commerce. Though the silk merchants also had members who were among the old nobility and illustrious _popolo_, such as the Serragli, Corsi, and Minerbetti, these men invested their patrimonies in a manner similar to that of Andrea Banchi and other wealthy silk merchants who had neither a noble pedigree nor a tradition of political activity to support through real estate and Monte investments. An example of such a silk merchant was Vanozzo di Giovanni Serragli, a wealthier relative of the woolen merchant Andrea di Bartolomeo Serragli. Vanozzo Serragli possessed a net fortune that exceeded 20,000 florins, yet he put 54 percent of this wealth in commerce. His relative Andrea Serragli, who possessed less than half the wealth of Vanozzo, placed 55 percent of his fortune in the Monte instead. Vanozzo Serragli had the wealth and family heritage that among others dictated a certain pattern of spending. However, he did not invest in land as did many of the old nobility, nor did he possess the Monte investments of the merchant patriciate. As did most of the other _setaiouli_ who placed their money where it would return the greatest profits, he invested his wealth in commerce.[29]

## ENDNOTES

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## CHAPTER V

## WOOL AND SILK WORKERS

The government of Florence differed from a classic feudal hirearchy in that shares in the public debt replaced a landed fief. However, this development was of little relevance to the city's laborers and petty gildsmen due to the fact that the greater gildsmen, among them the silk and woolen merchants, directed both the city's gilds and possessed sufficient wealth to control government through investments in the Monte. These wealthy merchants, particularly those of the textile industries, exerted strict control over their employees, the *sottoposti*, through a mercantile court staffed by merchants, a judge recruited from another town who was paid from the fines he exacted, and a criminal code which maintained its own jails and was separate from the city's laws.[1] The preponderance of the seven greater gilds in the government assured such political dominance, and prevented the workers from combining to better their condition, which was a capital offense. As a result, the masters of the seven major gilds and in particular the woolen and silk merchants were able to freely dictate their employees' wages and not fear a labor dispute. The workers were under gild jurisdiction but had no voice in the association. Poor and disfranchised, the laborers of the textile gilds also paid many forced loans to the communal treasury.[2] These loans became interest payments on Monte credits paid to those citizens who were wealthy enough to invest in the funded debt (22 percent of the city's population), many of whom were the gild elite who dictated the fiscal policy of the city.

The political structure of Florentine society that caused the majority of the population to pay the interest on the Monte credits held by a wealthy minority created much antipathy, particularly among the workers of the textile gilds. Their gild policies coupled exploitation of the workers with an oppressive system of gild discipline. This enmity between the gild elite and laboring classes resulted in sporadic plots and rioting which culminated in the Ciompi revolt in 1378. The changes enacted by the Ciompi lasted only four years, but their short lived administration expressed the tensions caused by an unequal distribution of capital and power among the merchants and workers of the Florentine cloth industry. Though most of the laborers in the Florentine textile industry who participated in the Ciompi revolt were far below the economic standing of their masters, some members of these sottoposti, though few, were among the wealthiest 5 percent of the Florentine population. They shared little with the other cloth workers in Florence apart from the common stigma of being sottoposti, which they resented. However, apart from these few individuals, the textile workers were considerably poorer than their employers, for the average wealth of a lanaiouli was 3,768 florins while a wool worker possessed on the average only 157 florins.

The cloth workers, a group characterized by their poverty and subservience to the gild masters, have been the subject of much research concerning their role in the Ciompi revolution of 1378. A number of factors, among them wealth, occupation, and location in the city, influenced who participated in the revolt and who did not. Not all of the cloth workers participated in the Ciompi revolt. One of the laboring groups not active in the revolution was the silk weavers, who in 1427 were the poorest of all textile workers in Florence.[3] Yet, their economic circumstances in 1427 differed greatly from the silk weavers who were active twenty years after the first institution of the Catasto. These differences suggest a trend in the silk industry during the fifteenth century in which talented silk workers were able to command substantially better wages than was the case in 1427. In comparison, the wool workers enjoyed no such amelioration in their circumstances, for the production of woolen textiles decreased steadily over the course of the fifteenth century.[4]

In 1427, 1,076 of the household heads in Florence were wool workers, who constituted a little over 10 percent of the city's population (Table XI). Apart from the spinners, the mean wealth of each occupation reflected the skill

TABLE XI

POPULATION AND MEAN WEALTH
OF WOOL WORKERS

| Occupation | Population | Mean Fortune | Standard Deviation |
|---|---|---|---|
| Dyer | 117 | 633.4 | 2584.4 |
| Spinner | 54 | 287.8 | 586.6 |
| Shearer | 41 | 259.2 | 541.9 |
| Finisher | 53 | 155.4 | 242.6 |
| Stretcher | 19 | 136.7 | 426.0 |
| Wool Washer | 276 | 98.1 | 225.3 |
| Cloth Washer | 15 | 88.0 | 151.8 |
| Ciompi* | 209 | 75.0 | 162.1 |
| Wool Washer | 98 | 70.8 | 145.1 |
| Wool Carder | 194 | 37.0 | 104.9 |

* The term "Ciompi" referred to those who sorted raw wool that was either combed or carded according to its quality.

Source: Catasto Study.

required to perform the task. Spinning, the exception to the relationship that existed between skill and wealth, was a way many wives of _mezzadri_ in the _contado_ supplemented family income. The woolshop foreman brought wool from the city to these women who spun the fibers into yarn.[5] Their wages were not great, less than the expected income of a Tuscan farmer, nor were these women a part of the Catasto survey of Florence proper.

In contrast, spinners who lived in Florence averaged a gross fortune of 287 florins per household, which made them wealthier than their counterparts in the _contado_, and most were men. The comparatively great wealth an average spinner possessed, second only to that of a dyer, was due to the patrimonies of a few men; three of the fifty-four spinners held nearly half of the total wealth possessed by members of their occupation. The level of commercial investment among these three spinners was also great, for they devoted over half of their wealth to their business. These three spinners were most likely foremen who delivered the combed and carded wool to others and supervised the spinning operation. They employed others, including women in the _contado_, to do the actual spinning for them. The money they made from their direction of others greatly increased the average wealth of all spinners, for if these three men possessed the average patrimony of a wool worker, 157 florins, the mean wealth of a spinner in Florence would have been over 100 florins less. Spinners as a whole though, did not participate in trade, nor was their investment in equipment high.[6]

The silk throwers, whose machines were expensive and only functioned on silk, were not mentioned in the Catasto Survey. In 1427 it is unlikely that very many silk throwers operated in Florence due to the small number of silks produced at that time and the lack of a power source for their throwing mills. The Lucchese used water power from streams in hilly areas to power their throwing mills, but the Arno was too slow for that purpose. Instead, silk throwers who worked in Florence operated small machines that could be powered by hand. Like most of the other spinners, the silk throwers' wages were not great, due to the automated nature of their craft and the relatively little skill required to operate the machine.[7]

Dyeing required much skill and technical knowledge, but this alone did not account for the high average fortune possessed by a dyer. The wealthiest wool worker, the dyer Tommaso Giacomo Giacomini, headed one of the 100 wealthiest families in Florence. His wealth, which exceeded 26,000 florins, was not solely the product of his skill at dyeing, but more importantly of international trade.[8] Florentine dyers had to import many of their dyestuffs, including the kermes insects (used to make brilliant scarlets), indigo, brazilwood, and saffron, which frequently entailed overseas shipping.[9] A dyer such as Tommaso Giacomini was more a merchant than craftsman, for Tommaso invested over 3,700 florins in his business, more than many lanaiouli devoted to their own commercial enterprises. Three other men invested over 2,000 florins in their occupation, and together these men, who represented 7 percent of the dyers in Florence, possessed 40 percent of all commercial investments made by household heads in their occupation. The wealth of Tommaso Giacomini was the exception though, for the dyer nearest him in wealth possessed but 4,058 florins.[10]

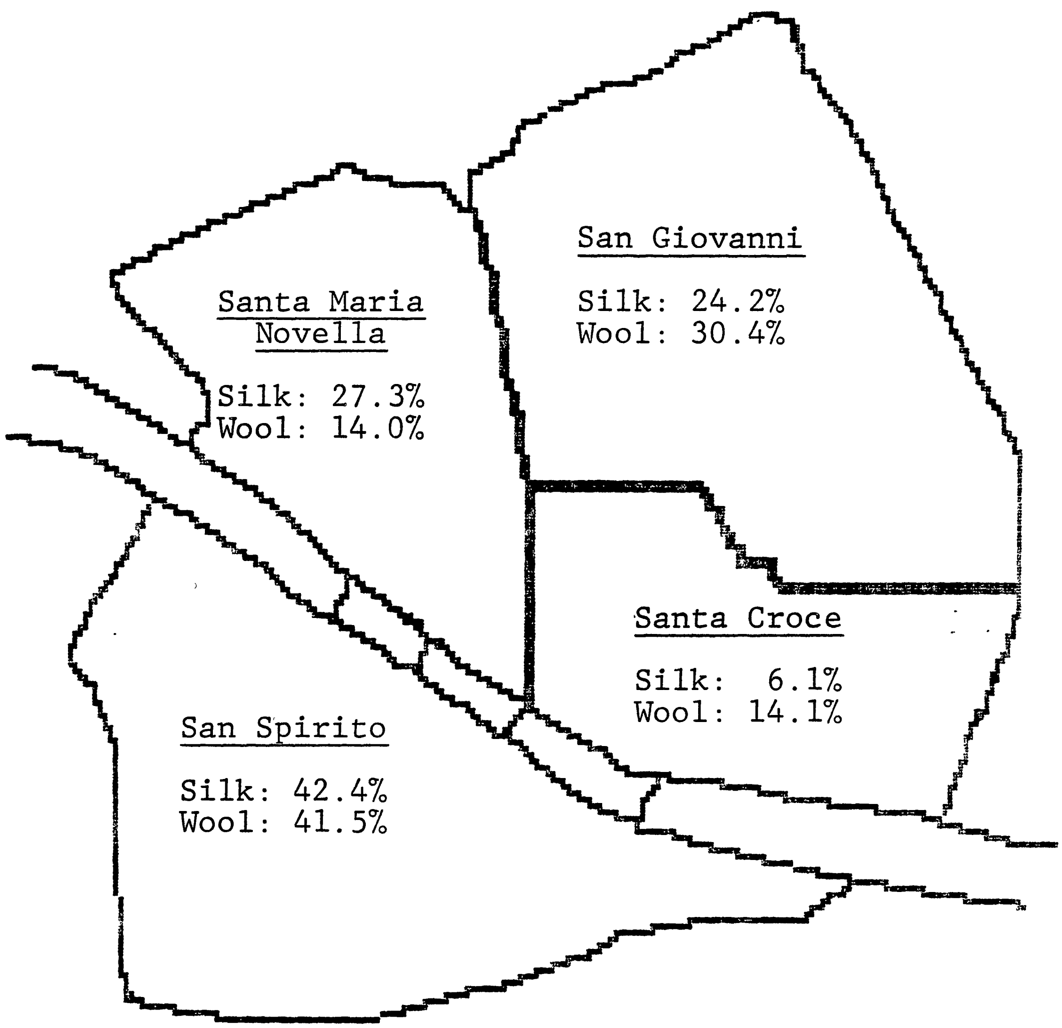
These men were hardly day labor, and were insulted by gild policies that treated them no differently than any other wool worker. Among the gild practices that most hurt wealthier wool workers such as the dyers was the policy that made matriculation fees for those sottoposti who wished to become gild masters prohibitively high.[11] Deprived of a chance to better their position within the wool gild, the dyers chose to participate in the Ciompi revolution in 1378 and formed a gild of their own that lasted until the wool merchants reassumed control four years later.

Research conducted on the Ciompi revolution has placed some importance upon the location within the city of those who initiated the rebellion. Both Samuel Kline Cohn and Gene Brucker mentioned that the primary location of the insurrection was in the Santa Maria Novella quarter of Florence, and Cohn mentioned a faction of the revolutionaries, the Otto di Santa Maria Novella, who were Ciompi that favored the most radical reforms.[12] In 1427 no such concentration of textile workers existed in Santa Maria

Novella. The largest number of wool workers resided in San Spirito quarter, which was separated from Santa Maria Novella by the Arno River (Figure 4). After San Spirito, the quarter that contained the most wool workers was San Giovanni. Over 70 percent of all wool workers resided in these two quarters of the city, separated by the Arno and Santa Maria Novella, which contained but 14 percent of the sottoposti in the lana gild.

The residence patterns of the dyers differed from that of the wool workers in general in that few dyers lived in San Spirito, though a large dyeing center had been there for some time. The greatest percentage of dyers resided in Santa Croce, followed by San Giovanni. These two quarters of the city abutted, and contained over 80 percent of all dyers. Though the dyers' residences were localized, the dispersion of other wool workers made concerted action through concentration of numbers unlikely, though enclaves of wool workers did exist in Florence. The two gonfalones in San Spirito quarter, Ferza and Drago, contained over one-third of all wool workers. However, these laborers were at the other end of the city from their comrades in San Giovanni, and had to cross the Arno in order to combine.[13]

Another group of skilled textile workers who could have benefitted from the Ciompi revolution were the silk weavers, but they did not participate in the overthrow of the gild regime in 1378. Though the silk weavers were skilled craftsmen, in 1427 they were the poorest of the textile




Source: Catasto Study.

Figure 4. Map of Percentage of Wool and Silk Workers in Each Quarter of Florence, 1427

workers in Florence. The number of silk weavers who immigrated to Florence was the highest of any textile craft, and these new arrivals, most of whom were from Germany and other European states, had yet to adopt Florentine customs of political and social behavior.[14] Consequently they did not have the ties within their craft that would have permitted concerted political action.

The youth of these *sottoposti*, a circumstance that further lessened their ability to assert themselves politically, also influenced their poverty simply because they were too young to accumulate any capital from their labor. Though silk had been produced in Florence 200 years prior to 1427, this gild was younger than the *lana* gild, and in the 1400s was just starting to become an industry of international scope.[15] With the introduction of metallic filaments interwoven with silk in the early fifteenth century the Arte della Seta gained great renown and attracted skilled weavers who could make these cloths, such as Domenico di Michele, an employee of Andrea Banchi. Domenico di Michele wove the most expensive silk fabrics, and made between 165 and 171 florins per year, a sum comparable to the wages of a branch manager of the Medici bank.[16] Domenico di Michele was not listed in the first Catasto as a silk weaver, but was active twenty years later; in 1427 the wealthiest weaver possessed only 347 florins before deductions. The fortune of this weaver, Naldo di Francesco, consisted solely of real estate, and the weaver nearest Naldo in wealth, the German Arrigo di Piero, invested but 21 of the 182 florins he possessed in his occupation and put the remainder of his funds in real estate.[17]

In 1427 the silk weavers had yet to earn wages commensurate with their skills in an industry that was just beginning to profit from the changing economic conditions in Europe brought about by the Black Death. The young average age of these weavers as compared to other textile workers and the high number of foreigners in the craft was also indicative of an industry that was comparatively young itself and needed skilled workers to assist in its development. The fact that these workers were still the poorest <u>sottoposti</u> in 1427 was probably due in part to the desire of the <u>setaiouli</u> to maximize profits at the expense of their employees. In an attempt to redress the problems caused by the merchants who needed skilled weavers yet tried to keep wages down the <u>seta</u> gild instituted a law that exhorted the silk merchants to treat their weavers as masters themselves. This regulation, first enacted in 1429, attested to the desire of the gild to retain its weavers, for both Milan and Venice competed with Florence for labor and markets.[18]

As the Florentine silk industry became more settled men like Domenico di Michele were able to command high wages for their labor, and their wealth reflected the skill of their craft. Silk weavers such as Domenico di Michele were able to earn such wages because they had the right skills to offer in an expanding industry. However, in the woolen industry, which required high production rates in order to return a profit, output was in a state of decline which had begun in the mid fourteenth century.[19] Workers in the woolen and silk gilds were more sensitive than the masters to fluctuating cloth producton because most of the sottoposti had no other form of income than their wages, whereas the textile merchants had sufficient wealth to invest in the public debt or real estate if the demand for their products lessened. Also, unlike the woolen merchants who adjusted to declining demand for their products through the manufacture of more luxurious cloths that returned greater profit per item sold, the sottoposti of the lana gild depended upon high production rates to maintain their wage levels, and suffered due to a decreased demand for their services. The problem of declining woolen production was something the Ciompi attempted to solve by mandating a 24,000 cloth per annum production quota.[20] This idea was a naive attempt to maintain wages and employment levels in a declining market, for if their employers could have sold 24,000 cloths a year at a profit, they certainly would have produced them.

No such decline of cloth production existed in the silk gild, for production increased five-fold between 1430, when silk output amounted to only 498 pieces yearly, and 1447, when Andrea Banchi employed Domenico di Michele to weave brocades.[21] The great difference between the production rates of silks in this time span, and the nature of those employed in this industry, indicated a number of things about the silk industry in Florence at the time of the first Catasto survey. In 1427 most of the silk weavers were still the poorest cloth workers in Florence due to their youth and that of their gild. The high incidence of immigration among these weavers was also a characteristic of a young industry that needed to recruit labor from abroad to make the silks which were in great demand. Lastly, the sharp increase in output over a relatively short time allowed those workers whose skills were in demand to negotiate for better wages. The woolen industry was stagnant in comparison, due to economic conditions in Europe and competition from other states such as England, which was exporting more cloth than raw wool in the fifteenth century.[22] Declining output created unemployment and greater competition for jobs, and the only wool workers who escaped the ill effects of a declining industry were merchants, such as the dyers, or those who supervised the work of others, like some of the wealthier spinners.

ENDNOTES

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# CHAPTER VI

# CONCLUSION

That the Black Death was a catastrophe for Europeans in the fourteenth century is hardly controversial. However, there is still no consensus as to whether or not the period following the initial onset of the pestilence was one of unmitigated decline, and why some people adapted better than others to the drastic changes brought about by the plague. The bubonic plague in fourteenth and early fifteenth century Europe was a recurrent phenomenon that destroyed at least one-third of the population and substantially altered many of the social and economic relationships between the inhabitants of the continent. The wool and silk textile industries, along with banking, were enterprises that relied heavily upon international contacts and were among the trades most affected by the plague and its consequences.

In 1427, when the severity of the plague was beginning to lessen, certain differences existed between those involved in the Florentine woolen and silk industries that could not simply be attributed to factors inherent to the processes and markets of each gild. An external influence, the Black Death, created an economic environment that favored the success of the silk industry over the woolen industry. However, this trend was not complete in 1427. The comparative youth of those involved in the silk industry, the greater wealth of _setauouli_ as compared to woolen merchants, and the large number of silk weavers that immigrated to Florence indicated ongoing change in the silk industry during the early 1400s. In 1427 the silk weavers were the poorest of all textile workers, yet by the 1450s their economic circumstances had improved greatly. Among the _setaiouli_, they were on the average younger than woolen merchants and possessed greater average wealth. This youth and wealth of the silk merchants in 1427 gave them further opportunities to further increase their fortunes while woolen merchants and workers suffered due to declining markets for woolens and lessened interest in the trade.

Woolen merchants had to contend with a generally lower demand for their textiles, high transportation costs for their bulkier items, and greater competition from other states that were starting a woolen export industry, such as England. Though the woolen merchants tried to adjust their products to the altered tastes of their consumers through the manufacture of lighter, more luxurious textiles, these measures were unsuccessful. The Florentine woolen industry was structured for high production volumes and international marketing, which could not be profitably maintained after the changes wrought by the Black Death. The woolen industry had trouble keeping its workers employed, and the competition among _lanaiouli_ selling cloths abroad hindered expansion and greater accumulation of wealth. Those _setaiouli_ who ventured abroad to sell their products did not experience as intense a competition among merchants and cloth exporting nations as did the woolen merchants and possessed a textile that was more easily transported, returned a greater profit per item, and did not require a large labor force to manufacture. These factors, which suited the new conditions that resulted from the Black Death, aided the success of the Florentine silk merchants abroad and allowed them to become more wealthy than the international merchants in the woolen industry.

How the merchants of the woolen and silk industries managed their wealth was another point of difference between the two groups, which also indicated the condition of public finance in Florence. Silk merchants preferred to invest their patrimonies in their business and land, while woolen merchants had a higher investment in the public debt. How these men invested their money was very important due to the Florentine government's ever increasing monetary requirements and problems in maintaining public confidence in the Monte. The Catasto Survey was an attempt to provide an equitable distribution and method of assessing _prestanze_ that would gain revenue without jeopardizing the livelihood of the citizenry and encourage public confidence in the fiscal integrity of the state. In the late fourteenth and early fifteenth centuries, the Florentine system of public finance created an insurmountable debt that only rose higher and required ever greater interest payments to maintain. Public confidence in this system eroded, and people became less interested in investing in the public debt due to its low interest and poor record of payment.

Land had always been a popular investment, and with the difficulties in the financial well being of the Florentine state, real estate became more attractive and began to supplant the Monte as an investment of choice apart from one's trade. Those silk merchants who possessed the wealth to invest in areas outside of their career and home placed a greater proportion of their wealth in land than in the Monte, contrasting with the woolen merchants who still invested heavily in the public debt. The woolen merchants' high Monte investment, which was the only area in which they exceeded the silk merchants' expenditures, was partly the result of the gild's history in Florentine politics and the family history of some of its members. The woolen gild was the gild of most political leaders in the fourteenth century and these men had large investments in the Monte, which augmented their power. The Monte shares then passed to heirs, who frequently derived their income from the interest. The old nobility of Florence also invested in the Monte to remove themselves from the mercantile practices of common men. Profit was not the primary motivation for the woolen merchants' investment in the public debt. The silk merchants recognized the problems in the Monte as a source of income, and invested in land, which could return a slightly higher profit and even more importantly was a more reliable investment.

The potential for making a man wealthy in the silk industry did not extend to the workers, at least in 1427. The Catasto Study of Herlihy and Klapisch-Zuber included but one of the ocupations associated with the manufacture of silks, which was misleading. Among others of the sottoposti in the silk industry, silk throwers existed in Florence, but they were most likely grouped with wool spinners. Regardless, the poverty of the silk weavers was incongruous with their skills and gild legislation that accorded them treatment as masters themselves. Unlike the wool weavers, a large proportion of the silk weavers were immigrants, mostly young men who had yet to marry. In the early fifteenth century the silk industry was still developing as an international export industry, and young men came to Florence to seek employment. In common with other immigrant laborers, they were poorly paid, brought little wealth with them, and had yet to adapt to their new society. As the silk industry became better established in the mid-1400s, these weavers could command higher wages than wool weavers but in 1427 their youth and that of the silk industry prohibited an accumulation of wealth comparable to that of the sottoposti of the woolen industry.

Though the wool workers were more wealthy than the silk weavers, they were quite poor in comparison to the city's population. A wool worker's household possessed less than

200 florins, which was less than one-fifth the patrimony of an average household in Florence. Even among the lower gilds of Florence wool workers were poor. However, not all of these laborers were so poor. A few of the wool workers were among the wealthiest 5 percent of the population, and 15 percent of the wool worker household heads were wealthier than half the city's population. These sottoposti were wool workers who employed others or were merchants themselves whose wealth, unlike that of the silk weavers in the mid-1400s, was not necessarily a result of their skills at cloth manufacture.

The wealth of those silk merchants whose businesses entailed international marketing of their goods exceeded the patrimonies of woolen merchants who also sold abroad. This success of the silk industry took place in a period that was otherwise characterized by decline, retrenchment, and pessimism. Though the size of international operations might have been smaller after the Black Death, (the employees of the Medici Bank were considerably fewer than those of the Bardi or Peruzzi banks in the 1330s) there was no lack of initiative on the part of the silk merchants. The redistribution of wealth and changes in tastes that resulted from the Black Death increased the number of people who could afford silks, but they were spread throughout Europe. A number of silk merchants, among them Andrea Banchi, ventured abroad to sell their textiles, amassed fortunes, and made Florence an international center of silk production in the fifteenth century.

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## APPENDIX A

## MONTE

When a Florentine spoke of *il Monte*, he either referred to a mountain or the institution through which the Florentines dealt with their public debt. As a term to describe the city's management of its debt to its citizens, *il Monte*, the mountain, was quite apt. Since the early fourteenth century military expenditures and the public debt itself increased both the amount of money the Florentine state owed its citizens and the size of the interest payments that had to be made on order to maintain public confidence in the fiscal structure of the city. The city's constantly increasing need for money combined with the ever greater interest payments that had to be made on this debt created a situation that required innovative practices in order to maintain the solvency of the state, and was an inherent aspect of Florentine government from the fourteenth century onward.

Prior to 1315 the Florentine government funded the city's expenditures with three forms of revenue: a direct tax on the city and countryside, duties on products coming through the city gates, and interest bearing loans. However, those who lived in Florence, most notably the wealthier ones, disdained any direct tax and had this imposition removed from the city in 1315. As a result, the loans to the civic treasury, either voluntary or mandated by the city's government, became an important means of acquiring the necessary funds to meet the city's expenses. Interest rates on these loans varied from 5 to over 15 percent, which by 1345 greatly increased both the debt the city owed its creditors and the amount of money needed to make its interest payments.

In response to this problem the government instituted the Monte commune, which restructured the city's debt. The legislation that instituted the Monte stipulated that all outstanding loans would be entered in a common registry at a fixed rate of 5 percent interest, these loans being negotiable as Monte credits. The Monte provided the treasury with a more manageable public debt at a fixed interest rate, and temporarily lowered the amount of this debt. The Monte also increased public confidence in the city's fiscal practices, and through the negotiability of Monte credits involved a greater number of people in Florentine public finance. However, the Monte did not solve the Florentines' economic difficulties. Military expenses remained high, and lenders were few given the low interest rate allowed on Monte credits. Due to the fact that the interest rate on Monte credits was by law held to 5 percent, the Florentine treasury officials stimulated lender interest in the Monte by artificially increasing the amount lent to the treasury. In this instance, a loan of 500 florins to the treasury would be listed at a value two or three times what was truly lent in order to provide attractive interest rates. As a result more people were willing to purchase Monte credits, but this attempt to lure lenders subverted the main reason for the Monte, which was the necessity to control the increasing public debt of the Florentine state.

The Florentines knew that high interest rates on the Monte increased the public debt and tried to increase other forms of revenue, to no avail. The *estimo*, a tax based on an estimate of each taxpayer's worth levied on the countryside, increased in the late fourteenth and early fifteenth centuries, at a time when the population of the *contado* was in a state of decline. Also, the amount of land taxable by the *estimo* decreased, due to real estate purchases by Florentines who were exempt from the *estimo*. As a result, income from the *contado* went down when it was most needed to help fund wars, such as the long struggle with Milan or the conquest of Pisa, and aggravated the flight of peasants from the land.

During this period the rates of the gabelles also rose, with similar effects. Between 1402 and 1432 the income from duties on goods that passed through the city gates, petitions to the Signory, wine sold at retail, and the salt monopoly all declined. This was due primarily to warfare which ravaged the countryside and at times forced the Florentines to remain behind their city's walls.

Regardless, the gabelles increased and income still declined. In some cases the effects of the higher gabelle were so disastrous that it had to be repealed. This was the case for iron ingots coming into the city. At a time when the Florentines needed iron in order to make weapons they placed a higher tax on iron bars brought through the city gates. This decreased the flow of raw matrials for their war effort, and was shortly repealed.

As the estimo and gabelles proved unable to return any greater revenue, and as the civic budget increased, the city became increasingly insolvent. Part of the problem was the fact that many Florentines were unable to pay the loans that came with increasing frequency. In 1381, 11 percent of the citizens in the gonfalone of Drago in San Spirito quarter were unable to pay their prestanze, while in 1406 the percentage of delinquent assessments rose to 66 percent. The government attempted to enforce greater compliance through severe penalties for nonpayment, such as confiscation of property, political disfranchisement, and death, but these laws did nothing to remedy the situation. Confronted with a population that was unable to pay its prestanze, the treasury officials had to temporarily suspend or lessen the interest payments on outstanding loans to the treasury, which lessened confidence in the city's system of public finance. The support of those who loaned money to the treasury was also weakened by the size of the treasury's debt to the citizens, which amounted to 3.1 million florins in 1415, three times the sum of 1380 and nearly seven times the amount of the public debt when the Monte was first introduced.

In order to increase the flow of money into the city's coffers, the government created an additional _monte_, the Monte de'cinque interi, to provide incentives to lenders. This _monte_, created in 1424, contained the _prestanze_ of those who paid their assessments in full within fifteen days, and returned the full 5 percent interest, not the reduced amount that the treasury normally paid. The Monte officials also allowed citizens to pay from one-third to one-half of their assessment and avoid criminal prosecution, but they lost all rights to interest and principal. In essence a _prestanza_ paid in this fashion became a tax, and more Florentines resorted to this form of payment over the fifteenth century.

The Monte delle doti, instituted at about the same time as the Monte de'cinque interi, provided another incentive to potential lenders, a daughter's dowry. This _monte_ contained the funds of those parents who wished to provide a dowry for their daughter or a sum with which their son could start in business. After five to fifteen years, the parents withdrew both interest and principal, but if the child died before the money was removed, the state and parent divided the sum. Considering the death rate of children in fifteenth century Florence, this _monte_ was a profitable one for the Florentine treasury. Yet, it served an important function for the

Florentines as well, for without a dowry a young woman had great difficulty getting married, and frequently had to enter a convent.

One _monte_ formed in the early fifteenth century, the Monte de Pisa, was not intended to provide incentives to lenders, but to control the revenue from a conquered city. When the Florentines conquered Pisa in 1406 the Pisans were heavily taxed in order to replenish the Florentine treasury, which had seriously depleted its resources in the campaign. A _monte_, which the Florentines had used in their own city to collect vast sums for war, was the most efficient means to coordinate the taxation of Pisa and brought additional money to Florence.

In their attempts to control the public debt, the Florentines tried to increase the taxation of the _contado_, which was already impoverished due to wars and taxes, raise gabelles, which periodically slowed commerce sufficiently to warrant repeal, and create new _montes_ in order to lure investors. None of these measures solved two of the greatest problems that confronted the treasury, which were an inequitable system of tax distribution and a population that could no longer maintain the present burden of _prestanze_ and survive. Between 1390 and 1402 the Florentine government allocated approximately 5,000,000 florins for military expenditures alone. Only _prestanze_ could return such revenue, and these loans inflated the indebtedness of the city, which in turn necessitated increased carrying charges on the Monte. By 1406 the interest that had on be paid on the Monte amounted to 250,000 florins, and exceeded the returns from the customs tolls, which next to forced loans brought the greatest amount of money to the Florentine treasury. In the early fourteenth century the income from the gabelles funded the interest payments paid on _prestanze_, but this was impossible in the fifteenth century, and the Florentine treasury had to borrow more money from its citizens just to keep up interest payments, which at times it still defaulted on. This ever growing need for money caused the number of forced loans imposed on the Florentines to increase in the early fifteenth century, to the point that between 1423 and 1428 the citizens of Florence paid 114 _prestanze_. These loans were levied through 73 different modes of distribution, each of which was bitterly contested by various groups in Florence.

One of the major reasons why no method of tax distribution was acceptable to the Florentines was factionalism within the _gonfalones_ and government of the city. Certain influential Florentines had established long standing relationships, called _consorteria_, with other powerful families in their _gonfalone_. These groups, if they were able to have a _prestanza_ distributed per _gonfalone_, felt that they could influence the choice of tax assessors who were chosen from their neighborhood and so avoid part of their tax load through the influence they could exert on these officials. Their share of the _prestanza_ would then be shifted to less influential citizens, due to the communal responsibility of those in each _gonfalone_ to pay the amount stipulated by the treasury. Those who then had to pay an inordinate share were not the ones who could most easily pay their _prestanze_, which helped to lower the revenue gained from each forced loan. Due to public protest over this form of distribution the payment of forced loans at times became a matter of individual responsiblity, but special interest groups did not allow this procedure to become permanent, and convinced the Florentine legislature to reinstate a new distribution based on a per _gonfalone_ responsibility for forced loans.

With the Catasto of 1427, the Florentine government hoped to quell the dissention over _prestanze_ distributions, and introduce a more equitable system of revenue collection that would not confiscate the citizens' wealth. The basic unit of taxation for the Catasto was the household, but the composition of the household did not necessarily represent all those who lived in the household, for a widow could live with her married son yet still declare her assets separately. This was advantageous to widows and retired males, who could be declared _miserabli_ and thus escape the Catasto. Apart from those family members who submitted a separate summary of their property, paid servants and apprentices were also not regarded as being part of the household, though they lived there. Each household head was individually responsible for his or her Catasto assessment, and had to submit a detailed list of all assets, which included liquid assets.

From this statement of gross assets, called the *sostanza*, the household head was allowed to deduct outstanding debts, the value of the family's residence and its furnishings, and 200 florins for each person listed as a member of the household. This deduction for each household member allowed 86 percent of the Florentine citizens to have deductions that equalled or exceeded their gross assets. Consequently they had no taxable capital. Those who lived in the *contado* and district of Florence were allowed no such deduction, and as a result only 21 percent of their households could declare no taxable assets. However, even those who did not have any taxable property had to pay a head tax to the treasury, a sum that ranged between two and six gold *denarii* per male family member between the ages of eighteen and sixty. Those household heads who possessed some wealth after deductions, 14 percent of the population, paid the Catasto, which was 0.5 percent of their net assets. The Catasto could be levied repeatedly to raise money as needed, and further resembled *prestanze* in that the payment was an interest bearing loan to the state.

The Catasto was one of a number of measures taken by the Florentines to provide an efficient system of public finance that would not drive capital away from the city due to excessive taxation. However, the Catasto was not a new method of taxation; it was simply a different means of distributing and assessing a forced loan. The Florentines' hatred of direct taxes forced them to retain the myth that prestanze and catasti were loans to the state, but the state had no hope of repaying these loans, which contributed to the cycle of greater civic indebtedness to taxpayers. Warfare continued to be expensive and in the 1420s posed a very heavy burden on the state's finances when the Florentines were again at war with Milan and later attempted to conquer Lucca. These demands on the treasury destroyed the potential benefits of the Catasto, due to the frequency with which it had to be levied. Such demands seriously decreased the patrimonies of many wealthy Florentines, among them Palla di Nofri Strozzi, who had to ask the treasury's permission to sell his Monte credits to foreigners so that he could pay his taxes. Between 1423 and 1431 Palla Strozzi paid over 18,000 florins per year to the treasury, a sum that nearly equalled the average wealth of the 100 wealthiest families in Florence. Such demands of the state were simply impossible to bear for long, Catasto or not.

The material for this appendix was taken from Anthony Mohlo's monograph entitled Florentine Public Finances in the Early Renaissance, 1400-1433, Harvard Historical Monographs 65 (Cambridge: Harvard University Press, 1971), pp. 1-113.

# APPENDIX B

## CATASTO DATASET

The census and property survey of Tuscany was a formidable undertaking on the part of the Florentine bureaucracy during the fifteenth century. The survey remained in effect from 1427 up to 1498, when it was replaced by the *decima*, a tax based solely upon real estate. There were a number of different Catasto surveys taken during the fifteenth century, but the quality of those documents that followed the first census in 1427 of the Tuscan province declined markedly due to the size of the task, which strained the administrative resources of the Florentine state. The first Catasto Survey became the subject of compilation into a machine readable format when Professor David Herlihy of the University of Wisconsin undertook the project in 1966. Later in the same year the Centre de recherche historique of the Ecole des hautes etudes in Paris joined the project, and chose Christiane Klapisch-Zuber as its representative. Herlihy and Klapisch-Zuber supervised the compilation of this survey, which was finished in 1970.[1]

In order not to render their work as monumental as that of the original Catasto compilers, the investigators deleted such information as descriptions of properties owned, their location, rents or harvests collected, the names of debtors and the sums they owed, as well as details concerning the nature of each household head's business investments. This allowed the entry of nearly all of the information that concerned the demographic characteristics of the households into the data set (Appendix C). The two primary reasons for this choice were the ease with which data such as the relationship between the household head and other members of the household could be reduced to numeric values, whereas locations of properties and other details concerning the nature of a household head's investments and debts were not so easily encoded, and the investigators' opinion that the value of the Catasto survey's demographic data was of particular value to historical research.[2]

## ENDNOTES

[1]David Herlihy, "Editing for the Computer; the Florentine Catasto of 1427," American Council of Learned Societies Newsletter, (April, 1971):1-6.

[2]Ibid., p. 8.

APPENDIX C

CATASTO CODEBOOK

Economic Card

| REF.# | COL.# | WIDTH | VARIABLE NAME |
|---|---|---|---|
| 1 | 1-2 | 2 | Series Number |

01 City of Florence, 1427
02 City of Florence, Additions of 1428

Contado of Florence (Series 03-06)

03 Rural quarter of St. Spirito, 1427
04 Rural quarter of St. Croce, 1427
05 Rural quarter of St. Maria de Novella, 1427
06 Rural quarter of St. Giovanni, 1427

07 City of Florence, Additions of 1429

District of Florence (Series 10-34)

10 City of Cortona, 1427
11 Countryside of Cortona, 1427
12 Castiglione Fiorentino, city and countryside, 1427
13 Montepulciano and Ville, 1427
15 Countryside of Arezzo (Vicariati of Anghiari and of Montesansavino), 1427
16 City of Arezzo, 1427
17 Cortine of Arezzo, 1427
18 City of Pisa, 1427
19 Countryside of Pisa, 1427
20 City of Pistoia, 1427
21 Countryside of Pistoia, 1427
22 Mountains of Pistoia, 1427
23 Garfagnana, 1427
24 Val di Nievole, 1427
25 Val d'arno di Sotto, 1427
30 San Gimignano, 1427

| REF.# | COL.# | WIDTH | VARIABLE NAME |
|---|---|---|---|
| 1 | 1-2 | 2 | Series Number (continued)<br><br>31 Colle, 1427<br>32 City of Volterra, 1427<br>33 Countryside of Volterra, 1427<br>34 Sillano and Montecastelli, 1427<br><br>98 Verona, 1425<br>99 Verona, 1502<br>58 City of Florence, 1458, 10% Sample<br>80 City of Florence, 1480, 10% Sample |
| 2 | 3-6 | 4 | Household identification (Sequence Number) Families are entered in the order that they appeared in the summary volumes. |
| 3 | 7-11 | 5 | Location |
| 4 | 12-21 | 10 | Name of head of family |
| 5 | 22-31 | 10 | Name of father or head of family |
| 6 | 32-41 | 10 | Family name |
| 7 | 42-44 | 3 | Source. The number of the volume in the archival series containing the original declaration. |
| 8 | 45-47 | 3 | Page. The number of the folio (*recto* or *verso*) where the declaration begins. |
| 9 | 48 | 1 | Type of household. (Note that codes 1 and 4 contain no following demographic cards.)<br><br>1 inheritance only, without members<br>2 duplicated declaration that appears in the volume of *Sommarii*, but was crossed out in the *Campioni* during the verifications (when it was noticed that the declaration had been registered twice)<br>3 incomplete information<br>4 property of rural parishes or institutions, without members<br>5 tax exempt<br>8 declarations of head who lives outside the Florentine territory |

| REF.# | COL.# | WIDTH | VARIABLE NAME |
|---|---|---|---|
| 10 | 49 | 1 | Type of dwelling<br><br>1 owns the home where he lives<br>2 rents the home where he lives<br>3 lives with a family in a house for which he does not pay the rent (case parents, servants, etc.) |
| 11 | 50 | 1 | Ownership of animals<br><br>1 owner of cattle<br>2 renter of cattle<br>3 owns and rents cattle<br>4 owns only small beasts<br>5 owns beasts of burden (and possibly small beasts) |
| 12 | 51 | 1 | Emigration-immigration (origin of household head)<br><br>1 comes from a locality of the district of Florence, to the parish where he registered<br>2 living and residing in a locality of the district of Florence, but elsewhere than where he is obliged to the tax<br>3 comes from a non-Florentine Italian locality<br>4 comes from Germany<br>5 comes from countries other than Germany and Italy<br>6 residing in Italy outside of the district of Florence<br>7 residing in Germany<br>8 residing in a country other than Germany and Italy |
| 13 | 52 | 1 | Trade, occupation of household head<br><br>1 employee, <u>fattore</u> or the employer for whom the trade was coded in col. 53-54<br>2 widow or daughter of a man whom the trade was coded in cols. 53-54 (occupation of deceased husband or father of a minor child)<br>3 occupation no longer exercised |
| 14 | 53-54 | 2 | Trade or occupation |

| REF.# | COL.# | WIDTH | VARIABLE NAME |
|---|---|---|---|
| 15 | 55-59 | 5 | Value of private investments |
| 16 | 60-64 | 5 | Value of public investments (includes the public debt (Monte)) |
| 17 | 65-70 | 6 | Total value of all assets (includes private and public investment and the value of real property with house deducted) |
| 18 | 71-75 | 5 | Deductions (total value of deductions (debts and charges) calculated in the document) |
| 19 | 76-80 | 5 | Tax (taxable fortune - gives the total value of the taxable fortune less the deductions) |

## Demographic Card

| | | | |
|---|---|---|---|
| 1 | 1-2 | 2 | Series Number |
| 2 | 3-6 | 4 | Household Identification (Sequence Number) |
| 3 | 7 | 1 | Card Number |
| 4 | 8 | 1 | Total number of demographic cards |
| | | | The following seven field format is repeated for each member of the family, repeated in cols. 9-15, 16-22, 23-29, etc. and repeated as often as necessary. |
| 5 | 9 | 1 | Sex<br>1 male<br>2 female<br>3 indeterminate |
| 6 | 10-11 | 2 | Age (rounded out to younger age except 79, 89 which were changed to 81, 91 respectively)<br>79 undetermined age<br>89 infants of less than a year<br>99 persons of 99, 100 years, or more |

| REF.# | COL.# | WIDTH | VARIABLE NAME |
|---|---|---|---|
| 7 | 12 | 1 | Matrimonial state<br><br>0 undetermined (sons, daughters after 18 years)<br>1 married<br>2 single<br>3 engaged<br>4 widowed (widow)<br>5 married or widowed (widow)<br>6<br>7 separated (married woman declaring the goods in her name although her husband was living)<br>8 newly married or added in 1428-1429 |
| 8 | 13-14 | 2 | Relationship of household members with the head of the family |
| 9 | 15 | 1 | Commentary |

VITA 2

Scott Hugh Baxter

Candidate for the Degree of

Master of Arts

Thesis: PLAGUE AND ECONOMIC CHANGE IN FLORENCE, 1427: A COMPARISON OF THE CITY'S WOOL AND SILK INDUSTRIES IN A TIME OF ECONOMIC RECOVERY

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Personal Data: Born in Oklahoma City, Oklahoma, September 8, 1956, the son of Donald J. and Caroline V. Baxter. Married to Karen Bode Curths on November 3, 1984.

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