

ALL ROADS LEAD:
FROM ANCIENT SILK ROAD TO
MULTINATIONAL SYNTHETIC FIBERS INDUSTRY
IN A SOUTHERN APPALACHIAN TOWN

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This dissertation is dedicated to the memory of my granddaddy, Monte Wood, who never understood my love of history but who nevertheless inspired it.

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ABSTRACT

In the late nineteenth century, the silk industry came under threat, inspiring chemists to seek out alternative means of production. The pursuit of “artificial silk” ultimately gave rise to a whole new category of textiles – man-made synthetics. Synthetics entered the market just as the shape of global industry shifted east and south, and became a significant feature in the industrialization of twentieth century southern Appalachia. As a multinational, technologically advanced industry, synthetics initially struggled to find their place in the market among more trusted natural fibers, but with the rebranding of artificial silk to “rayon” in the 1920s, manufacturers soon prospered and began expanding into American markets just as the textile industry began concentrating in the South. The junction of the “fabric of the future” and the modern industrial design philosophies developing at the time left behind a unique landscape of which few examples survive. The Milan-based rayon mill constructed near Rome, Georgia in 1928 provides an ideal, intact landscape for understanding the industry, its impact, its place within the larger context of global industrial development, and the creation of public memory and collective identity in an era of environmental regulation and economic destabilization.

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INTRODUCTION



Figure 1: Groundbreaking at the Rayon Mill This image is labeled "Rome, Georgia." The man holding the shovel appears to be Dr. Ugo Mancini, vice-president of American Chatillon. Lockwood Greene Collection, Smithsonian Museum of American History

On a late April evening in 1928, several hundred residents of the modest-sized southern Appalachian town of Rome, Georgia gathered at the Floyd County Courthouse for a special public meeting. A site just outside of town had made the short list for a new industrial facility, a rayon mill, and the chamber of commerce needed a swift showing of public support to win over the company's interest. Within two days, the chamber had raised \$115,000 in subscriptions from local individuals and companies and secured support from city and county government officials that they would meet the company's infrastructure demands. A week later, Italian and American officials from American Chatillon Corporation arrived to lay the ceremonial cornerstone at the site two miles from downtown Rome.

This dissertation deals with artificial silk, or rayon, in both a global and local context. Early inventors of artificial silk production methods saw their creation as a modern replacement for the expensive and coveted silk whose history had in many ways tied East to West and served as a major progenitor, along with other prestige materials, of modern world systems. An early modern shift in European intellectuals' attitudes toward nature, wherein man was its ultimate master, served to foster new industries intent on harnessing the power of the natural world to create a new, man-made one less vulnerable to forces such as disease and weather. From the Royal Society of London to the futurist movement in Fascist Italy, philosophers and chemists strove to free humanity from the shackles of nature and bring modernity, in the form of chemicals, synthetics, and plastics, to the world.

Early manufacturers of artificial silk, however, soon learned that their products fell flat of expectations when compared to the real thing, forcing a redirection of market energies, and a rebranding of the industry as a whole in the 1920s. By this time, in an effort to gain better access to lucrative American markets, the European industrialists began moving production overseas, allowing them to bypass high tariffs imposed by the federal government between 1909 and 1925, while still following the general westward trajectory of the older industry.

Between 1880 and 1920, American industry began a slow migration from older northern industrial centers to the southern states, where an inexperienced, and inexpensive, labor force awaited. The first artificial silk plants by European manufacturers selected sites in the traditionally industrial north, but soon followed other industries in the southward slide. Rome, Georgia, a small but ambitious town in southern

Appalachia, attracted the attention of the Italian-American partnership, American Chatillon Corporation, in 1928.

In the 1920s, before the tensions that led to World War II fully emerged, locals in “New Rome” viewed Italy, and the management of the new rayon mill, as the epitome of modernism, and celebrated the arrival of the new mill with great fanfare. The company, initially reluctant to construct a mill village, ended up building a sprawling, winding enclave of brick houses complete with porches, gardens, plumbing, and electricity. The village also included sidewalks, paved roads, a company store, and a school, and became a mark of pride for the rayon workers.

The jolting financial downturn that began in late 1929, however, put a damper on Romans’ festive mood. While the rayon mill helped to offset some of the economic devastation in the area, a quick turnover in management to a Belgium-based firm, Tubize, and the failure of the plant to expand to its expected capacity of 5,000 workers, darkened the mood among workers, leading to an early strike over wages and working conditions. While the sleek rayon mill was not filled with the constant fog of lint that clogged cotton mill workers’ lungs, other dangers lurked in the acid vats, chemical baths, and boiler rooms of the high-tech mill.

In 1946, the mill changed hands once more, introducing a new type of rayon as well as other related products to the manufacturing line. The company grew, but new attitudes toward the relationship between workers and companies soon prompted Celanese to streamline their holdings, selling off the houses, churches, and company store to workers in 1953. Although after 1953 the village began to diversify and change, with non-rayon workers moving in and residents adding onto their homes to accommodate

growing families, a sense of place remained intact. Even after the plant's closing in 1976, many former workers and families remained in the company village.

By 2017, few former rayon workers or their descendants reside in the village, but a strong sense of place and communal memory survives in an active online community who call themselves the "Celanese Village Kids." The landscape itself, still largely intact, holds traces of its collective past, with firehouses and bells, a baseball field where the company's own diamond and grandstands once stood, and trees planted by the company still shading many yards. The two churches built by the community are still standing, with an active descendent congregation filling the pews at the Baptist church. The company store, now a haunted attraction open at Halloween, still bears the names of the pharmacist and clerks on their former assigned parking places, and the smokestacks, which once earned the community the nickname "Smellanese," loom large over the entire complex.

The memory of the rayon mill is strong among former workers and their children, as well as the people of Rome at large. The mill landscape provides a unique opportunity to tell the story of a modern, high tech industry that grew out of a desire to streamline and stabilize the silk industry in older European manufacturing centers, but found its home in the ridges and valleys of Southern Appalachia, where it was received with a warm southern welcome and pride. The modernity of the industry extended to the mill village, imbuing workers with a sense of pride in their work and homes which at times led to unexpected tension between workers and management if the workers felt they were not being treated with the respect they believed they deserved as high-tech industrial workers in the modern age. Nevertheless, in remembering the mill and village life, workers and

their children more often reflect on the beautiful tree lined streets, the safety and unlocked houses, the sense of community pride, and access to a good education at the village school as well as nearby colleges, rather than the high cancer rates, frequent power battles between the union and management, and the constant smell of sulfur in the air.

The first chapter of this dissertation introduces the globalized nature of the silk trade from the ancient world to the eve of the synthetic age. Tracing the path of silk trade from China, through the Steppes, into the Mediterranean region and late Western Europe, the mechanisms by which cultures adopted and adapted silk and silk manufacturing technologies demonstrate its significance as both a commodity and a technology. The fabric and the people who made it became coveted treasures in societies throughout the ancient and medieval world. By the early modern era, silk manufacture was an important economic activity in France, Italy, Germany, and, later, England, just as the industrial revolution brought Western Europe to the forefront of the global economy.

The second chapter follows the introduction of artificial silk from its earliest inception to the growth of four major manufacturing methods, each of which ultimately moved from Europe to North America, as demonstrated in chapter three. Chapters two and three set the stage for understanding rayon's global significance before shifting focus to Rome, Georgia, where the commodity found a home in the late 1920s. The introduction of synthetic fiber manufacture to the Appalachian South brought significant changes to the landscape wherever it landed, which is the subject of the subsequent chapters, which follow the "silk mill" in Rome, Georgia through five decades of production.

The final chapter examines the ongoing life and public memory of the community and landscape created around the rayon mill in the southern Appalachian town, its preservation, and its potential as an interpretive site for public education and industrial heritage tourism. An architectural survey with descriptions and representative photographs helps the reader visualize the landscape and how it has changed through time followed by a brief overview of general preservation needs within the community. The chapter concludes with a discussion of interpretive and educational potential at the site and identification of possible partners in the area through which it could be developed.

The story of rayon demonstrates the ties of modernity to ancient traditions, the ties of old world to new, and the particular way in which these ties expressed themselves on the landscape and people's lives in a Northwest Georgia market town as old world challenges ushered in the modern age. The advent and eventual popularization of synthetic fibers played a leading role in the rise of a new kind of global industry both in its mode of organization as a field dominated by complex, multinational corporations as well as for its particular mark on the landscapes it touched.

CHAPTER I

A CENTURIES-OLD OBSESSION: SILK AND ITS PATTERNS OF EXCHANGE

In the beginning, man killed an animal and wore its fur to keep himself warm.... Then came weaving and with it fabrics which were unnatural...A fine, seven league stride toward the synthetic millennium was made when Chardonnet discovered how a fiber that resembled silk could be made of guncotton reduced to something like a sticky collodion congealing into a thread.

- Waldemar Haempffert, "Man Outdoes Nature in a Synthetic Era," *New York Times* August 10, 1930.

The history of textile production and its influence over the global cultural landscape is a well-documented preoccupation of historians and social scientists with areas of specialization ranging from the ancient Silk Road to the twenty-first century quest for ever-cheaper labor throughout the so-called "Global South."¹ As a ubiquitous commodity of trade and consumption, and a significant force in the shaping of both local and international markets, cloth of wool, silk, or cotton often formed the basis of reorganizations of the social and spatial structures of labor relationships and served as impetus for technological change, further altering human geography as workers clustered around growing manufacturing centers which exported to an expanding web of markets.²

¹ For further reading on global textile production see: Sven Bekert, *Empire of Cotton: A Global History* (New York: Alfred A. Knopf, 2014); Pietra Rivoli, *The Travels of a T-Shirt in the Global Economy: An Economist Examines the Markets, Power, and Politics of World Trade* 2nd ed. (Hoboken, NJ: Wiley and Sons, 2009).

² Joan R. Roses, "Why Isn't the Whole of Spain Industrialized? New Economic Geography and Early Industrialization, 1797-1910," *Journal of Economic History* 63 no. 4 (December 2003): 995-1022 uses Spain as a test case for theories of industrialization and human geography. See also: Sukkoo Kim, "Industrialization and Urbanization: Did the Steam Engine Contribute to the Growth of Cities in the United States?" *Explorations in Economic History* 42 no. 4 (October 2005): 586-598; Eugen Weber's *Peasants into*

Recently, Sven Bekert examined the role of cotton in the development of modern capitalism. In *Empire of Cotton: A Global History*, Bekert pulls together a wealth of research on the spread of cotton as a commodity that drove the development of the technologies, political systems, and trade networks that led to the industrialization of the modern world in an often violent, ugly march across the globe. According to Bekert, cotton arrived in Europe as a result of the spread of Islam and slowly gained importance as a commodity. Cotton was largely responsible for the dominance of northern Italy and the Mediterranean as the center of trade before discovery of the New World shifted the locus of economic power to the Atlantic.³

The centrality of cotton in the making of global industrial capitalism is undeniable, as thoroughly demonstrated by Bekert's study and a preponderance of available literature on the cotton industry.⁴ The story of silk, a luxury commodity that

Frenchmen: The Modernization of Rural France, 1870-1914 (Stanford, CA: Stanford University Press, 1976) places industrialization and subsequent urbanization in the context of modern-nation building. Weber specifically discusses the role of transportation network development in chapter 12, "Roads, Roads, and Still More Roads": 195-220. Motoshige Itoh and Mazayuki Tanimoto discuss an alternative model for the role of human geography in the development of Japan's modern textile industry in "Rural Entrepreneurs in the Cotton Weaving Industry of Japan," *Toward the Rural-Based Development of Commerce and Industry: Selected Experiences from East Asia*, edited by Yujiro Hayami (Washington, D.C.: The World Bank, 1998): 47-68; Brian A'Hearn discusses the significance of the labor market in shaping textile industry geography, "Institutions, Externalities, and Economic Growth in Southern Italy: Evidence from the Cotton Textile Industry, 1861-1914," *Economic History Review* 51 no. 4 (November 1998): 734-762.

³ Bekert, 24-25, 31.

⁴ Recent studies on the global cotton industry include: Douglas A. Farnie and David J. Jeremy, eds. *The Fibre that Changed the World: The Cotton Industry in International Perspective, 1600-1990s* (Oxford: Oxford University Press, 2004); Lemire, Beverly Lemire, *Cotton Textiles that Changed the World*. Oxford and New York: Berg, 2011; Giorgio Riello and Tirthankar Roy, eds., *How India Clothed the World: The World of South Asian Textiles, 1500-1850* (Boston: Brill, 2009); Brian Schoen, *The Fragile*

was introduced to the European imagination perhaps as early as a millennium before cotton, helps situate the rise of capitalism into the longer development of consumerism, the growth of world systems and the continual struggle for mastery over nature. Over the course of over four millennia, the spread of silk ultimately led to a complete reorienting of man's relationship to the natural world with the advent of artificial silk in the late nineteenth century.⁵

Silk, in its most raw form, is a protein-based thread generated by several insect and arachnid species that, when woven together by human means, produces a fine fabric. The vast majority of silk fabrics have long been produced from the threads of the *bombyx mori* species of silkworm, which feeds exclusively on the mulberry tree. Despite being highly desirable for both its appearance and comfort of wear, silk resisted mass commodification due to the relative powerlessness of human intervention to increase its

Fabric of Union: Cotton, Federal Politics, and the Global Origins of the Civil War (Baltimore: Johns Hopkins University Press, 2009).

⁵ Richard C. Foltz has argued that the "Silk Road paradigm is the direct ancestor to the contemporary phenomenon of globalization," in "Does Nature have Historical Agency? World History, Environmental History, and How Historians can Help Save the Planet," *The History Teacher* 37 no. 1, Special Feature Issue: Environmental History and National History Day 2003 Prize Essays (November 2003): 15. The purpose of the discussion at hand is not to provide a thorough analysis of the elaborate web of exchange networks which characterized the ancient trade of luxury goods, but to demonstrate the general east to west march of power which followed the distribution of silk (as well as other goods sought after by the elite) prior to the reorganization of the relationship between land, production, labor, and capital in the age of modern industrial capitalism. For a more thoroughly global treatment, see: Peter Frankopan, *The Silk Roads: A New History of the World* (New York: Knopf, 2016) and John Feltwell, *The Story of Silk* (New York: St. Martin's Press, 1990). Additionally, David Jacoby's "Silk Economics and Cross-Cultural Artistic Interactions: Byzantium, the Muslim World, and the Christian West," *Dumbarton Oaks Papers* 58 (2004): 197-240 details the multi-directional exchange centered on Constantinople through the conspicuous consumption behaviors at all levels of society.

production scale. The natural range of the mulberry tree, the brief window of time for ideal harvest conditions, and the vulnerability of both the trees and the worms to weather irregularities and diseases hindered rapid, widespread technology transference.⁶

Additionally, for many centuries, the silk-producing regions of Asia kept the secrets of sericulture and silk manufacturing closely guarded, fostering an extensive trade network between East and West and inspiring European maritime exploration and advancements in transportation technologies.⁷

The archaeological record reflects that early silk makers used the threads of different wild moths throughout the ancient world, but scholars of the period generally accept that the Chinese perfected the process sometime in the third or possibly fourth millennium BCE. Two Chinese silk-making innovations, baking or boiling the cocoon to kill the moth before it could break the threads to emerge, and domestication of the *bombyx mori* species, which thrived on the leaves of the mulberry tree, set Chinese silks apart from wild silk fabrics.⁸

⁶ It was, in fact, a silkworm pandemic in the 1860s that led Louis Pasteur, at the behest of the French government, to the discovery of disease pathogens and preventative treatment methods which made him a household name. See: Antonin Cadeddu, "The Heuristic Function of 'Error' in the Scientific Methodology of Louis Pasteur: The Case of the Silkworm Diseases," *History and Philosophy of the Life Sciences* vol. 22, no. 1 (2000): 3-28. Further discussion of the crisis and Pasteur's work below.

⁷ George Maniatis, "Organization, Market Structure, and Modus Operandi of the Private Silk Industry in Tenth-Century Byzantium," *Dumbarton Oaks Papers* 53 (1999): 265 provides a detailed description of some of the challenges to the development of sericulture in the West.

⁸ For more on archaeological evidence of early wild silks: Irene Good, "On the Question of Silk in Pre-Han Eurasia," *Antiquity* 69 no. 266 (December 1995): 959-968; Ishrat Alan, "History of Sericulture in India to the 17th Century," *Proceedings of the Indian History Congress*, 60: Diamond Jubilee (1999): 339-352. For discussion of dating the origins of Chinese silk craft see: Valerie Hansen, *The Silk Road: A New History* (Oxford: Oxford University Press, 2012), 19.

During the Han dynasty (206 BCE-220 CE), the area of Asia under Chinese control expanded westward into the steppes of Central Asia. By 119 BCE, with the defeat of the nomadic Xiongnu tribe, China eliminated its final barrier to trade with the Fergana valley, home to a prized breed of horses the Chinese needed to maintain firm control over the western frontier.⁹ Silks, and rumors of Asian wealth, thus slowly began to make their way across the treacherous mountain passes and deserts separating China from Central Asia and Europe, soon to meet the greedy aspirations of an expansive Roman Empire.

By the first century CE, silk gained enough popularity in Rome to attract the consternation of some conservative Romans, who expressed disgust at both the flimsiness of the fabric, which left little to the imagination, and its steep price, which siphoned as much as ten percent of the empire's budget to foreign markets. Cities like Palmyra and Petra, and the Kushan port cities Barbaricum and Barygaza in northern India, grew into bustling trade centers in the booming international trade circulating between Rome and the East.¹⁰

This increasingly intricate international exchange network was the subject of Peter Frankopan's recent ambitious attempt to use the Silk Roads as a medium to shift the global center of gravity eastward and away from traditional Euro-centric frameworks which cast the Mediterranean as the beating heart of international trade.¹¹ While

⁹ Frankopan, 12-13.

¹⁰ Ibid, 18-19.

¹¹ The term "silk road" itself is the creation of a nineteenth German geographer and geologist, Baron Ferdinand von Richthofen, when he surveyed the Steppes to find the best route for a new railroad. For more extensive discussion of the term, its history, and its use in the service of a Eurocentric worldview see: Tamara Chin, "The Invention of the Silk Road, 1877," *Critical Inquiry* 40 no. 1 (Autumn 2013): 194-219. See also: Victor Hair, "Introduction: Reconceptualizing the Silk Roads," in *Reconfiguring the Silk Road*:

Frankopan's sweeping synthesis received criticism for its treatment of more recent historical trends, the author successfully illustrates the extent to which the drive for access to silk and other commodities from the mysterious "other" fueled economic and technological development.

According to Frankopan, the Chinese of the Han dynasty pushed westward in a quest for the horses they needed to maintain control of a rich agricultural basin using their prized silk as currency for tribute and a commodity for exchange.¹² As their silks followed the westward trajectory of conquest, the world beyond the periphery of Han control traded with merchants in the bordering Steppe towns and across mountain passes, receiving silk cloth in exchange for wool, dyestuffs, and precious metals. Trade intensified as the Roman Empire expanded eastward. Newly conquered and annexed peoples became subject to Roman taxes, circulating new wealth through the empire and raising disposable income levels, thereby increasing the percentage of the population who had access to and interest in trade commodities.¹³

The Silk Road's multidirectional system of exchange fluctuated dramatically depending on factors such as political conditions and climate variations. Nevertheless, by the time Constantine moved the seat of imperial power to Byzantium, situated at the crossroads between Europe and Asia, the worlds at either end of the exchange were

New Research on East-West Exchange in Antiquity, edited by Victor M. Hair and Jane Hickman (Philadelphia: University of Pennsylvania Press, 2014), 1.

¹² Frankopan, 10-13 provides more detail on the quest for horses and the use of silk in trade.

¹³ Ibid, 13-18 on the expansion of the tax base in Rome.

inextricably interlocked.¹⁴ With the gaze of the Roman Empire fixed firmly to the east, according to Frankopan's analysis, the cultural legacies of Rome derived from the quest to not simply acquire but conquer and absorb the wealth the early Romans believed lay in wait on the other side of the world.¹⁵

Despite the complaints of some Romans about the wastefulness of luxury consumption among their peers, and concerns about the growing imbalance of trade between Rome and China, by the sixth century CE silk was an important enough commodity in the Byzantine Empire to inspire an alleged act of industrial espionage. According to traditional accounts, two monks, possibly at the behest of Emperor Justinian (r. 527-565), smuggled eggs of the *bombyx mori* silk moth out of an eastern sericulture region into Byzantium.¹⁶ Another tale describes a princess who, sad to leave her beloved homeland with its beautiful silks, smuggled the worms out in her headdress when she left to marry a Khotan king.¹⁷

¹⁴ See also: Debin Ma, "The Great Silk Exchange: How the World was Connected and Developed," in *Pacific Centuries: Pacific and Pacific Rim History since the 16th Century* edited by Dennis O. Flynn, Lionel Frost, and A.J.H. Latham (New York: Routledge Press, 1998), 38-69.

¹⁵ Frankopan, 25-27. Of course, commodities and goods were not all that was exchanged in the vast east-west network of antiquity. The intensification of trade and empire-building in Rome, Persia, and China also coincided with epic political and military struggle between faiths. Frankopan discusses this struggle in great detail in his second chapter, "The Road of Faiths."

¹⁶ Historians have argued over the voracity of contemporary accounts, but the introduction of sericulture appears in the writings of Procopius of Caesarea and Theophanes of Byzantium. See: Jacoby, 198, and Francois Crouzet, *A History of the European Economy, 1000-2000* (Charlottesville: University Press of Virginia, 2001), 25 for further reading.

¹⁷ Michael Loewe, "Spices and Silk: Aspects of World Trade in the First Seven Centuries of the Christian Era," *The Journal of the Royal Asiatic Society of Great Britain and Ireland* no. 2 (1971): 178.

Whatever means by which it arrived in the Byzantine West, sericulture spread slowly, serving only to supplement the insatiable demand for raw silk until about the tenth century.¹⁸ The first several centuries of the Common Era were marked by the growth and dissolution of great empires as well as the spread and intermingling of Judeo-Christian beliefs from the Levantine coast of the Mediterranean, Zoroastrianism from Persia, and Buddhism from India.¹⁹ Spreading through conquest and trade, the new religious movements adopted the material culture of the Silk Road world into their practices. According to cultural historian Liu Xinru, silk, having flowed into Buddhist areas of northwest Asia from the second century BCE, quickly gained importance as a sacred object in Buddhist rituals. As Buddhism spread, thus did the significance of silk.²⁰

¹⁸ Jacoby, 198.

¹⁹ Frankopan, 28-40; Not to downplay the significance of the complex cultural exchanges taking place in this time period, but it would be beyond the scope of the present project to include thorough discussion of the complicated interplay between the dominant Eurasian powers of the first three centuries of the common era: the Roman Empire intact with its capital in Rome until 285; China, which remained under Han dynastic control until the abdication of its last emperor, Lie Xie, in 220CE, which led to a protracted period of destabilization and warfare in the East; and between them Persia, under the Parthian and then the Sasanian dynasties. On the periphery of these three centralized powers were many peoples whose collective organization ranged from tribal nomads, which included many inhabitants of the wild steppe region as well as northern Europe, major city-states such as those in the Xi Yu region of what is now China, which were garrisoned by the Han after the turn of the first century BCE but operated autonomous administrations; and wealthy kingdoms and smaller empires, such as the Kushan Empire which controlled part of the territory into Bactria before being defeated by the Sasanians. The third century proved restless, with the division of the Roman empire, the disintegration of Han China, the conquest of the Parthians by Ardeshir I, who established the Sasanian Empire in its place.

²⁰ Liu Xinru, "Silk and Religions in Eurasa, A.D. 600-1200," *Journal of World History* 6 no. 1 (Spring 1995): 29.

Tang rulers enacted restrictions on the production and trade of certain silks, helping to enforce the sacred value as well as hierarchical symbolism of the fabric.²¹

Christianity, likewise, incorporated silks into its religious practices and iconography. Relics taken from the eastern Byzantine Empire were often carried in pouches made of silks.²² Under the competing rule of Rome and Constantinople, bishops and priests received silks as inducements to come into the fold of one church or the other.²³ Paintings portrayed Christ and the saints draped in silk, and in order to identify themselves with the saints, rulers and priests requested to be buried in silk draperies.²⁴

Further, according to historian Robert Sabatino Lopez, because of silk's significance to the hierarchy of the aristocracy, its use in religious ceremony, and role as currency for paying tribute to foreign churches and states, control of silk and other fine cloth was "almost as powerful a weapon in the hands of the Byzantine Emperor as the possession of such key strategic materials as oil, coal, and iron" for the governments of America or Great Britain in the twentieth century.²⁵ To that end, the emperors of Byzantium enacted powerful protectionist measures, further enforced by the strict control of guilds, which manufactured silk in only a handful of closely situated structures within trade cities, and vigilance over foreign trade traffic, restricting the movement of alien merchants within cities and limiting their stay to no more than three months.²⁶

²¹ Ibid, 30.

²² Ibid, 38.

²³ Ibid, 38-39.

²⁴ Ibid, 39.

²⁵ Roberto Sabatino Lopez, "Silk Industry in the Byzantine Empire," *Speculum* 20 no. 1 (January 1945): 1-4.

²⁶ Ibid, 7, 22.

In both the Buddhist and Christian worlds, even after the introduction of sericulture, silk producers relied on Chinese silk for the best quality fabrics. In the relatively new Islamic world, however, the Arab defeat of the Tangs in 751 and subsequent capture of silk workers unlocked the secret of baking the cocoons to protect the fibers, one of the most closely guarded aspects of Chinese technique.²⁷ The Islamic empire disseminated silk weaving technology throughout its jurisdiction, which by the eighth century stretched from Spain to northern Africa and south of the Mediterranean into Central Asia. Unlike in the Christian world and China, the Islamic world did not typically attach sumptuary laws to the wearing of silk. Even servants could receive silk fabrics as part of their wages. Though few in society could afford to have much of it, and occasional bans against non-Muslims wearing silk arose, the generally lax cultural attitudes toward silk encouraged the industry to flourish creating a new market for silks centered on the Mediterranean.²⁸

Xinru's analysis of the religious impact of silk demonstrates how silk fabrics became absorbed into different cultural traditions, which intermingled with one another over the course of several centuries, simultaneously creating a prestige market for silk, making it desirable among those on the top rungs of society, while allowing the industry to proliferate across new geopolitical and cultural boundaries. Various points of contact, such as Moorish Spain, formerly Fatimid-controlled Sicily under Norman rule, and the establishment of Latin occupation at Antioch, Acre, and Jerusalem by the eleventh

²⁷ Xinru, 42.

²⁸ Ibid, 46.

century, allowed silk's influence to continue to spread rapidly throughout the Mediterranean basin.²⁹

By the eleventh century, the Byzantine Empire, weakened by warfare, debt, and major territorial losses, began releasing the secrets to its silk weaving techniques through a series of commercial treaties with outside entities.³⁰ Venice, an independent city that long operated as the hub of commerce between Byzantium, the larger Mediterranean world, and Western Europe, enjoyed an advantageous position to exploit weakened control of trade as the Normans closed in on imperial territories. Amalfi and Genoa soon received similar privileges and the walls of the empire began to crumble.³¹ In a grab for territory in 1147, the Norman King Roger II of the Kingdom of Sicily captured silk workers from Thebes and forced them to labor in his silk workshops.³² Though the silk industry of Sicily was short-lived, at least one historian has asserted that it was responsible for the importation of silk manufacturing skills to Lucca, where the first truly commercial silk industry established a permanent presence on the Italian peninsula.³³

Despite some major advances, several more centuries elapsed between the introduction of silk weaving and sericulture to the Byzantine Empire and the establishment of any European silk enterprises of consequence. As sericulture and weaving slowly developed, European luxury goods markets remained entirely dependent

²⁹ Ibid, 46.

³⁰ Lopez, 28-45 provides detailed descriptions of the commercial treaties and their impact on the silk industry.

³¹ Ibid, 40.

³² Ibid, 24; David Abulafia, "The Crown and Economy under Roger II and his Successors," *Dumbarton Oaks Papers* 37 (1983): 8.

³³ C. Meek, "The Trade and Industry of Lucca in the Fourteenth Century," *Historical Studies* VI, ed. T.W. Moody (London: 1968): 41-42, quoted in Abulafia, 8.

on outside sources for raw silk and fabrics until the tenth century, by which time commercial sericulture had become a seasonal activity of family-based production units in the hinterlands.³⁴ Simultaneously, silk weaving on the other side of the Mediterranean began to develop and become embedded in the Islamic culture of the Middle East and northern Africa. By the eleventh century, farmers in Sicily, southern Italy, and the Levant mastered sericulture, further reducing the overall dependence on Chinese silk among the markets and power structures of the growing Mediterranean world.³⁵

Debin Ma has described the spread of silk via the Silk Road in several phases. In the first phase, Chinese silk maintained absolute dominance until the sixth century when the secrets of sericulture made their way into Persia and Byzantium. The peak of trade for this period was disrupted by the destabilization of the Han, Parthian, and Kushan powers in the third and fourth centuries, after which time silk became an even more precious trade commodity as its cultural significance grew but the supply became less consistent.³⁶

A second phase, marked by the rise of the Tang dynasty, witnessed the gradual rise of import substitution through the growth of the Persian and Byzantine silk weaving industries. This phase also coincided with the eastward spread of Islam, which in turn became a driving force behind an explosive growth of silk trade in the Mediterranean.³⁷ As Islam grew, the Tang dynasty weakened, eventually losing control of the important western regions through which much of the silk trade had to pass. The Chinese silk

³⁴ Jacoby, 198-199; Maniatis, 265.

³⁵ Loewe 178; Crouzet, 25; Jacoby, 199.

³⁶ Ma, 4-6

³⁷ Ibid, 6-7.

industry migrated south in response, leading to an intensification of maritime trade, but Chinese dominance in the silk trade received a devastating blow when Arab forces captured Chinese silk workers, giving the rapidly expanding Islamic world access to some of the most closely guarded secrets of the craft.³⁸

Under the Mongol Empire, in the thirteenth century, silk trade reinvigorated in a third phase of extensive Silk Road activity. Mongol rulers maintained rigid control over trade routes and exchange systems in the vast lands under their jurisdiction, allowing easier passage of goods and people between East and West.³⁹ By the fourteenth century, however, the Mongols had overextended their power and ultimately failed to maintain control over the important western territories. Persia, especially the Levant, emerged as the most important exporter of raw silk with the Ottomans taking the place of the Mongols as the guardians and gatekeepers of trade networks, while sericulture and silk weaving continued to grow in Spain and Italy, probably further stimulated through the cultural exchange generated by the Crusades.⁴⁰

In the late Middle Ages, displaced silk workers from Arab, Greek, and Jewish backgrounds settled in, or were forcibly displaced to, Italy.⁴¹ By the twelfth century, the city of Lucca in the Tuscan region of Italy fostered a silk weaving industry alongside its older wool industry.⁴² Lucchese silk merchants appeared at Champagne fairs by the end

³⁸ Ibid, 6.

³⁹ Ibid, 7.

⁴⁰ Ibid, 9.

⁴¹ Luca Mola, *The Silk Industry of Renaissance Venice* (Baltimore, MD: Johns Hopkins University Press, 2000), 3.

⁴² Richard Goldthwaite, *The Economy of Renaissance Florence* (Baltimore, MD: Johns Hopkins University Press, 2009), 19.

of the century, and soon developed sophisticated banking mechanisms and hired outside agents to attend fairs while maintaining stationary offices. Genoa, Venice, and Bologna also produced for export to a lesser degree, and other cities, like Milan, boasted small artisan silk producers as well.⁴³ Beginning with the expulsion of three hundred Guelph families in 1314, followed by a period of political instability under the rule of Castruccio Catracani (1316-1328), silk workers from Lucca migrated across northern Italy, taking their crafts with them. By the fifteenth century, supported by the growing power of the church and the Italian banking fortunes it had helped build, the silk industry, both sericulture and weaving, was an important economic activity in many Italian urban areas throughout the peninsula.⁴⁴

As the silk industry grew in Italy, it gave rise to new organizations of labor and capital. In a 1980 article, Jere Cohen used the silk industry as evidence of pre-Reformation industrial capitalism due to its high level of mechanization, the capitalist-entrepreneurship of the industry, and its economic significance in many urban areas of Renaissance Italy.⁴⁵ Similarly, Richard Goldthwaite attributed to silk a position of high importance in the development of the Italian banks that drove much of the Renaissance economy, due in no small part to the relationship between silk and the church.⁴⁶ Powerful

⁴³ Ibid, 20.

⁴⁴ Mola, 4.

⁴⁵ Jere Cohen, "Rational Capitalism in Renaissance Italy," *American Journal of Sociology* 85 no. 6 (May 1980): 1341.

⁴⁶ Goldthwaite, 19-20.

guilds, civic control of industry, and international cartels also grew around the silk industry of Renaissance Italy.⁴⁷

From Italy, silk manufacturing and sericulture continued to spread through the continent. Italian silks now circulated around Europe through an extensive network of regional trade fairs. The first of these grew at four cities in the Champagne region, which declined after the opening of a maritime route to northern Europe, giving way to a broader network of smaller fairs. Among these was the former Roman outpost of Lyon. The Lyonnaise fairs attracted Italian bankers and merchants from manufacturing centers such as Genoa, Lucca, Florence and Milan who exercised monopolistic control over the silk industry. When an émigré silk worker from Lucca settled in Lyon in 1514 and began producing small amounts of silk, for instance, the city's Lucchese merchants threatened him into submission, restricting his ability to perform his craft.⁴⁸

According to historian Luca Mola, the popularity of silk at the fairs inspired several attempts to establish a French silk industry. In the mid-fifteenth century, migrant Italian workers established the first successful silk industry at Avignon, which soon gave rise to support production at Orange, Carpentras, and Nîmes.⁴⁹ In 1466, Louis XI gave his support to a silk production shop in Lyon under the supervision of a Genoese entrepreneur. Due to opposition from Lyonese merchants, the operation moved to Tours

⁴⁷ See: Thomas W. Blomquist, "Commercial Associations in Thirteenth Century Lucca," *Business History Review* 45 no. 2 (Summer 1971): 157-178; Paola M. Piergiovanni, "Technological Typologies and Economic Organization of Silk Workers in Italy from the XIVth to the XVIIIth Centuries," *Journal of European Economic History* 22 no. 3 (December 1993): 543-564.

⁴⁸ Mola, 46.

⁴⁹ Ibid, 22.

by 1470, where apprentices from the French countryside supplemented the largely Genoan workforce. In the sixteenth century, as Lyon's prominence as a clearing fair declined, Piedmontese entrepreneur Stefano Turchetta obtained a letter of patent and established the Lyonese silk industry, encouraging a network of weaving that included Vienne and Dauphine to provide semi-finished product to the Lyonese shops.⁵⁰

The expansion of the silk industry into western and northern Europe continued throughout the Early Modern period, coinciding with the "waning of the Mediterranean," as described by Faruk Tabak, and the rise of the Atlantic world.⁵¹ While early silk manufacturing largely revolved around urban centers such as Lucca, Genoa, Milan, and Venice, rural cottage industry, such as that at Geneva, also began to develop during this early modern phase of growth.⁵² As in other textile industries, urban entrepreneurs who controlled the capital and access to materials "put out" work to a network of often family-based rural shops who participated in specific parts of the production process. This ruralization, or *verlagsystemm*, is the primary basis of a large body of literature concerned with "proto-industrialization," a term coined by Frederick Mendels to describe the transition in Europe toward market-oriented production.⁵³

Though, as demonstrated by the discussion above, the view of pre-modern Europe as somehow pre-market is largely erroneous, the incursion of production and wage work into the agricultural lands of the countryside points to a spread of a cash-based economy

⁵⁰ Ibid, 23.

⁵¹ See: Faruk Tabak, *The Waning of the Mediterranean, 1550-1870*, (Baltimore, MD: Johns Hopkins University Press, 2008).

⁵² Tabak, 70.

⁵³ See: Shelaigh Ogilvie, "Proto-industrialization in Europe," *Continuity and Change* 8 no. 2 (August 1993): 159-179.

in place of older forms of currency and exchange. As observed by Fernand Braudel in his classic study, *The Structures of Everyday Life*, money as a system of exchange “only becomes established where men need it and can bear the cost.”⁵⁴ While urban dwellers had long relied on some form of exchange currency to acquire food from the hinterlands, little of the cash spent on food goods made its way, at least in any permanent sense, to the hands of the peasants who produced it. The vast majority of rural people had little control over the products of their labor and lived at or just above subsistence. In many regions, peasants worked the land for a lord or seigneur who might control the marketing of the agricultural products or take rent in the form of cash payment. After the seigneur, the church also required a tithe, and, in most places by the early modern period, the state exacted tax, which was to come out of any surplus.⁵⁵

Various systems of “credit” using paper notes or some other substitute in place of bullion arose when needed, such as the sophisticated debt clearing mechanisms that Genoese bankers developed at the Lyon, and later Besançon, fairs in the sixteenth century.⁵⁶ Though the debts cleared at the fairs were generally larger debts held by the capitalist-entrepreneurs who directly participated in the external market system and differed from the simpler forms of exchange in the countryside, the debt of peasants was sometimes a direct reflection of external market conditions. For instance, the devastating

⁵⁴ Fernand Braudel, *The Structures of Everyday Life: The Limits of the Possible*, English translation (New York: Harper and Row, 1981), 439.

⁵⁵ Ibid, 436-478 for more extensive discussion of money in early modern European economy.

⁵⁶ See: Lars Borner and John William Hatfield, “The Economics of Debt Clearing Mechanisms,” School of Business and Economics Discussion Paper: Economics no. 27 (2010) for further discussion.

fiscal ramifications of a costly war between Spain and France in the sixteenth century led to a dramatic increase in taxation and a greater need for wage labor, while at the same time crop failures and subsequent subsistence crises decreased the opportunity cost for desperate workers.⁵⁷

The nature of exchange and production systems prior to modern “capitalism” was often unselfconsciously capitalistic, as shown by the practices of Italian merchants of the Renaissance. While the crown played a role in silk production in France from early days, in neighboring Germany, according to Louis L. Schorsch’s analysis from a 1980 article, a different relationship between capitalists and the state developed. Using the example of the *verlagssystem* of the seventeenth century silk industry at Krefeld in the Rhine region, Schorsch argued that the relationship between the producers and the “putter-out” were essentially capitalistic. The producers, or laborers, had no ownership of the means of production, while the entrepreneur monopolized control of materials and machinery, with monopoly privileges granted by the state and a labor hierarchy reminiscent of the guild system.⁵⁸ Though the immigrant masters of production did not necessarily have upward mobility within this system, and centralized production did not materialize as a result of silk manufacture, the labor savings provided by the *verlagssystem*, in which families

⁵⁷ Steven Gunn provides a digestible overview of this complicated process in his chapter “War, Religion, and the State,” in *Early Modern Europe: An Oxford History*, edited by Euan Cameron (Oxford: Oxford University Press, 2001), 102-133. See also: Tabak, 136-137 on ruralization of industry.

⁵⁸ Louis L. Schorsch, “Direct Producers and the Rise of the Factory System,” *Science & Society* 44 no. 4 (Winter 1980/1981): 430-431.

supplemented their subsistence with a modest income from piecework, reflects a familiar trend toward reducing labor costs to increase profitability.⁵⁹

In many early modern European manufacturing regions, access to land played a role in the rise and efficacy of industrial and proto-industrial activities. The example of the Catalan region of Spain in the early eighteenth century is illustrative of the relationship between agriculture and early industry. As described by Julie Marfany in a recent study, commercial textile production tended to take hold in areas where either poor soil quality made subsistence agriculture difficult or large-scale commercial production of cereal grains or viticulture limited peasants' access to farmable land. In these areas, according to Marfany, the low opportunity cost to workers made paid work in textile production a more attractive, perhaps necessary, pursuit.⁶⁰

Alongside the growth of this rural system of labor, the Levant region, which had been a primary supplier of raw silk, shifted its focus to cotton while mulberry cultivation and sericulture spread up through the Po valley as well as into Spain providing new, closer sources of raw silk to the growing rural industry.⁶¹ Orchestration of the different pieces of the silk manufacturing process, from moriculture (the cultivation of mulberry trees) to sericulture (the cultivation of the worm that feeds on the mulberry tree) to throwing, weaving, and dyeing of fabrics thus followed a trajectory, possibly due to its antiquity, that differed from that of other textile industries and produced different results.

⁵⁹ Ibid, 431.

⁶⁰ Julie Marfany, "Is it Still Helpful to Talk about Proto-Industrialization? Some Suggestions from a Catalan Case Study," *Economic History Review* 64 no. 4 (2010): 948.

⁶¹ Ibid, 113.

Making its way across the Eurasian continent and the Mediterranean, into Western Europe and northern Africa, and finally across the Atlantic, the silk industry first grew as an island industry, with all parts of its manufacture in close spatial relation. Once Byzantine and, later, Northern Italian artisans and entrepreneurs developed means of working with the raw materials, thereby decreasing transportation cost and increasing market profitability of finished goods, silk manufacture became deeply embedded into the urban economies of growing city-states and gave rise to a powerful merchant class wherever it went. In the early modern era, merchants and sometimes landlords attempted to exert greater control over labor by removing parts of the manufacturing process from the guild-dominated urban centers and into rural areas, extending the reach of silk's economic and cultural impact into the hinterlands.

By the end of the seventeenth century, European dependence on Eastern silk had declined dramatically. Murat Cizakca's case study of industrial decline in Ottoman Bursa demonstrates a number of trends that led to the decline of east-west trading and the growing imbalance of payments between Western Europe and the East. First, a series of Ottoman-Persian wars disrupted supply chains between Bursa and the raw material supplies of Iran.⁶² Around the same time, the spread of a new invention caused price stagnation in Turkish cloth but a price increase on raw silk. A new hydraulic mill capable of producing the sought-after warp thread of the Bolognese handicraft spread through the northern Italian silk industry and possibly into England and the Low Countries from an

⁶² Murat Cizakca, "Price History and the Bursa Silk Industry: A Study in Ottoman Industrial Decline, 1550-1650," *Journal of Economic History* 40 no. 3 (September 1980): 538.

early date, as well, based on import data.⁶³ Cizakca argued that the spread of the new technology through Europe, but not into Bursa, coupled with the extensive use of the labor cost-reducing putting-out system in European manufacturing and unfavorable exchange rates of depressed Ottoman currency against the wealth of British and Dutch superpowers contributed to a decline of Bursa's position in the international silk trade by 1650. A growing income gap further exacerbated the relative decline of Bursa's trade position, with a wealthy few consuming larger quantities of expensive imports and an increasingly impoverished populace unable to afford even the cheapest textiles.⁶⁴

Around the same time that techniques and technology for sericulture and silk weaving were making their way into the continental interior, an intellectual revolution was also beginning to stir, culminating in a phenomenon commonly referred to as the "Scientific Revolution." Generally accepted as having begun with the proposal of a heliocentric universe, put forth by Nicholas Copernicus in 1543, the Scientific Revolution represented a reorientation of man toward the natural world. As historians James E. McClendon III and Harold Dorn graphically described, "The notion that nature was subject to human dominion possessed biblical authority and was already operative in the Middle Ages. But a distinctive imagery of the violent rape and torture of nature as an aspect of scientific practice came to the fore in seventeenth century thought on these matters."⁶⁵

⁶³ Ibid, 540-541. For more on the hydraulic mill and its spread, see also: Mola, 190-191.

⁶⁴ Cizakca, 543.

⁶⁵ Harold Dorn and James E. McClellan III, *Science and Technology in World History: An Introduction* 2nd edition (Baltimore, MD: Johns Hopkins University Press, 2006), 247.

While a thorough discussion of the intellectual innovations and implications of the Scientific Revolution is beyond the project at hand, a few key features are of particular relevance. First, there is the birth of a network of societies and organizations devoted to a collaborative process of intellectual interchange and dissemination, including the French Royal Academy of Sciences and the Royal Society of London.⁶⁶ Activities of these societies included the development of new investigative methodologies and new instruments to aid in such investigations, most of which were devoted to gaining a deeper understanding of the natural world and the bounty of God.⁶⁷ Out of these ventures, new instruments and their uses spread throughout the intellectual elite, and a preoccupation with the newly visible microscopic world arose.⁶⁸ Simultaneously, some members of the new scientific community became concerned with practical applications for scientific methodologies and discoveries, and numerous labor-

⁶⁶ Margaret C. Jacobs, *Scientific Culture and the Making of the Industrial West* (Oxford: Oxford University Press, 1997).

⁶⁷ With church clergy of the late medieval and early modern period possessing the greatest access to books, the new science grew largely out of scholastic circles. Though science and religion frequently found themselves at odds, as in the case of Galileo, other natural philosophers like Descartes and Francis Bacon articulated a new philosophy of the world in Protestant terms. For Bacon, especially, the sciences belonged to Divine Providence as part of man's eternal quest to become closer to God. Ibid, 28-33. See also: Robin Briggs, "Embattled Faiths: Religion and Natural Philosophy in the Seventeenth Century," in Cameron, 171-205.

⁶⁸ The microscope had first been suggested by an English philosopher in the thirteenth century but the new sciences of the seventeenth century gave new impetus to the use of lenses to see the microscopic world. See: Clara Sue Ball, "The Early History of the Compound Microscope," *Bios* 37 no. 2 (May 1966): 51-60.

saving devices and inventions for improving manufacture were suggested, though rarely adopted.⁶⁹

In this climate, Robert Hooke, an artist-turned-scientist who is credited with the first accurate description of cellular structure using a compound microscope, first proposed that a silk-like substance could be made artificially. In *Micrographia*, first published in 1665, Hooke used the eye of an artist and engraver to describe and draw the structure of substances viewed under a microscope.⁷⁰ Among his multitude of projects, Hooke undertook a careful study of the properties of various fibers. Upon microscopic examination of silk, Hooke declared that silk seemed to be little more than a “dried thread of Glew [*sic*]” that “may be suppos’d to be very easily relaxt, and softened” by treatment with a liquid. Hooke suggested that he had seen an “artificial substance” that, when kept in water, closely resembled silk. He further proposed that:

....[*sic*]probably there may be a way found out, to make an artificial glutinous composition, much resembling, if not full as good, nay better, then that Excrement, or whatever other substance it be out of which, the Silk-worm wire draws his clew. If such composition were found, it were certainly an easie matter to find very quick ways of drawing it out into small wires for use.⁷¹

⁶⁹ According Jacobs, 113, though the Royal Society of London discussed the potential advantages of labor-saving devices as early as the 1680s, authorities rarely granted patent rights for technology that threatened to reduce work for the poor.

⁷⁰ Meghan C. Doherty, “Discovering the ‘True Form’: Hooke’s *Micrographia* and the Visual Vocabulary of Engraved Portraits,” *Notes and Records of the Royal Society of London* 66 no. 3 (20 September, 2012): 211-234 provides discussion of how Hooke’s background in art informed how he saw the microscopic world and how his visualization differed from that of his peers.

⁷¹ Robert Hooke, *Micrographia* (1665; repr., Mineola, NY: Dover Publications, 2003), 7.

In the seventeenth century, artisans working in the silk industry were unlikely to have heard of Hooke's novel proposal, and even less likely to imagine any impetus for its use. For several generations, experimentation and theorization of alternative methods of silk-making remained the purview of natural philosophers, but the silk industry continued to flourish in certain regions of Europe. By the eighteenth century, the extent of silk manufacturing and sericulture in both urban and rural areas was widespread and fully global. Spain successfully transported its silk industry to its colonies in Mexico, while James I of England, with less success, attempted to establish sericulture and silk production in the New World colonies of Georgia, Virginia, and South Carolina.⁷² While the extent of the industry detracted some from the importance of the older centers of production, specialization and adaptability ensured the survival of significant industries at Milan, Lyon, and the Rhine region.⁷³

While the finished products of each region of early production typically began as imitations meant for import substitution, as the industry grew each new manufacturing region developed its own distinct processes and motifs. Increased specialization led to increased competition, and the putting-out system helped merchants control the flow of capital while incorporating the hinterlands into this luxury craft, supplementing family incomes while maintaining family structures and fitting easily into the agricultural production cycle. Export and international trade fairs spread the desire for silk, while

⁷² On Spanish silk in the New World, see: Ben Marsh, "The Republic's New Clothes: Making Silk in the Antebellum United States," *Agricultural History* 86 no. 4 (Fall 2012): 206-234.

⁷³ Debin Ma, "The Modern Silk Road: The Global Raw-Silk Market, 1850-1930," *Journal of Economic History* 56 no. 2 (June 1996): 330-355.

merchant entrepreneurs continually innovated ways to make the fabric more profitable. Using an adept mixture of secrecy and dissemination, threats and patents, silk merchants became manufacturers, and manufacturers became capitalists. Urban guilds sometimes became powerful enough to drive capital into the countryside where cheaper labor could be found, but the urban industry never fully disappeared, and the rural cottage industry and larger urban manufacturers coexisted throughout much of the early modern period.

The long-term ramifications of silk's influence on the elite and the choices they made about trade, war, and exploration, as well as the unintended consequences of cultural exchange, are beyond the scope of this study. However, the antiquity of silk's role in trade and exchange, and the power of the elite's desire to obtain easy access to it, is part of a larger story about the human conquest of nature and, within modern industrial capitalism, the ultimate drive to free humanity from the vagaries of natural forces. The east-to-west movement of silk and the cultural and economic changes it left in its wake expanded out of the so-called "Far East," through the Steppes, and into the Roman and then Byzantine Empire, driving the formation of world systems and global trade structures upon which modern capitalism would come to be based.

As the ancient empires weakened and disintegrated and the power of independent nation-states grew in the middle ages, the skills of an increasingly mobile people in a newly forming "Europe" began to spread more rapidly. The growth and eventual decline of financial centers and maritime brawn in Northern Italy, as cities like Venice and Genoa served as gateways to Europe for Byzantine and Levantine silks and luxury goods, while woolen cloth, linen, and specie made their way south and east from Europe. In order to facilitate long distance transport and exchange of goods, certain cities gained

designation as the centers of trade fairs, meeting places where merchants brought goods from every direction for redistribution through the international markets, further spreading the popularity of silk north and west from the Mediterranean. States and merchants alike rushed to profit from the manufacture of silk, reduce dependency on and competition with foreign producers, and gain control of a fabric with secular and religious symbolic significance. Developing new techniques and technologies helped distinguish each production regions' products and specialization allowed adaptable producers and merchants to stay afloat in the face of industry proliferation, political instability, and, sometimes, natural disaster.

The intent of the above discussion is not to attempt a full description of all of the forces at work on and impacted by the international silk trade. Rather, the purpose is to sketch the rough outlines of the map of silk developments up to the threshold of the modern era and to introduce the major concepts relevant to the economic role silk would come to play by the end of the nineteenth century. By the 1860s, fueled by the growing middle class that grew out of the Industrial Revolution, silk's economic importance in some parts of Europe surpassed that of cotton or wool, the common textiles usually associated with widespread industrial capitalism. Sericulture and silk weaving in southern France, Spain, and northern Italy provided jobs for thousands of workers and, though Syria and China still out-produced the European powers in raw output, it was the fabrics and haberdasherie of Lyon, Milan, Antwerp, Barcelona, and Essex that had become the most sought-after in consumer markets.⁷⁴

⁷⁴ On the importance of the silk industry to regional economies: Marjorie MacDill, "Saving the French Silk Industry," *The Science Newsletter* 16 no. 441

In the 1860s, a devastating epidemic swept through silkworm crops of Europe. Producers frantically reached out to the Levant, northern Africa, and even California in search of worms. The French crown hired Louis Pasteur to investigate the cause of the disease and spent fortunes in an effort to rescue the industry. In this climate, with such a pervasive threat to sericulture throughout the world, a few enterprising chemists began a new quest. Rather than seeking new sources of silkworms, or their food, or curing their disease, was it possible, as proposed by Robert Hooke 200 years prior, to eliminate nature and its vagaries altogether?

(September 21, 1929): 173-175; "Silk and Silk Weavers," *The Illustrated Magazine of Art* 1 no. 6 (1853): 342-343; Timothy B. Smith, "Public Assistance and Labor Supply in Nineteenth Century Lyon," *Journal of Modern History* 68 no. 1 (March 1996): 1-30 discusses the impact of the silk industry's fluctuations on employment in the region. On specialization and the shifting global division of labor in the silk industry, see: Ma, "The Modern Silk Road," 352-353.

CHAPTER II

THE RISE OF ARTIFICIAL SILK AND THE MODERN RAYON INDUSTRY

Because the emergence of substitutes seems typically to symbolize the human conquest of nature, man's probing into the essence of things so as to tame them to his will, the procedure of substitution is sometimes presented as a conscious search blessed by triumphant outcome. The romantic struggling hero aided by the whims of chance, who once dominated the folk-tales of this branch of human endeavor, has been replaced by a search for substitutes promoted by cost-conscious economic man.

- D.C. Coleman, in *Courtaulds: An Economic and Social History* v. 1

By the middle of the nineteenth century, inventors were experimenting with techniques of manipulating familiar substances to create substitutes for natural materials, including silk. Although in many cases curiosity more than practically drove the pursuit of the new sciences, chemists and engineers soon found themselves solving real-world problems in ways that had dramatic impacts on the cultural landscape. New industrial endeavors, informed by formally trained scientists, fostered a new experience of the material world for industrial workers and consumers alike.

Friedrich Gottlob Keller, a weaver by trade, produced a machine to make wood pulp for the paper industry in the early 1840s, while around the same time Louis Schwabe experimented with drawing substances through fine holes to create threads and

filaments.¹ In 1844, John Mercer, who worked as a calico printer in Lancashire, England, began experimenting on the reactive qualities between textile fibers and various alkaline substances and found that when he exposed cotton fibers to a caustic soda mixture, the threads contracted and the specific gravity of the solution, filtered through the fabric, diminished. He attributed the change in specific gravity to a chemical combination between the alkali of the soda and the cellulose in the material, and called the process “mercerization.”² Mercerization, in turn, became the basis for the production of artificial silk as later scientists built on the work of Keller, Schwabe, Mercer, and others to create synthetic fabrics out of organic materials by generating a chemical reaction between cellulose, found naturally in all plant matter, and different reactive substances.³

By the middle of the 1850s, the silk industry of southern France employed around 300,000 people. In the 1860s, an epidemic struck the region’s *bombyx mori* population, causing a decline in raw silk production from 26 million kilograms at its peak to less than seven million during the blight.⁴ In response to the grave economic threat posed by the pebrine epidemic, the French government hired Louis Pasteur to find a cure. Meanwhile, Louis-Marie-Hilaire Bernigaud de Grange, Comte de Chardonnet (hereafter referred to as

¹ Lothar Müllar, trans. Jessica Spengler, *White Magic: The Age of Paper* (Cambridge, UK: Polity, 2014), 183; Peter R. Lord, *Handbook of Yarn Production: Technology, Science, and Economics* (Cambridge, UK: Woodhead, 2003), 4.

² Joseph Foltzer, *Artificial Silk and its Manufacture* (London: Sir Isaac Pittman and Sons, 1926), 7-8.

³ See Foltzer, 2-19 for a detailed description of mercerization.

⁴ Jean-Marie Michel, “Contribution à l’histoire industrielle des polymers en France: Les Applications Textile: Chardonnet et la Premier Textile Artificiel,” Société Chimique de France, https://www.societechimiquedefrance.fr/IMG/pdf/a_1_330_000.vfx2_sav.pdf (Accessed October 20, 2017): 2.

Chardonnet) who had migrated to Spain with the exiled Bourbons and their supporters, returned to southern France on orders from the Comte de Chambord, the “Pretender King,” to work on the problem.⁵

Born in 1839 in the Franche-Comte commune of Besançon, Chardonnet descended from a Lyonnaise merchant family who were granted noble status during the Bourbon Restoration for loyalty to the crown during the French Revolution.⁶ Chardonnet graduated from l’Ecole Polytechnic in 1861 before joining the exiled Bourbons in Spain. When he returned to France in 1865, he studied the silkworm crops of Henri de Ruolz, an inventor whose work Chardonnet had long admired. There he met Ruolz’s niece, Marie-Antoinette Camille, whom he married shortly thereafter, connecting his own fortunes directly to that of the silk industry.⁷

Two major developments sprung from Pasteur and Chardonnet’s studies of the *bombyx mori*. For Pasteur, who focused his efforts on curing the disease, the discovery of the microscopic organisms that caused the blight led to his articulation of pathogens as the cause of disease, allowing major advances in sanitation and disease prevention.⁸ Chardonnet, however, made careful study of how the silkworms made their silk in hopes of finding a way to circumvent the silkworms, the mulberry trees, and the forces of nature to which they were subject.⁹

⁵ Auguste Demoment, *Un Grand Inventeur le Comte de Chardonnet* (Paris: La Colombe, 1953), 37.

⁶ Ibid, 16.

⁷ Ibid, 40-41.

⁸ Antonin Cadeddu, “The Heuristic Function of ‘Error’ in the Scientific Methodology of Louis Pasteur: The Case of the Silkworm Diseases,” *History and Philosophy of the Life Sciences* vol. 22, no. 1 (2000): 3-28.

⁹ Michel, 2-3.

The basic premise of Chardonnet's experimentation, based on his study of the *Bombyx mori* and their threads, was that the caterpillar would eat the leaves of the mulberry tree, long known to be vital to the sericulture industry, digest the cellulose, and regurgitate the dissolved and reconstituted cellulosic material through tiny "spinneret" glands. By forcing cellulose dissolved in nitric acid, a formula for making the explosive material known as "guncotton," through a tiny orifice into a coagulating fluid, a process developed and patented in 1883 by Joseph Swan for manufacturing light bulb filaments, Chardonnet managed to create a semi-synthetic fiber that closely mimicked the properties of silk.¹⁰ He patented the process in 1884 and displayed his materials at the Paris World Exhibition of 1889.¹¹ In December of 1890, J.B. Weibel, who operated a wood pulp grinding factory at Novillars, seven miles northwest of Besançon, registered the Société Anonyme pour la Fabrication de la Soie Chardonnet with a capital investment of six million francs. The factory, built in the bend of the Le Doubs River near the site of an ancient citadel, Les Pres de Vaux, commenced operation on June 1, 1892, and began generating profit by 1898.¹² By the early twentieth century, industrialists throughout France as well as Switzerland, Germany, Russia, England, and Belgium had purchased the rights to Chardonnet's process.¹³

Like its invention, rooted in the need to supplement or replace an existing textile industry, some of the new manufacturers were located near older manufacturing centers,

¹⁰ Wheeler, E. *The Manufacture of Artificial Silk* (New York: D. Van Nostrand Company, 1931), 3-5; 75-81.

¹¹ Michel, 3, 6.

¹² Ibid, 6-7.

¹³ Ibid, 8.

as well. For instance, one set of Belgian industrialists constructed a facility at Tubize, Belgium, a town situated just inside the Wallonian border from Flanders, a region known for centuries as an important textile-manufacturing center.¹⁴ In 1920, in order to bypass protectionist tariffs and reach American consumers, the Belgian company, Fabrique de Soie Artificielle de Tubize, partnered with American investors to establish the Tubize Artificial Silk Company of America and installed a manufacturing facility at a former DuPont guncotton plant in Hopewell, Virginia, which became the largest manufacturer of its kind in the United States.¹⁵

Once Chardonnet's artificial silk established the potential market for a silk-like fiber, other scientists began seeking new and improved methods of production. In 1890, with construction on Chardonnet's new factory still underway, French chemist Henri Despleissis announced that he had discovered a new method for making artificial silk by dissolving the cellulose of cotton, treated with soda and sodium carbonate, in ammoniacal copper oxide.¹⁶ Based on the 1857 discovery by Swiss chemist Eduard Schweizer that cellulosic materials dissolved at room temperature in a cuprammonium solution, a compound formed by the addition of ammonia to copper salts, Despleissis' patent was the first formula for manufacturing artificial silk fibers directly from dissolved cellulose,

¹⁴ Paul David Blanc, *Fake Silk: The Lethal History of Viscose Rayon* (New Haven, CT: Yale University Press, 2016), 113.

¹⁵ Tubize Rayon Corporation, *Tubize Rayon Corporation Digest vol. 1, 1923-1944*.

¹⁶ Foltzer, 31-33.

rather than a cellulosic compound. By 1892, the patent had lapsed due to non-payment, and Despeissis never saw the production of his formula beyond laboratory scale.¹⁷

While Schweizer's fiber experiments originated in service of perfecting the electric light bulb, Despeissis articulated its potential as a means of synthesizing silky threads for mass production.¹⁸ Several years later, another group of chemists revived Despeissis' ill-fated patent and formed the manufacturing firm Vereinigte Glanzstoff-Fabriken AG (VGF). While the VGF formula, in commercial production by early 1900, achieved some success, a new competitor, J.P. Bemberg, gained the upper hand upon development of a new "stretch spinning" process in 1902, allowing them to manufacture much finer threads using a cuprammonium formula.¹⁹ In 1907, however, a German court ruled that the Bemberg patent violated one held by VGF, and forced the two companies to amalgamate. Thereafter, the Bemberg plants produced cuprammonium while the VGF facilities began making a newly developed "viscose" artificial silk.²⁰ In 1925, Bemberg joined what historian Mira Wilkins has termed the "rayon rush" to America, establishing a new manufacturing facility in the Southern Appalachian town of Elizabethton, Tennessee, which began production in 1927.²¹

A third method of producing man-made silk came to the rescue of a long-established British silk firm, Courtaulds, after researchers C.F. Cross and E.J. Bevan set

¹⁷ Calvin Woodings, ed., *Regenerated Cellulosic Fibers* (Cambridge, UK: Woodhead Publishing, 2001), 88-89.

¹⁸ Ibid, 4-5.

¹⁹ Woodings, 95-96.

²⁰ Ibid, 97.

²¹ Robert E. Hussey and Philip C. Scherer, Jr., "The Rayon Industry in the South," *Journal of Chemical Education* 7 no. 10 (October 1930): 2356.

out to find a faster, cheaper way to break down wood pulp for paper manufacturing. Having formed a partnership in the early 1880s, Bevan and Cross began research on cellulose, the basic building block of plant matter, for the paper industry.²² To that end, in 1885 the two established a consulting partnership and laboratory to test the reaction of cellulosic material from different plants to treatment in various chemicals. In 1892, Cross and Bevan, along with Clayton Beadle, first discovered a method of making a soluble form of cellulose by treating plant matter with aqueous caustic soda and carbon bisulphide. They named the resulting liquid “viscose.” When projected into a bath of ammonium sulphate or, later, sulfuric acid, and then treated to remove the sulfur, the liquid turned into a fiber of regenerated cellulose.²³ Improvements made to the process by C.H. Stearns, a former collaborator of Joseph Swan, who was seeking a better material for the production of electric light bulb filaments, and finally, in 1902, by the invention of

²² Having overcome the population crises of the pre-modern era, the booming population of England in the late nineteenth century was also far more literate than prior generations. Using signatures in marriage registers as evidence of at least rudimentary literacy among adult males, historian Lawrence Stone concluded that between 1642 and 1900, the baseline literacy rate increased in the adult male population from around 25% to 97%. Though an imperfect statistic, as Stone himself admits, it no less reflects that there was an appreciable increase in the proportion of the growing population who were able to read and write, a rate further bolstered by the creation of government-sponsored education in 1870 and the rise of compulsory education throughout the remaining decades of the nineteenth century. A side-effect of expanded literacy and standardized education was an increase in demand for paper, leading the industry to seek cheaper, faster means of production and more efficient ways of utilizing raw material. Lawrence Stone, “Literacy and Education in England, 1640-1900,” *Past and Present* 42 (February 1969): 120; for more on the growth of mass education in England, see: David Wardle, *English Popular Education. 1780-1970* 2nd edition (Cambridge: Cambridge University Press, 1976).

²³ E.F. Armstrong, “Charles Frederick Cross, 1855-1935,” *Obituary Notices of Fellows of the Royal Society* 1 no. 4 (December 1935): 460.

a centrifugal spinning pot by C.F. Topham, made possible commercial production of artificial silk made from viscose fibers.²⁴

George Courtauld, a descendent of French Huguenot refugees who fled to England after the 1685 revocation of the Edict of Nante, went to work as an apprentice in a silk throwing shop about the age of 14. Though the Courtaulds had been silversmiths for generations, George's mother, Louise Perine Ogier, was the daughter of a silk thrower and merchant from Poitou, and sent her son to work for her nephew in the family business.²⁵ Sometime around the turn of the nineteenth century, George established a water-powered silk throwing mill and worker cottages at Pebmarsh before removing to the larger Essex town of Braintree in 1809, where he built a much more extensive production facility and worker housing in partnership with a London merchant.²⁶ After

²⁴ Jesse William Markham, *Competition in the Rayon Industry* (Cambridge, MA: Harvard University Press, 1952), 8-9. The viscose substance was also used as a coating or filler in industries such as calico, artificial leather, and artificial flowers. See: Woodings, 6.

²⁵ It is unclear whether Peter's father, Isaac, also came from silk crafts or the tradition was handed down from his maternal grandfather. Herbert H. Sturmer, *Some Poitevin Peasants in London: Notes about the Families of Ogier from Sigournais and Creuze of Chatellerault and Niort* (London: Lowe Brothers Printers, 1896), 19; Andrew Malleson, *Discovering the Family of Miles Malleson 1888 to 1969* (Self-published), 102-109; https://books.google.com/books?id=WBVhkj_JAJ8C&pg=PA108&lpg=PA108&dq=samuel+courtauld+spitalfields&source=bl&ots=ESrSyq-Ogf&sig=NFEpKqBe7oF6IThk9IIPvZSJhnA&hl=en&sa=X&ved=0ahUKEwix84jyzofNAhVKKCYKHdpvBe8Q6AEIRjAG#v=onepage&q=merzeau&f=false (Accessed June 1, 2016).

²⁶ According to a 1907 history of the region, the silk industry in Essex County had been in continuous operation since the seventeenth century, boosted by the influx of French refugees after 1685, whose main settlements of Spitalfields and Norwich flanked the region, making Essex a thoroughfare of Huguenot activity between London and East Anglia. Herbert Arthur Doubleday, *The Victoria History of the Counties of England: Essex, Volume II* (London: Archibald Constable and Company, 1907), 463. Industrial worker housing was a relatively new but growing phenomenon in County Essex by the

extended litigation, the partnership dissolved in 1817 at which time George moved to America, where he resided until his death in 1823.²⁷

George's son Samuel, though born in New York in 1793, remained in Braintree after his father's departure and maintained his own silk weaving business. By 1826, Samuel had forged a partnership with his brothers, George and John, and a cousin, Merzeau-trained Peter Taylor, for the production of silk crape under the company name. Operating as Courtauld, Taylor, & Courtauld, they purchased the silk mill at Braintree as well as mills at Halstead and Bocking, and a warehouse in London.²⁸

The changing of the guard in the family business came at a critical juncture for the silk industry. The demand for silk was on the decline against the mighty partnership between cotton growers in the American South and the importers and industrialists of

early 19th century, the first having been built in the early 18th century at Mistley by industrialist Richard Rigby to address the problem of insufficient housing stock for his growing workforce. Large complexes of worker housing, however, did not become common in the region until the 1870s. Tony Crosby, Adam Garwood, and Adrian Corder-Birch, "Industrial Housing in Essex: An Archaeological, Architectural and Historical Appraisal of Housing Provided by Industry," report prepared for Essex County Council, Chelmsford, Essex (2006): 4.

²⁷ According to a family historian, George first partnered with Peter Nouialle at Sevenoaks, Kent, from 1793-1797, but the two fell out over George's support of the French Revolution. The cause of George's falling out with his partner at Braintree, Joseph Wislon, is unclear but may have been related to a scandal arising from the beating of workers in 1814 and the placement of George's daughters in supervisory positions at the mill. Ultimately, George Courtauld was awarded 5000 pounds and released from all apprenticeship assignments. Malleison, 113.

²⁸ Ibid, 465-466. Samuel and Peter Taylor's partnership may have started as early as 1817, according to the brief history offered on the Courtaulds collection description page of the Braintree District Museum's website <http://www.braintreemuseum.co.uk/home/collections/courtauld-co/> (Accessed June 1, 2016). Family historian Andrew Malleison also states that George handed over the business to his son in 1818. Malleison, 113.

Liverpool and northern England.²⁹ However, according to historian D.C. Coleman, the relatively unusual rural locations of Courtauld, Taylor, & Courtaulds mills, where competition for workers was scarce, in addition to their exploitation of children and young women as laborers, kept demands for higher wages and better working conditions to a minimum.³⁰ Additionally, according to Coleman, Samuel Courtauld employed innovative strategies and technologies, including upgrading from water to steam power in 1825, borrowing technologies from the cotton textile industry, and inventing a new process for crimping silk fabric that seemed to make the cloth impervious to water. Of further advantage, crepe did not require the use of fine imported silks that were subject to steep taxes. On the contrary, Courtaulds made their crepe from cheap, low-luster fabrics woven on simple, inexpensive looms by relatively unskilled workers.³¹

The skilled craftsmanship of French immigrants during the era of religious persecution eased their acceptance into the native populations of their adopted homeland and fostered the dissemination of technology and crafts on which France and Northern Italy had previously enjoyed near monopoly in Europe. Availability of domestic options weakened British dependence on the “middle men” of the early modern mercantile economy and altered market relations throughout Europe. A shift back to a peacetime gold-based monetary system, a six-year process following the end of the Napoleonic wars in 1815, put the British economy on wobbly legs throughout the 1820s. At the same time,

²⁹ Beckert, 62-63; D.C. Coleman, *Courtaulds: An Economic and Social History*, vol I (Oxford: Clarendon Press, 1969), 62-63, 100-102.

³⁰ Coleman, 62.

³¹ Lou Taylor, *Mourning Dress: A Costume and Social History*, reprint (New York: Routledge, 2009), 177.

a financial panic in the United States in the mid-1830s caused a ripple-effect recession that, fortunately for the Courtaulds, eliminated many smaller competitors in the British silk industry.³²

A combination of market edge with a novel fabric and cheap, rural labor probably helped Samuel Courtaulds firm stay afloat while others foundered. The black crepe that had become Courtaulds specialty was especially popular for mourning dress, a centuries-old tradition that began to spread into the expanding merchant and middle classes by the early nineteenth century. By the early 1840s the custom of mourning dress, probably bolstered by the frequency of death in the crowded cities of an industrializing world, had become popular enough that specialty shops devoted to the sale of black cloth opened on Regent Street in London, starting with Jay's Mourning Warehouse in 1841 and followed soon by Pugh's in 1849 and Peter Robinson's in 1854.³³ By the 1850s, Courtaulds had representatives working in the United States as well as on the European continent, further popularizing the mourning tradition in which they held a near market monopoly.³⁴

The final nail in the coffin of many other English silk producers came with the silkworm pandemic of the 1860s that had led Pasteur and Chardonnet into their scientific investigations in southern France. Though an early historian of the industry in Essex attributed the decline of silk production in the county to the removal of protectionist tariffs in 1860, market prices of raw materials fluctuated dramatically throughout the

³² Larry Neal, "The Financial Crisis of 1825 and the Restructuring of the British Financial System," *Federal Reserve Bank of St. Louis Review* 80 no. 3 (May/June 1998): 74-75; Coleman, v. I, 102-103.

³³ Judith Flanders, *Inside the Victorian Home: A Portrait of Domestic Life in Victorian England* (New York: W.W. Norton, 2003), 380; Taylor, 159.

³⁴ Taylor, 162.

decade, inhibiting many smaller and specialty luxury producers from competing against the increasingly ubiquitous cotton as well as fustians and wool.³⁵ The 1860 treaty between France and England that eliminated the tariffs protecting English products also opened up a new market for Courtaulds inexpensive mourning garb. The 1861 death of Prince Albert further strengthened the continued success of “Courtaulds Crape,” with widespread national mourning dress and Queen Victoria’s own notoriously protracted mourning period.³⁶

For the next two decades, Courtaulds rode a comfortable wave of mourning culture, weathering the economic downturn of the 1870s without difficulty under the continued chairmanship of its founding father Samuel Courtauld. In the 1880s, however, with the company now under the leadership of Samuel’s son George III, full, extended mourning fell out of fashion. Additionally, dress styles trended toward lighter fabrics and pastel colors, while simultaneously the price of silk also rose sharply in an era of low demand. Courtaulds continued success required a new approach.

In the mid-1890s, Courtaulds hired two outside managers who pushed the company in new directions. They first renovated the old crepe factories to produce the lighter, brighter silks in fashion at the time.³⁷ In 1904, Courtaulds went public after almost a century under the near-exclusive control of its founding family, a move which coincided closely with the patenting of Topham’s centrifugal spinning pot and the realization of its textile applications using Cross and Bevan’s viscose formula.³⁸

³⁵ Doubleday, 462.

³⁶ Coleman, v. I, 128-132.

³⁷ Ibid, 196-197.

³⁸ Ibid, 201.

Courtaulds, still struggling to regain its formerly prominent position in the silk market, began exploring possibilities for entering the artificial silk business. The success of Chardonnet's process proved that there was a lucrative market for artificial silk, despite criticisms to the contrary, and previous attempts at manufacturing by Cross, Bevan and Beadle's viscose process in the United States, France, and Germany demonstrated that silk-like fibers could be manufactured at far less cost.³⁹ Courtaulds purchased the Viscose Syndicate's patent rights and equipment and moved the machinery and laboratory from Kew to a site on the canal in Coventry in November of 1905. The company also converted part of its Halstead facility, which produced Courtaulds first artificial silk in 1906.⁴⁰

For the first few years of production, Courtaulds foray into artificial silk remained experimental. In 1907, the introduction of glucose into the acid bath improved output of quality yarn to 40% of the total production. Between 1907 and 1911, new achievements in the recovery and reuse of aluminum salt, a costly material crucial to the bathing process, and finally the introduction of zinc sulphate into the chemical bath compound allowed Courtaulds to achieve a quality production rate of 90%.⁴¹

³⁹ In the United States, Dr. Arthur D. Little, long convinced that there would be a market for artificial silk, bought the rights to the viscose patent and Stearn's spinning machine, and set up the General Artificial Silk Co. in 1901, but the venture never expanded beyond experimentation until it was taken over by Courtaulds in 1908, by which time the firm had been acquired by the company's lawyer and then, after his death, his son. In Germany, Prince Donnersmarck purchased the rights in 1902 and began production adjacent to his pulp and paper mill in Altdamm in 1903 as the Continentale Viskose Co. in 1903 but never produced more than 100kg of yarn per day for the first two years. The Societe Francais de la Viscose in France also began production in 1903 with similar results for the first two years. Woodings, 6-8.

⁴⁰ Ibid, 9.

⁴¹ Ibid, 10.

In 1908, the owner of viscose patent rights in the United States, Silas Pettit, died leaving his son John in charge of the company, Genasco. John Pettit travelled to Coventry in May 1909 and sold the Genasco rights and facilities to Courtaulds. Later that summer, the United States Congress passed a new tariff bill, charging a duty of 30% on imported yarn from Coventry. Having already purchased rights and facilities on U.S. soil, Courtaulds quickly bypassed the tariff and expanded to Marcus Hook, Pennsylvania, where it began production as the American Viscose Company in 1910. By 1916, according to historian Mira Wilkins, the Marcus Hook plant accounted for 53.7% of the company's gross income.⁴²

A fourth type of artificial silk, cellulose acetate, originated from the chemical industry of Basel, Switzerland. Basel was not a major silk fabric production region, but it was closely connected to textiles through its dyeing facilities. Rather it had become an important center of the chemical industry, beginning with the development of fuchsine, a synthetic magenta dye, in 1860.⁴³ Because the region had relatively limited natural resources and was therefore unable to compete with neighboring Germany in natural dyestuffs, the development of fuchsine pitched Basel into the realm of high-tech chemical production, which by the early twentieth century included cellulose acetate photographic film, a safer alternative to the explosive nitrocellulose films of a previous generation.⁴⁴

⁴² Ibid, 10; Mira Wilkins, *The History of Foreign Investment in the United States to 1914* (Cambridge, MA: Harvard University Press, 1989), 370-371.

⁴³ Fred Aftalion, *A History of the International Chemical Industry: From the "Early Days" to 2000* (Philadelphia: Chemical Heritage Foundation, 2001), 48.

⁴⁴ Ibid, 74.

In 1865, chemist Paul Schutzenburger discovered cellulose acetate, a compound created by the reaction between acetic anhydride and cellulose from wood pulp. Cross and Bevan, whose work on wood cellulose for the paper industry led to the development of the viscose artificial silk formula used by Courtaulds, developed the use of cellulose triacetate for films. Companies in Europe and the United States soon followed suit, taking out patents to use the cellulose acetate formula in materials from lacquers to billiard balls to textiles.⁴⁵ Henri and Camille Dreyfus, two brothers rooted in the chemical industry of Basel and educated in chemistry at the Sorbonne, produced both lacquer and films, which they called “Cellonit,” by 1912. In 1914, with the outbreak of war on the continent, the Dreyfus brothers’ formula became an important part of the fledgling strategic aircraft industry, with plants in France, Italy, and England, as well as the United States, devoted to manufacturing a cellulose acetate-based coating for airplane wings.⁴⁶

As hostilities ceased in 1918 and war industries retooled for peacetime production, the brothers from Basel sought new commercial applications for their formula and found a way of spinning the substance into a silk-like thread, which eventually became known by its trade name, Celanese.⁴⁷ Impermeability of the fabric to the available dyes made production difficult at first. The early development of

⁴⁵ Paul Rustemeyer, “History of CA and Evolution of the Markets,” *Macromolecular Symposia* 208 no. 1 (March 2004): 1-2.

⁴⁶ *Ibid*, 2.

⁴⁷ The first manufacturer of the fiber was the British Cellulose and Chemical Manufacturing Company, which changed its name to Celanese in 1923. In 1918, Camille Dreyfus moved to America permanently to operate the American Celanese and Chemical Manufacturing Company, or “Amcelle. *Ibid*, 2. See also: Celanese Corporation, “Our History” available at: <http://www.celanese.com/About-Us/History.aspx>, (accessed July 9, 2016).

saponification, whereby the threads were partially converted back to cellulose to receive the dyes, followed by a rapid succession of new dyeing techniques developed for the cellulose acetate industry, gave the emerging fiber a strong boost in the maturing field of artificial silks. By 1929, cellulose acetate surpassed the older cuprammonium and nitrocellulose methods in world production.⁴⁸

After World War I, American industry entered a period that economic historian Mira Wilkins termed a “rayon gold rush.”⁴⁹ While most of the artificial silk consumed in the United States before World War I came from overseas, import of staple fibers dropped to one-tenth of the 1911 level by 1918.⁵⁰ During this time, American consumption still grew, but Courtaulds subsidiary American Viscose remained virtually the sole domestic source for artificial silk. Other interests attempted to gain a foothold in the market during the 1910s, but with the exception of Lustron, a relatively small firm that manufactured fibers for striping in suits, all failed before 1923.⁵¹

A small number of competitors began to appear as consequences of the war in Europe created a seismic shift in production and consumption patterns. In 1920, three new artificial silk firms, all built with some combination of European expertise and capital with American investments, arrived in the United States. Du Pont, an established American firm, partnered with the French Comtoir des Textiles Artificiels to form the Du

⁴⁸ For more on dyeing techniques: Edward Wheeler, *The Manufacture of Artificial Silk* (New York: D. Van Nostrand Company, 1931), 126-130; On the relative popularity of cellulose acetate, see: Ibid, 4.

⁴⁹ Wilkins, 151.

⁵⁰ Frank W. Taussig and Harry Dexter White, “Rayon and the Tariff: The Nature of an Industrial Prodigy,” *Quarterly Journal of Economics* 45 (1931): 599.

⁵¹ Lustron ceased production in 1927. Ibid, 600.

Pont Fibersilk Corporation (DFPC). The company began production at Buffalo, New York in 1921, and soon constructed a new facility at Old Hickory, Tennessee.⁵² At virtually the same time, Belgian firm Fabrique de Soie Artificielle de Tubize partnered with American investors to open an American plant at Hopewell, Virginia using its nitrocellulose process under the name Tubize Artificial Silk Company. A third firm, affiliated with Italian manufacturer Snia Viscosa, opened a facility in Cleveland, Ohio.⁵³ By 1929, European-controlled companies dominated rayon production in the United States forming corporations with American investors to bypass protective tariffs and take advantage of the relatively stable consumer economy of the United States.⁵⁴

Throughout the early years of artificial silk manufacturing, the industry faced significant practical and cultural challenges to market growth. Chardonnet's silk, initially seen by opponents as a threat to the silk industry of Lyon, became the subject of mockery. Detractors branded Chardonnet's silk as "mother-in-law" silk to insinuate its suitability as a gift for a disliked person, who would presumably spontaneously combust in the flammable fabric.⁵⁵ Though the explosiveness of the end product may have been exaggerated, multiple fires at Chardonnet's factory in 1893, coupled with the expense of production and a metallic luster that betrayed its artificiality, made it unsuitable for widespread adoption as a true silk alternative.⁵⁶ The more successful viscose artificial silk such as that produced by Courtaulds promised safer wearing, but the chemicals

⁵² Blanc, 44.

⁵³ Wilkins, 151.

⁵⁴ Taussig and White, 600-603; Wilkins, 152.

⁵⁵ Alison Matthews David, *Fashion Victims: The Dangers of Dress, Past and Present* (Bloomsbury Publishing: London, 2015), Kindle edition: location 4029.

⁵⁶ Ibid, location 4053.

involved in processing the fibers caused acute brain damage to workers exposed to it on the job. The ill effects of the chemicals on workers' behavior forced manufacturers to take measures to shield them from public interaction, building separate rail cars and placing bars on windows to prevent deluded workers from jumping out.⁵⁷

Though the industry continued to grow, by the 1920s, marketing of the various artificial silk fibers remained limited due to the stigma of artifice. As one dressmaker complained, "Calling viscose Artificial Silk is tantamount to calling a steel beam artificial timber."⁵⁸ In a massive rebranding effort, the National Dry Goods Association launched a competition to rename artificial silk, with the condition that the word "silk" could not be included in the name. Kenneth Lord, of the textile powerhouse Galey & Lord, submitted the winning name, "rayon," and the United States Federal Trade Commission formally adopted the name in 1925.⁵⁹

The rebranding of artificial silk to rayon in the mid-1920s coincided with a number of cultural changes in North America and Western Europe that helped foster the rise of man-made materials. In her examination of the explosive mid-century growth of synthetic fabrics, Susannah Handley tied the rise of rayon and other synthetics in the 1920s to a major cultural shift in attitudes toward commercialism, the growth of the advertising industry, and the enfranchisement of women, to whom the new advertising industry catered.⁶⁰ The "modern woman" of the 1920s traded corsets for girdles and

⁵⁷ Ibi, location 4065.

⁵⁸ Quoted in Susannah Handley, *Nylon: The Story of a Fashion Revolution* (Baltimore, MD: Johns Hopkins University Press, 1999), 24.

⁵⁹ Ibid, 24-25.

⁶⁰ Ibid, 26.

shortened her skirts to the knee, requiring a revision to the traditional knickers. The demise of the chemise, traditionally worn beneath corsets and girdles, meant that new structured undergarments, such as the increasingly popular brassiere, women now wore directly against the skin, calling for softer, lighter fabrics. Simultaneously, as the design of new “intimate apparel” responded to external fashion trends, the invention of new, less constricting undergarments for women opened up new worlds of possibility in fashion design and made room for rayon, once relegated to ornamental pieces such as ribbons, neckties, and suit striping, as a fashion-forward fabric.⁶¹

The rebranding campaign, and the use of various trade names such as “Celanese” and “Bemberg,” helped soften the stigma associated with rayon’s artificiality. However, the fiber also suffered from the bad reputation of its earliest incarnations that did not wash or wear well, further contributing to its reputation as a cheap imitation rather than what it truly was – a revolutionary new fabric.⁶² Though innovations to rayon manufacture in the 1920s made the fabric much more practical, transforming rayon into a household product required a massive, industry-wide effort.

Unlike natural textiles, which boasted long design traditions and largely remained the basis of fashion trends, rayon had no such history on which to draw. While the intent of its inventors may have been to create a new kind of silk, the fabric ultimately wore and behaved very differently and required a new approach.⁶³ Novel couture designs began emerging in early 1930s France by a small cache of designers, such as Elsa Schiaparelli

⁶¹ Jill Fields, *An Intimate Affair: Women, Lingerie, and Sexuality* (Berkeley: University of California Press, 2007), 85, 92.

⁶² Handley, 27.

⁶³ Ibid, 27-28.

working with French textile manufacturer Colcombet, who embraced synthetics and experimented with new ways to wear them.⁶⁴

Simultaneously, the Futurist movement, which had close ties to fascism, spread from Italy, celebrating the machine age and man's command over nature through new technology and scientific discovery. Where silk represented frivolity, idleness, and waste, rayon embodied the futurist spirit from start to finish, with its taming of nature through the new technocracy and the novelty of the end product. Rayon became the stuff of poetry and art, and the basis of a new Italian fashion movement which, until the souring of American opinion toward Italian Fascism in the late 1930s, seemed to represent all that was modern.⁶⁵ Futurist poet Filippo Tommaso Marinetti described the heralding of a new "proletarian of geniuses," whose ease with the world of machines would define a complete transformation of man's relationship to nature and to one another.⁶⁶ Rayon thus presented a means for stripping away class differences in favor of a nationalist identity.⁶⁷

Part of the drive behind Italy's obsession with rayon was the nationalist desire to free Italian industry from dependence on foreign raw materials. A similar impetus drove the German industry, which by 1923 was the third largest in the world.⁶⁸ Germans hailed

⁶⁴ Ibid, 27.

⁶⁵ Jeffrey T. Schnapp, "The Fabric of Modern Times," *Critical Inquiry* 24 no. 1 (September, 1997): 210.

⁶⁶ Filippo Tommaso Marinetti, "Invito ai lettori spregiudicati," preface to Marinetti's „Il Poema non umano dei tecnicismi“ (Non-Human Poem of Technicisms), in F.T. Marinetti, *Teoria e invenzione futurista* (Milan: Mondadori, Milan, 1983), 1142; originally published in 1937, in the manifesto "Poetry and Corporatist Art," quoted in Schnapp, 209.

⁶⁷ Schnapp, 220.

⁶⁸ Yvette Florio Lane, "No Fertile Soil for Pathogens": Rayon, Advertising, and Biopolitics in Late Weimar Germany," *Journal of Social History* 44 no. 2 (Winter, 2010): 546.

advances in organic chemistry as a path to freedom from dependence and a means of solving serious economic and social problems created by a shortage of raw materials. Like the futurists of Italy, the German proponents of rayon and other new materials had deep faith in the democratizing and ameliorative power of scientific advancement. A related cultural phenomenon in late Weimar Germany emphasized personal health and hygiene to prevent the spread of contagious disease. Bemberg's advertising strategy included creating a perception of their rayon fabric as hygienic and sterile, unlike cotton and wool which, they claimed, could harbor pathogens for deadly disease.⁶⁹ On the flip side, however, a strong current of conservatism in German culture eyed the new fabric with suspicion, linking them to an intrusion of what they saw as morally degrading Americanism and a threat to social order.⁷⁰

Notwithstanding conservative criticism, European rayon manufacturers were creating the social, cultural, and political machinery to usher in a golden age of man-made fabrics. By exporting their industry to the United States, they were also engaging in a cultural exportation, wherein the products of nationalistic imperialism paradoxically became a means of fostering global interconnectedness between Western countries at the same time the philosophies behind the popularization contributed to deepening isolation and nationalistic tendencies. The fabric of the modern age thus simultaneously became a symbol of both a new kind of multinationalism and the rise of divisive isolationism.

The cultural shifts taking place globally in the interwar period opened the door to new uses for and a broader acceptance of rayon in both couture and retail fashion, while

⁶⁹ Ibid, 553.

⁷⁰ Ibid, 550-551.

the cartelization of European rayon firms helped the technology spread rapidly on the continent after World War I. It was in North America, and not Europe, however, that rayon ultimately found its strongest markets and most lucrative manufacturing possibilities.

CHAPTER III:

WORLDS COLLIDE: THE “RAYON GOLD RUSH” COMES TO THE AMERICAN SOUTH

At the same time that European rayon firms began to reach maturity and demand for their products grew, a new pattern of industrialization took shape in the United States. Though the South had long remained heavily wedded to its agricultural economy, the aftermath of the Civil War weakened the economy and undermined the white supremacist social structure of southern life. Beginning in the 1880s, many of the South’s elite began a campaign to “bring the cotton mills to the cotton fields,” investing in industrial development. The call for a “New South” echoed throughout the region, inspiring local investment in industrial development and, eventually, drawing interest from outside firms whose presence would permanently alter the cultural landscape.

Although some textile mills existed in the South in the antebellum period, the first wave of global industrialization, which began in England in the mid-eighteenth century and reached northern states by the early nineteenth, did not have a sustained, widespread impact on the predominantly agricultural economy of the South. Slave labor made cotton, the South’s main cash crop by the mid-nineteenth century, highly profitable, while the racialized division of labor upheld the social structure of white supremacy. Thus, while there were exceptions throughout the region, little motivation existed among the wealthy

elite to invest capital into industrial pursuits.¹ With the end of slavery in the 1860s following the Civil War, and the declining pace of growth in the cotton textile industry by the 1870s, however, the region now had new impetus to diversify its economy at the same time that textile industrialists began seeking ways to gain advantage over their competitors.²

When industrialization first reached American shores in the early nineteenth century, it found a relatively inexpensive, though inexperienced, labor force and better access to the southern cotton on which it depended. As the industry developed, it tended to concentrate, fostering the development of new technologies through the sharing of ideas.³ The advancement of textile technology fostered in these “technological districts” gave rise to the establishment of a separate but interdependent machine manufacturing industry.⁴ Faced by crises in the 1860s, with the Civil War and subsequent disruption of cotton agriculture, followed by a general depression in the 1870s, however, established textile firms hesitated to invest in new equipment for their older mills, leaving the machine shops to seek out new markets for their wares.⁵

¹ David L. Carlton and Peter Coclanis, “Southern Textiles in Global Context,” in *Global Perspectives on Industrial Transformation in the American South*, eds. Susanna Delfino and Michelle Gillespie (Columbia: University of Missouri Press, 2005), 154-155. See also: Fred Bateman and Thomas Weiss, *A Deplorable Scarcity: The Failure of Industrialization in the Slave Economy* (Chapel Hill: University of North Carolina Press, 1981).

² Carlton and Coclanis describe the 1870s as the transition from the “First” to the “Second” Industrial Revolution. “Southern Textiles,” 155.

³ Ibid, 153.

⁴ David R. Meyer, “Formation of Advanced Technology Districts: New England Textile Machinery and Firearms, 1790-1820,” *Economic Geography* 74, Special Issue (1998): 36.

⁵ Carlton and Coclanis, “Southern Textiles,” 156.

Technologies developed in the machine shops of New England and Great Britain freed firms from dependence on skilled labor. Firms no longer needed to remain close to an experienced workforce, making the industry more portable than ever. With the southern economy still in recovery from the Civil War, textile machinery manufacturers saw an opportunity to open new markets in the depressed region. In order to facilitate relationships with potential southern customers, consulting engineers travelled the South to instruct would-be industrialists in the ways of textile manufacturing, fostering local investment and ultimately establishing independent agencies.⁶

One such firm, Lockwood-Greene, grew out of the business of David Whitman, whose self-taught expertise earned him the nickname “mill doctor” when he started advising textile firms on mill design in the 1830s. After Whitman’s death in 1858, Amos Lockwood, an established mill promoter and manager, took over the engineering business. Moving the office from Lewiston, Maine to Providence, Rhode Island in 1871, Lockwood soon took on his first southern job, the Piedmont Mill on the Saluda River in South Carolina, completed in 1876. Lockwood then formed a partnership with his son-in-law, John Danielson, and Brown University-trained engineer Stephen Greene, reorganizing into Lockwood-Greene. Between its incorporation in 1882 and 1901, the firm designed approximately 40% of southern mills.⁷

⁶ Carlton and Coclanis, “Southern Textiles,” 157; D.A. Farnie, “The Textile Machine-Making Industry and the World Market, 1870-1969,” *Business History* 32 no. 4 (October 1990): 154-156.

⁷ Carlton and Coclanis, “Southern Textiles,” 162; Samuel B. Lincoln, *Lockwood-Greene: The History of an Engineering Business, 1832-1958* (Brattleboro, VT: Stephen Greene Press, 1960), 73-116; Betsy H. Bradley, *The Works: The Industrial Architecture of the United States* (Oxford: Oxford University Press, 1999), 20.

Drawing on the expertise of firms like Lockwood-Greene, who helped industrialists streamline production to minimize overhead costs and maximize worker output, and aided by an improved railroad transportation network to bring equipment to the region, the South industrialized rapidly after 1880 accounting for about 60% of new spindleage by 1910.⁸ Although local investors opened the bulk of southern mills during the early expansion years, New England industrialists soon began to take notice. In older manufacturing districts, high job mobility and a skilled, concentrated workforce kept wages high while restrictive laws designed to protect women and children in factories impeded industrialists' ability to exploit its workforce for profit.⁹

While northern industrialists grappled with falling profits, outdated factories, and an increasingly restless workforce, local boosters in the South undertook industrial recruitment projects under the banner of the "New South" ideal, advertising its "docile" and "Anglo-Saxon" workforce in newspapers and trade publications.¹⁰ While on the surface, New South boosterism focused on railroad-building, finance, and general economic growth, the rhetoric its proponents used reflected elite southerners' urge to maintain power and affirm the race-based class structure long held intact by slavery. Henry Grady, who is credited with coining the term, made the intentions of New South

⁸ Melvin T. Copeland, *The Cotton Manufacturing Industry of the United States* (Cambridge : Harvard University Press, 1917), 34.

⁹ Beth English, "Beginnings of a Global Economy," in Delfino and Gillespie: 176-177.

¹⁰ English, "Beginnings," 183; Tom Lee, *The Tennessee Virginia Tri-Cities: Industrialization in Appalachia, 1900-1950* (Knoxville: University of Tennessee Press, 2005), 55-56; George B. Tindall, *The Emergence of the New South, 1913-1945* (Baton Rouge: Louisiana State University Press), 318-319.

proponents clear, stating “the white race must dominate forever in the South.”¹¹ Peddling a romanticized vision of the “Old South” while simultaneously calling for the region to “out Yankee the Yankee,” the New South’s spokesmen, eager to attract industrial investment while still maintaining the social order, managed a precarious balancing act between progress and tradition.¹²

The success of the New South Creed is visible in both the rapid increase in industrial capacity in the 1880-1930 period and the rabid enactment of Jim Crow laws, institutionalizing white supremacy almost as thoroughly as slavery. After the Compromise of 1877 restored home rule in the South, removing the last federal troops, the Civil Rights Act of 1865 quickly unraveled. Supreme Court decisions in 1877, 1883, and 1896 overturned key elements of Radical Reconstruction, with the final case *Plessy v. Ferguson* establishing the “separate but equal” doctrine that became the backbone of southern segregation law for almost seven decades.¹³

Jim Crowism had a dramatic impact on southern labor, creating rigid boundaries between white and black access to jobs.¹⁴ In reaction to a surge of bi-racial Populist political alliances in the 1890s, white elites tightened their grip on polls through fraud, intimidation, and constitutional amendments instating such policies as poll taxes, literacy

¹¹ James C. Cobb, *Away Down South: A History of Southern Identity* (Oxford: Oxford University Press, 2005), 70-71.

¹² *Ibid.*, 71-72.

¹³ Lawrence J. Hanks, *The Struggle for Black Empowerment in Three Georgia Counties* (Knoxville: University of Tennessee Press, 1987), 17-18.

¹⁴ Jennifer Roback, “Southern Labor Law in the Jim Crow Era: Exploitative or Competitive?” *University of Chicago Law Review* 51 no. 4 (Autumn 1984): 1161-1192; Jacquelyn Dowd Hall, *Like a Family: The Making of a Southern Cotton Mill World* (Chapel Hill: University of North Carolina Press, 1987), 105.

tests, and “Grandfather Clauses.” By combining political action with widespread violence against upwardly mobile black southerners, elite southerners solidified a contract of whiteness with their laboring class counterparts. Enactment of discriminatory laws such as vagrancy statutes, which essentially criminalized poverty, kept black workers cycling through the highly profitable convict lease system. At the same time, rhetoric labeling black men as rapists and brutes discouraged mill managers from hiring black workers for any jobs on the factory floor. South Carolina, which held a large proportion of the South’s textile industry, with the Segregation Act of 1915 institutionalized the practice of textile mill segregation, prohibiting white and black cotton textile operatives to “labor and work together in the same room,” which, by default, reserved the vast majority of industrial work for whites.¹⁵

At the same time Jim Crow reached its apex, economic depression gripped the nation in the mid-1890s. Stock prices plummeted, unemployment soared, and competition between northern and southern textile mills intensified. As observed by Beth English, mill owners tried a number of different strategies in response to southern competitiveness. Some attempted a shift to finer goods, hoping to take advantage of a more affluent market segment. Still others considered retooling to the new, automated machinery used by the younger southern mills, eliminating some of the highest paid and most skilled workers. Either of the latter options, however, required at least partial work stoppages to facilitate an installation process that would call for heavy outlays of capital.

¹⁵ Hall et al, *Like a Family*, 66.

Still others, rather than competing against southern industry, chose instead to expand into the South.¹⁶

Dwight Manufacturing, subject of a study on capital mobility by Beth English, searched the South in 1893 and 1894, looking for the best location with the most advantage. By that time, the Piedmont region of North Carolina already possessed a high enough concentration of mills to raise concerns among the experienced management of Dwight, who had witnessed firsthand how quickly workers organize when they have high job mobility.¹⁷ Finding the taxes in South Carolina prohibitive, the Dwight officials settled on Georgia or Alabama, visiting possible sites at Atlanta, Rome, in the Northwest Georgia Appalachian foothills, and Gadsden, Alabama, just down the Coosa River from Rome. In December of 1894, the Alabama state legislature repealed an 1887 law restricting child labor hours and secured the favor of Dwight's board of directors.¹⁸ Other northern investors followed suit, investing some \$4 million in capital expenditures in the state between 1890 and 1900.¹⁹

Although Alabama's legislature opened the door for increased investment in its state, the Piedmont region of the Carolinas outstripped any other area of the South in the cotton mill campaign. The depression in cotton prices in the 1890s drove many families to supplement farm work with industrial wage work. Extractive industries, such as lumber and coal, absorbed some of the workers, but the abundance of cheap, willing

¹⁶ Beth English, *A Common Thread: Labor, Politics, and Capital Mobility in the Textile Industry*, (Athens: University of Georgia Press, 2006), 29-32.

¹⁷ *Ibid*, 39, 45.

¹⁸ *Ibid*, 49.

¹⁹ *Ibid*, 45.

labor proved an attractive force to industrialists who, in the first two decades or so, predominately invested in their local communities. Though outside investors began to take notice of their success, historians have estimated that southern money built somewhere between 75 and 90% of Piedmont mills before 1900.²⁰

As labor unrest, restrictive labor laws, and outdated equipment held northern mills back, the South's textile industry thrived. By the third decade of the twentieth century, southern mill spindleage surpassed that of the North.²¹ Thanks to an abundant supply of displaced farm laborers in the early years of industrial development, along with ample water supplies, textile industrialists in the Piedmont region of the Carolinas quickly saturated the labor market. Manufacturing agents began searching the hills and valleys of southern Appalachia in search of a fresh crop of workers.²² By 1926, engineers from Lockwood-Greene noted that the concentration of manufactures in the region provided worker mobility and fostered collectivism. They advised industry to look to the less industrialized areas, such as southern Appalachia, where workers remained inexperienced and unorganized.²³

²⁰ Ibid, 10; See also: Alice Galenson, *Migration of the Cotton Textile Industry from New England to the South: 1880-1930* (Ithaca, NY: Cornell University Press, 1975); Nancy Francis Kane, *Textiles in Transition: Technology, Wages, and Industry Relocation in the U.S. Textile Industry, 1880-1930* (Westport, CT: Greenwood Press, 1988).

²¹ Gregory John Labyak, "Geographical Factors Influencing the Rise and Growth of Textile Manufacturing in the South Carolina Piedmont, 1880-1940," PhD diss., Louisiana State University, 1994: 118; Tindall, 75-77.

²² Ibid, 56-58; For Piedmont industrialization see: David L. Carlton, *Mill and Town in South Carolina, 1880-1920* (Baton Rouge: Louisiana State University Press, 1982).

²³ Lockwood, Greene, and Co., "Industrial Sites in the State of Georgia" for Georgia Railway and Light Co., Atlanta, Georgia, December 18, 1926.

Like the South more broadly, the southern Appalachian economy in the nineteenth century depended largely on external markets for exporting its abundant raw materials, a status that historians have often painted as subordinate to the industrialized North. Ronald L. Lewis provided an alternative view of the extractive economy of southern Appalachia, situating it within the framework of Immanuel Wallerstein's "world system" of capitalism, wherein capitalism is "continuously expansive in its search for markets, until the world is organized into various stages of incorporation."²⁴ Thus within Appalachia, urban centers developed as staging areas, providing a reciprocal link between the resources of the periphery and the markets of the larger core metropolitan centers outside the region, a process that was not inaugurated by but intensified with the coming of the railroad.²⁵

As over-saturation of the Piedmont labor market sent manufacturing agents into the hills, civic elites in the relatively urban valley towns of Appalachia took note. Recognizing the limitations of the region's extractive industry, which depended on finite resources and external markets, business-minded community leaders looked instead to capitalize on the region's growing labor force as its most valuable commodity.²⁶ The Tennessee-Virginia Tri-Cities, according to Tom Lee, already boasted a handful of small industries by the late nineteenth century, most of which were dedicated to adding value to the local resources through the manufacturing process. According to Lee, though

²⁴ Ronald L. Lewis, "Industrialization," in *High Mountains Rising: Appalachia in Time and Place*, eds. H. Tyler Blethen and Richard A. Straw (Urbana: University of Illinois Press, 2004), 62.

²⁵ For more extensive discussion of railroad development and modernization in southern Appalachia, see Lewis, "Industrialization," 62-65.

²⁶ Lee, 57.

industrial expansion in the first decade of the twentieth century took place mostly in the Tri-Cities' traditional manufactures, but by the second decade boosters began to see the value of attracting textile and apparel manufacturing interests in search of an alternative to the over-industrialized Carolina Piedmont.²⁷

As the South and southern Appalachia industrialized, it had to grapple with its outdated and insufficient infrastructure. According to analysis by John Majewski and Viken Tchakerian, the low population density, combined with a relatively low ratio of cultivated acreage of the region, inhibited the establishment of profitable domestic markets for manufactured goods, and provided little incentive to develop the kind of dense intraregional rail and canal networks like those of the Northeast and Midwest.²⁸ The late nineteenth century saw a boom in railroad construction, with the region-wide standardization of rail gauges, finalized in 1886, streamlining long-distance transportation.²⁹

In the 1910s, a national "Good Roads" movement sparked a flurry of highway development, fueled in part by federal funding. Between 1914 and 1930, the South's rural surfaced road mileage increased from 69,797 to 209,880.³⁰ Though not all small towns throughout the South benefited from the road building program, for towns fortunate enough to lie along one of the surfaced highways, or better yet, at the junction of two,

²⁷ Lee, 57-58.

²⁸ John Majewski and Viken Tchakerian, "Markets and Manufacturing: Industry and Agriculture in the Antebellum South and Midwest," in Delfino and Gillespie, 131-150.

²⁹ R. Scott Huffard, "Perilous Connections: Railroads, Capitalism, and Mythmaking in the New South," PhD diss., University of Florida, 2013: 59.

³⁰ Tindall, 257.

stood to benefit dramatically, with an influx of tourist money and an attractive feature to advertise to potential industrial investors.³¹

At the same time that industrialization picked up steam in southern Appalachia, new developments in textile machinery and factory organization took hold in American industry. The textile consulting engineers and firms of the late nineteenth century gave rise to the development of formal training programs at universities and colleges. In Atlanta, the beating heart of New South philosophy, trustees at Georgia Tech elected to create a textile engineering program in 1899. The school's president, Lyman Hall, who spearheaded the drive to create a textile department, described the development as a declaration of war against New England, "a war not of secession but of aggression, a war against slavery, and we are the slaves who shall be free."³²

The growing class of professional engineers, homegrown and otherwise, along with experienced mill men who lacked formal training, developed labor saving technologies and strove for a "rational" factory design that would ease the flow of work and minimize some of the more unpredictable elements of the manufacturing process. Conveyor belt technologies and cranes, facilitated by electric power, eliminated unskilled materials handling positions, one of the more unpredictable elements of manufacturing.

³¹ See: Ibid, 257-258. Howard Lawrence Preston, *Dirt Roads to Dixie: Accessibility and Modernization in the South, 1885-1935* (Knoxville: University of Tennessee Press, 1991).

³² James E. Brittan and Robert C. McMath, Jr., "Engineers and the New South Creed: The Formation and Early Development of Georgia Tech," *Technology and Culture* 18 no. 2 (April 1977): 191-192. Despite the anti-colonial intentions of Georgia Tech's founders and other proponents of engineering education, however, Gavin Wright argued that the South's continued dependence on outside expertise perpetuated its economic status as a colonial economy in "The Economic Revolution in the American South," *Journal of Economic Perspectives* 1 no. 1 (Summer 1987): 161-178.

While new innovations had the potential to streamline production and minimize waste, retrofitting older, compartmentalized multi-story factories to accommodate them proved awkward if not prohibitive for older, established textile firms. Industrial engineers and architects lobbed criticisms at the older firms and sought to usher in a new era of factory building based on scientific management principals, preferring an expansive, open factory floor with machines in order by function from raw material to finished product.³³

By the 1920s, the days of the multi-story factory run entirely by human hands began to sunset, slowly but permanently altering the factory landscape and opening the door to new types of manufacturing. The horizontal orientation of the new factory ideal required more land than the traditional multi-storied mill. The availability of vast expanses of buildable acreage, with room to expand, dictated mill location more than ever before, which became increasingly difficult to find in the traditional manufacturing districts or urban centers, and new mills located in suburban rather than rural or urban locations.³⁴

The shift in land use for the manufacturing facility took place alongside a transition in attitudes toward worker housing. During the first two decades of the

³³ For more on the application and impact of scientific management principals, see: Robert Lewis, "Redesigning the Workplace: The North American Factory in the Interwar Period," *Technology and Culture* 42 no. 4 (October 2001): 665-684; Craig R. Littler, "Understanding Taylorism," *British Journal of Sociology* 29 no. 2 (June 1978): 185-202. Lewis, 670-671 describes five core guiding principles of best practices for factory construction developed by leading engineers: A cellular structural plan which divided up functions rationally; the use of new construction materials which maximized interior spaces; machinery arranged in a logical order; installation of materials handling equipment; and electricity.

³⁴ Daniel Nelson, *Managers and workers: origins of the twentieth-century factory system in the United States, 1880-1920* (Madison: University of Wisconsin Press, 1995), 23. See also: Hall et al., *Like a Family*, 116.

twentieth century, social and medical researchers conducted “studies” of southern mill workers, examining nutrition, birth rate, and occupational poisoning. In a research expedition funded by wealthy northern philanthropists, investigators found an alarming rate of pellagra among mill villagers in Spartanburg County, South Carolina. Working from a hypothesis that communicable infection caused the disease, researchers attributed the prevalence of pellagra among mill workers to close living conditions and poor sanitation in the mill villages. A few years later, Joseph Goldberger revisited the pellagra study. Goldberger and his team collected data on food supplies before and after incidence of pellagra cases, concluding that poor nutrition, rather than infection, was the culprit.³⁵ Either way, the researchers painted a bleak picture of life in a southern textile mill village.

Visual representations of the landscape did not help the public image of mill villages and their inhabitants. Under the auspices of the National Child Labor Committee, sociologist Lewis Hine travelled the country collecting photographic evidence of industrial working conditions between 1908 and 1918. Though the work primarily focused on the problem of child labor, progressive reformers saw photography as empirical proof that traditional mill paternalism was a failure and called for corporate responsibility and government intervention. Through provocative captions, Hine narrated what he witnessed in his travels from his own middle-class perspective, drawing attention

³⁵ Richard D. Semba, “The Impact of Improved Nutrition on Disease Prevention,” in *Silent Victories: The History and Practice of Public Health in Twentieth-Century America*, John W. Ward and Christian Warren, eds. (Oxford: Oxford University Press, 2007): 167. See also: Jacquelyn Dowd Hall, Robert Korstad, and James Leloudis, “Cotton Mill People: Work, Community, and Protest in the Textile South, 1880-1940,” *American Historical Review* 91 no. 2 (April 1986): 251.



Figure 2: Rome, Georgia Hosiery Mill Housing. Lewis Wickes Hine, "Some of the workers in the Rome (Ga.) Hosiery Mill live in shacks like these." Source: National Child Labor Committee Collection, Library of Congress.

to the dangerous conditions on the mills and the shoddy conditions of village housing, such as that at a hosiery mill in Rome, Georgia (Figure 2) ³⁶

Textile mill villages, a prominent feature of southern industrialization, initially grew out of a need to house populations of workers who migrated from the region's rural farms to find wage work. Industrialists built mills in rural locations to be close to the farms from which their workforce were drawn and to avoid overcrowded urban centers, which they believed bred unrest among the workforce. In order to accommodate, as well as attract, rural workers, mill managers constructed simple, frame houses in familiar

³⁶ George Dimock, "Children of the Mills: Re-Reading Lewis Hine's Child-Labour Photographs," *Oxford Art Journal* 16 no. 2 (1993): 43-44.

vernacular forms arranged in grid patterns adjacent to the factories. By the second decade, the aging villages of a previous generation became the subject of scrutiny for reform-minded social workers who raised concerns about pellagra rates, dependency, and ignorance among southern textile mill workers, who were often completely beholden to the mill for all of their needs.³⁷

Public outcry over workers' conditions led to child labor law reforms and inspired a rethinking of worker housing and the company-owned village. Industrial engineers and architects answered the call with sophisticated designs, abandoning the traditional frame "crackerboxes" along a grid of streets for stylish, craftsman-inspired bungalows and cottages with running water and electricity placed along winding streets. The new villages included ballparks and greenspaces alongside schools and churches.³⁸ While the paternalism of early southern industrialists met workers' needs while also keeping them under tight control, the new mill villages appeared as self-sufficient utopias on the outskirts of towns and cities.

Thus by the time artificial silk manufacturing entered its rapid growth period in the United States, the South and, perhaps more significantly, southern Appalachia had become a prime target for industrial development. The new industry brought high-tech jobs into a region that was only just beginning to reach industrial maturity. In 1917, the American Viscose Company (AVC) brought viscose manufacturing to Appalachia at its

³⁷ David L. Carlton, *Mill and Town in South Carolina, 1880-1920* (Baton Rouge: Louisiana State University Press, 1982), 171-214. Hall et al., 114-119; Hall et al, "Cotton Mill People," 247.

³⁸ Margaret Crawford, *Building the Workingman's Paradise: The Design of American Company Towns* (London: Verso Publishing, 1995), 180-192.

new Roanoke, Virginia site. AVC grew to become the largest rayon manufacturer in the United States, with three of its five facilities located in the Appalachian corridor.³⁹ By 1930, its Roanoke unit was the largest plant in the world, according to contemporary observations.⁴⁰

Though rayon manufacturers did ultimately tend to concentrate in southern Appalachia, the process began slowly and with a more general shift southward. Following construction of the Roanoke facility of AVC, in 1920, Tubize Artificial Silk Company built a plant at Hopewell, Virginia in the more traditionally industrial Piedmont region. The Hopewell plant produced the only nitrocellulose fibers in the United States. Next, Du Pont Fibersilk Company (DPFC), a joint viscose manufacturing venture with the French Comptoir des Textiles Artificiels (CTA) expanded from its Buffalo, New York plant to a new location at Old Hickory, Tennessee, west of the Appalachian range.⁴¹

The second company to locate in Appalachia came in 1924, when production commenced at the first plant of the American Cellulose and Manufacturing Company, later known as Celanese Corporation of America, at Cumberland, Maryland.⁴² The company, which manufactured under a British patent, received a ten-year tax exemption from the Allegany County Commission as an inducement to build there, and the state and

³⁹ 1911: Marcus Hook, PA; 1917: Roanoke, VA; 1921: Lewistown, PA; 1922: Nitro W.V. (a former guncotton factory); 1927: Parkersburg, WV; 1930: Meadville, PA; 1940: Front Royal, VA, (on the outermost edges of Appalachia) See also: Wilkins, 151-152.

⁴⁰ Robert E. Hussey and Philip C. Sherer, Jr., "Part III. Recent developments in chemistry in the south. XIX. The rayon industry in the south." *J. Chem. Educ* 7, no. 10 (1930): 2356.

⁴¹ Wilkins, 151.

⁴² Wilkins, 151.

county shared the cost of building a new, paved road to the site in order to expedite construction.⁴³ When construction began in 1918, the plant's intended purpose was to produce a cellulose acetate-based coating for airplane wings for the Department of Defense. By the time the facility was completed, however, the war had ended and the government no longer needed the airplane coating. After several years of experimentation, the Cumberland, Maryland facility officially became a subsidiary of British Celanese, which retooled the plant to produce cellulose acetate fibers and commenced commercial production in 1925.⁴⁴

Throughout the mid to late-1920s, new European players entered the U.S. rayon manufacturing market. The town of Elizabethton, Tennessee became the focus of production for the two German giants, VGF and Bemberg. With promises of an ample, docile, and cheap workforce combined with inducements such as a ten-year tax exemption, the extension of utilities on the county's dime, exclusion from city tax obligations, and funding to build a new road to the site, Elizabethton secured an agreement with Bemberg in July of 1925.⁴⁵ Bemberg's sister company, VGF, followed in 1927.⁴⁶

Of particular significance in the case of Elizabethton is that the extension of inducements to locate the new rayon facility there were predicated by the expectation of a dramatic influx of population. The municipal government willingly placed the burden of

⁴³ Allegany County, Maryland County Commission Minutes, July 6, 1918 and April 1, 1919.

⁴⁴ Wilkins, 235.

⁴⁵ John Fred Holly, "Elizabethton, Tennessee: A Case Study of Southern Industrialization," doctoral diss., Clark University, Worcester, MA, 1949: 125.

⁴⁶ Ibid, 129.

infrastructure improvements necessary to accommodate the newcomers on the existing tax base, with the expectation that it would be covered by the multitudes entering the city for work at the mills. Following the announcement of the second rayon mill deal in 1927, speculators predicted that up to 150,000 new inhabitants would move into the city from around the region to fill upwards of 20,000 positions.⁴⁷ Local businessmen colluded with city and county officials to build expansive new neighborhoods for the expected surge of migrant workers. Real estate values in the community soared throughout the 1925-1928 period, but through a combination of labor unrest and the onset of economic downturn in 1929, the massive expansions to the facility failed to materialize, leaving local taxpayers holding a massive burden.⁴⁸

The rayon industry continued to grow in the United States, with many smaller firms locating outside of Appalachia, but the largest firms backed by the ingenuity of the European cartel continued to centralize in the upland South (Figure 3). Next in production, American Enka, subsidiary of the Dutch firm Nederlandsche Kunstydefabriek, commenced operation in the summer of 1929 at its new facility outside of Asheville, North Carolina. In addition to some of the usual inducements such as an exploitable labor force and reduced water rates, the Buncombe County government also assumed all liabilities for environment damage caused by the new plant.⁴⁹ Unlike Elizabethton, however, where the local chamber of commerce assumed responsibility for

⁴⁷ Holly, 155; Lee, 135; "Textile Interest Centers on New Rayon Plant," *Women's Wear Daily* (May 27, 1927): 4.

⁴⁸ See Holly, 139-182; Lee, 154-155.

⁴⁹ "Asheville Agreement with American Enka Corp. Published," *Women's Wear Daily* (January 8, 1929).

housing employees, American Enka initially followed the more traditional mill pattern of constructing worker housing in a company village. By the time of the stock market crash of 1929, only about 100 homes were completed and the company never finished the village.⁵⁰

By the late 1920s, as the rayon industry grew and centralized around southern Appalachia, the region had already been through a significant transformation due to outmigration, infrastructure development, and continual economic diversification. Many traditional labor markets faced increased pressure from growing worker populations concentrated around centers like Greenville, South Carolina and Gastonia, North Carolina. Newcomers seeking to exploit the rumored cheap, docile laborers and municipalities who were in turn desperate to attract industry through whatever incentives necessary, as well as abundant clean water and other natural resources of the South, naturally looked to the hills in the perpetual quest for reducing costs.

⁵⁰ Lan Sluder, *Amazing Asheville: Guide to Asheville and the Beautiful North Carolina Mountains* (Asheville: Equator, 2014), 82

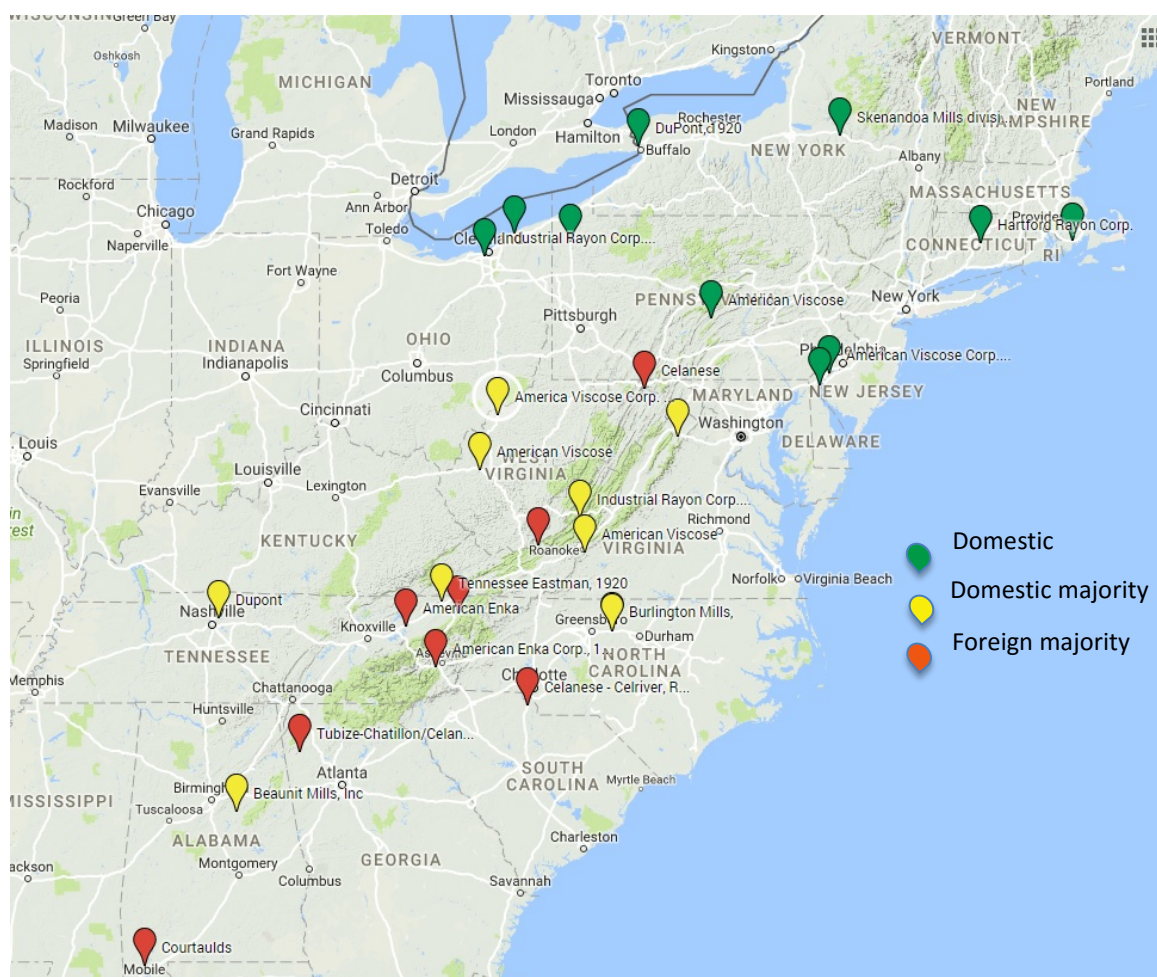


Figure 3: Map of rayon mills in the United States by the mid-twentieth century. Created in Google Earth.

CHAPTER IV

CREATING THE ROME INDUSTRIAL ZONE

Around the same time that the Dutch founders of American Enka turned their attentions on Western North Carolina, an Italian firm, La Soie de Chatillon, began its search for sites in the South. Though roughly a dozen towns competed for its attention, the company's specific requirements, including major sources of water, power, and labor, quickly narrowed the search to only a handful. Its gaze ultimately fell to Rome, Georgia, an ambitious river town at the gateway to southern Appalachia nestled into the northwest corner of the state near both the Alabama and Tennessee borders. The cultural landscape it created at Rome with a new high-tech, multinational manufacturing facility and modern mill village provides a lens for understanding conflicting experiences of globalization in the twentieth century.

Rome, Georgia sits in a fertile valley of the southern Appalachian foothills of Floyd County. Due to rich farmlands surrounding the three rivers that converge at its heart, the area surrounding Rome has a history that represents an intersection between rural, upland yeoman country, Deep South plantation culture, and urban commercialism. Because it defies simple classification within any of these three identities, Rome provides an opportunity to move beyond traditional interpretations of southern industrialization and southern Appalachia. Examining how these identities converged at a time when transportation developments, burgeoning modern globalization, regional political changes, and growing mass consumerism brought forth a new form of industrial

development that left behind an indelible mark on the region in ways that both mimicked and diverged from the cotton textile industrial landscape.

Rome, founded in 1834, is a town of about 35,000 people at the confluence of the Coosa, Etowah, and Oostanaula Rivers. Because of its abundant water supply and defensible landscape, the area occupied by Rome has been a significant settlement area for thousands of years. During the Revolutionary War period, the area known as “Head of Coosa” at the confluence was the site of multiple battles between new White settlers and the Creek and Cherokee inhabitants. The Creek Nation in the area had effectively dissolved by 1814, and the Cherokee moved upriver to New Echota, organizing a legislative body in an attempt to maintain control of commerce and development in the region.¹ However, despite all appearances of peace in the region, tensions between Cherokee and white settlers grew throughout the early encroachment period. In October of that year, the State of Georgia instituted the land lottery, which flooded Cherokee Georgia with an unprecedented number of invading settlers. Local historian George Magruder Battey characterized the in-migration of white settlers as a “plague of locusts” descending upon the hunting grounds of the Cherokee. Floyd County was one of the nine counties formed as a result of the takeover of Cherokee Georgia.²

Among the properties caught up in the Georgia Land Lottery debacle were those belonging to Cherokee leaders John Ross and Major Ridge, who maintained ferries and

¹ As cotton plantation agriculture spread into central Georgia after the War of 1812, the Creek moved northwest, ceding lands to the U.S. government in a series of treaties between 1814 and 1827. Carl J. Vipperman, “The ‘Particular Mission’ of Wilson Lumpkin,” *Georgia Historical Quarterly* 66 no. 3 (Fall 1982): 297.

² George Magruder Battey, *A History of Rome and Floyd County* (Rome, GA: Webb and Vary Company, 1922), 30.

homes in the immediate vicinity of Rome. In 1835, Ridge negotiated and signed the Treaty of New Echota ceding the Cherokee lands in Northwest Georgia to the United States for \$5 million, an act for which he and his allies lost their lives to assassins when they reached the western territory in 1839.³

By the time Ridge signed the treaty, however, Rome was already an up-and-coming river town with banks, a courthouse, and its own bar association. After the permanent removal of native peoples from former Cherokee Georgia, the White population gained full control of the land and resources. Rome's leaders wasted little time in taking advantage of modern transportation possibilities. According to local tradition, the first steamboat landed at Rome in 1836 on the Coosa River, which was fully navigable as far as Gadsden, Alabama.⁴ In 1839, the state chartered the Memphis Branch Railroad and Steamboat Company of Georgia to construct a rail line running sixteen miles from the Coosa River at Rome to the Western and Atlantic Railroad at nearby Kingston.⁵

³ See: Vipperman, "The Bungled Treaty of New Echota," *Georgia Historical Quarterly* 73 no. 3 (Fall 1989): 540-558.

⁴ Battey, 94.

⁵ Battey, 107. Anecdotally, one of Rome's founders, Col. William Smith, fought in the state legislature to bring the main line of the railroad through Rome and invested in the construction of Rome's first steamboat in anticipation of the Western and Atlantic. When the state decided to route the railroad through Kingston instead, according to local lore, Smith sunk his riverboat at its landing near what is now the West Second Avenue Bridge. According to Battey's *History*, the hull was still visible during low water as late as 1897. Roger Aycock, *All Roads to Rome* (Roswell, GA: W,H, Wolf and Associates, 1981). Robert S. Davis Jr. discusses the impact of rail travel on river towns in antebellum Georgia in "The First Golden Age of Georgia Industry, 1828-1860," *Georgia Historical Quarterly* 72 no. 4 (Winter 1988): 700.

As noted in a booklet advertising Floyd County to potential investors, the hills around Rome contained rich mineral deposits, making it an attractive location for extractive industry, while its access to river and rail transportation encouraged the value-added processing of those goods.⁶ By 1855, despite the dominance of cotton agriculture in the region, Rome's ideal position at the junction of river and rail travel attracted Pennsylvania industrialist James Noble, whose iron foundry on the banks of the Coosa River was one of the only manufacturers of its kind in the South by the start of the Civil War.⁷ The Noble Foundry was the first of five stove foundries in Rome, for which it became known as the "Stove Capital of the South." Noble's foundry also produced the first steam locomotive ever built in the South.⁸

During the intervening years between the Civil War and the First World War, the American South underwent changes that flowed from its own peculiar past and its growing interconnectedness with an internationalized world. With a highly successful system of agricultural production, based on slave labor, the would-be capitalists in the South had little motivation or impetus to industrialize. The end of the institution of slavery left many southern planters in greatly reduced circumstances, fumbling to maintain their status as the region's elite. Landowners exploited the system of sharecropping to continue drawing profit from their lands. Some former planters turned their attention to extractive industries such as coal mining and lumber milling, with vast

⁶ Floyd County Industrial Association, *Floyd County, GA: The Banner County of the South* (Rome: F. Smith Printers, 1895): 10.

⁷ Battey, 107. According to A.E. Parkins, the South contained only 97 of the country's 1,412. "The Antebellum South: A Geographer's Interpretation," *Annals of the Association of American Geographers* 21 no. 1 (March 1931): 16.

⁸ Aycock, 66.

acreage formerly devoted to cotton converted to forest. Others found success in furniture, textiles, and cigarettes. Many early southern industrial ventures floundered, unable to compete with the more experienced and mechanized companies of the north. Over time, however, local elite developed strategies for encouraging, and directing, industrial development in their regions through boosters and fraternal organizations, land agencies, and transportation development.⁹

An examination of Northwest Georgia industrialization in the years between the Civil War and the First World War yields a number of examples of the different patterns of capitalization that typified the New South period. In the mid-nineteenth century, local planter-entrepreneurs founded Trion Mills in Chattooga County, Floyd's neighbor to the north. Wagons from Rome regularly brought loads of cotton to the 864 spindle mill, travelling along what would become U.S. 27, or the western arm of the Dixie Highway. Despite surviving the ravages of the Civil War in the path of destruction cut through Northwest Georgia in 1864, the cotton mill at Trion, which had grown to 6,000 spindles, burned to the ground in 1875, forcing its executives to reorganize as a corporation with capital stock of \$225,000 and shares valued at \$100 each. Following the murder of company president De Forrest Allgood by his brother-in-law, Dr. J.B.S. Holmes, wherein

⁹ The exact nature of the antebellum southern economy and the continuity of power structures into the New South era is the subject of a massive body of historiographical literature. See: James C. Cobb, "Beyond Planters and Industrialists: A New Perspective on the New South," *Journal of Southern History* 54 no. 1. February 1988: 45-68.

the former was allegedly “gunned down on the streets of Rome,” by the latter, control of the company went to Alfred Shorter Hamilton.¹⁰

Hamilton ran the company for over two decades. For many years, Hamilton stubbornly resisted entreaties from cotton buying agents, preferring to deal with local cotton farmers directly. However, the vagaries of local weather, the dropping price of manufactured cotton goods, and the economic advantage and availability of cotton from distant fields after the 1888 introduction of the railroad to Trion forced his hand by shortly after the turn of the century.¹¹ By this time, Texas had become an increasingly vital player in the international cotton market, delivering cheap cotton to northern manufacturers and perpetuating competition between the low-wage labor of the South and the logistic and technological capabilities of the North.¹²

By the first years of the twentieth century, Trion was no longer a big fish in a small pond with several new major manufacturers having come to the area, increasing competition for labor and raw materials. Among these were Massachusetts Mills, a few miles to the south of Rome, and Anchor Duck, located in South Rome just across the river from the downtown business district. Anchor Duck, a joint stock venture of Floyd

¹⁰ Mount Vernon Mills, History: 1800s.

<http://www.mvmdenim.com/history/index.html> (accessed October 28, 2015).

¹¹ Barry Wright III, “John Paul Cooper, Alfred Shorter Hamilton, and the Trion Manufacturing Bankruptcy,” unpublished manuscript: correspondence between A.S. Hamilton and J.P. Cooper around the turn of the century explicitly indicates Hamilton’s reluctance to switch to an exclusive relationship with the buying agent, though he does make small deals on several occasions before forming a closer relationship with the agency in 1903.

¹² Ayers, 193.

County businessmen, had peak payroll of about 800 workers.¹³ Massachusetts Mills, a product of capital migration from the New England manufacturing town of Lowell, first opened in 1896 and employed almost 1,400 workers by 1903, during which time Hamilton struggled to secure cotton for Trion at a profitable cost.¹⁴ After 1903, the Trion Manufacturing Company failed to make payments on loans and meet stock obligations. By 1911, the company found itself in involuntary bankruptcy and was soon in the hands of northern industrialist Benjamin Riegel.¹⁵

Underwriting the path of New South industrialization in Northwest Georgia were a cast of characters with roots in both the merchant and planter classes. Though his work in Atlanta is most well-known and well-documented, famous promoter of New South ideology Henry Grady began his career in Rome, first as assistant editor for the *Weekly Courier* until a political disagreement with the managing editor inspired him to start his own venture, the *Commercial*.¹⁶ Grady, son of a slaveholding merchant and Confederate Major from Athens, Georgia, became a high-profile force in the shaping of southern industrialization before his death in 1889. While working in Rome, Grady established a name for himself through his “florid prose, denunciations of Reconstruction, and sympathetic coverage of the Klan,” and began shaping the New South ideals for which he

¹³ Jim Penney, “Anchor Duck; Nothing is Now Left of Mill that Dominated South Rome,” *Rome News Tribune* special issue, *Past Times: Life and Strife in the Mills*: 24.

¹⁴ Dawn Treglown, “Lindale’s Mill, by Any Name, Was its Heart,” *Past Times: Life and Strife in the Mills* (Rome, GA: News Publishing Company, August 2008): 18; Wright, 12.

¹⁵ Wright, 30.

¹⁶ George M. Battey, *A History of Rome and Floyd County, Georgia* (Atlanta: Webb and Vary, 1922) 250.

became famous as editor of the *Atlanta Constitution*.¹⁷ The foundation of his vision, which found a receptive audience among the civic and business leaders of the area, was firmly rooted in white supremacy, the legacy of which dominated the multitude of textile mills that sprung up in Northwest Georgia throughout the era.

Conversely, Barry Wright I, who played an instrumental role in attracting industrialists to the southern Appalachian town in the twentieth century, represents the perpetuation of planter class dominance as exercised through the power of booster organizations and land speculation. Wright's grandfather, Augustus Romaldus Wright, was a farmer-lawyer before the Civil War with significant holdings in land and enslaved labor.¹⁸ The elder Wright served as a superior court justice for the Cherokee circuit for several years before resigning to resume private practice and oversee his farm in 1849. In 1855, A.R. Wright moved his family to the former Ridge home and ferry, north of downtown Rome, where his son, Seaborn, and grandson Barry would follow in his footsteps and take up the practice of law. After moving to Rome, the eldest Wright won election to the United States Senate and served in the 35th Congress.¹⁹

The Wright men wielded a great deal of power in the region throughout the late nineteenth and early twentieth century. The eldest Wright served as a delegate to the state

¹⁷ Michelle Brattain, *The Politics of Whiteness: Race, Workers, and Culture in the Modern South* (Princeton: Princeton University Press, 2001) 30.

¹⁸ 1860 census

¹⁹ United States. Congress. *Biographical Directory of the United States Congress, 1774-2005*. Washington, D.C.: Government Printing Office, 2005; Case Files of Applications From Former Confederates for Presidential Pardons ("Amnesty Papers") 1865-1867; (National Archives Microfilm Publication M1003, 73 rolls); Records of the Adjutant General's Office, 1780's-1917, Record Group 94; National Archives, Washington, D.C.

secession convention. Though he voted against secession, he eventually participated in the Confederate Congress and assisted in the drafting of the Confederacy's constitution. In 1864, however, Wright made the acquaintance of General William T. Sherman, whose troops occupied Rome from May to November of that year. In the eleventh hour, just weeks before issuing the first orders of what would become his infamous "March to the Sea," Sherman called upon A.R. Wright to meet with President Lincoln and attempt to arrange a separate peace for the state of Georgia. A negotiated peace might have saved Georgia from further destruction and weakened the Confederacy beyond repair. Though Wright's meeting with Lincoln ultimately proved unsuccessful, his cooperation earned him a presidential pardon for his services to the Confederate cause in the war, as well as an offer of provisional governorship, which he declined.²⁰

Seaborn Wright, one of five sons born to Augustus and wife Adeline Allman, gained national renown as a skilled orator and the driving force behind prohibition in Georgia. As early as 1910, his occupation changed from "lawyer" to "lecturer," according to the federal census, and newspapers all over the country advertised his speaking engagements. Seaborn also served many years as a representative to the state legislature, running one unsuccessful bid for governor.²¹ At home, however, Seaborn Wright helped lure northern investment in local industry by assisting in efforts to build a

²⁰ David T. Dixon, "Augustus R. Wright and the Loyalty of the Heart," *The Georgia Historical Quarterly* 94 no. 3 (Fall 2010): 343.

²¹ 1910 census; "Hon. Seaborn Wright of Georgia," (Cleveland, OH: Britton Printing Co., 1904) in *Travelling Culture: Circuit Chautauqua in the Twentieth Century*, University of Iowa Digital Library, <http://digital.lib.uiowa.edu/cdm/ref/collection/tc/id/39975> (accessed October 30, 2015).

new rail line from Rome to Gore, a site to the north of town with extensive ore deposits. Conveniently, the new rail line ran near his property and grist mill on Armuchee Creek.²²

Barry Wright I, the third generation of Wright men in Rome, followed closely in his forebears' footsteps, practicing law and serving on the state legislature. However, his work in industrial finance earned him the title "capitalist," as, according to a 1911 *Who's Who in Finance, Banking, and Insurance*, in addition to his work with the law firm of Lipscomb, Willingham, and Wright, Wright was the director of the Citizens Bank of Rome and the "general counsel and director" of the Cherokee Insurance Company, the Davis Foundry and Machine Works, and the Inter-State Nova Kola Co. He also held membership in a number of fraternal organizations, indicating his connection to an intricate social and business network, which ultimately led to his presidency of the local Chamber of Commerce, to be discussed in further detail below.²³

While the booster organizations, industrialists, and other "great men" of Northwest Georgia tell only part of the story behind the growth of new industry in the region, collectively their stories provide a backdrop for the shape of the local society and economy in the years between the two World Wars. Though generations of historians argued over the dominance of one class over another in the shaping of southern industrialization, a sampling of Rome's commercial leadership demonstrates that, at least in the view from above, a combination of both the commercial and planter classes

²² Aycock, 187; Battey, 402.

²³ William Leonard, ed., *Who's Who in Finance, Banking, and Insurance: A Biographical Dictionary of Contemporary Bankers, Capitalists, and Others Engaged in Financial Activities in the United States and Canada* (New York: Joseph and Sefton, 1911): 97.

emerged as the new “civic elite,” while the yeoman and self-sufficient farming class gave way to waged labor.

By 1921, Rome was considered the principal city of Northwest Georgia. Lying mid-way between Atlanta and Chattanooga on the Southern Railway, Rome and Floyd County had developed as an education, railroad, and business center, with rail lines radiating out in five directions from the city center, macadamized highways, and several growing educational facilities including Darlington School, the Boy’s Industrial School, which later became Berry College, and a women’s college, now Shorter University.²⁴ A 1921 soil survey noted that cotton remained the principal crop of the county, with food crop production insufficient to accommodate local demand.²⁵

Throughout the 1920s, calls for cotton crop reduction arose alongside efforts toward industrial recruitment. Declining demand for cotton during the post-World War I years combined with a pestilence of boll weevils in the early 1920s to create strained conditions for cotton farming in Floyd County, despite its relatively rich soils. State officials called for small, intensive production, which would allow farmers to better protect crops from pests, while encouraging farmers to diversify crops and participate in cooperative marketing.²⁶ The advice was intended to both insulate crops from the ravages of the boll weevil and provide time for market recovery in the post-war recession.

²⁴ U.S. Department of Agriculture, *Soil Survey of Floyd County, Georgia*, David D. Long (Washington: Government Printing Office, 1921) 8.

²⁵ *Ibid*, 70.

²⁶ “Georgia Farmers Cannot Give up Cotton but must Produce Cotton Properly,” *Rome Tribune-Herald*, November 19, 1921.

In response to the call for diversification, business leaders in Rome seized the opportunity to attract industrial interests and reinvigorate their pursuit of Henry Grady's "New South" ideal. Early in 1922, the Rome Chamber of Commerce began seeking downtown space in which to display the products of local manufacturers.²⁷ At the same time, a debate over the extension of city limits heated up in city commission chambers, with opponents to the extension fearing that expanded city limits, and therefore city taxes, might make it more difficult to compete against other towns to win new industry.²⁸

Despite the recession in raw cotton consumption in the early 1920s, new developments overseas and in U.S. foreign policy would soon bring new industries to southern Appalachia. In 1922, the United States Tariff Commission acknowledged the importance of a growing sector of the textile industry, the manufacture of artificial silk, in new tariff legislation designed to protect U.S. manufacturing interests against inexpensive imported goods. Prior to World War I, foreign imports dominated the United States consumption of artificial silk products, but the decline of European exports as a result of wartime hostilities opened the door for American manufacturers to make inroads into the market. In response to the growth of domestic artificial silk production, the Fordney-McCumber Tariff Act of 1922 included an ad valorem tax of 45 cents on the pound for artificial silk yarn and fifty cents on the pound for woven material.²⁹ The protectionist

²⁷ "Rome C. of C. to Show Products of Rome Factories," *Rome Tribune-Herald*, January 11, 1922.

²⁸ "Committee Opposes Extension of City Limits, Asserts Factories Not Able to Bear Heavier Taxation," *Rome Tribune-Herald*, February 3, 1922.

²⁹ United States Tariff Commission, *Tariff Information Surveys on the Articles in Paragraph 1213 of the Tariff Act of 1922: Artificial Silk* (Washington: Government Printing Office, 1925), 3.

attitude toward the artificial silk industry thus energized the influx of foreign direct investment in American industry as companies sought to bypass the tariff while still having access to American consumers.

Southern Appalachia proved an attractive region for the new, hi-tech textile industry for a variety of reasons. For one, the relatively late development of an extensive railroad system, due largely to the extended focus on lowland cotton and grain production, had left millions of acres of countryside undeveloped, and its population unexploited. Additionally, the region's waterpower offered unique advantages, with millions of gallons of pure water flowing through the hills and valleys daily. John Fred Holly discussed the rayon industry's exceptional need for the type of waterpower available in southern Appalachia in his 1949 examination of Elizabethton, Tennessee's industrial development, stating that the manufacture of rayon required 200 gallons of chemically pure water to produce one pound of material.³⁰ Unlike streams of the more heavily industrialized northern regions, the rivers in southern Appalachia remained a largely unharnessed source of power, relatively untouched by the ravages of chemical production.³¹ Rome's three rivers offered a prime target for industrial development at a time when hydroelectric power still dominated the textile industry. Boasting of the rivers' power, the Chamber of Commerce claimed that when a 1925 drought forced other towns

³⁰ Holly, 133, quoted from correspondence with Dr. A Cresswell, Chief Chemist, North American Rayon Corporation (formerly American Bemberg).

³¹ For extensive discussion of the role of water in southern industrialization, see Christopher J. Manganiello, *Southern Water, Southern Power: How the Politics of Cheap Energy and Water Scarcity Shaped a Region* (Chapel Hill: University of North Carolina Press, 2015).

to curtail water uses and industries to pause operations, Rome's water supply never faltered.³²

In 1926, the Georgia Railway and Power Company hired Lockwood-Greene to survey and report upon potential sites for developing industrial property in Georgia, principally within the northern half of the state. The firm selected sites based on access to railways, highways, adequate water supply, and power sources, and limited their search to the areas adjacent to transmission lines of the Georgia Railway and Power Co.³³ The report outlined twenty prospective sites for industrialization across sixteen counties. Floyd County received disproportionately high representation in the grouping, with three out of the twenty sites located in the vicinity of Rome.³⁴ As a direct result of the survey, the newly formed Georgia Power Company relocated its district headquarters to Rome. According to a front-page announcement in the local newspaper, Georgia Power had declared that "a survey made by two eminent engineering firms had found Rome and its community to be the best location from Arkansas to the Atlantic for textile and other industries to find homes."³⁵

Drawing a specific comparison between North Georgia and the more heavily industrialized Carolinas, the report posited that the heavy concentration of mills along the Southern Railway in areas such as Gaston County, North Carolina lent itself to the

³² "Chamber of Commerce News," *Rome News Tribune*, October 11, 1926.

³³ Lockwood Greene Engineers, Inc., "Industrial Sites in the State of Georgia," December 18, 1926, Lockwood Greene Records, Archives Center, National Museum of American History, Washington D.C.: 1.

³⁴ *Ibid*, 2. The sites selected in Floyd County did not include the site eventually selected for Chatillon.

³⁵ "Engineers Declare Rome Ideal Site for Textile Mills Says Arkwright," *Rome News Tribune*, November 19, 1926.

potential for labor unrest and unionization.³⁶ Additionally, the authors suggested that the people of the region preferred to remain close to their ancestral homes, so that scattering industrialized sites across several counties, rather than creating a few heavily industrialized zones, might create a more amicable, loyal workforce.³⁷ Significantly, owing to the strong influence of Jim Crow laws over industrial labor in the South during the first half of the twentieth century, the report's authors placed special emphasis on the whiteness of the North Georgia workforce, stating, "The percentage of negro population in these counties is 32% leaving 68% white. The percentage of foreign element is negligible."³⁸

A 1934 Rome City Directory echoed the sentiments expressed by Lockwood Greene, explaining Rome's advantageous labor situation owing to its "native Anglo-Saxon stock – loyal and efficient," who felt a "splendid spirit of cooperation" with their employers.³⁹ The directory's authors also credited the "mild climate and the low cost of living" with the contentment of the local labor force, similar to remarks made in the Lockwood Greene report stating that labor in North Georgia could be obtained relatively cheaply due to the warm climate, allowing the region's people to spend less money on clothing and winter fuel. According to the engineering firm, these advantages of southern labor were factors that were not subject to the whims of legislation or union organizations.⁴⁰

³⁶ Lockwood Greene, 3.

³⁷ Ibid, 4.

³⁸ Ibid, 4.

³⁹ Rome City Directory, 1934: 16.

⁴⁰ Lockwood Greene, 24.

The 1920s brought about several improvements to Northwest Georgia's access to electrical power, a necessary element for encouraging industrialization in the area. In 1920, Georgia and Alabama linked transmission lines from Rome to Gadsden, Alabama, bringing together seven major hydro-electrical systems in five states across the Southeast for continuous power.⁴¹ A 1925 drought, however, left the system crippled, forcing the Georgia Railway and Power Company to purchase electrical service from neighboring grids. Afterward, GR&PC became part of a merger into the Southeastern Power and Light Company, under which the former Georgia Railroad and Power Company became Georgia Power.⁴²

Finally, in 1927, the Rome Railway and Light Company, along with the Athens Railway and Electric Company, joined with the new Georgia Power to solidify its control over North Georgia's power grid, connecting 76 cities in the region with 600 miles of transmission line. Following a final merger in 1927 of Southeastern Power and Light Company with the Commonwealth Power Company to form Commonwealth & Southern Corporation, the power wielded by Commonwealth and Southern, which controlled grids throughout the Southeast and much of the Midwest, allowed the company to consolidate resources, bringing the price of power in the region down from 7.6 cents per kilowatt hour in 1927 to 5.7 cents by 1930.⁴³

The consolidation of power grid and railway companies, and subsequent price reduction in electrical service, offered practical benefits for industrial capitalists

⁴¹ Georgia Power, "History of Georgia Power," <http://www.georgiapower.com/docs/about-us/History.pdf> (accessed November 16, 2015).

⁴² Manganiello, 62-65.

⁴³ Ibid; Manganiello, 59, 77.

searching for plant sites. Lockwood Greene, in surveying North Georgia sites, noted that the four most important qualities for a potential industrial site to possess were railroad access, highways, water supply, and extant power transmission lines.⁴⁴ With the consolidation of the Georgia Power holdings and subsequent expansion of transmission lines in the 1920s, Rome and Floyd County became a central location connecting the older route of the Georgia Railway and Power Company's rail and power lines with the significantly expanded grid of the new Commonwealth and Southern Corporation.

Although Rome now found itself well connected to a vast grid of power and rail lines, when the Chamber of Commerce approached the railroad companies to help the town build a new passenger depot in 1927, railroad executives declined, stating that railroads as passenger transportation were becoming obsolete. They encouraged the Chamber to focus on building freight warehouses and making roads more suitable for transporting products through industrial corridors, and to use the concentration of railroad access in the Rome vicinity as a means of attracting new industries.⁴⁵ Highways now gained a greater significance in the transportation of the region's human resources, and road improvement projects sprinkled the newspaper headlines throughout the late 1920s. When the western route of the Dixie Highway through Rome, designated as State Highway 1 in 1919, became U.S. Highway 27 in 1926, Rome benefited from major road improvements to the federal highway system, putting Rome on the direct path of one of

⁴⁴ Lockwood Greene, 2.

⁴⁵ "Officials of the N.,C. & St. L. in Rome On Visit," *Rome News Tribune*, March 8, 1928.

the most modernized roads of the time.⁴⁶ Construction of an airfield in 1926 further solidified the town's claim as an ideal location for industry while simultaneously foreshadowing the impending demise of the passenger train.⁴⁷

By 1927, Rome could boast of paved roads, abundant access to hydroelectric power, an airfield, and "mighty industrial plants" with a combined average monthly payroll of over \$750,000.⁴⁸ The local chamber of commerce ran full page ads in the *Atlanta Constitution* that read, "Rome, Georgia is Another Way of Saying Your Opportunity," "Everyone is happy and contented, only skies are blue," accompanied by lengthy stories touting the town's dependable Anglo-Saxon labor stock, clean water, public schools, and private colleges. It boasted of Rome's citizens' public spirit, their willingness to "invest their money in [Rome] and build it for the future," to the point that "there are perhaps more people in Rome who own their own homes than in any other city per capita in the state."⁴⁹ Unlike the sullen, backward picture of southern Appalachia in popular imagination, Rome on in the 1920s appeared primed for the peak of modern development.

⁴⁶ See: "Rome Rotarians Begin Road Drive," *Atlanta Constitution*, February 14, 1924; "Rome's Good Work," *Atlanta Constitution*, February 17, 1924; "Hard Surface Program Made for 1926," *Atlanta Constitution*, January 7, 1926; "Dixie Highway Route via Rome Will Officially be Designated as Part of the Federal System," *Rome News Tribune*, October 17, 1926; "State Highway No. 1 to have All Links Finished by Summer," *Rome News Tribune* March 17, 1927.

⁴⁷ Aycock, 399-400.

⁴⁸ "Population statistics and industrial information taken from "Rome, in Heart of Georgia Mountains, Bustling City," *Atlanta Constitution*, May 1, 1927.

⁴⁹ "Rome, Georgia" page advertisement, *Atlanta Constitution*, May 1, 1927.

Chapter V

RAYON COMES TO ROME: 1928-1933

In the winter of 1898, a young Swiss preacher named Diogenes Marius Balsam arrived at Ellis Island to work for the Brooklyn City Mission and Tract Society as a Presbyterian missionary among Italian immigrants.¹ Balsam had recently recovered from wounds he received while serving under Garibaldi II in the Greco-Turkish War. Despite military service and his alleged descent from Swiss nobility, Balsam arrived in the United States virtually penniless, though a liberal education had provided him with knowledge of ten languages as well as chemistry and medicine. At some point before 1907, after losing an infant child to starvation, Balsam left his mission work and obtained a position with the Fulton Stamp Works in Lower Manhattan, where he was quickly promoted to chemist. One day, a customer brought him a roll of badly stained silk to dye, which the man then resold at a considerable profit, inspiring Balsam to go into business for himself buying damaged silk to dye and resell as neckties.² By 1907, he was able to expand his business and donate \$100,000 to aid local mission workers.³

¹ Emigration date given on passport application, 1920.

² For biographical information on D.M. Balsam: "Rich Necktie Maker Means to Give \$100,000," *Brooklyn Daily Eagle*, February 1, 1907; location of Fulton Stamp Works, 22 Beekman St, New York, New York, found in *The American Stationer*, vol. 38 no. 21 (November 21, 1895): 961

³ Eleanor Atkinson, Francis B. Atkinson, and Lewis A Convis, *The World's Chronicle: A History of the World Today for the Men and Women of Tomorrow*, vol. 15 (Chicago: Little Chronicle Company, 1907), 489.

Over the next two decades, Balsam built his empire in New York, branching out into imports and real estate. Sometime in the early 1920s, Balsam ran into a former schoolmate while visiting Paris. The schoolmate revealed that he had devised a new method for producing cellulose acetate rayon. An Italian company, La Soie de Chatillon, owned the patents and operated a production facility in a small village, Chatillon, outside of Milan. Balsam approached the manufacturing firm about establishing an operation in the United States. According to former Rome Chamber of Commerce board president Wilson Hardy's recollections in a 1955 interview, Balsam claimed that the owners were amenable to a partnership, provided they retain a majority of common stock, and that he had no problem assembling additional capital "from his own resources and those of his American business associates."⁴ Upon incorporation of the new American Chatillon Corporation, Balsam became president, and the new company received exclusive rights to manufacture Ruth-Aldo's cellulose acetate rayon in the United States.⁵

When the board of American Chatillon began seeking stateside property, they immediately set their sights on the South. Rome Chamber of Commerce president Wilson Moore Hardy caught wind of the rayon mill's intentions and sent Barry Wright to New York to woo the company.⁶ Wright successfully campaigned to get Rome on the short list of a dozen potential sites company officials would visit out of fifty under consideration.

⁴ James Harvey Young, "The She Wolf and the Twins," *The Georgia Review* vol. 9, no. 2 (Summer 1955): 194.

⁵ "Rome Will Lay Cornerstone of \$4,000,000 Mill," *Atlanta Constitution*, May 6, 1928. 1920 U.S. Census shows Diogenes M. Balsam living with his children, Ruth and Aldo, in Brooklyn.

⁶ "Wilson Hardy Gives Details of Efforts to bring Artificial Silk Mill to Site at Rome," *Rome News Tribune*, May 6, 1928.

Balsam, the French-speaking Swiss immigrant-cum-New York businessman, arrived first in the spring of 1928 followed by managers from Milan. “We had to have these economic advantages,” Hardy recalled eighteen years later, “but I am convinced that the name of our city gave us an important psychological advantage over many cities competing for the plant.”⁷

In late April of 1928, Wright announced that the Italian firm intended to build at Rome, but there was still work to do in order to secure the deal. Chamber of Commerce board president Wilson Hardy, like Barry Wright, descended from wealthy planter stock. He spent his youth as a newspaperman before becoming president of a marble firm as well as a local bank.⁸ Like Wright, Hardy’s established status within the community and multiple business interests placed him in a prime position to exercise the full extent of the Chamber’s power to ensure the town would meet the company’s needs. In an interview with the local newspaper, Hardy stated that the Southern Railroad and the Georgia Power Company cooperated with Rome officials to throw the full weight of their efforts behind Rome’s bid for the project, allowing a smooth path for land improvements. Additionally, when the company hit a snare getting its foreign patents approved for use in America, Hardy allegedly used his political connections to convince Senator William J. Harris, former Acting Secretary of the Department of Commerce, to put pressure on the president

⁷ Young, 193-194.

⁸ Wilson’s birth in 1881 and college attendance in 1900 make it difficult to discern his parentage without the use of non-traditional sources, but according to the family tree of a descendent, available on ancestry.com, his parents were Samuel Graham Hardy, a merchant, and Sarah Katherine Moore (Accessed November 9, 2015); Census data reveal that Hardy’s father was the son of Cephas Hardy, a wealthy Virginia planter who held almost \$40,000 in total estate in 1860, the modern-day equivalent of a little over a \$1 million.

to push the patent through.⁹ Hardy and Wright also appeared at city and county commission meetings, successfully convincing the municipal governments to put forth a cooperative effort to move the public water draw upriver, providing the plant site with better water access. The city and county councils also agreed to contribute to the paving of a better road to the site.¹⁰

While Wright and Hardy worked the political circuits to gain support for the new industrial endeavor, the local community and other business interests also got involved. As a show of good faith from the community, Chatillon executives requested that the chamber collect monetary subscriptions, ensuring direct local investment in the mill's success. Within a few days, the Chamber successfully raised the requested amount from community members, securing the new mill once and for all.¹¹

At the same time he announced the coming of the rayon mill, Wright also informed the public that the company did not plan to construct a mill village, indicating a departure from familiar patterns of southern industry. "The employees of the mill would come from North, East, South, and West Rome, and from the heart of the city," according to the local paper. "That means that housing facilities will have to be provided for them, which means the construction of dwelling houses on practically every vacant lot in Rome."¹² Within a few weeks after the company selected Rome for its new facility, lumber companies and contractors began preparing for a surge in residential construction,

⁹ "Wilson Hardy Gives Details."

¹⁰ Rome City Commission minutes, June 11, 1928, minute book N p 64.

¹¹ "Rome has Chance Get Great Artificial Silk Mill," *Rome News Tribune*, April 29, 1928.

¹² Ibid.

with predictions that as many as 1,000 new dwellings would be constructed locally to accommodate the rayon mill's workforce.¹³ At the same time, in the northern section of Floyd County, Brighton Mills announced that it would be moving the rest of its operation from Passaic and Allwood, New Jersey to its Shannon facility. Unlike the Italian rayon manufacturing firm, however, the New Jersey-based company planned to build new worker housing as an addition to its existing village.¹⁴

While mill villages featured prominently in the early twentieth century southern landscape, by the 1920s a combination of factors began to change the southern textile industry as well as mill villages. The introduction of hi-tech, multinational companies brought new management and different working conditions; traditional welfare paternalism and mill village construction became less popular as standard practice; and laborers were increasingly less likely to come fresh from the farm as first generation industrial workers. The window for mill village construction began to close, while simultaneously, new philosophies about town planning and landscape architecture worked their way into village design.

In 1920, landscape architect and future head of town planning for the Tennessee Valley Authority Earle Sumner Draper wrote a piece for the trade magazine *Textile World* about numerous village improvement projects his firm had taken on around the

¹³ "Predicted Increase in Real Estate Activity Proven by Figures Compiled Saturday," *Rome News Tribune*, June 3, 1928.

¹⁴ "Another Great Industry is Coming to Floyd County," *Rome News Tribune*, June 7, 1928.

Southeast.¹⁵ In response to heightened criticism of southern mill management and workers' living conditions, textile firms added modern amenities such as water, sewer, and electricity, and began building additional housing to include attractive landscape features and incorporate modern planning strategies.¹⁶ These changes are reflected in the landscaped, Craftsmanesque homes of the Chicopee Village, designed and built by Draper for Johnson and Johnson outside of Gainesville, Georgia (1927), and the Brighton Mill village at Shannon in northern Floyd County (1926).¹⁷

Despite the modernization of mill villages harkened by Draper and others, as early as 1924 industry experts began to talk about the imminent death of the company village and of traditional textile mill paternalism in the South.¹⁸ Under scrutiny during an age of reform movements, the mill village "problem" became the target of social workers who viewed the work and life in industrial centers with suspicion and concern. Likely, a combination of reduced cotton consumption, a new phase of worker unrest on the heels of World War I, and the expense of maintaining these new, modern villages inspired a reconsideration of the traditional paternalistic ways. The drama of these changes played itself out between Rome and the American Chatillon Corporation beginning in late 1928.

¹⁵ Earle Sumner Draper, "Southern Mill Village Developments: Summary of Work in Southern Plants during 1920 – Many Mills Extended and Improved Old Villages and Others Completed New Villages," *Textile World* 29 no. 14 (April 2, 1921): 103-106.

¹⁶ *Ibid*, 103.

¹⁷ See: National Register of Historic Places, Chicopee Mill and Village Historic District, Gainesville, Hall County, Georgia, National Register #85001638. It is yet unclear whether Draper himself was involved in the project.

¹⁸ M.W. Heiss, "The Southern Cotton Mill Village: A Viewpoint," *Journal of Social Forces* v 2 (March 1924): 349.

“Cheers for Duce,” read a subheading in a May 1928 *Atlanta Constitution* article about the festivities surrounding the arrival of Italian dignitaries in Georgia. The distinguished party was passing through Atlanta on their way to lay the cornerstone of the new rayon facility in Rome, seventy miles to the northwest. During a banquet held at the Biltmore Hotel in Atlanta, the article noted, party member Senator Ettore Conti expressed his feeling that “in the South, his people found a country more nearly like their native country than any other section of the world,” and that he “predicted unusual success for the new company and commended it on its selection of Georgia as the site.”¹⁹ At the same banquet, newly elected Rome Chamber of Commerce President Barry Wright elicited a “fervid burst of applause” from both American and Italian audience members, calling Premier Mussolini the “greatest man of the present century,” and the president of Fourth National Bank heralded the arrival of Chatillon as important to future peace between Italy and the United States.²⁰

In the midst of such fanfare, the modest-sized but ambitious town of Rome, Georgia welcomed its newest inhabitants and their business partners on May 8th, 1928. City leaders declared a local holiday and an estimated 3,000 people attended a parade leading from the main commercial district to the plant site, concluding in a ceremonial cornerstone laying ceremony.²¹ According to contemporary reports, the cornerstone came from the ancient Roman forum. At the ceremony, dignitaries placed a number of items in

¹⁹ “Italian Mill Men Welcomed Here,” *Atlanta Constitution*, May 7, 1928.

²⁰ Ibid.

²¹ “Impressive Ceremony Marks Laying Cornerstone,” *Rome News Tribune*, May 8, 1928. Estimates of the crowd vary, with a May 9, 1929 *Atlanta Constitution* article claiming there were over 5,000 in attendance, but I elected to use the more modest, locally-derived estimate here.

the stone, including a piece of rayon, flags of the two countries, and a special edition copy of the *Rome News Tribune* commemorating the occasion.²²

Between May 14 and June 4, 1928, American Chatillon Corporation purchased over 500 acres of land for its new site.²³ Crews broke ground on May 29, with one neighboring resident noting that before he went to bed the previous night, “there was nothing being done nor any equipment in place to do it with,” but that when he awoke “four steam shovels and a long string of trucks with many men were hard at work.”²⁴ According to the local paper, work on grading the property continued day and night, with dozens of lanterns lighting the way for steam shovels and rock crushers, making the scene resemble the circus from afar (Figure 4).²⁵

²² Isabelle Gammon, “High Officials of Rome, Italy Attend Laying of Cornerstone of \$10,000,000 Rayon Structure,” *Atlanta Journal Constitution*, May 9, 1928.

²³ Floyd County Register of Deeds: J.H. Porter to American Chatillon Corporation; John H. Jackson to American Chatillon Corporation; Mrs. Ida E. Reece to American Chatillon Corporation; Mrs. S.S. Puryear to American Chatillon Corporation; A.A. Burton to American Chatillon Corporation; Cephas Hardy to American Chatillon Corporation; J.W. McGinnis to American Chatillon Corporation; Mrs. Clemmie King Taylor to American Chatillon Corporation; Mrs. Jessie Hine Moore to American Chatillon Corporation; Mrs. Jessie Glover Hogg to American Chatillon Corporation.

²⁴ “Dirt Broken for Foundation of Great American Chatillon Plant Tuesday,” *Rome News Tribune*, May 29, 1928.

²⁵ Grading for New Rayon Mill Done by Day and Night,” *Rome News Tribune*, June 10, 1928.



Figure 4: "The Beginning of the Rome Plant," from *Tubize Chatillon Spinerette V* no. 12 (April 1930): 2.

The rapid pace of mill construction meant not only an entertaining light show for passers-by, but also immediate employment for dozens of men from around the region. With worker housing still in negotiation in the summer of 1928, many construction workers who came from outside the area found themselves in a makeshift "tent city" adjacent to the mill property, near what is now Poplar Street.²⁶ Additionally, nearby property owners hired out mules and horses to pull the heavy equipment.²⁷

The lots purchased by Chatillon included the former land and dwelling of Cherokee Chief Major Ridge. The old Ridge house soon became the home of Dr. Ugo Mancini, resident manager and vice president of the company.²⁸ First built in the early nineteenth century, the structure had already been through several dramatic

²⁶ Jim Rudd, correspondence with author.

²⁷ Elizabeth Alford Wells, correspondence with author.

²⁸ Mancini and future resident managers did not live in one of the houses constructed by the company, but in the house purchased by the company from J.H. Porter, the former home of Major Ridge. "Officials of Rayon Mill Will Arrive Monday," *Rome News Tribune*, December 23, 1928.

transformations by the time it came under the ownership of American Chatillon Corporation, standing as a monument to the transformation of former Cherokee Georgia in the preceding century. When Major Ridge and his family first moved into the house, which is believed to have been built by a previous occupant, it was a simple two-story log structure with an open central passageway, sometimes referred to as a “dogtrot.” The Ridge family completed several updates to the structure before their forced removal to Oklahoma in late 1836, including glass windows, clapboard siding, and the addition of shutters and porches (Figures 5 and 6).²⁹

Along with the main house, the Ridge property once contained a number of slave dwellings, a country store and a ferry landing, both of which were operated by Ridge’s white business partner, George Lavender, in order to circumvent laws precluding Cherokee from owning businesses.³⁰ In later years, ferry traffic declined following the construction of a bridge over the Oostanaula River downstream from the ferry landing. Significantly, however, an old road connected the Ridge ferry to another ferry at the confluence of the three rivers near the property of Chief John Ross of the opposing Cherokee party. By 1928, the road, constructed under Cherokee law in 1819, remained

²⁹ Alice Taylor-Colbert, “Chieftains Museum/Major Ridge Home,” *New Georgia Encyclopedia*, <http://www.georgiaencyclopedia.org/articles/history-archaeology/chieftains-museummajor-ridge-home> (Accessed June 2, 2017).

³⁰ U.S. Department of the Interior, National Park Service, *Chieftains Museum/Major Ridge Home: Historic Structure and Cultural Landscape Report*, by Steven Burns-Chavez, Mark L. Mortier, and Glenn D. Simpson (2007) <https://www.nps.gov/trte/learn/management/upload/trte%20chmu%20hsr-clr.pdf> (Accessed June 2, 2017): 36.



Figure 5: Ridge Home, 1910s. Image courtesy Rome Area History Museum.

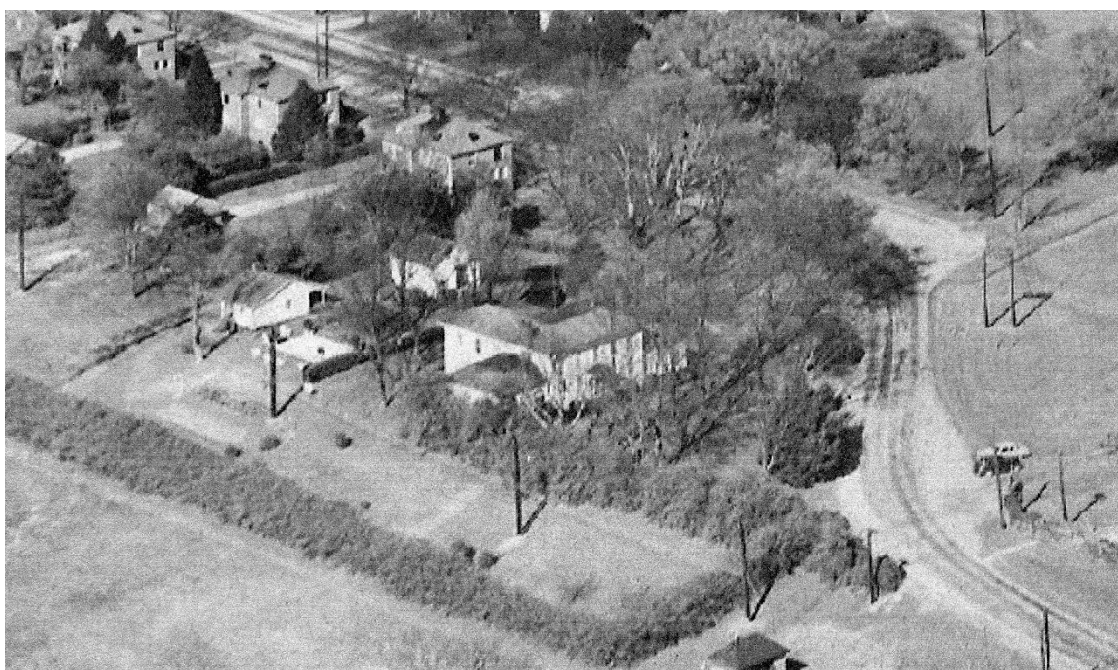


Figure 6: Ridge Home, 1950s. Image courtesy Rome Area History Museum.

the primary artery of transportation between the confluence and the Ridge site to the north.³¹

The Ridge home changed hands several times between the Ridge family's forced removal and American Chatillon Corporation's acquisition of the property, evolving through time with its owners. In a 2007 report completed for the National Park Service, researchers were unable to construct a definitive timeline of alterations, but the house, as it stood by 1928, looked dramatically different from the home occupied by Major Ridge and his family. Based on photographic and documentary evidence, the main entrance of the home had been reoriented from the river to the road sometime in the nineteenth century. The original log cabin then became a rear Ell with open-air porches. By 1924, the home had been updated to a modern Colonial Revival style flanked by new wings: an open porch on the west and a sunroom on the east.³² Indoor plumbing and electricity were probably added at this time as well, further modernizing the over-100 year old structure and making it a suitable domicile for the resident manager of a hi-tech industrial facility.³³

As work proceeded on the Chatillon mill and management began moving in, local developers began buying up property in order to comply with the chamber's call for worker housing. New developments included a subdivision called "Riverside" along West Seventh Avenue and "Reservoir Heights," both of which sat between the mill site and downtown Rome. Another development, "DeSoto Heights," sprang up about one

³¹ Ibid, 11-12.

³² Ibid, 55-82 for a complete description of architecture and additions.

³³ Ibid, 107.

mile from the plant on the road to North Rome.³⁴ According to the chamber's calculations, construction projects completed and underway by June would take care of about 25% of the housing needed for Chatillon workers and their families. By late June the local paper reported that developers were constructing a "house a day" in the city and county.³⁵

Despite heady reports of speedy construction during the early weeks of summer in 1928, the tone soon turned from hopeful to worried, as the completion date of the new mill approached and sufficient housing still had not materialized. In late August, the Chamber of Commerce met to discuss the "housing problem," having been informed that ten or twelve families who had already arrived for construction work at the mill site had been unable to find adequate housing.³⁶ One former resident recalled early workers living in a "tent city" adjacent to the mill site.³⁷ Chamber officials began compiling a list of potential housing for incoming workers, requesting that anyone with a vacant room or rental property notify a special housing committee, which expected another 500 people to

³⁴ "Many Houses are Being Built while Activity in Real Estate is Showing a Marked Increase." *Rome News Tribune*, June 10, 1928; "Successful Sale of Reservoir Lots Held Wednesday," *Rome News Tribune*, June 14, 1928. (Include map or figure of some sort to show locations of subdivisions, maybe a photo of an extant home?) The houses of the Riverside subdivision are no longer extant, now the site of a public library, power substation, widened road, and shopping center. There is some construction debris along the Heritage Trail, a walking and bike trail that runs along the river and includes a section of what once was West Seventh Avenue/River Road. The Reservoir Heights subdivision was demolished mid-century to make way for a federal housing project.

³⁵ "House-a-Day Being Built Rome Suburbs," *Rome News Tribune*, June 20, 1928.

³⁶ "Housing Problem is Discussed by Rome Chamber," *Rome News Tribune*, August 29, 1928.

³⁷ Jim Rudd correspondence with author.

arrive by the end of September.³⁸ Romans responded quickly to the call for housing, with fifty homes registering rooms to rent within the first twenty-four hours of the campaign.³⁹ However, the chamber soon realized that many of the workers would come with families and need apartments and houses, so they issued a second call for the registration of larger rental properties.⁴⁰

In the midst of negotiations over company housing, representatives from the Rome Chamber of Commerce, former president Wilson Hardy along with W.S. Cothran, paid a visit to the only site in the Southeast comparable to Chatillon at that time, the American Bemberg plant in Elizabethton, Tennessee, in part to study how the local community had handled the housing situation. Like the American Chatillon Corporation, the German-managed American Bemberg insisted from the onset that they would not build a village.⁴¹ At Elizabethton, the local chamber of commerce had originally estimated a population increase of as many as 75,000 people, and major investment groups formed to purchase land and build subdivisions for workers.⁴² When Bemberg's affiliate, American Glantzstoff, contracted with the Elizabethton Chamber of Commerce to build an additional unit in 1927, the contract included a stipulation that the chamber

³⁸ "Rome Chamber to List Rooms for Rent Here," *Rome News Tribune*, September 5, 1928.

³⁹ "Rome Responds to Appeal for Rooms Quickly," *Rome News Tribune*, September 6, 1928.

⁴⁰ "Rome Chamber Desires Small Apartments," *Rome News Tribune*, September 16, 1928.

⁴¹ "Rome Must Have 500 New Houses within 15 Months," *Rome News Tribune*, September 23, 1928.

⁴² John Fred Holly, "Elizabethton, Tennessee: A Case Study of Southern Industrialization," PhD diss. Clark University, 1949: 140-150 discusses the impact of the Bemberg mill's construction on real estate speculation and land values, and the relationship between the local chamber of commerce and the rayon company.

itself take responsibility for guaranteeing construction of 200 houses. The chamber placed the execution of construction in the hands of the Watauga Development Corporation, an enterprise originally chartered in 1925 by a combination of Bemberg executives and local capitalists. The development company expended approximately \$1.2 million purchasing land and constructing homes for Bemberg and Glantzstoff workers in order to fulfill the chamber's obligation to the company.⁴³

The Rome Chamber of Commerce representatives returned home with a greater sense of urgency about the impending housing shortage. By the time Hardy and Cothran visited Elizabethton, according to their reports, its population had risen from 2,500 to 10,000 inhabitants within three years as a result of the rayon plant's operations.⁴⁴ What neither the Watauga Development Company nor Rome's civic elite could have foreseen, however, was that the new rayon mill at Elizabethton, due at least in part to the onset of the Great Depression, never reached its full expected capacity of 20,000 personnel, and many of the workers of its diminished force drove in from surrounding farmlands and never moved to town. By 1934, the Watauga Development Corporation was bankrupt.⁴⁵

Though the local newspaper dubbed the Rome Chamber of Commerce's housing drive a success, concerns mounted throughout September and October as workers began pouring into the town. In early October, officials from the American Chatillon Corporation repeatedly expressed their distress at the state of the housing situation, and continued to insist that they were depending on the local population to sort out the

⁴³ Ibid, 150-151.

⁴⁴ "Rome's Need for 500 Houses in Fifteen Months," *Rome News Tribune*, September 24, 1928.

⁴⁵ Holly, 150-151.

problem for themselves. With installation of machinery expected to begin by early November, the company was especially concerned about the professional rayon industry specialists who would be arriving in town with their families for extended stays of a year or more and needed “nice homes, renting at \$30.00 to \$50.00 a month.”⁴⁶ While the chairman of the board, D.M. Balsam, insisted it was up to Rome to house new workers, a palpable dissonance began to leak through in the paper’s reports on the subject. In the same article reporting Dr. Balsam’s insistence that the company would not build a village, the newspaper reporter editorialized that the company surely would not “allow a \$5 million plant to lie idle” if the local people failed to furnish appropriate housing, while also lamenting that the housing committee believed that the citizens of Rome had not yet “waked up to the bigness” of the situation at hand.⁴⁷

In late 1928, the American Chatillon Corporation and the Rome Chamber of Commerce found themselves in an awkward game of housing roulette. As late as October 23, with dozens of mill professionals and their families expected to arrive within the week, Dr. Balsam pleaded with local builders and businessmen to furnish the necessary housing.⁴⁸ After learning of the findings of a special committee of the chamber of commerce reporting that Rome’s existing workforce was at almost full employment, the company relented, and Chatillon contracted the A.K. Adams Company of Atlanta to build thirty-three brick veneer houses, worth \$5,000 each, to accommodate the first wave of

⁴⁶ “Homes Needed Immediately for New Citizens coming to Work American Chatillon Corporation,” *Rome News Tribune*, October 7, 1928.

⁴⁷ Ibid.

⁴⁸ “Dr. Balsam Tells Members of Chamber of Commerce he Does Not Want to Build Mill Village,” *Rome News Tribune*, October 23, 1928.

incoming managers, chemists, and other specialists. In addition, they planned to build 100 frame houses “like those in any mill village” for workers.⁴⁹

In November of 1928, company executives selected R.A. Morgan, a Georgia native, to serve as the industrial manager in Rome. Morgan had previously worked for Brighton Mills in Shannon.⁵⁰ A few weeks later, Dr. Ugo Mancini, resident manager of the Rome rayon facility and vice president of the company, arrived from Italy with his family to take up residence in the former Ridge home.⁵¹ Expected to join him were sixty-seven other professionals and their families, including “not more than ten...Italians, two French, and two German.”⁵² By December, management had officially set up offices in a house to the east of the mill site, a 1910 home built by brick mason J.W. McGinnis.⁵³ Finally, in February of 1929, French scientist Dr. Henri Barthelemy, the company’s head chemist, arrived with his family to begin preparing for the expected April opening of the first phase of the Rome facility which, when opened, had a production capacity of two million pounds per year of acetate yarn.⁵⁴

⁴⁹ “Contract for Thirty-Three Houses for Superintendents Chatillon Mills Is Announced,” *Rome News Tribune*, November 23, 1928.

⁵⁰ “Morgan Accepts Post as Manager of Rayon Plant,” *Atlanta Constitution*, November 14, 1928.

⁵¹ Mancini and future resident managers did not live in one of the houses constructed by the company, but in the house purchased by the company from J.H. Porter, the former home of Major Ridge. “Officials of Rayon Mill Will Arrive Monday,” *Rome News Tribune*, December 23, 1928.

⁵² “Rome Chamber Barbecue to be Held Thursday,” *Rome News Tribune*, October 22, 1928.

⁵³ “The Story of a Beginning by One Who ‘Began,’” *Tubize Chatillon Spinnerette* (February 1931): 6.

⁵⁴ “Famous Chemist Henri Barthelemy Moves to Rome,” *Atlanta Constitution*, February 3, 1929; Mauersberger and Schwarz, 17.

During the summer of 1929, in an attempt to solidify the ties between Old Rome and New Rome, and between the largely foreign and northern company officials and southern workers, Chatillon's European management inadvertently alienated themselves further from the local community. When parent company La Soie de Chatillon first shipped the production machinery from Milan, Italy to Rome, Georgia, they included a bronze replica of the "Capitoline Wolf," an ancient Etruscan statue that represented the myth of Old Rome's founding.⁵⁵ The image of the statue had been the Italian company's trademark for years, and their Milan management expected that it would be for the Rome plant as well. However, when the statue arrived in Georgia, the American board of directors found it offensive and placed it in storage. According to one account, when the Rome mill manager informed Dr. Baroli that he would have to ship the wolf back to Italy, Baroli told him it was too expensive to ship back on its own because it would have to be shipped as a work of art. The Rome manager threatened to throw the statue into the river to get the space, prompting Baroli to pay a visit to his New World counterpart. After some negotiations, Dr. Baroli and the Italian consul in Birmingham, Alabama concocted to present the statue as a gift to the city of Rome from Benito Mussolini.⁵⁶

On July 20, 1929, Rome residents gathered in front of City Hall for the ceremonial unveiling of the statue. Like the cornerstone ceremony, the elaborate celebration for the statue attracted thousands of attendees. However, some local townspeople were unprepared for what was to be unveiled, which was, in the words of

⁵⁵ Ibid.

⁵⁶ Katherine Barnwell, "Romulus, Remus, and Wolf put Georgia's Rome in a Tizzy," *Atlanta Constitution*, October 7, 1945.

local historian Hughes Reynolds, “an ugly she wolf with her pendulous teats,” and the two infants, Romulus and Remus, “with all their anatomy exposed for everyone to see.”⁵⁷ Ultimately, the statue fell victim to several pranks and acts of vandalism over the years; the infants were kidnapped on numerous occasions and the wolf’s teats occasionally painted red. During some civic events officials draped the statue with cloth to protect the public from the offensive imagery.⁵⁸

Even as Morgan, Mancini, and Barthelemy began getting operations underway in Rome, the New York offices planned for the future. In May 1929, American Chatillon Corporation and Tubize Artificial Silk announced plans to form a new company to manufacture Chatillon’s acetate fibers at a plant near the Tubize Hopewell operation.⁵⁹ The stock of Tubize, a larger and older firm, had declined at the first of the year.⁶⁰ In an episode almost metaphorical to the state of the market uncertainty already underway in the summer of 1928, one of the top executives of Tubize, financier Alfred Lowenstein, nicknamed the “flying financier,” fell to his death from his private plane into the English Channel under circumstances which led witnesses to speculate he had jumped.⁶¹ Among supporting evidence given for the suicide theory was a recent slump in the Brussels market, which drove down the value of Tubize shares. Adding insult to injury for the

⁵⁷ Hughes Reynolds, *The Coosa River Valley from DeSoto to Hydroelectric Power* (Cynthiana, KY: Hobson Book Press, 1944), 275.

⁵⁸ *Ibid.*, 276.

⁵⁹ “Plan Joint Rayon Concern,” *New York Times*, May 23, 1929.

⁶⁰ “Bancitaly Again Goes Down, Other Issues Close Lower,” *Atlanta Constitution*, June 13, 1928; “Curb Issues Decline under Heavy Selling,” *New York Times*, March 24, 1929.

⁶¹ “Lowenstein’s Tragic End Shakes Europe’s Markets,” *New York Times*, July 6, 1928.

company, however, Lowenstein's death initiated a violent market reaction, with stock values dropping from 1,567 to 1,130, settling at 1,205 by close of business that day.⁶²

Additionally, the older company held a disadvantaged market position due to its more outdated manufacturing process. The Chardonnet nitrocellulose process employed by Tubize was extremely dangerous due to the explosive nature of the chemicals involved. It also produced yarns of less desirable quality than some of its larger competitors' newer methods. The older corporation may have hoped to capitalize on the modern technology that the smaller company had to offer, while the small, new company could take advantage of the older firms' marketing and management expertise.⁶³

Economic downturns and corporate upheaval notwithstanding, the Rome acetate facility began operation in the fall of 1929 and workers and their families began settling into their sleek, modern surroundings.⁶⁴ By the time of the 1930 census nearly eight hundred mill employees resided in the newly constructed mill community at Riverside. Along with family members and boarders, the total occupancy of the village and

⁶² Ibid.

⁶³ Wilkins, 233-234. For flammability and desirability of nitrocellulose rayon, see S.S. Sadtler, "Research in the Artificial Silk Industry," *Annals of the American Academy of Political and Social Science* 119 (May 1925): 36. According to Federico Barbiellini Amidei and Andrea Goldstein, the purpose of the partnership was to avert the 45% *ad valorem* tax, but they do not present direct evidence to support their conclusions. Amidei and Goldstein, "Italian Investments in the United States – Contributions to a History," (2007), https://www.udes.edu.ar/files/UAAAdministracion/FBA-AG_26%20aprile2008.pdf (Accessed December 23, 2012).

⁶⁴ It is unclear exactly when the mill began operations based on available sources, but the first operative death occurred on October 9, 1929 when a 22 year old man was crushed trying to repair a chemical mixing vat. "Last Rites Today for Rome Victim of Mill Accident," *Atlanta Journal Constitution*, October 11, 1929.

immediate area at the time was 1,684.⁶⁵ The vast majority of workers were natives of Georgia, with a sizeable portion also coming from Alabama and Tennessee. The community included twenty-eight foreign nationals, mostly residing in the management village, the largest number of whom came from Italy.⁶⁶ In a 1994 interview with historian Michelle Brattain, former mill operative Walter Brooks revealed that workers referred to the management village as “what town” because of the language gap between the foreign managers and southern mill hands.⁶⁷ Apart from “what town,” however, the village contained a largely homogeneous community. While the aggregate of residents of the Riverside district represented twenty-five states and ten countries on three different continents, fewer than seventy of the nearly 1,700 residents hailed from outside of the American South.⁶⁸

⁶⁵ 1930 census, Riverside, Floyd, Georgia. Sometime between the 1920 and 1930 census, most likely to accommodate the new village, Floyd County officials created a new militia district, the Riverside District, which was comprised almost entirely of the village. Seventy-two people in thirteen households lived in non-company housing. Eighteen of the seventy-two worked in the rayon mill, sixteen were farm workers, five were engaged in service to a private family, and five worked as laborers in other trades and industries or doing odd jobs. Seventeen of the twenty-five African American residents of the district lived outside of the village. The eight who lived in the village were live-in servants in the homes of rayon management and other high level employees.

⁶⁶ 1930 Census, Riverside, Floyd, Georgia.

⁶⁷ Brattain, 59.

⁶⁸ 1930 census, Riverside, Floyd, Georgia. 1,615 total residents from the southern states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia, and West Virginia; 15 from Northeastern and Mid-Atlantic states Massachusetts, New York, and Pennsylvania; Nineteen from Western and Midwestern states of Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio, Oklahoma, and Wyoming; 4 unknown United States; 28 total foreign nationals from Austria, Belgium, Chile, England, France, Germany, Italy, Russia, Scotland. An additional resident, mill manager R.A. Morgan’s fourteen year old son Gray, was born in China but did not have alien status because his parents were from Georgia and Alabama.

Though it is unclear why and how the company changed course, it ultimately abandoned its plan to build a small, traditional village of frame houses and hired Lockwood Greene Engineers to construct 338 brick veneer homes, all furnished with water, sewer, and electricity, in what would become Riverside Village.⁶⁹ The homes in the village were built according to five basic plans: three, four, five, and six room single-family plans plus an efficiency duplex, all furnished with electricity and indoor plumbing, which some if not many of the workers who first moved into them never had before.⁷⁰ While most of the homes were built as single-family dwellings, workers immediately adapted them to their own needs, living in large extended family groups or taking in boarders and lodgers, sometimes hanging sheets as room dividers for added privacy. To get the most out of the space, families let rooms to workers with opposing shifts, boiling the sheets in-between.⁷¹

Unlike most companies in the early twentieth century, Chatillon had their homes built in brick veneer along tree-lined, curvilinear roads that echoed the work of landscape architect Earle Sumner Draper, who designed a similar village at Chicopee, Georgia in 1927, just two years before the construction of Riverside began.⁷² All of the homes

⁶⁹ American Chatillon Corporation and Lockwood Greene Engineers, "Contract for 338 Brick Houses," April 1, 1929, Folder B1E2, Tubize Collection, Rome Area History Museum.

⁷⁰ Brattain, 42-43, from interview with Oscar Allen, who lived on Ash Street in the village through the 1990s.

⁷¹ To see household sizes, see: U.S. Department of Commerce, Bureau of the Census, "Fifteenth Census of the United States: 1930 Population Schedule," Riverside District, Floyd County, Georgia. Information on household arrangements from Jim Rudd Sr. in personal communication.

⁷² See: National Register of Historic Places, Chicopee Mill and Village Historic District, Gainesville, Hall County, Georgia, National Register #85001638. It is yet unclear whether or not Draper himself was involved in the project.

included porches and enough outdoor living space for vegetable and ornamental gardens. Alleys ran between many of the streets, connecting neighbors back door to back door. Situated to the immediate northeast of the imposing mill complex, the village provided employees with easy access to work and a ready landscape in which to build a community.

In March 1930, in response to increased market pressures, the joint acetate venture initially conceived by Tubize and Chatillon officially became a full merger.⁷³ At the time, Tubize, the third largest rayon manufacturer in the United States, lagged behind on the stock market and with consumers, while Chatillon struggled to recover from a lawsuit brought against them by acetate leader Celanese Corporation of America.⁷⁴ When the new company organized into the new Tubize-Chatillon Corporation, Tubize officials served as the officers and named Ugo Mancini, resident manager at Rome, as their vice-president.⁷⁵

⁷³ "Tubize Votes Chatillon Merger," *New York Times*, March 13, 1930. The decision to merge may have been related in part to a law suit brought on Chatillon by larger, British-controlled competitor Celanese Corporation of America, accusing the former of stealing trade secrets. According to a report on the suit in the *Washington Post*, two assistant superintendents from the Celanese plant at Cumberland, Maryland broke contracts with their former employer to work for Chatillon. Celanese officials believed that the two men were in possession of "knowledge of the secret processes and methods," and that they would use that information for personal gain at Chatillon. "Cumberland Firm Asks Injunctions," *Washington Post*, August 21, 1929.

⁷⁴ Wilkins, 234. The decision to merge may have been related in part to a law suit brought on Chatillon by larger, British-controlled competitor Celanese Corporation of America, accusing the former of stealing trade secrets. According to a report on the suit in the *Washington Post*, two assistant superintendents from the Celanese plant at Cumberland, Maryland broke contracts with their former employer to work for Chatillon. Celanese officials believed that the two men were in possession of "knowledge of the secret processes and methods," and that they would use that information for personal gain at Chatillon. "Cumberland Firm Asks Injunctions," *Washington Post*, August 21, 1929.

⁷⁵ "Welcome Rome!" *Tubize Spinnerette* V no. 10 (March 1930) 16.

On April 1, 1930, voting trustees Roland L. Taylor, Rufus W. Scott, and John Wyckoff Mettler posted notice to stockholders that they were to exchange their certificates through the Central Hanover Bank and Trust; each share in the old company entitled certificate holders to six shares in the new.⁷⁶ Because Tubize was a much larger company, the trustees hoped to satisfy investors with a high exchange rate. However, the bank took two years to work out a mutually agreeable differential settlement to account for stock disparity.⁷⁷ For the time, both companies voiced intentions that operations at Rome would continue as planned, with two-thirds of the \$10 million facility still incomplete.⁷⁸

Meanwhile, workers at the Rome and Hopewell plants became acquainted through the company's publication, the *Tubize Chatillon Spinnerette*, which began as the *Tubize Spinnrette* in 1925. In April 1930, the state seals of Georgia and Virginia graced the cover flanked by Elizabethan-styled figures trumpeting the new company's inception. The first post-merger issue included a brief background history of Rome and letters to Hopewell from Tubize officials visiting the new sister plant, and even a poem commemorating the departure of a worker who had been transferred.⁷⁹ The next several issues contained short vignettes about Rome's history and the plant's early days, but also settled into a rhythm of departmental reports, baseball news, and general company news.

⁷⁶ "Financial Notice: Tubize Artificial Silk Company of America," *New York Times*, April 1, 1930.

⁷⁷ "Tubize Makes Move to Simplify Set-up," *New York Times*, April 16, 1932.

⁷⁸ Wilkins, 328; "Plan Joint Rayon Concern."

⁷⁹ *Tubize Chatillon Spinnerette* V no. 11 (April 1930).

Among topics foremost in the early publications were calls for “self-sufficiency” and sanitation in the village. Resident supervisors were chiefly concerned with the appropriate disposal of household waste, something with which the company seemed to believe in-migrants from rural areas had never dealt, and the planting of gardens. According to an admonishment in the May 1930 issue of the *Spinnerette*, “the site of the village was formerly one of the best farms in Floyd County and was very productive in years past, so there should be no difficulty in getting vegetables and flowers to grow if given proper attention and cultivation.”⁸⁰ The author noted that the company “encourages the cultivation of vegetable and flower gardens” as a way to “make on feel more at home and settled.”⁸¹

In addition to the village and its modern houses and amenities, the company also provided a school just to the northeast of the plant. The school opened for classes on October 8, 1929 with an enrollment of 235.⁸² Upon opening, the Chatillon School included first through seventh grades, after which time those continuing their education could have attended Model High School several miles away near the Brighton Mill, or pay tuition to attend Rome High School.⁸³ At the time, however, compulsory education only required students to attend school through the age of 14, and those without adequate transportation likely began contributing to the household economy. According to the

⁸⁰ O.M. Crawford, “Gardening,” *Tubize Chatillon Spinnerette* 5 no. 12 (May 1930): 24.

⁸¹ Ibid.

⁸² “Tubize Chatillon School,” *Tubize Chatillon Spinnerette* 5 no. 14 (July 1930): 24.

⁸³ Jim Penney, “Tubize’s Village was a Way of Life, Community,” *Past Times: The Rise and Fall of Mill Life*” special issue of the *Rome News Tribune* (August 2007): 70; Spurlin interview.

1930 census, of 158 village residents between the ages of 14 and 17, only 41 had attended school since September 1, 1929. Among the remaining 117, 17 listed no occupation, 94 worked at the rayon mill, and another 6 at other occupations including farm labor, grocery, and housekeeping. Also of note, ten adolescents between the ages of 15 and 17 were already married and beginning to produce the next generation of rayon workers.⁸⁴

Across from the school, Tubize Chatillon soon erected bleachers and leveled a sloping field to create a baseball diamond for the company team, which served to reinforce the communal identity of mill employees. In a *Spinnerette* article about the team's formation, employment agent Victor Furbringer noted that after the first meeting of the baseball team on March 26, 1930, the players "came in as strangers and went out as friends and players who will help Kane, our manager, make the team one of the best in any industrial plant."⁸⁵

In the following season, the plant extended its sports program to include African American workers with the formation of the "Colored Tornadoes," who, according to the company publication, became the "best equipped colored club in Northwest Georgia."⁸⁶ Reflecting the pervasive stereotyping of southern African Americans, however, the article, written by a Black worker, included a mock-dialect description of a game in which an imaginary observer shouts to the team "Pitch it, big boy, youse got ev'ything! Stop dat ball, dat 'Zig' tanding' up dere sleep, he musta had a 'brinner."⁸⁷ Officers of the

⁸⁴ 1930 United State Census.

⁸⁵ V. Furbringer, "Rome Baseball News," *Tubize Chatillon Spinnerette* 5 no. 12 (May 1930): 26.

⁸⁶ Alfred Cherry, "Doings and Sayings of the Colored Tornadoes," *Tubize Chatillon Spinnerette* 6 no. 29 (September 1931): 9.

⁸⁷ *Ibid* 9-10.

team included Alfred Cherry, a porter, Porter Montgomery, a day laborer, and Jim Brand, longtime chauffeur for the plant president.⁸⁸

In addition to reporting on the sporting activities of the plants, which by mid-1931 included basketball, boxing, and bowling, each department had a voice within the company publication, with columns often filled with gossip, humorous observations, and reports on new and departing employees. While the lighthearted wink-and-nudge tone of many of the columns may have served to keep the mood light on the mill floor, it also reveals the panopticon view now enjoyed by a modern company, whose plant design and organizational structure allowed close observation of employees, even inducing them to report on one another in the apparently innocuous pages of the *Spinnerette*. By 1932, calls for waste reduction and inter-departmental competition crept into the pages of the publication, hinting at the increasing fetishization of efficiency that would come to rule the lives of laborers in the coming decades.

In the first part of the 1930s, competitors in the American rayon industry engaged in an extensive turf war in the court system to make claims on a certain patented process. In February of 1931, Tubize-Chatillon sued the Industrial Rayon Corporation for allegedly using processes patented by Henry Gardner and James Singmaster on behalf of the Tubize Artificial Silk Corporation.⁸⁹ The same patent became the target of another lawsuit in March of 1933 when New Jersey Zinc alleged that Singmaster had come up with the idea while in the company's research laboratory. Despite Singmaster's claim that he had not discovered the process while working for New Jersey Zinc, Tubize-

⁸⁸ Occupation information derived from 1930 and 1940 census records.

⁸⁹ "Sues Rayon Corporation," *New York Times*, February 26, 1931.

Chatillon lost the suit and had to account for all profits incurred from the use of the process in question.⁹⁰

In another suit in August of 1931, a former employee of the Hopewell, Virginia Tubize-Chatillon mill faced charges that he had attempted to steal trade secrets from DuPont.⁹¹ The industry as a whole took an additional blow in 1934 when the federal government brought charges against ten major viscose yarn producers, including Tubize-Chatillon, for “combining and conspiring to form a price-fixing monopoly.”⁹² Three years later, a court ruled that the rayon group, along with accounting firm Price, Waterhouse, and Company, had violated the Federal Trade Commission Act and ordered it to “cease and desist” the undertaking of any activity designed to eliminate price competition.⁹³

As the country sank deeper into depression in the early 1930s, rayon’s fortunes continued to rise, though not without falter. Rebranding, regrouping, and corporate collectivism helped stave off some of the worst of the decades’ ravages for those involved in the industry, though the growth remained stunted in comparison to the grand

⁹⁰ "Tubize Chatillon Loses Process Suit," *Atlanta Constitution*, March 28, 1933.

⁹¹ "Held as Spy Seeking du Pont Process," *New York Times*, August 7, 1931.

⁹² Ten major rayon producers attempted to bring an end to their private war by retaining accountants and Price, Waterhouse, and Co. to audit each company’s books for variations in order to set a fixed price for the entire industry; any rayon company attempting to sell below the fixed rate would be punished by the others, who would collectively undersell the offending company to force them to comply. As a result of the agreement, the federal government charged Tubize-Chatillon and nine others with conspiracy and monopoly. “10 Rayon Concerns Called Monopoly,” *New York Times*, February 8, 1934.

⁹³ “Rayon Group Ordered to Stop ‘Price Fixing,’” *New York Times*, July 7, 1937.

aspirations of the Rome rayon mill's founders. Nevertheless, for the modestly sized town of Rome, the rayon mill proved a significant buoy in tough times.

CHAPTER VI

SOUTHERN LABOR AND RAYON: THE ROME EXPERIENCE, 1933-1946

On a hot summer day in September 1934, eighteen-year old Monte Wood arrived in Rome on the train from Hazlehurst, a small town in South Georgia. At the urging of his high school principal, Wood had enrolled at Berry College in Rome. Upon arriving at school, he learned that despite earning the highest score in Jeff Davis County on the teaching examination, he lacked sufficient high school credits to enter college. He enrolled instead at the high school level and worked his way through school training as a brick and stonemason.

Though he appreciated a reprieve from years of farm labor, the wages he earned from his training left him with very little after tuition. Having been assigned caretaking duties of the school president's mountain retreat, the House of Dreams, Wood found he could supplement his income, or at least find a recreational retreat, by making wine from grapes he found on the mountain. In the fall of 1937, he entered his last semester of high school and won election as class president. Midway through the semester, however, Wood's dreams came crashing to the ground when authorities discovered his illicit wine operation and suspended him from school, indefinitely.

Unable to find work as a brick mason in town, a failure he attributed to strict guild control of the trade, Wood wandered down 7th Avenue and along the old river road toward the looming smokestacks of the rayon mill. There he applied for a job and

interviewed with personnel director Wallace Eaves, who told him there were no openings but to leave a telephone number and address and he would be notified if anything came available. Having neither a telephone number nor an address, Wood agreed to let Mr. Eaves know if his situation changed, and walked back to Rome.

Wood soon found a job as a clerk at Howell's Grocery in South Rome, where Wallace Eaves happened to be a regular customer. Each time Eaves came to the store, Monte reminded him that he could be phoned at Howell's Grocery, number 2. Half of the \$12 per week he earned went to paying for his room above the store. Finally, Wood got the call. Eaves apologetically informed him that the job opening was for an entry-level position in Viscose Spinning, which had the reputation of being the hardest job in the worst working conditions in the entire plant. Having grown up in poverty, working long farm hours for little pay, Wood saw the prospect of modern mill labor, no matter how dirty or dangerous, as a chance for a new life and jumped at the offer. Two years later, he married Marie Wood, the sister of a friend he had made through his work at the mill.¹ In 1941, Monte and Marie, along with baby girl Brenda, moved to a five-room house in the village at 32 Locust Street.²

Monte Wood's journey to textile mill work may have been somewhat unusual with his detour through Berry College, but much of his story reflects the experience of southern workers arriving at the mill in the early to mid-1930s. Though his family had

¹ Summarized from Monte Wood's unpublished autobiography, on file at the Rome Area History Museum.

² The National Archives at Fort Worth, Texas; Fort Worth, Texas, USA; *Georgia, World War II Draft Registration Cards, 1940-1942*, RG 147, Records of the Selective Service System, 1926-1975.

once owned fertile farmland in the Black Belt section of South Georgia, a series of hardships, including the death of his mother when he was a child, subsequent abandonment by his father, occasional homelessness, and scrapes with the law, found the 21-year-old at the Tubize-Chatillon gate in 1937. When he entered the viscose spinning room for the first time, with its humming, gleaming machinery, he left behind the traditional life of southern farm labor and entered the modern, globalizing world not just as an observer but as an active participant in a changing economic, social, and political system.

The plant at which Monte Wood arrived in late 1937 had been through a series of significant changes in its eight years of operation. The almost-immediate merger between Chatillon and Tubize brought additional foreign management into the mix, along with a number of skilled operatives from the Hopewell plant. The economic climate of the Great Depression meant that expansion plans had been put on hold and hundreds of expected jobs failed to materialize as quickly as hoped in the first few years of operation. Additionally, the company's ultimate decision to build a village crippled its stock value at the same time that federal investigations threatened to destabilize the industry as a whole.

Despite legal entanglements and corporate investigations, however, rayon production in the United States quickly grew to surpass all other countries in the mid-1930s, peaking in 1936 at over 277 million pounds, overtaking consumption of natural silk in the process.³ In response to its own success in the industry, Tubize-Chatillon announced plans to build a \$2.8 million addition to the Rome viscose processing facility

³ "Record Output of Rayon," *New York Times*, Jun 10, 1935; Mauersberger and Schwarz, 33.

in the summer of 1933.⁴ The company also made additions to the Hopewell facility, expanding viscose production and adding a knitting plant to operations there. To complete the expansion projects, Tubize-Chatillon leveraged \$1.7 million in bonds that were due to mature, negotiating a later maturity date in exchange for additional bonds and stock shares. The expansion increased viscose yarn production from six million to eleven million pounds. In order to support the new venture into commercial knitting, company executives in New York moved into a new office on Park Avenue, doubling their administrative working space.⁵

New problems growing at the mills soon tempered the optimism demonstrated by the company's expansion plans. Just weeks after the company announced its intentions to build a new addition, workers at the Rome mill, having formed their own local union under the United Textile Workers, staged a walk-out.⁶ The workers, whose woes were at first softened by the lovely brick homes and winding streets of the village, quickly found that their work came with major drawbacks, including serious permanent health problems, and, in some cases, risk of death. They also found that without any protective organization for workers, management regularly exercised the power to fire at will, knowing that the economic conditions of the times left workers with few options, and frequently took advantage of female employees.⁷

⁴ Rome Rayon Mill Plans Expansion," *Atlanta Constitution*, July 20, 1933.

⁵ "Tubize-Chatillon Improves Position," *New York Times*, April 7, 1934;
"Business Quarters Leased in Midtown," *New York Times*, June 17, 1933.

⁶ Brattain, 62.

⁷ Ibid, 61-62.

In August of 1933, the Tubize-Chatillon union organized a walkout that lasted three days and resulted in pay increases of as much as 60%.⁸ The strike came on the heels of President Franklin D. Roosevelt signing the Textile Code. The new code, under the National Industrial Recovery Act, called for a maximum of forty hours worked and a minimum pay rate of twelve dollars per week.⁹ With the help of mediators from the United States Department of Labor, the State Department of Industrial Relations, and the American Federation of Labor, strike organizers and company management reached an agreement requiring the company to guarantee workers would receive the same pay at forty hours as they had for fifty-five. Organizers also won a \$13 per week wage minimum, a dollar higher than the textile codes required.¹⁰

Previously, President Woodrow Wilson's wartime policies on labor and production had dramatically altered the paternalistic relationship between southern laborers and their employers. Now strengthening of labor organizations under President Franklin D. Roosevelt's New Deal policy soon revealed that even the "docile" workers of the American South, given the opportunity, would resist any perceived exploitation, as demonstrated by the successful 1933 strike at the Rome rayon plant. The General Textile Strike of 1934 introduced even the most reluctant southern workers to the experience of collective bargaining, and contributed to a growing sense of community identity that

⁸ "Wage Raise Ends Rome Mill Strike," *Atlanta Constitution*, August 4, 1933.

⁹ "\$12 Minimum Rate for Textile Pay Written into Code," *Atlanta Constitution*, July 1, 1933.

¹⁰ "Wage Raise Ends Rome Mill Strike." Construction workers building the \$2.5 million addition were also on strike, which may be why only \$1.7 had been spent on construction between the Rome and Hopewell locations by the time officers met with investors in April of 1934 as reported in "Tubize Chatillon Improves Position." "Wage Raise Ends Rome Mill Strike."

revolved around involvement in the textile industry.¹¹ Locally, however, with the Local 1826 at Tubize having already won their wage battle, the smaller union organizations failed to instigate a solid show of force during the general strike, and union activity declined in Floyd County for several years thereafter.¹²

Having observed the gains made by the Local 1826 in Rome, the Hopewell Tubize workers came together in March of 1934 to organize their own union. In May, two months after mill operatives unionized, management laid off 300 workers, inspiring rumors that the company unfairly discriminated against union members.¹³ In attempted peace negotiations, Hopewell employees, unlike the Rome workers, met fierce opposition from management. Manager R.S. Burrows refused to recognize union organizations, condemning them as the work of “outside agitators.”¹⁴ When the union voted to strike, the National Labor Board (NLB) offered to mediate negotiations. Burrows rejected mediation, claiming that the NLB had no jurisdiction and that if workers struck, “no agency, no power or law can compel us to reopen [the mill] against our will.”¹⁵ One former mill foreman, Jesse Holman, later recalled that Tubize-Chatillon hired an “efficiency man” shortly before the strikes who cut jobs severely, leaving too much work for those who remained. In a 1976 interview with the *Hopewell News and Patriot*,

¹¹ Brattain in *Politics of Whiteness*, 49-50, discusses the involvement of Rome mills in the strike and the complicated relationship many Georgians had with the strike and union organization in general.

¹² For more extensive discussion of the General Textile Strike of 1934 in Floyd County, see Brattain, 49-79.

¹³ “Hopewell, Virginia Rayon Strike Vote is Called Off,” *Washington Post*, May 26, 1934.

¹⁴ “Virginia Labor Tension Ends at Two Points: Board Ruling Satisfies Tubize Workers; Mill Week Shortened,” *Washington Post*, Jun 3, 1934.

¹⁵ “Hopewell Mill Chief Rejects U.S. Mediation,” *Washington Post*, June 4, 1934.

Holman speculated that the company hoped the workers would strike in response to cuts, providing executives with a handy excuse to close the mill that company president J.E. Bassill claimed had been operating at a loss since 1929.¹⁶

It is unclear how much control the New York offices had over Burrow's actions at the time, as they were in the midst of dealing with the monopoly charges brought by the Federal Trade Commission. Whether by will of the executives or of his own volition, Burrows repeatedly violated the orders of the NLB, including a decree that he reinstate ten of the laid-off workers.¹⁷ At 4:10 on the morning of June 30, union authorities officially called the strike and shut down plant operations.¹⁸ On July 24, 1934, Tubize-Chatillon president J.E. Bassill announced that the shutdown had damaged the production facility too badly to justify reopening the outdated nitrocellulose plant. The \$20 million nitrocellulose rayon mill at Hopewell, Virginia, which employed almost 2,000 workers in the midst of the Great Depression, never reopened its doors.¹⁹ Meanwhile, on the stock market, Tubize-Chatillon registered "minor losses."²⁰

In the frenzy caused by the nation-wide textile strike in 1934, along with labor disturbances in other industries and intensification of tensions overseas, the Hopewell strike was barely distinguishable from the rest of the clamor in American newspapers. Tubize-Chatillon declared a net loss of almost \$300,000 in 1934, but still managed to retire \$528,000 in bonds against the mortgage of the now-complete mill village in Rome,

¹⁶ Kit Weigel, "Since Tubize, Hopewell has Never Been the Same," *Hopewell News and Patriot*, July 13, 2012, reprint from May 14, 1976.

¹⁷ "Strike Nears in Hopewell Mill," *Washington Post*, June 29, 1934.

¹⁸ "Blast is Feared after Strike," *Washington Post*, June 30, 1929.

¹⁹ "Decision Stuns Workers," *New York Times*, July 25, 1934.

²⁰ "Curb's Prices Sink Again in Spite of Buying," *New York Times*, July 26, 1934.

freeing the company of all funded debt.²¹ In Hopewell, the federal government sent in extra aid workers to help the company's struggling former laborers.²² Within a year, the corporation recovered its losses and began making expansion plans while its former employees in Hopewell grew increasingly dependent on federal aid.

For the Rome plant, having successfully negotiated a pay increase the year before, 1934 proceeded quietly. There were rumors that the strike in Hopewell would bring more work to the Georgia operation, but in the end, Tubize-Chatillon moved its Hopewell operation to Brazil, where it could operate much more cheaply and, ostensibly, without interference from "union agitators."²³ In 1936, however, after a profitable 1935, the corporation planned another expansion for the Rome mill that would add about 350 workers to the operation's payroll.²⁴ In additional testimony to the company's success, plant manager R.G. Jones announced a pay increase for Rome mill operatives as well as for the handful of workers left behind in Hopewell at the knitting plant, because of the heavy demand for and "acute shortage" of rayon.²⁵ Plans initially proved successful, with the company claiming over \$1.4 million in profit for the year 1937. However, in response to a thread price decrease in 1938, the company scaled back production at the

²¹ "Tubize-Chatillon Corp: Earns Net Income of \$578,552 against \$293,402 loss in 1934," *New York Times*, February, 21, 1936; "Tubize to Retired Bonds," *New York Times*, December 7, 1934.

²² "Hopewell Strike Adds to Virginia Crisis," *Washington Post*, August 31, 1934.

²³ "Rome may be Center of Yarn Manufacture," *Atlanta Constitution*, August 1, 1934; "Tubize to Make Rayon in Brazil," *Washington Post*, June 17, 1935.

²⁴ "\$2,300,000 Expansion is Slated for Rome," *Atlanta Constitution*, July 8, 1936.

²⁵ "Rome Rayon Factory Grants Pay Increase," *Atlanta Constitution*, December 18, 1936.

Rome facility, cutting hours and workers, for a profit of almost \$300,000.²⁶ The following year, having opened operations in Brazil, shut down almost entirely in Hopewell, and scaled back on labor in Rome, Tubize-Chatillon reported a net profit of over \$1.1 million.²⁷

Growing tensions among European powers overseas and the outbreak of a second World War in the closing years of the decade brought new challenges for both the native-born and foreign workers, and new changes to the Tubize-Chatillon mill and Riverside village. Without the company's official records of the era, it would be difficult to guess how the war effected the multi-national management of Tubize-Chatillon. Most of the Italian upper management had departed in 1930. By 1940 the population of "what town" included families of English, Swedish, German, and French origins as well as several from New York, Massachusetts, and New Jersey.²⁸

Whether the Italians retained any interest in Tubize Chatillon by the end of the decade is unclear. However, by the time Great Britain and France declared war on Germany in September of 1939, foreign capital investments held significant control in the domestic economy, with rayon chief among the industries supported by outside capital. The American public feared that European companies would liquidate assets, destabilizing the economy of what had been an important creditor nation throughout the First World War.²⁹

²⁶ "Tubize Chatillon has \$281,934 Net," *New York Times*, February 23, 1939.

²⁷ "Tubize Chatillon Reports \$1,138,955 Net Profit in 1939 - \$281,934 in 1938," *New York Times*, February 21, 1940.

²⁸ 1940 U.S. Census

²⁹ Wilkins, 437.

In Rome, Georgia, the overseas struggles hit closer to home when Italy abandoned neutrality and joined forces with Axis powers Germany and Japan. Local opinion against Mussolini focused its hostilities against the Capitoline Wolf replica that had been the subject of such fanfare and confusion in 1928. In June of 1940, city officials quietly had the statue removed and placed into storage to protect it as a work of art.³⁰ An editorialist writing shortly after the statue's removal wrote that he was pleased to hear that the city was protecting the statue.³¹ Two years later, another wrote "good riddance" in response to calls for its destruction.³² By 1945, despite Il Duce's demise, the statue remained controversial. "Junk it," commented one Roman at the time, "I can't forget the stab in the back that Italy gave France..." Still others recognized the importance of the statue as a tourist attraction. Chamber of Commerce secretary Henry Pyne called it "Rome's Single Greatest Tourist Attraction."³³ The statue remained concealed for the remainder of the war.

While the residents of Rome, Georgia debated the fate of the Capitoline Wolf during the onset of the war overseas, President Roosevelt and the federal government worked to protect American industry from the ravages of war. President Roosevelt struggled to maintain neutrality while simultaneously strengthening American defenses and preparing his public for the possibility of armed conflict.³⁴ In 1937, as Italy,

³⁰ "Rome removes Il duces gift, Capitoline Wolf," *Atlanta Constitution*, June 12, 1940.

³¹ Jones, Ralph. "Silhouettes," *Atlanta Constitution*, June 17, 1940.

³² "Good Riddance," *Atlanta Constitution*, August 07, 1942.

³³ Katherine Barnwell, "Romulus, Remus and Wolf Put Georgias Rome in Tizzy," *Atlanta Constitution*, October 7, 1945.

³⁴ Manfred Jonas, "American Isolationism and the Coming of the Second World War," in *The Origins of the Second World War: An International Perspective*, ed. Frank

Germany, and Japan moved closer to military alliance, the United States Congress intensified restrictions on foreign investment in the Revenue Act of 1937 while the Treasury focused on collecting back taxes from resident aliens on capital gains made before 1936.³⁵ By the time the three belligerent countries signed the Tripartite Act in 1940, the Treasury Department had established Foreign Funds Control to investigate all alien holdings in American securities.³⁶ When the United States declared war on Italy, Germany, and Japan, the Treasury seized all known American assets of the enemy countries, including four major Italian banks, and placed them under the authority of Foreign Funds Control.³⁷

If the Italian parent company still maintained any control over Tubize-Chatillon in the early years of overseas hostility, American entry into the war rendered it impotent. As early as the summer of 1940, no Italian managers remained at the Rome facility.³⁸ The board of directors further separated themselves from Chatillon's Italian roots when it announced a name change from Tubize-Chatillon Corporation to Tubize Rayon Corporation.³⁹ The company, now free from the taint of Fascist ownership, faced new challenges as the country went to war. The government's economic policies toward enemy assets effectively rearranged the rayon industry in America, cutting off large supplies of rayon from Germany and Italy, and of both rayon and silk from Japan.

McDonough (London and New York: Continuum International Publishing Group, 2011), 438-439.

³⁵ Wilkins, 356.

³⁶ Ibid, 452-454.

³⁷ Ibid, 511.

³⁸ 1940 census.

³⁹ Display ad, *New York Times*, November 24, 1943.

Simultaneously, some rayon mills converted to cotton to take advantage of defense contracts.⁴⁰ By November of 1941, the defense program was already using rayon yarns to supplement wool in soldiers' uniforms, and the United States Office of Price Administration (OPA) warned Americans to take care of their rayon, as "any civilian waste on this material should be avoided."⁴¹ When the government diverted nylon supplies to the production of parachutes, rayon gained additional importance as an American-made substitute for silk.⁴² As a result of the war effort, the industry created by foreign capital after World War I became a fashion symbol of American patriotism during World War II.

In addition to the increased consumer demand for rayon at the outbreak of the war, the federal government soon found a significant use for the inexpensive fabric. In April of 1942, the *New York Times* reported scientists at Goodrich had developed a new type of synthetic rubber thread exclusively for the military that could be covered with rayon to make harnesses, parachutes, and gas masks.⁴³ Additional improvements in rayon manufacturing technologies that year further intensified the demand for rayon threads and woven products as the government ordered some manufacturers to convert to defense production of extra-strength yarns.⁴⁴

Like cotton in the First World War, rayon's success in World War II was a mixed blessing. Tubize, situated in an area with plentiful work and a dwindling labor supply,

⁴⁰ "Rayon Output Cut Reduces Supplies," *New York Times*, May 6, 1941.

⁴¹ "Thrift Pointers: Care of Rayon," *Washington Post*, November 17, 1941.

⁴² "Defense Hose Gain Ground as Silk Recedes," *Washington Post*, January 24, 1942.

⁴³ "Notes On Science," *New York Times*, April 19, 1942.

⁴⁴ "Rayon Industry Aids War Program," *New York Times*, January 3, 1943.

struggled to meet wartime demands and granted numerous concessions to workers to maintain productivity with limited human resources.⁴⁵ When the men of eligible age went to fight, the women went to work. African Americans, previously excluded from most jobs at Tubize, temporarily found fewer barriers to economic opportunity thanks to the depleted work force. Throughout the years of the war, union leaders and workers, now organized as the Local 689 under the Textile Workers Union of America, fought and won battles to get improved wages and benefits. The experience of collective bargaining during the emotionally heightened wartime era helped to foster a sense of community among workers who saw themselves as an integral part of the fight for democracy.⁴⁶

As the war dragged on, Tubize struggle to maintain its position in the rayon industry. A recapitalization project to eliminate debt in 1943 failed to satisfy stockholders, leading to a lawsuit accusing the corporation of unfair financing and potential fraud.⁴⁷ The board of directors attempted once again to refinance in 1944, offering 70,000 shares of preferred stock at \$103 per share, part of the proceeds of which were to go towards the payment of over \$4.5 million in debt.⁴⁸ After the end of the war, Tubize merged with the rayon giant Celanese Corporation of America, a manufacturer of cellulose acetate rayon. The merger gave the large company control of both the cellulose acetate and viscose processes for producing rayon yarns, resulting in a lengthy anti-trust

⁴⁵ "Rome Rayon Plant Gives Pay Increase," *Atlanta Constitution*, September 10, 1942; Brattain, 90-91.

⁴⁶ Brattain, 123.

⁴⁷ *Bailey v. Tubize Rayon Corporation*, 56 F. Supp. 418 (1944), District Court D, Delaware, July 31, 1944.

⁴⁸ "Preferred Stock Will Be Offered," *New York Times*, October 24, 1944.

lawsuit battle that ended in 1954 with an order that Celanese sell the machinery it acquired in the merger.⁴⁹

When Tubize-Chatillon first opened production in Rome, Georgia, it brought thousands of new jobs to the small town, attracting migrant workers from all over the region and replacing hundreds of acres of farmland. Growing hostilities overseas in the late 1930s, culminating in World War II, permanently altered and ultimately severed the relationship between overseas investors and their American partners. Unable to compete with more stable corporations founded by American and British investors, Tubize-Chatillon evaporated into Celanese after the end of the war. In December of 1947, Celanese announced to its workers that it was discontinuing the employee publication *Tubize Yarns* “in the interest of a consistent company-wide policy.”⁵⁰

Thus the formative years of the Rome rayon industry came to a close, and a new chapter began, bringing new relationships between workers, management, and the landscape of the industrial complex. As demonstrated symbolically by Celanese management’s decision to stop publication of *Tubize Yarns*, the larger, more complex company brought a distinctly different corporate culture to the table, further distancing workers from their employers. On the eve of the post-war boom years, Rome rayon workers found themselves in the middle of a cultural shift away from the localized, corporate welfare paternalism that created the worker housing landscape which had become a fixture in southern life.

⁴⁹ “Celanese Accused in Anti-Trust Suit,” *New York Times*, December 6, 1949; “Trust Suit Ended by Consent Writ,” *New York Times*, April 1, 1954.

⁵⁰ “Tubize Yarns,” *Tubize Yarns* 3 no. 12 (December 1947), inside front cover.

CHAPTER VII

MEET THE NEW BOSS, SAME AS THE OLD BOSS? 1946-1977

The Celanese takeover of the Rome rayon mill proceeded quietly in early 1946. A small, front page article in the *Rome News Tribune* on February 7 announced “Celanese, Tubize Merger Approved by Stockholders,” noting that Celanese had reported third quarter assets at over \$127 million the previous year, with Tubize coming in under \$24 million.¹ The larger company included multiple product divisions in four countries and three states, creating further estrangement between upper management and local workers.² Five weeks elapsed after the merger before Celanese management visited their new production facility in Georgia.³ Unlike Tubize, of which the Rome plant served as the flagship, Celanese represented a larger, more modernized, and complex corporate structure with several larger and more productive divisions; acquisition of Tubize was just one small piece of a growing, multinational chemical industrial portfolio.

At the local level, the late 1940s in Rome, Georgia were much like anywhere else in the southern United States. With the end of World War II, industries retooled once more for peacetime production and began shifting back toward the personnel policies of the pre-war period, when white men held the best jobs and the segregated workplace reigned supreme. Wartime experiences, however, had changed attitudes towards

¹ “Celanese, Tubize Merger Approved by Stockholders,” *Rome News Tribune*, February 7, 1946.

² “The Birth of Celanese, (1921-1950’s),” Celanese corporate website, <https://www.celanese.com/About-Us/History/1921-1950.aspx> (accessed September 18, 2017).

³ “Celanese Officials Inspect Tubize,” *Rome News Tribune*, March 20, 1946.

segregation – some became even more entrenched, with white men returning from the military expecting to reclaim their old jobs, while others recognized the cognitive dissonance between fighting against Nazism while maintaining racial segregation at home. As Jennifer Brooks explored extensively in her *Defining the Peace: World War II Veterans, Race, and the Remaking of Southern Political Tradition* (2004), the juxtaposition of Black and White veterans' experiences of the war, along with the gendered experience of manliness that went along with military service, laid a breeding ground for unrest, to which Celanese was not immune. These post-war strategic conflicts became an extension of the groundwork laid in the establishment of the textile industry as an explicitly Jim Crow institution in the South.⁴

Despite extensive study of the political ramifications of the World War II era, including Brattain's and Brooks' particular examination of the Georgia textile industry, less work has been done about the daily lived experience of the rayon mill in Rome. What was happening in the daily lives of workers and their families in the midst of the political struggles being enacted by the unions, companies, and municipal authorities? How did the high-tech industry, and the "new boss in town," shape those experiences? How was the rise of globalization, along with the Cold War, affecting the "silk mill" workers, and how aware were they of the changing world around them?

With the war over, the fate of the Capitoline Wolf statue still hung in the balance. Stowed quietly in the basement of city hall, the controversial sculpture once again entered

⁴ For extensive discussion on race and political organization in post-war Georgia, see: Jennifer Brooks, *Defining the Peace: Race, World War Two Veterans, and the Remaking of Southern Political Tradition* (Chapel Hill: University of North Carolina Press, 2004); Brattain.

public debate in the late spring of 1945, after the assassination of Mussolini. Despite the Allied victory in Europe, locals in Rome, Georgia still felt the pinch of betrayal by her once proud sister city. A city commissioner admitted that he was not prepared to restore the statue to its pedestal because he feared sentiments were still too inflamed. It would be safer in storage, he believed, as “people who had relatives fighting in Italy cannot easily forget Italy’s crimes.”⁵

For the next several years, the issue lay quietly in wait for better timing. In June of 1949, the Chamber of Commerce passed a resolution requesting that the city display it in a place of prominence as a tourist attraction once more. Even the city manager conceded the fact that many visitors still requested to view the statue and were “duly escorted to the not-so-secret lair to have a look.”⁶ Still the city commission could not bring itself to vote in favor of the proposal, and the issue ended up tabled for 40 months while consideration was given to the removal of two Confederate monuments which were deemed to have become traffic obstructions.⁷

Finally, in July of 1952, city commissioner Leroy Hancock introduced a motion to place the statue at the Carnegie Library, next door to City Hall, if the library board so approved. The motion passed unanimously, but the following month the city manager announced that the library board would not accept the statue. Hancock, however, had cleverly snuck in a clause that if the library board did not consent to taking the statue,

⁵ James Harvey Young, “The She-Wolf and the Twins,” *The Georgia Review* 9 no. 2 (Summer 1955): 203.

⁶ Ibid, 205.

⁷ Ibid, 207.

then the statue was to be “restored in front of the Municipal Building.”⁸ Though dismayed at the motion they had passed once reminded of its entirety, the commission acquiesced. However, as one journalist pointed out, “no such expedition was displayed in replacing the she-wolf and twins upon their pedestal in front of City Hall as, nearly twelve years before, had attended their removal.”⁹

In an early September letter to the *Rome News Tribune*, attempting to urge the city manager into action, local sculptor McClean Marshall scolded that

We North Georgia Romans are, culturally speaking, a laughing stock because the reasons we have given for removing the statue are both ludicrous and barbaric. During the war we never stopped eating spaghetti, playing Italian music, nor doing business with the Italian population in our midst. Romulus and Remus cannot more readily be identified with Fascist Italy than it can be with any other nations that have temporarily owned it during its two thousand years of history. As for its alleged indecency, the less said, the less ridiculously we present ourselves to the rest of the nation, and don't think for an instant the rest of the country is not interested in our handling of this fine piece of sculpture.... I urge that it be replaced immediately.¹⁰

When interviewed, the city manager responded he would “get around to it.” Finally, on September 8, 1952, workmen quietly hauled the statue out of storage and placed it on its marble pedestal in front of City Hall.¹¹

The episode of the removal, near-disposal, and eventual replacement of the Capitoline Wolf statue crystallizes the uneasy relationship between the townspeople and

⁸ Ibid, 207.

⁹ Ibid, 207-208.

¹⁰ Quoted in Ibid, 208. Date of original publication unknown.

¹¹ Ibid, 208. Interestingly, the Confederate memorials in question, one of Nathan Bedford Forrest and one to the United Daughters of the Confederacy, were moved from their places of prominence on the main thoroughfare to quiet repose on Myrtle Hill, the city's most prominent cemetery, just a few months later. Ibid 206-207.

the rayon mill over time. Though received with much fanfare in 1928 as a sign of Rome's impending modernity and global standing, even from the beginning some members of the public saw the statue as vulgar and offensive, hinting at the cultural differences between the new, foreign management and some sects of the local public. With the shifting European political alignments of the 1930s, and Mussolini's decision to side with Germany against France and Britain, public discourse about the statue shifted, and the controversial work of art became a symbol of betrayal. After the war, the statue remained for many a painful reminder of the betrayal heaped on them by the very country whose industrial expertise had almost single-handedly saved the town from the worst ravages of the Great Depression.

Though the statue's connections to the Fascist regime, and its subjectively disturbing content, made the statue controversial, the elites in the community valued what it symbolized locally: the successful bid to bring foreign industry to their hometown, and the subsequent internationalization of the southern Appalachian community.¹² With Italian management long gone, and the rayon mill under new management, the objections to the statue proved a tough sell against the tourism generated by its presence and the association it held for those elites who still took pride in the multinational coup of a generation before.

For Celanese and its employees, growing pains marked the early post-World War II years, as the end of the war brought a shift in labor relations policy virtually

¹² Bronson Long, "Mussolini's Gift to Rome, Georgia: The Capitoline Wolf and the Projection of New Identities," (paper presented at the annual meeting of the Georgia Association of Historians, Dahlonega, GA, February 28, 2009): 15-16.

simultaneous to the arrival of new management. Both Brattain and Brooks have written about the strife in the mills and its political consequences during this period, using extensive resources available in the Southern Labor Archives in addition to personal interviews with mill operatives. While valuable, their respective emphases on the politics – Brattain’s “politics of whiteness” and Brooks’s veteran activists – of the labor movement gives little space to the daily lived experience of rayon mill workers and their families. Significantly, while both Chatillon and Tubize seemed to slide comfortably into the role of benevolent corporate patriarch expected by the workers of the 1930s and 1940s, the larger, more diversified new management company quickly began distancing itself from that role, as demonstrated by discontinuation of the company publication in 1947.

Nationally, the immediate postwar period saw a dramatic wave of labor unrest as thousands of workers returned from overseas, eager to reclaim their place in the workforce, while the overnight cancellation of \$24 million in government contracts in the summer of 1945 destabilized industrial employment. With an ample workforce and no clear post-war economic policy in place, industrialists had little incentive to give in to union demands. Between 1945 and 1946, upwards of 4 million workers struck, mostly in the North and Midwest. The labor disputes in the immediate post-war period revealed the inherent frailty in the wartime coalition between unions, industry, and government. No longer motivated by acute patriotism, and faced with work stoppages and wage cutbacks,

workers in industries ranging from teachers to steel workers walked out, demanding cost of living adjustments and consistent pay and hours.¹³

In 1947, in reaction to perceived threats from the power of unions in the context of the new Cold War fear of communism, business interests successfully passed the Taft-Hartley Act, weakening the power gained by union organization by its predecessor, the Wagner Act, and offering states the option of enacting “right to work” laws.¹⁴ Georgia, ahead of the union-busting game, had already passed legislation prohibiting picket lines from interfering with the “right of any person to work or refrain from working, or to peacefully conduct business, or for other purposes,” as well as an “open shop” bill, effectively making mandatory union membership as a condition of employment illegal.¹⁵ That same year, Rome boosters took advantage of the moment, marketing the workers of their city as “native Anglo-Saxon stock” who exhibited a “splendid spirit of cooperation” with their employers, a siren song for industrialists wary of heavily organized Northern and Midwestern workers in the aftermath of mass strikes in the previous two years.¹⁶

Despite the apparently sunny outlook of Rome’s business community, however, the following year saw mounting tensions give way to full-scale unrest and violent demonstrations in what Brattain characterized as “the most intense years of labor strife in

¹³ See: Jeremy Brecher, *Strike!* Rev. ed. (Oakland, CA: PM Press, 2014), 209-220; Nelson Lichtenstein, *Labor’s War at Home: The CIO in World War II* (Philadelphia: Temple University Press, 2003).

¹⁴ For a thorough discussion of Taft-Hartley, see: Elizabeth A. Fones-Wolf, *Selling Free Enterprise: The Business Assault on Labor and Liberalism, 1945-1960* (Chicago: University of Illinois Press, 1994).

¹⁵ Brooks, 149.

¹⁶ *Polk’s Rome (Floyd County, GA) City Directory, 1947* (Richmond: R.L. Polk, 1947), 1-10 quoted in Brattain, 163.

the county's history.”¹⁷ A “textile depression” in 1947-1948 left workers with little economic leverage in the face of production curtailments among Georgia manufacturers, while small companies, more common in the South, were forced to liquidate or sell to larger firms, all contributing to a feeling of general instability among the labor force.¹⁸

The first domino to fall in Floyd County was Anchor Rome. In 1947, local native and former Anchor manager P.A. Redmond, by then president of Alabama Mills, purchased Anchor and installed L.H. Rice to preside over his new enterprise. Already weakened by high rates of turnover and the enactment of Georgia's right-to-work law earlier in the year, Anchor Rome's union, the Local 787, braced itself for the new management, which had a reputation for unabashed anti-union activity.¹⁹ Soon after taking over operations, the company went to work undermining the union's ability to collect dues, retain members, and solicit new members. When attempts to negotiate terms for a new contract failed, the local 787 called for a strike on March 18, 1948. The strike became an important test ground for the new right-to-work laws and other Taft-Hartley provisions when the company successfully filed an injunction against picketers, prohibiting them from gathering within 100 yards of the mill and limiting their demonstrations to groups of three.²⁰

After recognizing their diminished power to stop strike breakers from crossing the picket lines, union organizers had some initial success blocking raw materials from

¹⁷ Brattain, 163.

¹⁸ For more detailed discussion of the circumstances surrounding the 1948 strikes, see: Brattain, 163-197.

¹⁹ Ibid, 167.

²⁰ Ibid, 172.

coming in on the railroad, but the company quickly defeated their efforts, recruiting non-union workers to attack and remove picketers from the tracks.²¹ Between the scarcity of available jobs and the toothlessness of union regulations under Taft-Hartley and Georgia's right-to-work laws, the company had little trouble finding strike breakers to permanently replace striking union workers, leaving organizers little left with which to bargain. Though the strike officially continued until early 1949, by May 18, the mill was operating at near-full capacity on three shifts.²²

When Celanese took over Tubize in 1946, it inherited one of the strongest and most influential local union chapters in the area, if not the region, the local 689. On the heels of the struggle faced by the Anchor Rome union, the Local 689 went head to head with the new management in the summer of 1948. Between June and August, Local 689 along with national TWUA leaders attempted to negotiate a wage increase for the Rome rayon workers. With a large number of rayon contracts up for negotiation that summer, union officials agreed to wait for larger producers to establish an industry-wide standard. In a short time, some of the largest producers granted raises of fifteen to eighteen cents per hour, and Celanese followed suit for its workers at Cumberland, Maryland with a wage increase of fifteen cents per hour.²³

Despite auspicious developments elsewhere in the rayon industry, including within the same corporation, Rome Celanese management deferred to the "Southern pattern," offering an increase of only eight percent, or about seven and a half cents per

²¹ *Rome News Tribune*, March 24, 1948.

²² Brattain, 181; *Rome News Tribune*, May 18, 1948.

²³ "Celanese Strike, Rome, GA" folder, box 6, series 10A, US MSS 129A, TWUA Records. For more extensive discussion see Brattain, 182-183.

hour. Following six weeks of negotiation, Local 689 members voted unanimously to strike. After carefully shutting down equipment to prevent irreparable damage to the machinery, 1,650 out of 1,800 production workers walked out or did not report to work. The standoff lasted seventeen weeks and ultimately resulted in a fifteen-cent wage increase for workers, but not without testing the bounds of the new state and federal labor laws. Local courts granted injunctions against large picket groups and issued hundreds of orders of contempt against strikers who violated the injunctions. For their part, however, union members showed up in mass numbers to hearings, pressuring the local civic and business leaders to recognize the potentially harmful effect the strike could have on the city's image if it wore on for too long.²⁴

While the strike of 1948 had significant political ramifications, it also had a galvanizing effect among community members. Strikers went out of their way to create an atmosphere of family togetherness during the strike, setting up games under tents and even holding religious services at the picket line. Moreover, the memory of the strike days still lingers among surviving community members as one of the most difficult and defining times of their lives in the village. Monte Wood's daughter, Wanda, recalled that, because of her father's anti-union stance, agitators threw a Molotov cocktail through the family's living room window one night. As a result of the scare, Wood moved his wife and two daughters at the time to Decatur, Alabama until the end of the strike.²⁵ Another former village resident, whose father worked in a salaried position, recalled that the

²⁴ Summarized from Brattain, 193-195; Contract between Celanese and TWUA workers, Textile Workers Union of America collection, Charles L. Ross papers, Box L1985 folder 9, Southern Labor Archives, Georgia State University Library.

²⁵ Wanda Wood Duncan, interview with author, Rome, Georgia, date unknown.

strikers did not distinguish between those who could not strike and those who refused to, and poured sugar into the gas tank of his father's vehicle in retaliation.²⁶ Jerry Spurlin recalled in an interview that even the children got caught up in the discord, with striker's children abusing their peers whose parents were non-union whether by virtue of choice or position.²⁷

Between 1948 and 1954, life carried on largely business as usual in the village. While the company no longer published the *Tubize Yarns*, the local newspaper devoted space to each of the larger local textile mill communities, reporting on sporting events, school and church activities, and, to a lesser degree than the *Yarns*, some gossip as well. Marriages and births, out of town visitors, and promotions all earned space in the weekly "Celanese News" reports. Occasionally, the company took advantage of the space to communicate with employees as well. In the April 5, 1953 edition, for instance. Celanese took out a three-quarter page ad adjacent to the Celanese News column to report on the company's 1952 activities. Noting that "scare buying" at the beginning of the Korean War had caused a textile depression in 1951, the company expressed its commitment to diversifying its holdings in chemicals and plastics, adding, however, that the "1953 outlook for "increased consumption of yarn and fiber by mills looks favorable."²⁸

In June of 1954, Celanese announced plans to sell off the village homes. Occupants were allowed first option on their current homes, followed by employees living at other village houses, then employees living outside of the village, before

²⁶ Russ Harwell, Celanese Village Kids Facebook group, March 21, 2016.

²⁷ Jerry Spurlin, interview with author, Murfreesboro, TN, July 17, 2017.

²⁸ "Celanese Reports on 1952 to our Employees and the Community," *Rome News Tribune*, April 3, 1953.

opening sales to non-employees.²⁹ The company's sale of village homes followed a national trend of both homeownership and of companies divesting themselves of costly vestiges of corporate welfare. In the article announcing the company's decision to sell, the author noted that many longtime residents had moved out in order to become homeowners, probably taking advantage of the Servicemen's Readjustment Act of 1944, commonly known as the GI Bill.³⁰

While the selling-off of mill villages in the mid-twentieth century certainly marked a departure from the welfare paternalism of the past, in the context of the new rush toward homeownership it can also be seen as a means to a similar end: the stabilization of the workforce. "Suburban" development in Rome was growing, including a massive sprawling development, Garden Lakes, built by developers to accommodate workers at the new General Electric plant in 1953.³¹ Garden Lakes represented a new kind of development, completely independent from the company it was built to accommodate, an approach the Italian company who built the rayon mill in 1928 unsuccessfully attempted to employ. Like other parts of the country, Rome experienced a housing boom in response to the GI Bill and FHA loans available to veterans, including nearby North Hills, about three miles away up North Avenue.³²

²⁹ "Celanese Sale of Homes Greeted with Enthusiasm," *Rome News Tribune*, June 6, 1954.

³⁰ "Celanese Sale of Homes..."; For more on context of GI Bill in mill villages, see: Bryant Simon, *A Fabric of Defeat: The Politics of South Carolina Millhands, 1910-1948* (Chapel Hill: University of North Carolina Press, 1998), 234-235.

³¹ B.S. Elliott, "Garden Lakes – Rome, Georgia," *Georgia Builders* (June 1957): 6-8, Communities Collection, Garden Lakes folder, Sara Hightower Library, Rome, GA.

³² For more on housing boom in the context of southern industry, see: Lee, 226-227; The first plat for North Hills subdivision is dated August 26, 1952. Floyd County Register of Deeds, Rome, GA, Plat Book 3: 214.

Older, established neighborhoods also drew the interest of Celanese workers seeking homeownership. After he graduated from Darlington and moved away to college, Jerry Spurlin's parents purchased a home on Cherry Street in West Rome in an early streetcar suburb because his mother wanted a place with higher ceilings to display her fine antiques.³³ When they moved, they also moved their church membership, further isolating themselves from the workers in the village. Spurlin's father had worked his way up from a floor job in the viscose spinning department to plant accountant, putting himself through correspondence courses to earn his degree. Moving out of the village may have had as much symbolic meaning for the Spurlins, as a spatial representation of their relatively elite status.

For many workers living in the village by the summer of 1954, however, there was little reason to leave their close-knit community. Monte Wood elected to move his family of five from a four-room house on Poplar Street to a six-room dwelling on Ash Street, which afforded him a larger garden in addition to more elbow room for his three girls in the house. On August 3rd, 1954, Monte and his wife Marie paid \$4,620 in cash and signed the deed for their new home. Though homeownership ostensibly afforded the Wood family a new kind of freedom from corporate paternalism, the deed included clauses that indicated that Celanese intended to maintain some measure of control over the use of village properties. Restrictions included a ban on commercial activities within households, a limit of one family unit per household, and an addendum forbidding the erection of any additional structures on the premises except for a garage.³⁴

³³ Spurlin, interview.

³⁴ Floyd County Deed Book 278, p 124, Rome, Georgia.

Alongside the aforementioned clauses, which expired in 1965, the deed also restricted residents from keeping farm animals, a customary practice among mill village residents. Ironically, the farm animal clause may have made workers more dependent on the company store even while homeownership loosened their ties to the corporation. Some former residents who were children at the time recalled hunting and eating wild game, including possums and squirrels, which may have been, unknown to the children, a reaction by their parents against the strict regulations against raising their own food.³⁵ One former resident who had been a child in the 1950s recalled his neighbor, Monte Wood, catching a possum in a cage, fattening it up on chicken scraps, and having his wife cook it for the family.³⁶ Similarly, Jerry Spurlin recalled that the neighborhood boys would often “practice shooting” at some of the wild animals in the surrounding woods, bringing a rabbit or a pheasant home for dinner if there was one to be had.³⁷

Alongside the American homeownership boom of the 1950s, a “car in every drive” became a transfixed part of the American dream, and the rayon mill workers were no different. Garages started appearing almost immediately after the houses sold. Monte Wood’s daughter, Linda Simpson, recalled her father building his garage and workshop almost immediately after they moved in to their new six-room home in 1954.³⁸ In addition to changing the basic residential landscape of the village with the new structures devoted to their care, the rise of the family automobile also allowed workers more

³⁵ Spurlin, interview

³⁶ Randy Conway, email message to author, December 20, 2014.

³⁷ Spurlin, interview.

³⁸ Linda Wood Simpson, interview with author, Birmingham, Alabama, date unknown.

mobility and more residential options, altering the workers' relationship to both town and company. The disbursal of workers, and their newly vested interest as homeowners, coincided with the gradual weakening of the labor union just as the fruits of its labors – higher wages and improved benefits – were allowing union members and other workers access to the advantages of homeownership and the apparent fulfillment of the “American dream.”

In addition to selling off the village homes, Celanese also gifted the church building, constructed by Tubize in 1939, to the Baptist and Methodist congregations who had been sharing it for fifteen years. Shortly thereafter, the Baptist congregation purchased the Methodist's share in the equity. The Methodist congregation applied the \$25,000 from the Baptists to a new building, erected on an empty lot that Celanese gifted to the church in addition to the older church structure. After breaking ground on October 10, 1954, the construction project did not begin until February of 1955. In order to save money on construction, local residents pitched in to help.³⁹ In a 2015 interview, Russ Harwell, who was a teenager at the time, recalled walking over from his family's home at 29 Beech Street to help on the construction crew. His father, Howard, served as the choir director for the new church, St. Luke's United Methodist, for thirty years.⁴⁰

Throughout the late 1950s and early 1960s, as the Civil Rights movement gained steam around the country, Rome, Georgia, like other small southern communities, remained deeply devoted to segregation. The textile industry jobs that dominated the local labor market remained reserved for White workers, with Black workers filling only

³⁹ Jane Wilson, “History of St. Luke Methodist Church,” 1966.

⁴⁰ Russ Harwell, interview with author, Rome, Georgia, June 6, 2015.

positions of service such as custodial staff, truck drivers, maintenance workers, and cafeteria attendants. The TWUA, which took an active stance against segregation nationally, maintained a general policy of non-interference with Floyd County union locals.⁴¹

At the Rome Celanese plant, the Local 689 took a relatively moderate stance on race relations, refusing to rent their union hall to the Ku Klux Klan in 1959 while resisting union integration until 1962.⁴² Despite meeting integration, however, Black Celanese workers remained underrepresented and virtually powerless to change company or union policy, with structural barriers to advancement remaining in place for many years thereafter.⁴³ Departmental seniority, preferential recall of displaced workers, and low job turnover meant that despite their best intentions, provided little opportunity for company officials to diversify the Celanese workforce.

While workers and management grappled with race in the workforce, three separate interactions described by former village resident Randy Conway, who grew up in the Celanese village in the 1940s and 1950s, help contextualize how the youth of the community experienced race. In one experience, Conway described the relationship of a domestic worker to the family whom she served, acknowledging that “maid service was not just a privilege of the wealthy in my youth. The very few working mothers I knew....used maids regularly...” He described the maid as a “surrogate parent” to the children of the household, but also recalled recognizing the vast differences between her

⁴¹ Brattain, 234.

⁴² Ibid, 234.

⁴³ Ibid, 236-237 for more extensive discussion of structural obstacles to integration.

life and those of the white people he was around. “Her home was a shack on a steep hill in east [sic] Rome and even at that early age I was struck by the poverty she lived in,” he stated, adding “How could it have been any different?” According to Conway, the maid’s wages would have totaled about two dollars a day. “If she had worked five days a week all year her annual income would have been about one tenth of my father’s, and we were not considered well off by anyone – anyone white, that is.”⁴⁴

Conway’s recollections of the janitor, “Mitch,” similarly noted an uncomfortable understanding from early childhood that he was expected to treat “Mitch” differently from other adults, and that no one ever referred to him as “sir” or Mr. Mitchell. “There were no other adults whom we could call by a first name so this one unexplained exception was notable to my six-year old brain.” Conway also recalled later learning that “Mitch” also worked as a janitor at the rayon mill, working two-eight hour shifts every day for an unknown number of years, putting five children through college, two of whom became medical doctors.⁴⁵

While Conway’s descriptions of the domestic worker and the janitor shed light on the subtle ubiquity of racial difference in the village, he also shared the memory of a moment of acute hostility between children. During a summer pickup game of baseball, an older boy from the village who had a reputation as a bully joined in to pitch, when “a surprising thing happened. Three black boys came riding into the village from the direction of north [sic] Rome....with ball gloves hanging off their handlebars. We must have looked at them like they were invaders from outer space. The boys stopped their

⁴⁴ Randy Conway, electronic correspondence with author, June 1, 2015.

⁴⁵ Conway correspondence, June 1, 2015.

bikes but remained on them and asked if they could join our game.” In his recollection, Conway was about to say yes, “because we were always short of players,” when the older boy “started shouting the vilest profanities imaginable,” and grabbed the bat to chase after them, unsuccessfully. “No one was injured but for all these years I have wondered what that incident must have meant to those three boys...[and] how their perceptions of white people were influenced that day.”⁴⁶

As the relative isolation of the mill workers and their families eroded over the course of the late 1950s and early 1960s, other external forces manipulated the rayon industry. In 1964, just as the Civil Rights Act put the force of federal enforcement behind job integration, the company announced expansion plans to its cellulose acetate facility that would add 150-200 new jobs.⁴⁷ Shortly after completing the expansion in 1966, however, Celanese officials, citing market forces, announced plans to shut down the outdated viscose department of the Rome plant.⁴⁸ The shutdown eliminated approximately 1,000 jobs, more than offsetting the 150-200 new jobs promised by the acetate expansion.⁴⁹

By the mid-1960s, newer synthetics such as nylon and polyester, which also comprised part of the Celanese corporate portfolio, began to crowd the market. Rayon, once the “fabric of the future,” became little more than a pit stop on the road to a

⁴⁶ Conway correspondence, June 1, 2015.

⁴⁷ “Celanese Announces Major Expansion of Rome Production Facilities,” *Rome News Tribune*, November 8, 1964.

⁴⁸ Isadore Barmash, “Celanese to End Output of Rayon,” *New York Times*, October 12, 1966.

⁴⁹ “Celanese to Drop Rayon Production,” *Women’s Wear Daily*, October 12, 1966.

synthetic revolution. Celanese, a large and diverse corporate operation, attempted to modernize the Rome plant with the addition of machinery to make polypropylene, a vinyl polymer used to make indoor-outdoor carpet.⁵⁰ With a booming carpet industry centered in nearby Dalton, polypropylene fibers seemed like a logical choice for expansion. However, the new facility only added 60 jobs back to the Rome plant when it opened in 1969, and Celanese discontinued polypropylene production by 1971 after sales failed to meet projections.⁵¹ Around the same time that Celanese added the polypropylene equipment it also began construction of an additional 30,000 square feet for a new tricot knitting operation, which opened in 1972.⁵²

The reality of the late 1960s and early 1970s cultural, economic, and political climate failed to match the ambition demonstrated by the company's multiple expansions and upgrades at the Rome plant between 1967 and 1972. In a 1972 publication, the *Celanese Roman Forum*, the company president, noted that if Celanese and its employees "truly believe in open competition and the free enterprise system, we cannot expect to be immune from its frequent downward pressure on prices and its effect on earnings." President Brooks cited statistics to demonstrate that if the company hadn't been "extremely aggressive in expanding sales and reducing costs," aided by high performance

⁵⁰ "Celanese to make New Yarn Product," *Rome News Tribune*, August 28, 1967.

⁵¹ "Rome Celanese History goes back to 1928," *Rome News Tribune*, February 25, 1969; "Rome Plant of Celanese Firm sees Several Major Expansions," *Rome News Tribune*, February 29, 1972.

⁵² "Rome Plant"

in some sectors of the corporation's diverse portfolio, a "disappointing year could have been a catastrophe."⁵³

Although projections for man-made fibers appeared sunny in the late 1960s and early 1970s, President Brooks' guarded optimism about his company's prospects as a diverse, vertically-integrated conglomerate hinted at uneasiness stirring in the industry. In a 1970 meeting in New York, industrialists and major retailers gathered to discuss the impacts of "consumerism" and the establishment of the National Commission on Product Safety (NCPS) in 1967. NCPS general counsel Michael R. Lemov, speaking to an audience of 125 top executives noted that there was a "reason for the 2,000 complaining letters a month" received by the president's adviser on Consumer Affairs, and why "Ralph Nader is heeded when he speaks." Lemov chided the executives for "looking the other way" during the post-war boom years, and warned of a growing movement of consumers to organize into group such as Philadelphia-based Consumers Union, which he noted had plans to build branches nationwide.⁵⁴

The Consumer's Union, founded in 1926, began publishing *Consumer Reports* in 1936 amid lean times to help discerning customers find their way amid a growing maze of consumer products, which by then included several synthetic fabrics. Through the post-war boom years, widespread relative prosperity allowed large corporations to ignore the concerns of a few in the free-flowing economy. By the early 1970s, however, as the economy took a downward turn, consumer concerns became amplified amid a stiffer

⁵³ "President Brooks View of '72: Price Erosion Hurt Us," *Celanese Roman Forum*, 1972.

⁵⁴ Peter Millones, "Industry Responds to Consumerism," *New York Times*, February 17, 1970.

competition to win their business as well as their trust. Consumer advocates, having successfully campaigned for the federal government to extend flammability regulations to include bedding in 1967, turned on the rayon industry when 1971 tests revealed that “blankets containing 35% rayon catch fire in one second when exposed to a flame.”⁵⁵

In addition to concerns about product safety, environmental impact of industrial processes came under greater scrutiny in the 1960s and 1970s. Booming urban populations and rapid industrialization placed a heavy burden on America’s water resources by mid-century. Oxygen depletion, the result of both natural waste and industrial chemicals, left rivers devoid of life, while industrial pollution sometimes led to more dramatic results such as a 1969 fire on the Cuyahoga River in Ohio.⁵⁶ While environmental legislation of the 1960s established regulatory standards, the government lacked an enforcement mechanism. The National Environmental Policy Act (NEPA) of 1969, however, established the bureaucratic structure for federal environmental control. With NEPA in place congress passed the Clean Air Act of 1972, which included both standards and procedures for enforcement.⁵⁷

⁵⁵ “Blankets with 35% Rayon found Flammable in Tests,” *New York Times*, March 17, 1971.

⁵⁶ A month after the 1969 Cuyahoga River fire, which caused about \$100,000 in damage to two railroad bridges, Time magazine ran a dramatic cover of the river ablaze, leading many to believe the image was taken from the recent incident. The photo, however, was of a much larger fire in 1952, according to the Cleveland Historical Society. Nevertheless, the breathtaking image of a ship completely engulfed in flame drew national attention to the country’s water pollution problem. Michael Rotman, “Cuyahoga River Fire,” *Cleveland Historical*, <https://clevelandhistorical.org/items/show/63> (Accessed October 27, 2017).

⁵⁷ Paul Charles Milazzo, *Unlikely Environmentalists: Congress and Clean Water, 1955-1972* (Lawrence: University Press of Kansas, 2006) 3.

Celanese acted quickly to comply with the new federal law. In June of 1973, the plant's "environmental superintendent" Harold Smith reported to the local Kiwanis Club that the company had expended \$700,000 on electric precipitators for its boiler operations in addition to improvements to its internal water treatment process and the creation of a 17 acre "stabilization" pond. According to Smith, capital expenditures on NEPA compliance upgrades exceeded \$1 per share of common stock. "An industrial plant is product oriented," Smith told the audience. "It has an image to maintain, which is reflective of how the consumer feels about a plant. If a consumer becomes dissatisfied not with the product but with other associated activities, the plant will suffer."⁵⁸

Despite its best efforts to respond to changing consumer attitudes and federal regulations, however, continued recession and a lag in the synthetic market took its toll. Two days after Christmas in 1974, Celanese announced plans to lay off all production workers beginning January 4, 1975 for a temporary shutdown. According to the local newspaper, company officials expected to resume production in about six weeks, pending recovery from the post-holiday slump.⁵⁹ Nine weeks later, the plant gradually began to resume production. As Local 689 president James Hampton told a newspaper reporter, "You can't start this plant like a cotton mill, just flip a switch and go."⁶⁰ Union members worked closely with company officials to ensure proper restart procedures were followed, and most of the 675 production workers affected by the layoff returned to work.

⁵⁸ "Celanese Continues Pollution Abatement," *Rome News Tribune*, June 14, 1973.

⁵⁹ "More Companies to Reduce Work," *New York Times*, December 28, 1974; "Temporary Close of Two Plants Set by Celanese," *Rome News Tribune*, December 27, 1974.

⁶⁰ "Celanese to Reopen Plant," *Rome News Tribune*, March 7, 1975.

Relief from the March 7 reopening proved short-lived. In early May, Celanese placed approximately 120 workers on furlough. The following October, management cut back to essential operations, removing 270 workers from the production floor with no stated plan for reopening. Company president Dow Sellers explained that a “fashion shift favoring spun aesthetics” had caused a severe downturn in the demand for the printed tricot fabrics for which the Rome mill’s yarn had been popular as well as for its rivals nylon and polyester.⁶¹ Sellers noted that the length of the closure would depend on the whims of the fashion industry, but that the company’s other products, manufactured at its several other locations, were still performing well. For Rome Celanese workers, however, the furlough continued through the end of the year.

⁶¹ “Celanese Closing,” *Rome News Tribune*, October 21, 1976.

CHAPTER VIII

LIFE AFTER RAYON: RIVERSIDE VILLAGE AND PUBLIC MEMORY

On Wednesday, January 12, 1977, following several troubled years of work stoppages and cut-backs, Celanese Corporation of America announced that it would close its Rome, Georgia facility. At the time, 379 of the facility's 539 employees had already been on furlough since the previous October. Company president Dow Sellers, speaking to local business leaders and government officials, attributed the shut-down to a shift in tastes among American consumers, whose enthusiasm for man-made, modern fabrics in waned in the early 1970s. The remaining demand, he asserted, could be sufficiently met by the company's other plants. Sellers also promised local leaders that Celanese would make every possible effort to either transfer employees internally or help them find placement with local businesses.¹

In an editorial printed the same day as the announcement, the *Rome News Tribune* noted the value of the company within the community, observing "the early rayon manufacturing process produced a....distinctive odor, but citizens of Rome found it easy to tolerate because the plant's payroll nurtured the community during the Great Depression which immediately followed its opening." The author noted the significance of the Capitoline Wolf statue and the championship semi-pro company baseball team. The article also acknowledged that the closing was the result of a decline in market demand, insisting that the decision to close the plant could only have come "after long

¹ *Rome News Tribune*, January 12, 1977; *Broadside*, January 13, 1977.

study and with regret,” and stated that Rome would remember the company with “pleasant associations.”²

Despite the sunny attitude expressed by the newspaper, the decision of the company to withdraw from Rome left a serious employment gap in the community. Within a few days of the announcement, local legislators met with Georgia Governor George Busbee to discuss options. The State Department of Industry and Trade placed Floyd County on a priority list for industrial recruitment, and Representative Buddy Childers, whose district included Celanese, put together a committee of local interests to help connect displaced workers with jobs.³ A new highway, which would connect Rome to Calhoun and Interstate 75, began construction shortly thereafter, which officials hoped would help bring new industry to the economically weakened town.⁴

The opening of one new industrial facility, Suhner Manufacturing, Inc., to the south of Rome, coincided with the closing of Celanese in January of 1977 and may have offset some of the unemployment problem. However, the new high-tech multinational in town operated using modern, automated equipment that required less labor than the older textile manufacturer. Suhner, which manufactured flexible shaft cables for automobiles, only created about 150 jobs, paling in comparison to the 2,000 initially offered by Chatillon in 1928, and insufficient for the placement of 539 newly unemployed Celanese workers.⁵ General Electric’s large transformer manufacturing facility, first opened in

² *Rome News Tribune*, January 12, 1977.

³ According to Rep. Childers, the committee never materialized. Personal correspondence with author, August 25, 2017.

⁴ *Rome News Tribune*, January 16, 1977.

⁵ “Suhner Manufacturing marking its 100th Anniversary,” *Rome News Tribune* (June 15, 2014), <http://www.northwestgeorgianews.com/rome/business/suhner->

1952 and expanded in 1969, absorbed some of the labor force as well. However, some operatives and managers in Rome's existing industries viewed Celanese workers as "agitators" due to the strength of its labor union, according to Donald Traylor, who went to work at GE after Celanese closed.⁶

Though the Celanese plant had outlasted a number of its cotton mill counterparts in the southward race of industry, a number of factors converged in the mid-1970s which contributed to its demise, including changes in fashion trends as alluded to by Sellers. While rayon once ushered in an age of man-made fibers, newer, more versatile synthetics had overtaken rayon in popularity by the 1970s, while a resurgence in natural fibers further weakened the market. The 1967 changeover from viscose rayon filament to acetate, more popular in blended weaves, stabilized the mill's fortunes temporarily, but by 1976 acetate's popularity waned. Coupled with new standards for flame-retardant materials in children's sleepwear, further reducing the market potential for the outdated fiber, the declining popularity of the older man-made fibers rendered the Rome acetate facility expendable to the company's management.⁷

Despite acetate's market decline, former workers recalling the mill's closing remember the shut down as the result of union overreach and government regulations. In a 2015 interview, former operatives Charlotte and Donald Traylor recalled the shut-down as a response to EPA regulations which made production unwieldy and expensive.⁸ Mr.

manufacturing-marking-its-th-anniversary/article_013ab512-f374-11e3-9efe-001a4bcf6878.html (Accessed August 17, 2017).

⁶ Charlotte and Donald Traylor, interview with author, Rome, G, June 2015.

⁷ "Fabrics: Celanese Fibers to Close Rome, Georgia Acetate Plant," *Women's Wear Daily* 18 (January 13, 1977).

⁸ Traylor interview.

Traylor, like many other displaced operatives, went to work at the local General Electric plant after the shutdown, but refused to join the fledgling union because he felt the Celanese chapter had grown too greedy.

It is difficult to know the extent to which the Traylors' perceptions of the shutdown's causes held true in the company's ultimate decision to close the facility. While upper management may have seen the writing on the wall with the implementation of the Clean Air Act, losses and cutbacks reported by the company in 1975 and 1976 as a result of poor market performance provide telling evidence of the brand's relatively weak position. Its facilities in Montreal, Maryland, and Virginia all suffered from significant job loss as Celanese phased out its acetate filament production in the mid-1970s.⁹ Other synthetic manufacturers took major hits as well, including textile giant Du Pont, which laid off about 400 workers from its acetate production unit at Waynesboro, Virginia in 1977.¹⁰

After Celanese closed its doors forever, some workers, like Monte Wood, stayed on to facilitate the shutdown. Monte, who, apart from his time serving in the Army Air Corps during World War II, had been with the company since that fateful day in 1937 when he got the call from Wallace Eaves. By the end, he had worked his way up to a foreman position in the viscose department. Though he had the opportunity to move on to one of the other facilities in South Carolina, Monte chose instead to remain in his home at

⁹ The Montreal plant suffered about a 20% workforce reduction in 1976: "Celanese Canada idles 366 workers," *Women's Wear Daily* 10 (April 1976). In Maryland, Celanese reduced its workforce from 2,400 in 1974 to 600: "Md. Jobless Despair as Aid Ends," *Washington Post* (February 1, 1976).

¹⁰ "Dupont Phasing Out Acetate Production," *Women's Wear Daily* (February 1, 1977).

28 Ash Street in the mill village, the home he and his wife Marie had purchased in 1954 and where they raised three daughters.¹¹

For many years after the plant closed, most of the Woods' neighbors were former rayon workers and longtime village residents. Devoted union member Oscar Allen, frequently at odds with Wood over labor issues, remained at 18 Ash Street until his death in 1996.¹² Victor Vincenzi, whose Italian parents moved to Northwest Georgia sometime between 1905 and 1910, worked as a bookkeeper at the rayon mill from its very beginning. Like Wood, he purchased his home at 22 Ash Street when the company sold the houses in 1954 and remained there until his death in 1983. His widow, Lavern, stayed in the home until her death in 2003.¹³ Roy Latham, who went to work at the mill sometime before 1940, moved his family to their residence at 24 Ash Street by 1955. Latham retired from his job with the Celanese Police in 1966. After he passed away in 1990, his widow, Nobie, remained in their home until her death in 2001 at the age of 98.¹⁴

Over the course of almost five decades, village residents lived, worked, and played in a nearly self-contained enclave. They had already made the houses their own even prior to taking ownership, both in tangible ways, by selecting their own paint colors and planting gardens, and in more ephemeral ways, utilizing their space as a means for

¹¹ Wood autobiography.

¹² *Rome News Tribune*, December 2, 1996.

¹³ 1930 Census; 1955 Rome City Directory; Obituary, *Rome News Tribune*, February 13, 1983.

¹⁴ 1940 census; 1955 Rome City Directory; Roy D. Latham obituary, *Rome News Tribune*, November 19, 1990; Nobie Latham obituary, *Rome News Tribune*, December 14, 2001.

extra income, renting out to boarders and lodgers. After the company sold the homes in 1954, the new homeowners quickly went to work making the houses their own, adding garages, enclosing porches, and making extensive additions over the years. Because there were several brick masons in the village, many early additions were brick. Alside, the first aluminum siding, and later vinyl siding were also incorporated into designs, especially upper dormer additions and back porch enclosures.

In a sidewalk survey conducted in the spring of 2013, 153 of the village houses were photographed and documented. The purpose of the study was to collect images and descriptive data on the different house plans and how they have been altered over time. Where possible, information about outbuildings was also noted. In some cases, additions or outbuildings may not have been visible from the street and were therefore not included in the survey data. Future research needs to include a community participation plan to provide additional access to properties. The preliminary survey was intended only as a guide from which to build a framework for more in-depth investigation. Although the survey does not cover the entire village, the sampling indicates patterns to the ways in which residents altered their dwellings over the years and a continuity of character throughout the village as a result (Figures 7 and 8).

The survey covered the northwest border of the village, including parts of Ash, Dogwood, and Norwood as well as all of Beech, Mahogany, Oak, Cypress, and Fir. Among the 153 homes surveyed, there were thirty-three three-room models, fifty (50) four-rooms, thirty-five (35) five-rooms, nineteen (19) six-rooms, and thirteen (13) duplexes. Though some of the house exteriors remain close to original condition, most have been altered in ways ranging from new porch posts to multiple wings and second

stories. However, the neighborhood on the whole has maintained its overall character and appearance because of landscape details such as the sidewalks, alleys, mature trees, and the ever-looming remaining smokestack, and also because many of the alterations were done by the same builders and maintained a somewhat uniform appearance.

The original three-room plan homes had a two-bay, asymmetrical façade with a small, recessed porch and entry on the right side and a single 6/6 double hung sash window on the left (Figure 9). The roof was pyramidal with a small triangular attic vent on the front and back. The brick chimney was located just below the apex of the roofline. Of the thirty-three examples of the three-room plan included in the survey sample, eighteen had at least one addition, most of which were built directly onto the rear of the house (Figure 10). Enclosed porches did not appear as frequently on the three room homes in the survey sample as in the larger models, but were still present on more than a quarter of the examples (Figure 11). Of nine enclosed porches on the three-room sample, four were either screened or glassed-in as sunrooms. Some examples, though altered virtually beyond recognition as three-room houses, are still characteristically Riverside houses. The dwelling at 47 Dogwood Street, for example, was built as a three room house but has had the porch enclosed and two substantial additions, both built by the owner (Figure 12). Only a small handful of the sample group strayed from the brick theme (Figure 13).

The four-room home was the only plan with two variations (Figure 14). The first model had a side-gabled roof with two interior ridgeline chimneys. The three-bay asymmetrical façade featured a projecting half-porch under a gabled roof with the entry situated between two paired 6/6 double hung sash windows. The second variation of the

four-room plan had a semi-pyramidal hipped roof with symmetrical interior chimneys and a hipped-roof porch. Modifications to the four-room plans followed similar patterns to those of the three-room, though a smaller portion – only sixteen out of fifty – had full room additions. Like additions on the three-room examples, most additions to the four-room homes were built in brick, and frequently onto the rear of the house (Figure 15). Porch enclosures on the four-room examples were also largely screened or glassed in with structural brick (Figure 16). Also like the three-room houses, some of the four-room examples had extensive additions, usually in brick (Figures 17 and 18).

The five-room home was characterized by a front-gabled roofline with three interior ridgeline chimneys and an asymmetrical two-bay façade with a single 6/6 double hung sash window to the right of the porch and entry (Figure 19). The projecting half-porch sat under a gabled roof with Tudor Revival detail. On the left side of the house, a bay window protruded slightly from the plane of the façade. Probably because of their larger size, the five-room homes in the village have had fewer additions over time than the three and four room models. Many of the modifications were similar to the other models, such as the porch enclosures and rear and side additions (Figure 20). A new type of addition also appeared on the five-room models in the form of large dormers (Figure 21).

The largest homes in the worker village were the six room homes. The six-room plans were laid out under an irregular hipped roof with a projecting gable on the front and three interior chimneys. The asymmetrical façade featured a three-sided bay window under the gable and a single 6/6 double hung sash window to the left of the gabled

section. On the other side of the front gable, on the right elevation of the house, was a small porch with an entry door, and a second similar porch to the rear (Figure 22).

Though they are less common throughout the village than the smaller models, the six-room houses are generally remarkably intact. Most common façade changes to the six room homes include porch enclosures. Many front porches have been converted to sunrooms or enclosed entry spaces, while rear porches became laundry and mudrooms (Figure 23). Because their size is more accommodating to the modern family, larger more dramatic additions are more rare among the six-room models. The dwelling at 6 Cypress Street (Figure 23) has a small, brick addition to the side rear, while 32 Oak Street (Figure 24) provides a unique example of a significant second story addition.

The efficiency duplex was the only multi-family plan in the village, and also the most symmetrical (Figure 25). With a gabled-roof entry porch on either end, the façade featured two symmetrical paired 6/6 double-hung sash windows. The duplex had a hipped roof with three symmetrically-placed interior chimneys, one in the center of the street-side façade, the other two placed in symmetrical locations to the rear. On most of the duplexes, one porch has been enclosed and the house converted to a single family home, and on some the second has also been enclosed in screen or as a sunroom (Figure 26). However, the porch enclosures on the duplex models were less consistently brick than on the other house types, possibly because they would have been less attractive to families when first sold and were therefore converted later. Also, like the other small houses, some duplexes have had extensive additions to accommodate the changing needs of growing, modern families with wings and second level additions (Figures 27 and 28).



Figure 7: Historic Riverside streetscape. Three boys on a village street, 1940s. Image courtesy Bob Anglea.



Figure 8: Riverside streetscape, 2012. Image courtesy Dr. Carroll Van West.



Figure 9: 3 room, minimally altered, 17 Ash Street is an intact example of a three-room home in the village.



Figure 10: 3 room, moderately altered – rear additions. 21 Dogwood Street (top) and 10 Cypress Street (bottom) both have small, brick additions to rear of the house and cosmetic changes to porches. 21 Dogwood Street also has an additional window in the right elevation, probably a bathroom.



Figure 11: 3 room moderately altered - porch enclosures. 10 Norwood Street (top) Porch is fully enclosed with brick. 26 Ash Street. (bottom) Porch converted to sunroom. Brick addition to rear built by Monte Wood and Bert Payne.



Figure 12: 3 room, significantly altered. 47 Dogwood Street. Image above indicates original structure in box. Resident Maxine Grindstaff (on porch) informed survey team that she and her late husband bought the house in the mid-1950s. Mr. Grindstaff, a trained brick mason, built additions to rear (center image) and side, including drive-under garage (bottom image).





Figure 13: 3 room, significantly altered - vinyl additions. 27 (top) and 23 (bottom) Beech Street are rare examples of three room houses with vinyl-covered frame additions visible from streetside.



Figure 14: 4 room, minimally altered. 1 Ash Street (top) example of a minimally altered gabled-roof four-room model. 30 Oak Street (bottom) example of a minimally altered pyramidal roof four-room model.



Figure 15: 4 room, moderately altered – rear addition. 29 Oak Street, originally a four-room model with a pyramidal roof, has had a rear brick addition. Though one of the original chimneys has been removed, the addition included a new one



Figure 16: 4 room, moderately altered - porch enclosures. 17 Oak Street (top) which has had front porch enclosed with brick, and 45 Dogwood (bottom) front porch enclosed with synthetic siding. Other porch enclosures in village include glass and screen (see inset).



Figure 17: 4 room, significantly altered. 5 Fir Street is a four-room pyramidal example with extensive brick additions. Top image shows original structure indicated by box.



Figure 18: 4 room, significantly altered. 1 Cypress Street is one of the most dramatically altered structures in the sampling. Original structure indicated by box in image on left. Gabled porch enclosed in pink brick, with later room additions and three garage bays in brick veneer. Though later additions interfere with the structure's historical integrity, the pink brick addition is fairly consistent with other mid-century renovations in the village.



Figure 19: 5 room, minimally altered. 7 Mahogany Street still has the original porch with added railings. Eaves have been streamlined but porch gable retains faux-timber ornamentation. All three chimneys remain.



Figure 20: 5 room, moderately altered. 12 Cypress Street (top). Fully enclosed front porch with patio space added and new steps to driveway. Replacement windows. Eaves covered with synthetic siding. Chimneys demolished. 5 Cypress Street (bottom). Fully enclosed front porch. Rear brick addition (in box).



Figure 21: 5 room, significantly altered. 14 Norwood Street. Porch enclosed in frame with synthetic siding, screens. Upper story dormer addition. Rear frame addition.



Figure 22: 6 room, minimally altered. 5 Oak Street (top) is a minimally altered six-room model. Porches remain open. 4 Cypress Street (bottom) has had one window converted to a doorway with a small patio space added, but otherwise unchanged. Open rear porch visible in far right of photograph.



Figure 23: 6 room, moderately altered. 9 Beech Street (top) has brick-enclosed porch, eaves covered in synthetic siding. Exterior otherwise unaltered. 6 Cypress (bottom). Porch converted to sunroom. Small brick addition (indicated by arrow). Additions often accommodated additional bathrooms as two-bathroom homes became more desirable.



Figure 24: 6 room, significantly altered. As the largest homes in the village, six-room houses rarely underwent dramatic additions. Within the sample survey, 32 Oak Street is a unique example of a second story addition to a six-room home.



Figure 25: 3 room, minimally altered. 2 Beech Street (top). Exposed rafter tails still visible. All three chimneys intact. One porch enclosed with brick. 11 Oak Street (bottom). Chimneys demolished, windows and roof replaced but otherwise remarkably intact. Rare example with both porches still open.



Figure 26: 3 room, moderately altered. 9 Norwood Street (top) shows common use of synthetic siding to enclose porch and cover eaves. 16 Cypress Street (bottom) has one screened-in porch and one enclosed with brick, eaves covered with synthetic siding.



Figure 27: 3 room, significantly altered. 22 Beech Street is one of the more dramatically altered duplex examples. A close look at the structure, however, reveals the original symmetrical windows on both front and rear. Brick additions slightly mismatched. Roof continuity reveals remarkable craftsmanship of the builder.



Figure 28: 3 room, significantly altered, continued. 13 Cypress Street (top). Both porches enclosed in vinyl. Upper story dormer additions. 31 Beech Street (bottom). Extensive side addition. Original structure

For reasons related to both the socioeconomic status of residents and the nature of the structures themselves, housing in a worker village often comes with preservation issues related to its own unique history, materials usage, limited funds for basic maintenance, and DIY additions to accommodate changing needs through time within a limited budget. Throughout the village, preservation needs are similar to those associated with any lower-income neighborhood. The addition of vinyl siding and enclosure of eaves leads to concealed rot of the wood underneath. The practical difficulties of frequent repainting, which was done every three years under company control, is further complicated by the design of the houses. The space between exposed rafter tails under the eaves forces the painter to move the ladder for each section painted or construct scaffolding if the lot allows, adding both time and difficulty to the task and discouraging many low-income homeowners from regular repainting.

Windows also pose a problem in these aging structures. In the summer of 2014, 4 Poplar Street, a five-room house, sat vacant for several weeks between tenants (Figures 29 and 30). When a thermostat was left at 65 degrees for an undetermined period of time with outside temperatures bordering 100, heavy condensation caused water damage throughout the house. As a result, the muntins on one window rotted completely through so that the panes fell out of the sash. Prior to the exposure, the window could have been reglazed, an option of which homeowners may be unaware. Due to the rot caused by the water damage, the owners were forced to replace the window with a new one, and due to budgetary constraints, were forced to replace it with vinyl.

A further issue with the windows in the village homes is their non-standard sizing. One former resident recalled a relative who worked on the construction crew when the

homes were built describe the process. “He once told me he helped frame the windows in my home and they built the windows on site. They would lay the Plainville brick and leave a hole and they would make the window to fit the opening on site.”¹⁵ While some of the men were experienced carpenters, others may not have been. Though dimensions would have been dictated by blueprints, slight discrepancies can make replacement more complicated and more expensive.

Yard maintenance is another common problem faced by lower income and older residents. In the summer of 2014, in addition to the rotted window, 4 Poplar Street also received moderate damage from vegetation overgrowth. At the northeast corner of the structure, a tree had grown into the eaves, damaging the aluminum siding. In multiple points on the foundation, English ivy had grown into the masonry. In addition to live growth, several seasons worth of leaves were piled up around the base of the structure, holding moisture against the foundation and encouraging termite and powder post beetle populations (Figure 30).

While basic neglect is an issue in any older, lower-income neighborhood, makeshift and “DIY” additions, common throughout the village due to the small size of the homes, have also caused problems. Norma Steele Hurley, who still resides in her Beech Street home as of 2017, recalled that in the early 1970s her husband constructed a second story addition on their home, working late nights after finishing his shift at the plant. While the addition served their purpose for the time, raising two children in it, by

¹⁵ Cruz Nathan Self, comment on Celanese Village Kids Facebook page.



Figure 29: Preservation issues - windows. Above Left: Window indicated by arrow. Note the overgrown vegetation. Top Right: View from inside. Snail trails under the window and a line of condensation drip around the walls (not visible) indicated the extent of damage. Lower right: Black mold growing on a door near the damaged window.

2015 she felt uncertain about its structural stability and had closed off that part of the house (Figure 31).¹⁶

¹⁶ Norma Steele Hurley, interview with author, on file at the Rome Area History Museum.



Figure 30: Overgrown vegetation. 4 Poplar Street.



Figure 31: 23 Beech Street, rear

Although the inexpensive materials and sometimes-imperfect craftsmanship of structural alterations pose certain preservation problems, they are still a significant part of the neighborhood's fabric and story. The handful of carpenters and masons who provided labor for many early renovations are woven into the memories of village descendants. For instance, as one former resident recalled, a carpenter named "Mr. Selman" built kitchen cabinets for many new homeowners, and some of the houses still bear his handiwork (Figure 32). Monte Wood's masonry work also remains prominent throughout the village (See figure 11, 26 Ash Street).

Though known for many years as low-maintenance homes, as the houses of the village age, every day maintenance takes on a new urgency. While sturdier than some of their cotton mill village counterparts, in the forty years since the plant closed down, residents' connection to place becomes more tenuous and the population more transient. By virtue of the high number of rental properties in the community, neglect becomes increasingly common. Inclusion of the neighborhood into the city limits would provide access to city services such as trash pickup, simplifying rubbish disposal, could help some residents with mobility issues with waste disposal, minimizing the threat sometimes posed by insects and rodents.



Figure 32: Kitchen upgrades like the one in 4 Poplar Street (top) and 28 Ash Street (bottom) were common early changes, many built by the same local craftsmen.

Though the houses in Riverside have been modified, sometimes dramatically, the landscape as a whole maintains its connection with the past through the continued presence of other structures, such as the churches, store building, mill, and firehouses. The baseball diamond, though now devoid of the wooden grandstands of its heyday, is still in regular use by local church and company teams (Figures 33 and 34). The former school, which operated as Riverside School into the 1980s, is currently (2017) Mercy Care, which provides daytime services and programs for seniors in the community. The current owner replaced all of the windows shortly after taking possession of the building in 2012 and demolished one wing of the structure in 2015 (Figures 36-39).¹⁷ The original church, first built by the company and shared by Baptist and Methodist congregations, is still in use as Riverside Baptist Church, while St. Luke's United Methodist, constructed by the congregation in 1954, has changed hands a number of times in recent years, serving briefly as a commercial wedding chapel before once again serving a religious congregation in 2017 (Figure 40).¹⁸

¹⁷ Brittany Hannah, "Mercy Senior Care Now in New Building," *Rome News Tribune*, July 1, 2012; Doug Walker, "Section of Mercy Care Demolished for More Parking, New Entrance," *Rome News Tribune*, August 13, 2015.

¹⁸ "St. Andrews Blessed in New Home," *Rome News Tribune*, February 20, 2017.



Figure 33: Tubize Rayons baseball field, circa 1931, Claude Stowers at bat. Image courtesy Rome Area History Museum.



Figure 34: Village ballfield, circa 2012. Now part of municipal parks system. Image courtesy Dr. Carroll Van West



Figure 35: Former tennis court. Converted to half-court basketball.

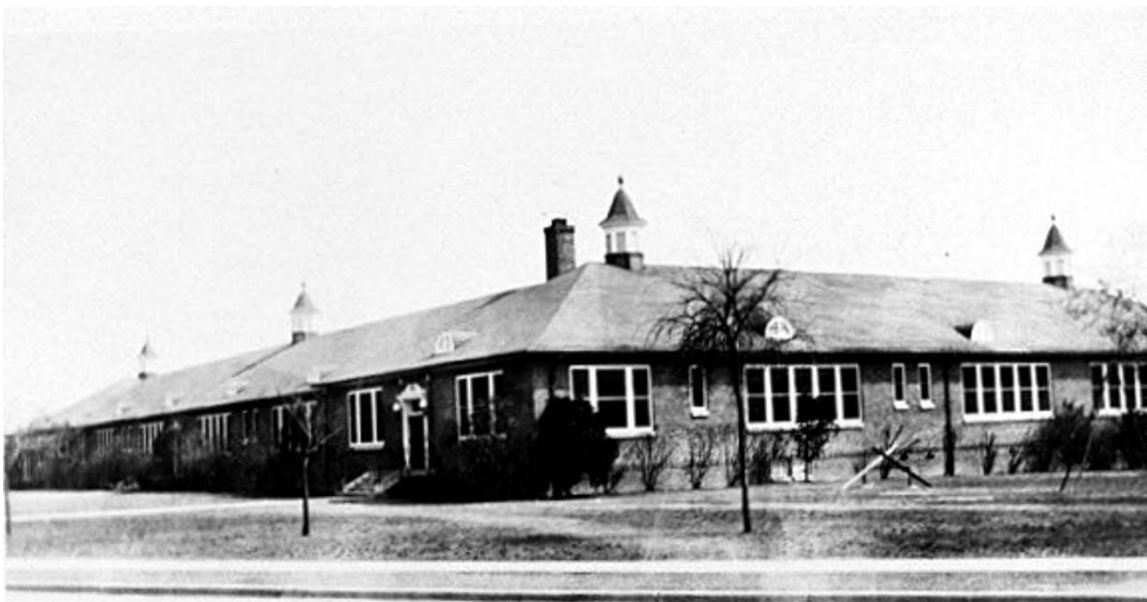


Figure 36: Village school, circa 1930. Image courtesy Rome Area History Museum.



Figure 37: Village school, circa 2012. Image courtesy Dr. Carroll Van West.



Figure 38: Village school under demolition, 2015.



Figure 39: Village school cupola. Saved for reuse in an ornamental garden.



Figure 40: Village Churches, 2013. Riverside Baptist (top) and St. Luke's Methodist (bottom).

Between 1928 and 1977, few major alterations to the landscape of the Riverside district took place. In the 1960s, the company demolished most of the management village, marking the most dramatic change to the village landscape in forty years. About the same time, Celanese donated the former Ridge home, long occupied by the plant manager and his family, to the Junior League who soon opened it as Chieftain's Museum.

¹⁹ Otherwise, by 1977, apart from individual house renovations, the area remained relatively as it had been immediately after the mill opened almost fifty years prior. The pace of change picked up in the 1980s when a new bypass cut through the forest, fields, and wetlands to the northwest between the village and the river.²⁰ Though owned by Berry College prior to road construction, residents of the village used the space now occupied by Veterans Memorial Highway for forage as well as for recreation. It also provided the shortest route to the river for fishing from many parts of the village.²¹

Not long after the new highway opened, the city purchased property north of the village and began construction of a new high school and middle school to serve the whole city of Rome, combining and replacing East Rome and West Rome middle and high schools. When construction began in 1990, community members expressed concerns about its proximity to the former landfill associated with the mill and village. However, a 1991 EPA inspection determined that the site posed a minimal enough risk for

¹⁹ The houses are still extant in a 1965 aerial image. May have been torn down at the same time that the Ridge home was donated to the Junior League in 1969.

²⁰ By December 1, 1985 the road was almost complete based on: "Rain Postpones Opening of North Rome Connector," *Rome News Tribune*, December 1, 1985. See also: U.S. Department of Transportation and Georgia Department of Transportation, "North Rome Connector, Redmond Road to GA-53, Floyd County: Environmental Impact Statement," (Washington, D.C.: 1983).

²¹ Michael Skeen, interview with author.

construction to proceed.²² Although the school site is immediately adjacent to the village to the north along the new bypass, Celanese residents have continued to resist inclusion into the city limits, creating a small pocket of unincorporated county land surrounded by city limits. Currently, the village is zoned for the Model school district, five miles north at Shannon.²³

In 1988, the city commission approved a plan to widen and straighten the River Road leading from downtown Rome to the former Celanese mill and village. The project would help alleviate congestion at one major intersection and eliminate a dangerous curve where the River Road became Chatillon Road near Chieftain's Museum. A group of local citizens organized to oppose the project plans, which included elimination of 22 oak trees planted by Tubize for the management village homes.²⁴ Additionally, federal regulations required extensive study of the area surrounding Chieftain's, which had been designated a National Historic Landmark in 1973.²⁵ The new Riverside Parkway finally

²² U.S. Environmental Protection Agency report GAD984279380.

²³ In 2003 and 2004, debates over the issue of annexation appeared frequently in the local newspaper. New and longtime residents protested annexation, citing lower taxes and better schools as reasons to remain in the county. A journalist noted that, although the city property tax was slightly higher, the average property owner in the village stood to save about \$290.78 in service and utility charges even after the modest (\$58 on a \$72,000 home) increase in taxes. Additionally, though data is not available before 2007, Rome City Schools have continually outperformed Floyd County Schools. Proponents of annexation pointed out that the biggest difference between the two school districts was the predominantly minority racial demographics of the Rome City Schools versus the majority-white county schools. See: Rebecca Grillicot, "Residents Protest Annexation," *Rome News Tribune*, June 20, 2003; Best High Schools rankings, *U.S. News and World Report*; K-12 School and District Rankings, *Niche*.

²⁴ "Three Supporters Unable to Uproot City's Position," *Rome News Tribune*, May 19, 1992.

²⁵ "Not All in Favor of Plan," *Rome News Tribune*, July 25, 2004.

opened after many years of delays on October 31, 2006 with four lanes and an elevated median in the middle.²⁶

In the eighteen years it took to complete the project, Rome became home to a minor league baseball team, the Rome Braves, who opened a stadium across Veterans Memorial Highway from the village in 2003 (Figure 41). Baseball, a central element of early mill village life, is now once again an important draw for the community. The new ballfield, State Mutual Stadium, holds 5,000 spectators in grandstands and grassy picnic areas to watch the Class A minor league affiliate of the Atlanta Braves.²⁷ A new road, completed in 2012, cuts across the vast, open farmland to create a direct route between Riverside and U.S. 27, the former Dixie Highway route leading north to Tennessee.²⁸

An important component of this project has been the cooperation of a large online community of rayon mill and village descendants who style themselves the “Celanese Village Kids” (CVK) on the popular social media platform Facebook. The social media group grew out of biannual reunions, which began in 1997, twenty years after the mill closed down.²⁹ As of August 31, 2017, the group included 651 members ranging from young adults whose grandparents worked at the mill to former workers and residents in

²⁶ “Riverside Parkway Opens North of Turner McCall,” *Rome News Tribune*, October 31, 2006.

²⁷ “From Dream to Home Opener,” *Rome News Tribune*, April 11, 2003.

²⁸ “Armuchee Connector Opens to Traffic Thursday,” *Rome News Tribune*, May 18, 2012.

²⁹ “Past residents return to Celanese to relive memories mill village life,” *Rome News Tribune*, June 7, 2015.

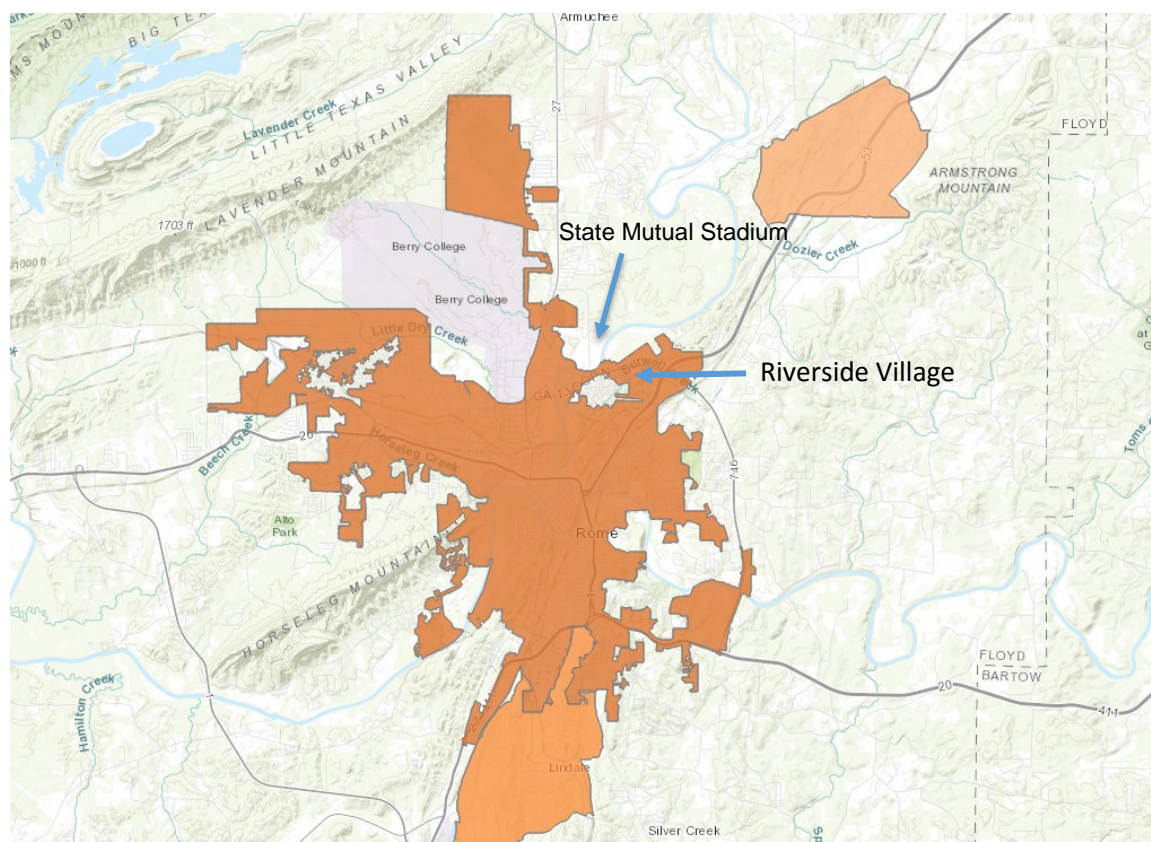


Figure 41: Modern map of Rome area. Note that the village is an island of non-annexed property within the city limits. Source: Esri, "U.S. Populated Places," ArcGIS Online, Map Service.

their 80s and 90s, with the bulk of group members in their retirement years. The Facebook group provides a space for community continuity, where the sharing of memories, digitized photos, old newspaper articles, and even obituaries helps members maintain a sense of identity that is thoroughly tied to place while existing as a placeless entity in the cloud.

The collectivization of memory represented by the CVK online group is both useful and problematic. As Jay Winter stated in the introduction to *Performing the Past: Memory, History, and Identity in Modern Europe*, the repetitive performance of memory within groups “galvanize[s] the ties that bind groups together and deposit additional memory traces about the past in their own minds.”³⁰ Via the online format, community members continually perform acts of memory reinforcement, replacing storytelling with nostalgia through the repetition of such collective memories as unlocked doors, friendly neighbors, and other tropes of the “good old days.” However, buried under the white noise of wistful sentiment are details about the specific experience of the Riverside Village landscape. Common themes of discussion include the swimming pool, the Rayon Pharmacy and soda fountain, school and teachers, the churches, and athletics. As an example, a 2010 post by group member Randy Conway inquires of the group

Did anyone else do this? In the very early 50s Byron Potts and I would occasionally ride our bikes from the pool back to Poplar St. the long way (Chatillon Rd. not the gravel alley that went behind the plant). And very occasionally we would ride into Mr. Crooks’ driveway (he was the plant manager for many years) and stop where we could see the small swimming pool in the backyard. We would practically salivate over the idea of having your very own pool. It was an unimaginable luxury to two

³⁰ Karin Tilmans, Frank van Vree, and Jay Winter (eds.), *Performing the Past: Memory, History, and Identity in Modern Europe* (Amsterdam: Amsterdam University Press, 2010): 11.

village boys. And the entire time we would be there we would be scared silly, just knowing that Ollie Davis was about to arrive, siren blaring, and take us off to jail for trespassing. Or worse, tell our parents what we had done.³¹

Mr. Conway's post reveals a number of things about the village in the 1950s: that a child who lived on Poplar Street considered the main artery through the village the "long way" home, opting instead for a path through the mill complex to the drive that led out of the north gate (Figure 42). Additionally, Conway inadvertently reveals the mindset of "two village boys" toward the lifestyle of upper management, distancing themselves from the unattainable luxury of a private pool, while belying the inherent privilege in their own lives as White children with access to a swimming pool in the Jim Crow South. Conway's post also provides basic, verifiable information such as the name of the plant manager and police chief in the early 1950s, and the fact that the plant manager had a private pool.

Conway's post also elicited 19 additional comments from other group members as well as additional information from the original poster. One commenter noted that she "used to ride that cinder road back and forth to the swimming pool and stop on that bridge to smell that stinky stuff every day in the summer."³² Another stated that she

³¹ Randy Conway, Celanese Village Kids Facebook Group, September 17, 2010.

³² Janice Maloney, comment on post by Randy Conway, Celanese Village Kids Group, September 17, 2010.



Figure 42: North Gate and Swimming Pool. Aerial image from Google Earth.

recalled the creek smelling like rotten eggs, while another speculated that she thought the smell was acid. The creek to which the community members referred is Burwell Creek, designated as a superfund site by the United States Environmental Protection Agency in 1996. According to an assessment by the Georgia Environmental Protection Division, the groundwater at the site contained high levels of arsenic and the soil contained 19 known pollutants, all byproducts of the chemical processes used to manufacture rayon fibers.³³

In a post from 2011, group member Edward Jones recalled picking “peach plums from a couple of trees behind the old house as you turned into the swimming pool rd. from the river rd.”³⁴ Additional commenters also recalled the house and the peaches, and group member Conway provided the information that the house was “Mr. Eaves house, father-in-law of Mrs. Eaves who taught third grade. He was in charge of all the houses including deciding who got which house. You didn’t want to get on Mr. Eaves’ bad side.”³⁵ Census records confirm that in 1940, at least, Wallace Eaves, the personnel director who had hired Monte Wood in 1937, lived at 34 River Road, which seems to corroborate with Jones’ description of the house sitting at the juncture of the “river rd.” and the “swimming pool rd.”

A 1930s aerial photograph of the site also shows a house at the described location, along with a small structure in the back, which appears to have gone unnoticed by CVK discussion participants. By 1940, however, the dwelling appears to have been the home of Robert and Mary Stokes, a young African American couple from Alabama who

³³ Site 10404, Hazardous Site Inventory, Georgia Environmental Protection Agency.

³⁴ Edward Jones, CVK, August 5, 2011.

³⁵ Randy Conway, comment on post by Edward Jones, CVK, August 5, 2011.

worked as a janitor and a maid at the rayon mill, according to census records.³⁶ It is possible that the secondary structure was no longer standing by the time group discussion participants' recollections began; further research would be necessary to verify when it fell out of use as a residence. Lack of knowledge about this secondary residence and its inhabitants, however, would be consistent with the apparent invisibility of African American workers at Celanese and the estrangement between the local black and white population of the mid-twentieth century.

Additional data that can be gathered through the social media platform discussions include village inhabitant's names and addresses, positions held, schools attended, and the formation of friend and kin groups during the period of significance. The collective memory in this case can serve the function of both obscuring historical information, through the repeated performance of nostalgia, and of revealing it, as group members participating in discussions 'jog' one another's memories through the sharing of collective experiences. Unlike a static oral history in which an academic researcher, who is most commonly an outsider, asks general questions based on limited knowledge of the lived experience, group participants on the social media platform perform a continual co-revelation of time and space. Unencumbered by the need to explain what the "cinder road" was or what a "peach plum" is, group participants use a shared language of space to reenact moments from a collective past, regardless of their own levels of personal acquaintance.

³⁶1940 census. The census also indicates that the Stokes's paid \$6 in rent per month compared to the Eaves' \$34.

With the local and virtual community's continuing sense of place, and the numerous visual ties to the village's history persisting on the landscape, the former rayon mill village at Riverside provides a unique space in which to interpret the particular historical moment in time when multinational high-tech industry reached Rome and other modest-sized towns in southern Appalachia. The landscape holds numerous opportunities for interpretive development such as signage and historical markers. Additionally, materials such as driving tours and informational booklets could be distributed through existing heritage tourism resources Chieftain's Museum and Rome Area History Museum.

The village lends itself to a number of interpretive themes, including company housing in the age of the "new mill village," new industries in the New South, the rise of multinationalism, and working class life in mid-twentieth century southern Appalachia. Additionally, building on the existing exhibits of Chieftain's Museum, a walking and/or driving tour of the area could incorporate themes dealing with Cherokee removal and storyline devoted to the long arc between early white settlement and global industry connected within a single contiguous landscape.

The persistence of the mill complex (Figures 43-45), company store, school, churches, baseball field, tennis courts, and firehouses augment the historical integrity of the Riverside landscape. Currently, as of 2017, parts of the mill complex are operating as business that are open to the public. Biscuit's Bargains, and after-market discount carpet square dealer, occupies one of the former weaving sheds. Walking from room to room in the vast warehouse, visitors can see the erosion on the ceilings caused by heavy chemical fumes, as well as the openings where the conveyor belt moved from room to room.

Interpretive development in cooperation with business owners and former mill operatives, who may remember the function and layout of the different rooms, would allow visitors an inside view of high tech industrial work life in the mid-twentieth century.

The company store and pharmacy building, now operated as a haunted attraction, retains much of its external character, including parking plates (Figure 46). The plates offer a unique opportunity to tell the story of individuals who worked in connection with, but outside of, the rayon mill's operations. The structure needs to be assessed for stabilization work, with extensive water and vegetation damage to the mortar, but could potentially provide ideal space for an interpretive center. An interpretive center at the rayon mill site would allow interpretation of not only the rayon mill and village at Riverside, but also other related developments of the time period, such as Elizabethton, Tennessee, where fire claimed the mill structure in 2000, and Enka, North Carolina, where much of the rayon industry landscape was destroyed between 2000 and 2016.³⁷

³⁷ Marie Tedesco, "North American Rayon Corporation and American Bemberg Corporation," *Tennessee Encyclopedia of History and Culture*, <http://tennesseencyclopedia.net/entry.php?rec=1005>, (Accessed October 27, 2017); Julie Ball, "New Enka School Looks to Past," *Citizen-Times*, June 20, 2015, <http://www.citizen-times.com/story/news/local/2015/06/20/new-enka-school-looks-past/29029443/> (Accessed October 27, 2017).

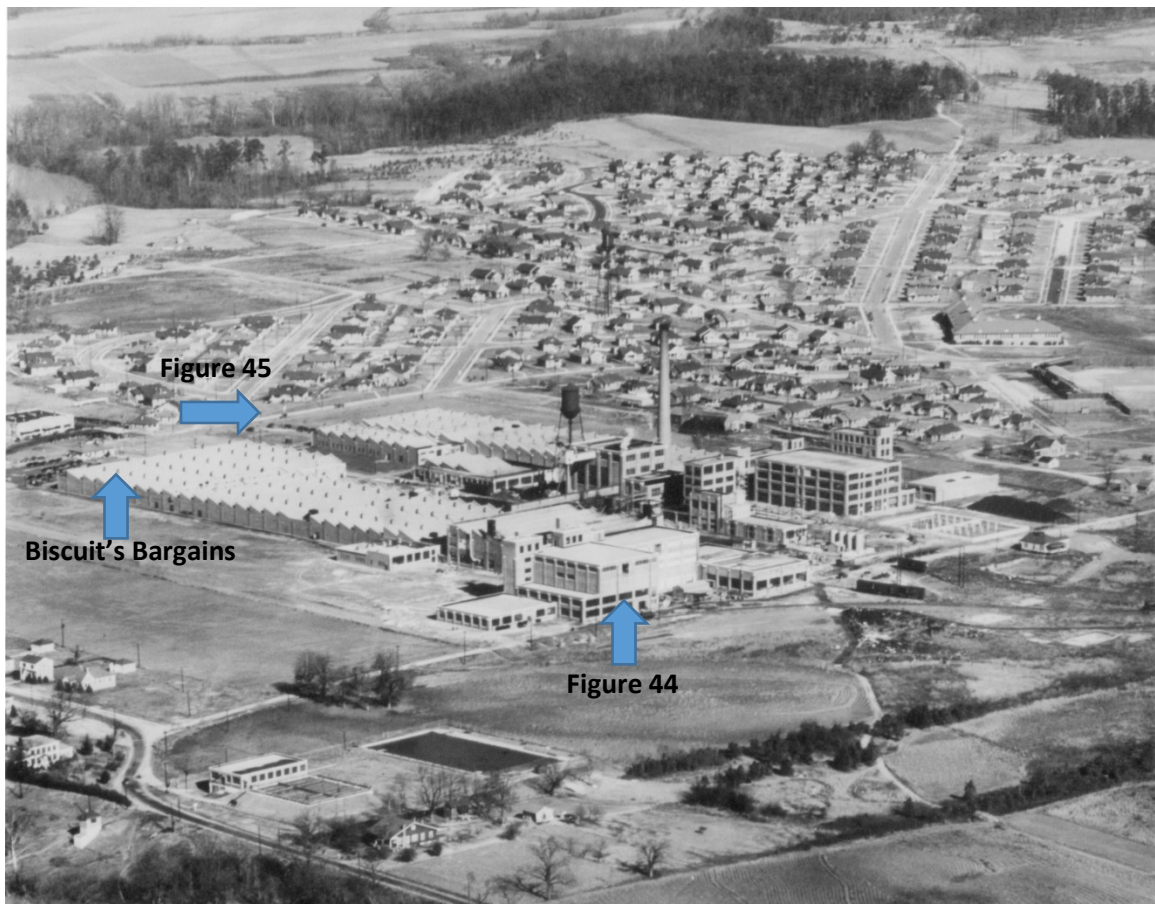


Figure 43: Aerial view of mill and village, 1930s. Image courtesy Rome Area History Museum.



Figure 44: Mill landscape, from South. 2015.



Figure 45: Mill landscape, from North. 2015.



Figure 46: Former Rayon Pharmacy and soda fountain building. Now operated as a haunted attraction, Gates of Misery. Location of parking plates indicated with arrow. Parking plate example shown in inset.

CONCLUSION

The landscape of the rayon mill village at Riverside represents a long and complicated history in both a local and a global context. Locally, it connects Cherokee Georgia to 20th century industrial growth in southern Appalachia. The former Ridge home, having served as the plant president's home for forty years before being converted to a museum, offers a unique opportunity to interpret the long arc of change connected to place in a small southern town. Simultaneously, as the first of several high-tech multinational industries to locate in Rome, Georgia, the rayon mill landscape helps situate twentieth century southern industrialization within the larger global context of the perpetual search for cheaper labor by exploitative corporations, and the unforeseen environmental consequences of an industry born out of a real economic need.

From its rise out of the silk industry of France to its appearance in southern Appalachia, rayon, the "fabric of modern life," serves as a reference point for long-term globalization, and raises questions about the very "newness" of the global market economy itself. The rayon industry did, however, bring about a new type of visibility to a small Georgia town's connectedness to the global market by bringing foreign management and new technology into the community just as the new nationalism of European powers heated to a boiling point.

The particular historical moment in which Chatillon arrived on the landscape in Rome, Georgia coincided with a shift in attitudes toward mill village development, corporate welfare expectations, and infrastructure planning, giving rise to a new and different kind of mill village landscape of which there are only a limited number of

examples. Due partly to their sleek, modern work environment and their coveted village houses, rayon mill workers in Rome saw themselves as a cut above their “lint head” peers in the cotton mills, contributing to a lasting sense of nostalgia among surviving members of the community.

Rayon and synthetic fibers grew out of the impetus to solve an urgent problem in the silk industry. Becoming popularized in the 1920s and 1930s through clever branding and competitive pricing, rayon opened the door for a new relationship between consumers and the environment in the mid-century at a time of widespread prosperity. As its popularity grew, so did its environmental footprint, with its heavy dependence on carbon disulphide and other now-restricted solvents. The rayon industry, which saved thousands of jobs in late-nineteenth century France and rescued a small southern Appalachian town from the worst ravages of the Great Depression, came with long-term health and environmental concerns never foreseen by its creators.

Placing workers’ stories in the broader context of global industrialization, from the excitement of new, high-tech industry to the disappointment of environmental threat and job insecurity, the rayon mill stands as an emblem of the victories and vicissitudes of the modern era. Interpretation at the site and continued preservation of the landscape through interpretive and educational efforts would help bring public attention to a more nuanced understanding to the complicated nature of the modern global economy and the many synthetic and polymer industries upon which most of the developed world is dependent.

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