Lowell

A Concise History

Richard P. Howe Jr.

ENCYCLOPEDIA OF LOWELL HISTORY

Volume 1

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Lowell: A Concise History

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Series Preface

Encyclopedia of Lowell History

Lowell, Massachusetts, holds a unique place in the American narrative. As the cradle of the Industrial Revolution, it was the first planned industrial city in the United States, a destination for waves of immigrants from around the globe, and a case study in the rise, fall, and reinvention of the American city. To understand Lowell is to understand the broader social, economic, and political forces that have shaped the nation.

The *Encyclopedia of Lowell History* is dedicated to preserving and expanding the historical record of this enduring community. This series encompasses a wide range of works, including original historical narratives, comprehensive statistical inventories, and biographical dictionaries. It also serves as a vehicle to rescue and reprint out-of-print historical texts that might otherwise be lost to time. Whether through new scholarship or the preservation of voices from the past, this collection aims to ensure that the story of the Lowell remains accessible to scholars, residents, and future generations.

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Introduction

I approached the Lowell National Historical Park Visitor Center on the morning of June 6, 2015, unsure of what I would find. To help draw more people to downtown Lowell, I had organized a series of 13 guided walking tours to be held on Saturday mornings throughout that summer. Each 90-minute walk would have a different topic and tour guide with all beginning at 10:00 A.M. from the Visitor Center. There was no charge; anyone interested could just show up. I called it Lowell Walks.

This was the inaugural walk, Preservation Success Stories, led by Fred Faust, the former executive director of the Lowell Historic Preservation Commission. By the start of the tour, the Visitor Center was mobbed with people, all there for the walk.

Lowell Walks was a huge success, averaging 100 people per walk. That level of enthusiasm and attendance continued for three more summers. Other commitments forced me to put Lowell Walks on sabbatical in 2019, but the following year I partnered with Lowell National Historical Park to revive Lowell Walks. Our aggressive schedule of 23 walks ran from March through October, but only the first one, Women's Activism in Lowell on March 7, 2020, was held before the Covid-19 pandemic shut down

Lowell Walks and the rest of the world. For a variety of reasons, Lowell Walks never resumed.

While the scale of the success of Lowell Walks exceeded my expectations, I was not surprised by their popularity. For many years, I had led similar walking tours of historic Lowell Cemetery, tours that routinely drew 100 or more participants. In an age when many say history is boring, I gave considerable thought to why the turnout for these tours indicated otherwise.

The popularity of Lowell Walks speaks to a fundamental truth about human nature: we are wired for storytelling. While names and dates provide the skeleton of history, it is the narrative—the struggles, triumphs, and daily lives of those who walked these streets before us—that breathes life into the bricks and mortar. We gather in such large numbers not merely to learn facts, but to satisfy an ancient, communal hunger for connection, looking for our own reflection in the lives of those who came before us.

To mark Lowell's bicentennial year, I have brought the Lowell Walks storytelling approach to the page. When you stand on a street corner relating history to a hundred listeners, you do not use footnotes; similarly, I have not used them here. This is a walking tour in print. Its focus is immigration and the Industrial Revolution—the two central themes of the Lowell National Historical Park. The narrative begins not with the town charter in 1826, but almost two hundred years earlier with the arrival of the region's first immigrants: English traders who ventured up the Merrimack River from the Atlantic coast.

Naturally, a slim volume cannot cover everything of importance to a community over a span of nearly 400 years. Instead, this book identifies the major events and trends that shaped the city. On my tours, I often say that I

can find a Lowell connection to almost any event in world history. Here, that dynamic works in reverse: I have tried to identify how global events directly shaped what happened in Lowell.

Back in 2013, I participated in a TEDx event here in the city. The title of my talk was “Failure as Opportunity: The History of Lowell, Massachusetts.” My premise was that whenever a plan didn’t work out as intended, the people of Lowell didn't give up; they tried something else. This persistence is what elevated Lowell above so many other struggling mid-sized cities in post-industrial America.

The willingness of the people to keep fighting to improve the city is critical to its future success. My hope is that this book, by sharing stories of how Lowell overcame hard times in the past, will help inform those who will lead the city into the future.

CHAPTER ONE

Wamesit & East Chelmsford

The city of Lowell sits atop two Native American villages. The first was Wamesit which straddled the Concord River where it flows into the Merrimack. The settlement had 1,500 acres on the Concord's west bank encompassing today's downtown, the Acre and the Lower Highlands, and 1,000 acres on the east bank covering most of Belvidere. The second village was Pawtucket which was on the north bank of the Merrimack at Pawtucket Falls. Of the two, Wamesit was larger although the population of Pawtucket swelled each spring as Indigenous people throughout the region congregated there to harvest fish from the schools pausing at the falls on their journey upstream.

By the time Lowell received its town charter in 1826, the villages of Wamesit and Pawtucket had ceased to exist. Still, the displacement of the Native Americans from this region by the English in the late 17th century played an important role in the establishment of the textile mills a century and a half later.

The Native Americans of this region have long fascinated local historians but University of Massachusetts Lowell history professor Christoph Strobel in his 2020

book, *Native Americans of New England*, cautioned readers about accepting earlier stories of local Native Americans in their entirety. Native American culture was one of oral tradition, so much of the Native American's own history has been lost over time. The written accounts that do survive were composed by English writers who had their own motives and biases.

Archeology can be a useful tool for learning about those who came before us but in the case of the local Native Americans, that method of discovery is often unavailable. Unsurprisingly, the Native Americans inhabited the places best suited for settlement. The same geographic features attracted the early English and then modern developers. As a result, Native American artifacts that might have been discovered through archeological digs were long ago displaced by subsequent construction.

Notwithstanding these obstacles to deeper knowledge, we know that thousands of Native Americans lived here. Their tribal affiliation is unclear but most likely they were Penacooks who spoke Algonquin. While they supplemented their food supply by hunting, fishing and foraging, they were primarily farmers which meant that substantial areas had been cleared of trees and were used to grow crops such as corn, squash, and beans.

The first Europeans arrived in New England at the start of the 17th century. They were fishermen from England who continuously came to the coast to fish. Often, they went ashore, though not permanently. However, even this minimal contact was enough to expose the Native people to European disease against which they had no immunity. The result was devastating with tens of thousands of Native Americans dying from these novel illnesses.

With the Native American population considerably reduced, areas they had cleared for farming were abandoned or depopulated. This worked to the benefit of the next wave of English to arrive. These were not transient traders or fishermen, but religious refugees intent on creating a new society.

The Pilgrims who landed in Plymouth in 1620 and the Puritans who arrived in Boston and Salem in the 1630s came for religious freedom, but the English merchants who financed their journeys demanded a return on their investment.

Furs were the only things the colonists had or could get that had sufficient value to repay their debt and to pay for iron goods, cloth, and other essentials that were not yet manufactured here. Almost immediately, the colonists established trading relationships with the Native Americans, exchanging English goods for beaver pelts and other furs that were highly valued in Europe.

When the supply of furs near the coast became exhausted, English traders ventured inland for new trading opportunities. In 1635, Simon Willard led a group of families to establish the first inland settlement in New England in what would become Concord, Massachusetts. The many streams and marshes in that vicinity supported a large population of furry animals and the rivers that bisected the region gave it strategic importance for trade further inland.

By the early 1640s, Willard was venturing up the Concord River to the Merrimack and the Native American settlements of Wamesit and Pawtucket. A Christian minister named John Eliot sometimes accompanied him.

John Eliot was born in England but came to Boston in 1631 at age 26. He settled in nearby Roxbury and became

the longtime pastor of a church there. At the same time, Eliot became deeply interested in preaching about Christianity to Native Americans. He learned the Algonquin language and travelled around eastern Massachusetts, establishing relationships with Native Americans in villages that would become the Massachusetts communities of Littleton, Grafton, Marlborough, Hopkinton, Canton, Mendon and Lowell.

In 1647, Rev. Eliot accompanied Simon Willard to Pawtucket Falls and returned each spring as the Native Americans from around the region gathered at the falls for peak fishing season and to renew acquaintances with each other. According to English accounts, Eliot "converted" many of the Native Americans in Wamesit to Christianity and is said to have built the first church in the region, a chapel made of logs on the site now occupied by the Eliot Church which is named for this missionary preacher.

While John Eliot was interested in the souls of the Native Americans, his companion Simon Willard was interested in the furs they had to trade. According to historian Bernard Bailyn, the fur trade in southern New England was plentiful in the 1640s but began to decline in the 1650s. This, plus the relentless arrival of new settlers from England pushed the colonists further inland. In 1653, a group of families from Woburn and Concord ventured up the Concord River to form a settlement at Wamesit.

Procedurally, anyone could petition the General Court for permission to establish a "plantation" (the term then used for a settlement). If the petition was granted, it usually came with some conditions such as a certain number of families having to establish homes within the settlement and that a church be constructed within a certain amount of time. The land was granted to all in

common, but the inhabitants could decide on their own how to subdivide and privatize the acreage. Usually, some amount was retained under common ownership, often for the grazing of farm animals. The remaining land was then allocated proportionally to all the residents although new towns would offer larger parcels as incentives to those who would build and operate sawmills, grist mills, or other necessary services for the community.

The strategic location of Wamesit at the confluence of the Concord and Merrimack Rivers was attractive to these would-be settlers, but the main attraction was the agricultural fields already cleared of trees by the resident Native Americans. However, when the English interlopers filed their township petition with the General Court, Rev. Eliot filed a competing petition on behalf of the Native Americans of Wamesit. In 1655, the General Court endorsed Eliot's petition and granted a town charter to Wamesit. At the same time, the legislators granted the petition of the Concord and Woburn families except their town was sited further to the west of and separate from Wamesit. The English chose the name Chelmsford for their new town.

As best as we can tell, the boundary between Wamesit and Chelmsford ran along today's Stevens Street from the Merrimack River to River Meadow Brook near Cross Point, then along River Meadow Brook (which parallels the Lowell Connector) to the Concord River. The easterly boundary of Wamesit was the Concord River and the northerly boundary was the Merrimack River.

The initial grant to Chelmsford included no frontage on the Merrimack River, an oversight that was remedied several years later when the legislature added today's North Chelmsford to the town.

Even though a substantial part of the Native American village of Wamesit was east of the Concord River, the General Court did not include that in the Court's official Wamesit charter. That land had long been of interest to the General Court which had previously granted former governor John Winthrop 1,000 acres to establish a town there. When Winthrop died in 1649 before doing anything to found a new town, the General Court granted his widow and children an additional 2,000 acres in the same vicinity. These combined parcels form much of today's Andover, Tewksbury, and the Belvidere neighborhood of Lowell.

These grants to the Winthrop family included the east-of-the-Concord portion of Wamesit which was already inhabited by Native Americans. While the Winthrops were deemed the "owners" of that Wamesit land in a legal sense, they did nothing to interfere with the use of the land by the resident Native Americans.

Soon thereafter, English settlers did arrive in Shaweshin, an area south of the Winthrop grant. Approximately 40 families who were crowded out of Cambridge came to Shaweshin - now Billerica - and established houses and farms. On May 30, 1655, the General Court formally recognized the community as a town and renamed it Billericay.

The residents of Chelmsford, Billerica and Wamesit lived as neighbors for another 20 years until 1675 when the Native people rebelled against endless English incursions. The resulting conflict, King Philip's War, was the deadliest in the history of the North American continent in terms of the percentage of the population killed. In the end, the English prevailed but the brutality on both sides irrevocably damaged relations between the two peoples.

Consequently, Wannalancit, the leader of the Native people who lived in Wamesit, abandoned the settlement and led his followers up the Merrimack to the woods of northern New Hampshire.

Before departing, Wannalancit and the other tribal leaders transferred ownership of their land to their English neighbors. On November 18, 1685, Wannalancit signed a deed granting 30 acres of land in Wamesit to Thomas Hinchman of Chelmsford. On September 6, 1686, Wannalancit transferred almost all the remaining Wamesit land to Jonathan Tyng and Daniel Hinchman. A month later, Wannalancit deeded the last portion of Wamesit to Jerahmell Bowers of Chelmsford.

By these three conveyances, Wannalancit effectively ended the involvement of the Pawtuckets in Wamesit (in the English sense of ownership of the land). Wannalancit disappeared from the region but eventually returned, living the remaining years of his life – he died in 1696 – at Jonathan Tyng's house.

Tyng and Hinchman joined 48 other men to form an association called the Proprietors of Wamesit Neck. On December 14, 1686, Tyng and Hinchman each signed nearly identical deeds by which they transferred "all that part of the Indian plantation called Weymessit" to the 50 proprietors, identifying three of them – Thomas Hinchman, John Fisk, and Josiah Richardson – as trustees of the rest.

From a conveyance of legal title perspective, this transaction was unremarkable, but from a matter of town governance, it was unique. Per the General Court's 1655 grant, Wamesit was a separate town, but the Proprietors of Wamesit Neck dispensed with the technicalities of local

government. From the beginning of their ownership, they considered themselves to be part of Chelmsford.

This arrangement continued until 1725 when the inhabitants of Chelmsford elected Stephen Pierce to represent them in the General Court. Pierce lived near today's intersection of Parker and Chelmsford streets which was within the Wamesit grant. When he arrived in Boston to take office, the General Court refused to seat him on the grounds that he lived in Wamesit, not Chelmsford, so he could not legally represent that town.

In protest, the people living within Wamesit stopped paying taxes to Chelmsford, but the matter was soon resolved when Chelmsford formally requested the General Court to annex Wamesit to it. The petition was granted on June 13, 1726. Wamesit ceased to exist as a separate town and was thereafter known as East Chelmsford.

When Stephen Pierce died in 1749, his sons Stephen and Benjamin took over the farm. However, when Benjamin died in 1764, his seven-year-old son Benjamin remained on the farm and was raised by his uncle. On April 19, 1775, when 18-year-old Benjamin heard gunfire from the southwest as he worked in the fields, he grabbed his musket and joined the Chelmsford militia company on their march to Concord. Benjamin and his comrades attacked the British all the way back to Boston and then became part of the colonial militia that besieged the city. Benjamin continued to fight for American Independence and had a distinguished war record. After the war, he moved to New Hampshire and, in 1827, was elected governor of that state. In 1853, his son Franklin became the 14th president of the United States.

In the decades following the original transfer of Wamesit to the English, most of the land was divided into

lots that were then assigned to individual owners. Over time, the original owners died or sold their property to others. By the time of the American Revolution, title to most of the land was consolidated under a handful of residents who used it for pasture and farmland.

Although most of the output of Chelmsford farms was used locally, any surplus was transported to Boston and traded for manufactured goods. Farmers throughout New England did the same. Because the earliest roads followed Native American trails, many of them passed through the former Wamesit village. A wagon trip from interior New Hampshire to Boston took several days, so residents of East Chelmsford established several taverns, inns, and ferry crossings of the Merrimack to facilitate the wagon traffic and to profit from it.

The primary concentration of English in this area was at Middlesex Village which is outer Middlesex Street at Hadley Field and the Rourke Bridge. Residents were mostly in the service business because teamsters driving wagons filled with agricultural products from New Hampshire to Boston would use the ferry from the north bank of the Merrimack in the vicinity of the aptly named Old Ferry Road to cross to the southern bank and then halt at Middlesex Village for a meal, refreshments, and overnight accommodations.

But not all goods from interior New England were carried by wagons bound for Boston. In the 18th century, international demand for lumber from the upper Merrimack River surged. Lumbermen would routinely cut down trees in the forests of northern New Hampshire and then bundle the logs into rafts to be floated down the Merrimack to Newburyport and the Atlantic Ocean.

The passage of the Pawtucket Falls at East Chelmsford was treacherous for the rafts, so the logs were pulled ashore above the falls, dragged along the bank to a point beneath the falls, then returned to the river. It was inefficient and labor intensive, but there was no alternative. That changed in 1792, when residents Dudley Tyng, William Coombs and others formed a corporation called The Proprietors of the Locks and Canals on the Merrimack River and proceeded to dig a canal.

Sweeping in a great arc from the southern bank of the Merrimack above the falls to the Concord River near its confluence with the Merrimack, the Pawtucket Canal took five years and cost $50,000 to construct. The canal was one and one-half miles long and used four lock chambers to accommodate the 32-foot difference in elevation between the upper Merrimack and the Concord. One of the four locks was eventually deconstructed leaving the three we have today: The Guard Locks near Broadway; the Swamp Locks off Dutton Street near the Lowell Justice Center; and the Lower Locks next to the UMass Lowell Inn & Conference Center where the Pawtucket Canal enters the Concord River. The Pawtucket Canal commenced operations in 1797 and was initially a great success, but that quickly changed when a competing canal, the Middlesex, opened a few years later.

The Massachusetts legislature granted a corporate charter to the Proprietors of Middlesex Canal on June 22, 1793. Unlike the Pawtucket Canal, which allowed river traffic to bypass Pawtucket Falls and continue down the Merrimack River to Newburyport, the Middlesex Canal would carry the same traffic all the way to Boston, a much more lucrative destination.

The Middlesex Canal came off the Merrimack in Middlesex Village, about one quarter mile east of today's Rourke Bridge right about where the Family Dollar Store (once Alexander's Supermarket) is located on Middlesex Street. The canal then ran southerly, parallel to Baldwin Street, through what is now Hadley Field and Mt. Pleasant Golf Course. The Middlesex Canal stretched 27 miles, had 20 locks and eight aqueducts. It took nine years to construct, and it traversed the towns of Chelmsford, Billerica, Wilmington, Woburn, Winchester, Medford and Charlestown. It was safe, economical, and it eventually put the Pawtucket Canal out of business since farmers, merchants and lumbermen from the interior could get more money for their products at Boston than at Newburyport.

At the same time, two Boston businessmen, Jonathan Hunnewell and Samuel Gore, established a glass manufacturing company on Baldwin Street in Middlesex Village. Called Chelmsford Glassworks, it employed 20 families including some specialists recruited from Germany. It was right next to the Middlesex Canal which facilitated its transportation needs. The factory consisted of 2 furnaces, 11 ovens, a kiln, a millhouse, and a storehouse. In 1820, they made over 330,000 feet of window glass which was their primary product. The company owned multiple dwellings on each side of Baldwin Street for worker housing. When the company moved elsewhere in 1839, the Chelmsford factory shut down.

Other manufacturing ventures emerged in the region. Because the Merrimack flooded frequently and violently, any sawmills or gristmills built on its banks risked being swept away. Since the Concord River was less prone to flooding, local entrepreneurs tended to launch their

businesses there. In fact, the first textile mill in Middlesex County was constructed in 1801 by Moses Hale on River Meadow Brook not far from where it flowed into the Concord River. In 1819, Hale and his son-in-law Oliver Whipple built a gun powder mill nearby.

In 1813, Phineas Whiting and Josiah Fletcher built a cotton mill on the Pawtucket Canal, just before it reached Lower Locks and the Concord River. In 1818, Thomas Hurd purchased that mill and converted it into woolen manufacturing. That same year, Winthrop Howe started a flannel mill on the opposite bank of the Concord River.

However, manufacturing at Middlesex Village and along the Concord River was relatively small and limited in scope. To obtain many of the necessities of life and nearly all luxury goods still required international trade, something that boomed after American independence. One who seized this new opportunity was Francis Cabot Lowell.

CHAPTER TWO

The Founding & Rise of Lowell

Born to an affluent Newburyport family two weeks before the start of the American Revolution, Francis Cabot Lowell became a successful merchant by age 23, importing silk and tea from China and hand-woven cotton textiles from India. But conflict between European powers in the early 1800s disrupted international trade and convinced Lowell of the need for the United States to manufacture goods, especially textiles, at home.

In 1810, Lowell and his family embarked on a two-year tour of England, ostensibly to improve his health, but more likely so he could learn more about the robust English textile industry. When the War of 1812 began, Lowell, with the designs of English textile machinery imprinted in his brain, returned to America determined to launch his own textile mill.

Enlisting his brother-in-law, Patrick Tracy Jackson, to manage the operation, Amesbury mechanic Paul Moody to construct the equipment, and Boston merchants Nathan Appleton and Israel Thorndike to fund it, Lowell created the Boston Manufacturing Company and built the first fully

integrated textile mill in America on the bank of the Charles River in Waltham, Massachusetts.

The operation was a great success. Investors received returns of 25 percent and the appetite for domestically produced cotton cloth seemed insatiable. But expansion would require a new site since the single mill in Waltham exhausted the hydro power of the Charles River which had a drop of just six feet.

Before the quest for a new site commenced, Francis Cabot Lowell died of pneumonia in 1817 at age 42. His associates pursued his dream which brought them in November 1821 to a point overlooking Pawtucket Falls. Amazed by the potential hydro power created by the 32-foot drop in the Merrimack at that point, the Boston Associates, as they were then called, used local agents to discretely purchase all the farmland along the Merrimack River within the old Wamesit settlement for $18,000, and then bought all of the stock of the Proprietors of the Locks and Canals for another $30,000.

Patrick Tracy Jackson was too busy managing the Waltham mill to oversee this new venture, so the Boston Associates hired Kirk Boott to lead the East Chelmsford project. Boott was born in Boston in 1791 but went to school in England, eventually becoming an officer in the British Army and seeing combat during the Napoleonic Wars. He returned to Boston in 1817 and befriended Patrick Tracy Jackson. Boott was smart, disciplined, and well-organized. As a former army officer, he had experience in planning and overseeing the construction of entrenchments and fortifications, skills easily transferable to canals and mill buildings. In 1822, the Boston Associates hired Boott to be the first agent and treasurer of the

Merrimack Manufacturing Company. He immediately moved to East Chelmsford and got to work.

In 1822, the Pawtucket Falls provided the immense energy necessary for mass textile production, power that just-emerging steam technology could not yet match. This provided a fleeting technological window where the textile industry was strictly tethered to waterpower, so investors were forced to build entirely new infrastructure around the Merrimack and its falls since there was no alternative.

Ideally, a power generating canal would be built parallel to a fast-flowing river with mills constructed on the island that resulted between the canal and the river. Water could then flow from the canal, through the mill, and back into the river. However, the Pawtucket Canal was not laid out this way, so the founders of Lowell faced far greater engineering challenges and needed innovative thinking to lay out mills and new canals.

The first task was to enlarge the existing dam at Pawtucket Falls to divert the water into the Pawtucket Canal, essentially turning the river's flow sideways into the city. The Pawtucket Canal became the feeder for the entire system.

The next task was to build a complementary canal that would take water from the Pawtucket, allow the water to flow through a mill, and then return to the Merrimack River. Rather than construct this new canal parallel to the Pawtucket Canal, Boott had it depart from the Pawtucket Canal at a 45-degree angle and then flow north until it drained into the river. Along the way, the first big mill complex would be constructed on the south bank of the river. This allowed the new power-generating canal, called the Merrimack Canal, to flow through the new mill

buildings, called the Merrimack Manufacturing Company, and then on into the river.

The Boston Associates kept their plans secret until they acquired ownership of the land and the Pawtucket Canal, but once title passed, word soon spread of this ambitious undertaking. One who heard of the project was Hugh Cummiskey, an Irish immigrant from County Tyrone who was a labor leader in Charlestown, Massachusetts. In April 1822, Cummiskey led approximately 30 Irish laborers on foot from Charlestown to East Chelmsford, where Kirk Boott put them to work widening the Pawtucket Canal and digging the Merrimack Canal.

The mill owners let these laborers fend for themselves for housing, so they established a settlement of tents and shanties on a patch of swampy land near the construction sites. Originally called the Paddy Camp Lands, this space evolved into the neighborhood known as The Acre.

When construction of the Merrimack Manufacturing Company began in 1822, only a couple of dozen people lived in the area, so the mill owners had to import their workforce. Their plan was to recruit young women from the farms of New England. Because there were few homes within walking distance of the new Merrimack Mills, the mill owners built housing for their employees nearby. They constructed multistory row houses and installed mature women to oversee the houses and their occupants. Besides being a practical necessity, the supervised communal housing eased the concerns farm parents had about sending their daughters to live and work in a far-off place. Worker housing was also a way to distinguish American industry from that in England where workers lived in squalid conditions. This utopian vision of the mill owners

only lasted for as long as their mills were profitable, but they were sincere at first.

Besides housing, the mill owners also built a church. One of the requirements of a town charter in early New England was to construct a church. By the 1820s, that was no longer a legal obligation, but it was a cultural one. It was also part of the business plan of the mill owners. Farmers would be more likely to allow their daughters to come to live and work in this new place if they were assured their daughters would attend church.

Known as St. Anne's, the cornerstone of this new church was laid in May 1824 and the church opened in 1825. Reverend Theodore Edson was the first minister.

The new town exploded on the American scene and grew rapidly. In 1825, a second mill complex, the Hamilton (named for Secretary of the Treasury Alexander Hamilton) opened on Jackson Street (named for town founder Patrick Tracy Jackson). It was powered by the Hamilton Canal which branched off the Pawtucket Canal at Swamp Locks. In 1828, the Lowell Manufacturing Company began operations on Market Street, powered by the newly constructed Lowell Canal. That same year, the Appleton Mills opened across Jackson Street from the Hamilton. In 1830, an existing woolen mill at the end of the Pawtucket Canal was expanded and reopened as the Middlesex Manufacturing Company. In 1831, the Western Canal opened. It branched off the Pawtucket Canal at Swamp Locks and flowed through the Acre to the Merrimack River. Along the way, the Western Canal powered the newly constructed Tremont Mills, Suffolk Manufacturing Company, and Lawrence Manufacturing Company. In 1835, the Eastern Canal was constructed. It left the Pawtucket just before Lower Locks and powered the newly

constructed Boott Cotton Mills and then flowed into the Merrimack River. The final big mill complex, the Massachusetts Cotton Mills, opened in 1839 and drew power from the Eastern Canal.

With these new canals all drawing water from the Pawtucket Canal, the water flow of that main artery was dissipated and threatened the operation of all the mills, especially in times of drought. To remedy this problem, in 1848, the Proprietors of the Locks and Canals constructed the last of the major Lowell canals which they called the Northern Canal.

Leaving the Merrimack at the Pawtucket Falls, just downstream from the entrance to the Pawtucket Canal, the Northern Canal ran parallel to the river, separated by a massive stone dike, then curved 90 degrees inland and continued eastward until it intersected the Western Canal. There, a new gatehouse limited the volume of water flowing towards the Merrimack River in the Western Canal to the amount needed to power the Tremont, Suffolk and Lawrence Mills. The gatehouse also caused the bulk of the water from the Northern Canal to flow away from the river, reversing the flow of the Western Canal. This new water eventually flowed into the Pawtucket Canal at Swamp Locks which enhanced the power of the water flowing through the rest of the canals.

At the same time, Locks and Canals also constructed the Moody Street feeder which left the Western Canal midway along its course and then flowed underneath Moody Street to a newly constructed gatehouse on the Merrimack Canal, just across from St. Anne's Church. (The Moody Street Feeder still exists, passing underneath the brick plaza separating Lowell City Hall from the JFK Civic Center.)

When the Merrimack Manufacturing Company began operations in 1823, the mill owners and managers were content to work within the structure of Chelmsford town government, but the rapidly growing manufacturing facility and all that came with it required greater government involvement than the farmers who dominated Chelmsford town government were willing to fund. This disconnect prompted the mill owners in 1825 to successfully petition the legislature to create a new town. Although other names were considered, the founders decided to call this new town Lowell in honor of their departed leader, Francis Cabot Lowell.

Lowell received its town charter in 1826 and a city charter in 1836. The physical size of the city then was much less than it is now. Originally, Lowell consisted of today's Downtown, the Acre, South Lowell, and the Lower Highlands. Roughly speaking, the northern boundary was the Merrimack River; the eastern boundary was the Concord River; the southern boundary was the town of Billerica; and the western boundary was Stevens Street (which is today considered the boundary between the Upper and Lower Highlands).

Over time, the State Legislature annexed portions of the adjacent towns of Dracut, Tewksbury and Chelmsford to Lowell to enlarge the city's geographic footprint. Although it may be hard to imagine this from our 21st century perspective, the people who lived in the areas that were annexed to the city for the most part supported the change, mostly because the fast-growing city provided more services to its residents than the more frugal towns did.

On February 28, 1851, lower Centralville was formed with 580 acres annexed from Dracut. This area was

bounded to the north by the line of Aiken-Ennell-Richardson-Thirteenth Streets; to the east by the Dracut town line; and to the south and west by the Merrimack River.

Two more annexations occurred on May 18, 1874. The largest was 2,168 acres north of the Merrimack River taken from Dracut to form Pawtucketville and the remainder of Centralville. The second annexation was 1,129 acres taken from Chelmsford to form the rest of the Highlands. This included everything west of Stevens Street, bounded by the Chelmsford town line to the south and west and the Merrimack River to the north.

The final two annexations took land from Tewksbury to form the rest of Belvidere. The first, on May 17, 1888, was a half-moon-shaped slice of 220 acres that ran along Butman Road to Stratham Street. The second, on April 30, 1906, added the rest of today's Belvidere and South Lowell.

Today, it is difficult to comprehend the prominence of Lowell during the first half of the 19th century. For example, on June 26, 1833, President Andrew Jackson came to Lowell, arriving late in the day to a huge welcoming ceremony. The next day, Jackson, whose entourage included future presidents Martin Van Buren and Franklin Pierce, toured the Merrimack Manufacturing Company and expressed great surprise and pleasure at the favorable conditions under which the mill girls worked.

From the receipt of its town charter in 1826 up to the start of the Civil War, Lowell was one of the most important places in America. Andrew Jackson was not the only VIP to visit. Others included Charles Dickens, Davey Crockett, Abraham Lincoln, Henry Clay and presidents John Tyler and James Polk.

National politicians and international celebrities were not alone in coming to Lowell. The town was a magnet for those with talent, energy and drive. Since none of the equipment used in the Lowell mills existed elsewhere in the United States, necessity drove innovation which made Lowell the Silicon Valley of 19th century America.

When Francis Cabot Lowell returned from England in 1812, he sought out Newburyport native Paul Moody, described by many as a mechanical genius, to fabricate an American version of the textile-making equipment Lowell had seen in England. At Waltham, Moody built and ran the machinery for the Boston Manufacturing Company.

The machinery for Lowell's first mill was built in Waltham, but the Merrimack Manufacturing Company soon established its own machine shop to construct machinery for use in the city's expanding mills. In 1825, Paul Moody moved to Lowell to run the Lowell Machine Shop.

When Moody died unexpectedly in 1831 at age 52, the mill owners recruited George Washington Whistler, a West Point trained engineer to succeed Moody. Whistler remained in Lowell until 1837 when he was hired by the Czar of Russia to construct the Moscow to St. Petersburg railway. Before the family left Lowell, Whistler's wife gave birth to a son, James McNeill Whistler, who became a world-famous artist.

Succeeding George Whistler as chief engineer in 1837 was his 22-year-old, English-born assistant, James B. Francis. For the next 47 years, Francis re-designed the canals, invented a water turbine that is still used around the world today and created a modern fire suppression system of sprinklers in the mills. Perhaps his greatest achievement was the publication in 1855 of his *Lowell*

Hydraulic Experiments which documented two decades worth of his analysis of waterpower in Lowell. This distinctly American work replaced the European texts previously in use and was employed by every industry in America that used waterpower. Francis also did much to promote engineering, teaching his techniques to professional colleagues and serving as the president of the American Society of Civil Engineers. In 1989, the University of Massachusetts Lowell named its College of Engineering after him.

Innovation in Lowell was not limited to textile equipment. When the Proprietors of the Middlesex Canal increased the tolls they charged the mill owners to ship raw cotton to Lowell and finished goods back to Boston, Patrick Tracy Jackson sought an alternative means of transport. He had read about something called a steam locomotive used in England to transport people and goods. Fascinated by its potential in Lowell, Jackson purchased a locomotive from England, and had it shipped to Lowell – ironically, via the Middlesex Canal - where he ordered the mechanics of the Lowell Machine Shop to reverse engineer the device and begin manufacturing them locally.

The Lowell Machine Shop was one of the first in America to build steam locomotives. One of the first was called *Patrick* in honor of Patrick Tracy Jackson, who also chartered the Boston and Lowell Railroad in 1830, the first commercial steam railway in Massachusetts. When service began in 1835, trains left Lowell at 6:00 a.m. and 2:30 p.m. and Boston at 9:00 a.m. and 5:30 p.m. and transported 24 tons and 100 passengers between the two cities each day.

By 1860, Lowell was the second largest city in Massachusetts with 36,000 residents with nearly 14,000 employed in the city's 52 textile mills. Each week, those

mills turned 800,000 pounds of cotton into 2.4 million yards of cloth. Lowell continued to dominate the American textile industry but changes in technology, economics, and society threatened that dominance.

CHAPTER THREE

Competition & Challenges

When the Merrimack Manufacturing Company commenced operations in 1823, fast flowing water was the only viable means of large-scale power generation. The 32-foot drop in the Merrimack River at Pawtucket Falls made Lowell unique and allowed the city's mills to achieve dominance in textile production with limited competition.

Soon, advances in steam power technology and dropping prices for coal made it possible to construct and operate large mills far from fast-flowing rivers. In 1847, for example, the Naumkeag Steam Cotton Company in Salem became the first major textile mill in the region powered exclusively by steam. Because steam mills relied on coal, the industry hub shifted toward coastal cities like Salem, New Bedford, and Fall River. These cities had deep-water ports where coal could be delivered cheaply by ship, bypassing the need for fast-flowing water to power textile mills.

By the 1850s, the mills in Lowell began installing steam engines to supplement waterpower, especially during low-water periods. Still, competition created pressure on the mill owners to cut costs, so they increased

the pace of work while simultaneously reducing pay. The mill girls pushed back against this change of working conditions. At the center of the resulting labor unrest was Sarah Bagley, a weaver turned activist who transformed sporadic protests into a disciplined political movement.

Sarah Bagley arrived in Lowell in 1837 to work in the mills. As working conditions deteriorated, Bagley became radicalized. She recognized that spontaneous strikes like those in prior years were insufficient to change working conditions. In December 1844, Bagley helped found the Lowell Female Labor Reform Association which advocated for the ten-hour day, a reduction from the existing 12- or 14-hour shifts. Bagley became the editor of a pro-labor newspaper called *The Voice of Industry*. She also led a massive grassroots effort, gathering thousands of signatures on petitions demanding that the Massachusetts State Legislature limit the workday to ten hours. Although the legislature held hearings on the proposal, the mill owners used their political clout to kill the legislation.

Sarah Bagley left the mills in 1846 and later became the first female telegraph operator in the United States. Despite their victory in the legislature, the mill owners began replacing the "Yankee mill girls" with Irish immigrants fleeing the Famine, a group the mill owners found easier to exploit due to their desperate economic status.

Population statistics reflect the growing number of people who were born in Ireland living in Lowell. In 1830, Lowell's total population was 6,477. According to George Kenngott in his *History of a City*, approximately 500 Irish natives were then living in Lowell comprising 8 percent of the population. By 1840, the percentage of Irish-born residents had risen to 12 percent with approximately 2,500

of the city's 20,981 residents having been born in Ireland. In 1850, Irish-born residents constituted 22 percent of Lowell's population of 33,383 residents. In 1855, the number of Irish residents had grown to 28 percent of the entire population, or 10,369 of 37,554 residents. Kenngott also wrote that the large number of people who came to Lowell from Ireland after the Famine "displaced native-born workers" in the mills.

The arrival of so many Irish escaping the Famine and the mill owner's strategic shift to hire desperately poor immigrants to undercut the economic gains of native-born mill workers helped fuel an explosive political movement that upended Massachusetts politics in the 1850s. Officially named the American Party but commonly called the Know Nothing movement, this new organization emerged from the wreckage of the Whig Party which had itself emerged from the Federalist Party in 1834.

At its founding, the Whig Party attracted a diverse coalition of former Federalists, merchants, and reformers, united in their opposition to President Andrew Jackson but who also advocated for an activist national government along with tariffs and big infrastructure projects. However, events like the Compromise of 1850 and the Kansas-Nebraska Act of 1854, caused the Whig Party to fracture over the issue of slavery with the "Conscience Whigs" of the North opposing slavery and the "Cotton Whigs" of the South supporting it.

The former Conscience Whigs of Massachusetts found a home in the Know Nothing party and aggressively pursued an anti-slavery agenda. At the same time, the Know Nothings embraced a hateful nativist agenda that was anti-Catholic and anti-immigrant, playing on the fears of native-born Protestants that multitudes coming from

Ireland would lower wages, increase crime, and serve the Pope rather than the Constitution.

In the 1854 Massachusetts state election the Know Nothings won a landslide victory capturing the governorship, the entire state senate, and all but three seats in the house of representatives. In Lowell, Know Nothings swept all the city offices including mayor, the entire board of aldermen, and the entire common council.

Once in control of Lowell's government, the Know Nothings disarmed and disbanded a long-established Irish American Lowell-based militia company, incited violent episodes in the Acre neighborhood, and conducted intrusive "investigations" into Catholic institutions, especially the convent of the nuns who staffed St. Patrick's School.

The Know Nothing dominance in Lowell and in Massachusetts was incredibly short-lived, effectively collapsing by 1857, dragged down by their own incompetence and scandal. For instance, the official committee charged with investigating Catholic convents was caught spending state funds on liquor and prostitutes, making it a media sensation and an embarrassment to the party. At the same time, the newly formed Republican Party had emerged as a more respectable home for those with anti-slavery sentiments and many Know Nothings, seeing slavery as a larger threat than immigration, defected to the Republican Party.

Opposition to slavery existed in Lowell long before the founding of the Know Nothing Party. Almost from the city's founding in the 1820s, the issue of slavery divided the people of Lowell. On the one hand, all the cotton used in Lowell came from the American south where it was harvested by enslaved people. Because the city's economic

wellbeing relied on this system, there was a financial incentive to remain quiet about slavery. Additionally, business dealings with Southerners led to friendships and family connections, further tempering unease about slavery, especially among the city's elite. The economic ties between the textile mill owners of the North and the cotton producers of the South led pro-abolitionist Congressman Charles Francis Adams to label them "the Lords of the Loom and the Lords of the Lash."

At the same time, Lowell also became a center of the abolitionist movement with the Rev. Theodore Edson, the pastor of St. Anne's Church, becoming the first president of the Lowell Antislavery Society. Most of the female mill workers were members of the organization and St. Anne's, and other places in Lowell, became stops on the Underground Railroad which assisted those fleeing slavery on their journey to Canada and freedom.

When the Compromise of 1850 strengthened Fugitive Slave laws, bounty hunters from the South came to Lowell to seize Nathaniel Booth, an escaped slave who had established a barber shop in Lowell. Booth fled to Canada and Linus Childs, the manager of one of the city's mill complexes, raised sufficient funds from Lowell's citizens to purchase Booth's freedom from his purported owner.

When, after making a fiery speech condemning slave-owners, Massachusetts Senator Charles Sumner was attacked in the U.S. Senate chamber by South Carolina Congressman Preston Brooks on May 22, 1856, Brooks received new canes from people across the South to replace the one he had broken over Sumner's head. Legend has it that a group of mill girls from Lowell sent something else to Brooks: "We therefore send you 30 pieces of silver, a

good new rope and cloth of our own manufacture for a winding sheet – follow your predecessor Judas."

The movement towards national fracture accelerated in the 1850s and is best captured in a letter written by Amos Lawrence in 1854. A prominent textile mill owner whose family had founded the Lawrence Mills in Lowell and the city of Lawrence, Massachusetts, Amos had long avoided abolitionism because he believed it threatened the Union and the supply of cotton for his mills. However, two events in 1854 radicalized Lawrence and others like him. First was the passage of the Kansas-Nebraska Act in May 1854 which opened new territories to slavery. The second was the federal rendition of Anthony Burns from Boston pursuant to the Fugitive Slave Act which happened the same week.

These two events infuriated Lawrence who, in a June 1, 1854, letter to a relative described his transformation: "We went to bed one night old-fashioned, conservative, Compromise Union Whigs and waked up stark mad Abolitionists." This transformation led Lawrence to fund the New England Emigrant Aid Company which sent anti-slavery settlers to Kansas to ensure it became a free state. The city of Lawrence, Kansas, was subsequently named after him.

When the American Civil War commenced in April 1861, volunteer soldiers from Lowell were among the first to reach Washington, D. C. where they helped protect the capital from rebel forces. In fact, two soldiers from Lowell, Addison Whitney and Luther Ladd, were among the first to be killed by hostile fire in the Civil War when southern sympathizers attacked the Massachusetts regiment as it passed through Baltimore on its way to Washington on April 19, 1861. Deemed "the first martyrs of the rebellion,"

Ladd and Whitney are buried in front of Lowell City Hall alongside a memorial obelisk that bears their names.

More than 5,000 men from Lowell served in the United States Army and Navy during the Civil War with 500 of them dying during their service. Perhaps the most famous Lowell soldier was Benjamin Butler who rose to the rank of Major General. Although Butler's legacy during the war is mixed, his most momentous accomplishment came in May 1861 when, as the commander of Fortress Monroe, Virginia, Butler declined to return three escaped slaves to their self-proclaimed "owner," announcing that the African Americans would be retained within Union Army lines as "contraband of war." Because Union policy to this point was undetermined, Butler's decision set a key precedent that was soon adopted throughout the Army and Navy and, according to some recent historians, ultimately led to Abraham Lincoln's Emancipation Proclamation. After the war, Butler was elected Governor of Massachusetts and served several terms in Congress. He became a leader in the fight for the rights of women and of workers.

When the Civil War began, the price of raw cotton spiked upwards since its flow from the American South would be disrupted by the war. Assuming the conflict would be resolved in a few short months, the Lowell mill owners immediately sold their entire inventory of raw cotton to make a quick profit. Historians have called this the first of a series of disastrous decisions by the mill owners since the war dragged on for five years and the mills had to close for extended periods due to a lack of cotton to weave into cloth. Without work, many residents left the city in search of better economic opportunities. For example, the 1860 U.S. census counted 36,827 people

living in Lowell, but the 1865 state census found just 30,990, a decline of 16 percent.

This disruption of textile mill operations was devastating to the city's economy but was also a preview of what was to come in the decades after the Civil War.

The resumption of cotton cultivation in the American South and a post-Civil War boom caused a spike in textile orders for the Lowell mills. However, so many former mill workers had left the city during the shut-down years of the Civil War that the mills were hampered by labor shortages. This caused the mill owners to send agents to Quebec in search of low-cost labor. Thousands of French-Canadians heeded the call and came not just to Lowell but to nearly every manufacturing city in New England.

Many expected these French-speaking immigrants to return to Quebec after earning some money in the mills for a few years, but like the Irish who proceeded them, most of the French stayed and made Lowell their home.

Soon, more than 30,000 French-Canadians lived in Lowell with most working in the city's textile mills. Religion was central to life in French Canada, so those who came to Lowell desired a priest who could speak and understand French. Consequently, the Catholic Bishop of Boston, John Joseph Williams, persuaded the Oblates of Mary Immaculate of Canada to send two priests to Lowell to establish a French-speaking parish. Rev. Lucien Lagier and Rev. Andre Marie Garin arrived in 1868 and established St. Joseph's, the first Franco-American church in the archdiocese of Boston, on Lee Street.

Beyond employment and religion, the Franco residents of Lowell excelled in publishing, music, writing, law, medicine, politics, education, and every other field.

In the late 1880s, a variety of global factors created a major influx of non-English speaking peoples from southern and eastern Europe to Lowell.

Newcomers from Greece formed the largest cohort coming to Lowell at this time. The Greeks went to work in the mills and settled in the Acre where their language, religion and culture thrived. By 1910, more than 20,000 Greeks lived in Lowell; the Byzantine-style Greek Orthodox Holy Trinity Church was dedicated in 1908.

By 1918, more than 5,000 Polish immigrants had come to Lowell where they settled in Polish-speaking clusters in neighborhoods such as Centralville from which they could walk across the Merrimack River bridges to work in the mills. Catholic churches with liturgies in Polish and social clubs like Dom Polski kept Polish culture alive in Lowell.

Drawn by employment opportunities after having been driven from their homeland by political persecution and massacres, many Armenians came to Lowell during the early decades of the 20th century with many settling in the Chapel Hill neighborhood. Saints Vartanantz Armenian Apostolic Church opened on Lawrence Street in 1916 and played an important role for the Armenian community of Massachusetts by providing religious, social, and cultural services.

Hundreds of Lithuanians arrived in Lowell in the years before World War I. They sought work in the mills and established a Lithuanian church, St. Joseph's, on Rogers Street. They also established a Grand Duke of Lithuania Vytautas (DLKV) Club to help perpetuate Lithuanian culture at civic celebrations, festivals, and parades.

Portuguese immigrants first came to Lowell in the 1890s and early 1900s, with most settling in the Back

Central neighborhood. Like every immigrant group that came before them, many of the Portuguese found work in Lowell's mills.

In the mid-1880s, hundreds of Syrian and Lebanese families came to Lowell. In the 1890s, many Russian and Polish Jews passing through Ellis Island and New York City eventually came to Lowell with most settling in the Highlands neighborhood around the intersection of Hale and Howard streets.

Writing in 1912, George Kenngott captured the city's demographic transformation:

> Lowell is a cosmopolitan city of over one hundred thousand people, representing at least forty nationalities. There are about 20,000 native-born Americans of native parents. There are enough representatives of the English-speaking peoples of England, Scotland, Ireland, Wales and Canada, to make, perhaps, forty per cent of its population. Of the non-English speaking peoples, there are 20,000 French and French-Canadians, 2000 Swedes, 300 Norwegians, 2500 Portuguese, 8000 Greeks, 200 Belgians, 200 Syrians, and a great mixture of Russians, Lithuanians, Austrians, Chinese and others, aggregating forty per cent at least of the population, and increasing so rapidly by immigration that this foreign-born population will soon be fifty per cent, if it is not already. This large foreign, non-English speaking population has come to Lowell almost entirely during the last twenty-five years; those from southern Europe and Asia have come almost entirely during the last fifteen years.

Despite a constant influx of new immigrant groups—each driven by desperation to accept lower wages than

their predecessors—the fortunes of the Lowell textile mills continued to deteriorate.

By the late 19th century, control of Lowell's largest mills was exercised almost entirely from Boston. This system of absentee ownership meant that mill profits were invested and spent elsewhere rather than used to benefit Lowell. Many mill owners prioritized the payment of dividends over plant modernization. Deferred repairs and the failure to replace aging machinery made many of Lowell's textile mills obsolete. At the same time, emerging textile centers in the American South benefited from proximity to cotton fields, lower taxes, and the absence of regulation which made them more fiscally attractive than their northern counterparts. In fact, the Merrimack Manufacturing Company, the Massachusetts Mills and many others opened branches in the South with many abandoning their northern facilities entirely.

As the Lowell mills struggled financially, they sold off their boarding houses and tenements to private owners to reduce costs. This shift led to large increases in rents paid by tenants. Houses previously occupied by single families were subdivided into cramped, multi-family units to maximize rental income. Each influx of new immigrants placed added pressure on available housing and created densely packed tenement neighborhoods that contributed to high infant mortality and the spread of infectious diseases.

As the textile industry faded in Lowell, other businesses took advantage of inexpensive factory space and a surplus of labor. Shoe manufacturing was foremost among these new industries.

Massachusetts dominated the American shoe industry from the colonial era through the early 20th century. At its peak, the state produced nearly half the nation's footwear.

Because cotton mills had long dominated manufacturing in Lowell, the textile industry crowded out other manufacturers. That changed in the 1890s as the cotton mills began to fade. This made relatively cheap mill space available to existing shoe manufacturers. At the same time, the diversity of Lowell's immigrant groups placed them in competition with each other for jobs and undercut efforts at labor solidarity. In contrast, workers in major shoe manufacturing cities like Lynn, Brockton, and Haverhill were more effective at collective action which helped achieve higher wages. The surplus of labor caused by the demise of the textile industry in Lowell along with its comparatively weak union activism made it an attractive landing place for established shoe manufacturers.

One of the earliest and most significant arrivals was the John Pilling Shoe Company, which moved to Lowell from Haverhill in 1894. Pilling brought industrial-scale shoe production to the city, employing hundreds of workers and operating for decades.

As the massive mill complexes emptied in the 1920s with the collapse of the textile industry, other shoe manufacturers moved in to take advantage of the abundant, inexpensive factory space and the surplus of available labor. By the mid-20th century, shoe manufacturing had become one of the city's top employers.

Another industry that emerged in Lowell was pharmaceuticals. Illnesses that today have been eradicated or easily managed were often fatal in 19th century America. With society struggling to find effective treatments, talented young men working in pharmacies concocted

remedies of all types and soon spun off medicine making companies that sold to a worldwide audience. Lowell became a center for the pharmaceutical industry in America.

Born in 1819 in Connecticut, James C. Ayer came to Lowell at age 13 to work in an apothecary. Opening his own drug store in 1841, Ayer began concocting his own medicines and through the shrewd use of advertising built the most successful medicine company in America. A $20 million fortune derived from pharmaceutical sales financed Ayer's diversification into mill ownership and his many acts of civic generosity.

At its factory at 90 Middle Street in downtown Lowell, the James C. Ayer Company employed 300 workers who used 325,000 pounds of drugs, 220,000 gallons of spirits, and 400,000 pounds of sugar to produce one year's worth of medicine. Its inventory of bottles alone was worth $1.5 million. The Ayer Company issued multi-color trade cards and almanacs to advertise its medicines which were sold the world over.

Challenging Ayer for dominance in the pharmaceutical business was the C. I. Hood Company. As a boy, Charles Ira Hood worked in his father's Chelsea, Vermont, apothecary before opening his own shop in Lowell at age 25. Hood achieved tremendous success with the sale of his sarsaparilla which was 18 percent alcohol. Other successful products were Hood’s Tooth Powder, Vegetable Pills, Oil Ointment, Medicated Soap and Hood’s Lotion. In 1882, Hood built the four-story Hood’s Laboratories on Thorndike Street, close to the Boston & Lowell Railroad depot. Advertising was critical to the patent medicine business, so Hood's building included a printing plant that

produced 70 million promotional pieces in 1879 alone. Hood was the largest single user of the U.S. Mail in Lowell.

When Lowell druggists George Carleton and Charles Hovey concocted a cough medicine from cod liver oil and other ingredients, one of their best customers was Fr. John O'Brien of St. Patrick's Church, who was soon recommending the product to his parishioners. When local sales soared with people requesting "Father John's medicine," Carleton and Hovey closed their drug store, built a manufacturing plant on Market Street, and launched a nationwide advertising campaign for the product which they officially named Father John's Medicine. Like other producers of medicine in this era, Carleton and Hovey used distinctive bottles and extravagant claims to differentiate their product. Father John's Medicine claimed to be "without equal" as a body builder and was advertised as a cure for consumption, coughs, colds, whooping cough, bronchitis, thin blood, hoarseness and a weak voice.

After serving in the Union Army and attending medical school, Augustin Thompson opened his medical practice in Lowell. Like other physicians, he mixed his own medicines including one introduced to him by a fictional character named Lieutenant Moxie. A concoction of gentian root, sassafras, wintergreen, caramel, sugar and water, Moxie Nerve Food was recommended to help the appetite, calm the nerves and restore sleep. The medicine was so popular that Thompson gave up his practice and devoted all his effort to manufacturing and selling Moxie Nerve Food which later became Moxie, a soft drink still sold today.

Although not strictly in the medicine business, two young men from Lowell who got their start in a local

drugstore built an internationally known cologne company. At age 13, Eli Hoyt began working at the apothecary of E. A. Staniels where he produced and sold Hoyt's Cologne which his close friend and eventual partner Freeman Shedd renamed Hoyt's German Cologne to create an exotic aura. The product was so successful that Hoyt and Shedd shifted to full-time production and became quite wealthy. Regrettably, Hoyt died from tuberculosis at age 48.

A Civil War veteran with a genius for marketing, Freeman Shedd helped make Hoyt's German Cologne an internationally known product. When colored trade cards came into wide use, he dipped some in cologne and invented the scented advertising card. After the death of Eli Hoyt, Shedd endowed a tuberculosis wing at Lowell General Hospital and later bequeathed 50 acres to the city of Lowell for public recreation, a site known today as Shedd Park.

Lowell also became a center for munitions manufacturing. In 1869, Benjamin Butler founded the United State Cartridge Company on Lawrence Street where it drew power from the Concord River. The company thrived by securing government contracts and capitalizing on the growing civilian market for recreational shooting.

In 1875, Paul Butler, the son of Benjamin, began working at the company after graduating from Harvard. Paul became a world-famous inventor of machinery for making ammunition and made US Cartridge one of America’s largest munitions manufacturers. He took over leadership of the company when his father died in 1893.

In 1903, one of the company’s powder magazines located where the Woburn Street exit from Route 495 is located, suddenly exploded, killing 22 and destroying 70 homes. The company survived that catastrophe and thrived

during World War I. At its peak, US Cartridge employed 15,000 workers in Lowell and leased the former Lowell Mills complex on Market Street (now the Lowell National Park visitor center) to expand its production facilities. US Cartridge Company produced 65 percent of all small arms ammunition used by the United States miliary during World War I.

When the war ended and Paul Butler died in 1918, the National Lead Company, which also owned Winchester Repeating Arms, bought a controlling interest in US Cartridge. By the mid-1920s, National Lead consolidated operations in New Haven, Connecticut, and closed the US Cartridge Company's Lowell plant, dealing a significant blow to the city's economy.

Technological innovation had always been central to Lowell's story. That continued in 1877, when Alexander Graham Bell demonstrated his newly invented telephone at Lowell's Huntington Hall. Dr. Moses Greeley Parker, a prominent eye specialist who was present at the demonstration, immediately saw the value of the device and invested heavily in the telephone company which has maintained a substantial presence in Lowell ever since.

Parker is said to have invented the telephone number in 1879. A measles epidemic was ravaging the city and Parker worried that the city's four telephone operators would become sick and miss work. Since the identity of the owners of the various phone lines was known only to these operators, their absence would shut down the system. Parker proposed numbering the lines to ease the training of replacements. A system of four-digit numbers was put in use with so much success that it was adopted around the world.

Bell's telephone was initially sold as a point-to-point communications device which meant that one phone could only ever communicate with the other phone at the end of the wire. Edwin Holmes, the owner of a Boston company that monitored bank burglar alarms during non-business hours from a central office, theorized that by attaching a phone to each alarm wire, he could connect calls between anyone on his burglar alarm network from his central station. Bell was delighted with this innovation since he had struggled to acquire customers. The Holmes switchboard increased the utility of the device and created telephone buyers of the banks already serviced by Holmes's alarm system.

Charles Glidden, a 20-year-old telegraph operator from Lowell, who had attended Bell's 1877 Huntington Hall demonstration, heard of the switchboard experiment and showed up unannounced at Holmes's office. Years later in his memoir, *A Wonderful Fifty Years*, Holmes wrote, "Glidden, a telegraph operator, came in and later went home with the rights for Lowell in his pocket."

On April 19, 1878, Glidden and his brother J. Clark Glidden traversed the rooftops of downtown Lowell, trailing what seemed like hundreds of wires, all terminating on the top floor of 34 Central Street (across from the Old Court Irish Pub). There, Glidden conducted his own demonstration to prove that his switchboard could handle 50 telephone lines. It worked successfully and his audience, Alexander Graham Bell and Thomas Watson of the Bell Telephone Company, granted Glidden the rights to the telephone in Lowell.

Glidden soon opened his Lowell Telephone Exchange, the first in Massachusetts – the Boston operation by Holmes was a private system – and only the fifth in the

entire United States. Glidden is also credited with making the first long-distance telephone call in Massachusetts when he completed a call to Boston. Eventually, the Lowell Telephone Exchange and other new exchanges around the Commonwealth merged to become New England Telephone and Telegraph Company. (While not directly connected to the telephone, Charles Glidden was an innovator in another field of technology – the automobile. In 1902, Glidden and his wife Lucy were the first people to circle the world in an automobile, a feat they repeated in 1908.)

Despite a surge in production during World War I, the great mills of Lowell largely ceased operating as major textile manufacturing plants in the 1920s. While shoes, medicine, munitions, the telephone and other industries succeeded in Lowell, none adequately filled the employment void left by the departed textile mills.

CHAPTER FOUR

Hard Times

It's been said that in Lowell, the Great Depression came early and stayed late. Because the city's textile industry was already in steep decline before the stock market crashed in 1929, the Great Depression hit Lowell particularly hard. A surge in manufacturing contracts during World War II helped a bit, but it mostly delayed the inevitable.

The half century that followed the mill closures was a bleak time. In the mid-1970s, Lowell had the highest unemployment rate in the nation and downtown streets were lined with vacant storefronts. Throughout this period, city leaders grasped every opportunity to drag the city out of its economic malaise.

Some early assistance came with the election of Franklin Roosevelt and the programs he implemented to counter the effects of the Depression. The Works Progress Administration (WPA) and other New Deal programs were instrumental in helping Lowell survive the 1930s. Federal programs provided not just immediate employment for thousands of jobless mill workers but also left a physical legacy of infrastructure that is still in use today.

The most visible surviving WPA project in Lowell is Cawley Stadium. Constructed in 1937, the stadium was a massive undertaking funded by the WPA to provide a modern athletic facility for the city. The project employed hundreds of residents who would have otherwise been out of work, injecting federal wages directly into the local economy.

After the devastating flood of 1936, federal agencies stepped in to make sections of the city that were hit particularly hard by the flood more resilient. The flood protection system that continues to protect some Centralville neighborhoods today was constructed by the WPA.

Another federal program funded the construction of the Lowell Housing Authority's North Common Village housing project in 1937. Although this project displaced an established Greek neighborhood in what has been described as Lowell's first urban renewal project, the modern brick apartment blocks that resulted (and which still stand today) provided housing for hundreds of families.

While the Civilian Conservation Corps (CCC) did not have projects in Lowell, it did help the city by hiring many unemployed young men from Lowell to plant trees and build trails in rural Massachusetts. Because the bulk of the pay received by CCC workers was paid directly to the families of the workers back in Lowell, it provided much needed financial support for many in the city.

World War II brought a surge of government contracts to Lowell's remaining mills for uniform cloth and combat boots for the military. For the first time in decades, jobs seemed plentiful, but when the war came to an end, all open contracts were immediately cancelled. While there was some post war momentum from pent up civilian

demand, it soon dissipated and Lowell's pre-war economic malaise resumed.

In the 1950s city officials embraced federal Urban Renewal programs as an economic development strategy for Lowell. Originally intended to revitalize decaying city centers and to eliminate "blight," in practice, Urban Renewal faced intense criticism for its social, economic, and aesthetic failures. While the stated goal was clearing slums, the actual result was the destruction of viable, if poor, neighborhoods. In Lowell, hundreds of families were displaced from neighborhoods like Little Canada and Hale-Howard, with inadequate assistance to find new housing which in turn led to overcrowding in other marginalized areas.

Other government programs helped transform Lowell in more positive ways. The Servicemen's Readjustment Act of 1944, commonly known as the G.I. Bill, was a landmark piece of legislation that fundamentally altered the American housing landscape. By shifting the nation from a society of renters to one of homeowners, it laid the foundation for the modern middle class, though its benefits were not equally accessible to all.

Many Lowell veterans used these loans to move their families from multifamily tenements in densely packed neighborhoods like the Acre and Little Canada to some of the city's suburban-style neighborhoods like Belvidere and Pawtucketville, or to move out of Lowell altogether for the surrounding suburbs.

Living far from the city center and the jobs that remained there fueled a car-centric culture, as families needed automobiles to commute to work and to shop for groceries.

The Federal Highway Act of 1956 accelerated this move to suburbia by constructing 41,000 miles of the Interstate Highway System, the largest public works project in American history. This Act yielded Interstate 495 which connected Lowell to a loop of growing suburbs distant from Boston and to the new national highway network.

As Lowell continued to struggle with the decline of its textile industry, city planners came to believe that for Lowell to survive economically, it needed direct access to Route 3, Interstate 495, and the Interstate Highway System. To meet that need, construction of the Lowell Connector began in 1959 with the highway opening for use in 1962.

The Connector was originally intended to extend further into downtown, cutting through the Back Central neighborhood to reach East Merrimack Street near the Lowell Memorial Auditorium. However, this extension was abandoned when the city council refused the necessary eminent domain taking which would have demolished 700 homes and 150 small businesses. (This is why the Connector ends abruptly at the brick wall of a private residence, making the highway one of the most dangerous in Massachusetts.)

Although the Connector was laid out along River Meadow Brook to limit its impact on existing neighborhoods, the highway did slice through Ayer's City and a portion of Back Central, causing considerable disruption and accelerating the demise of St. Peter's parish.

The prevailing urban planning mentality of the time that emphasized high speed roads to bring suburbanites to their inner-city jobs led to the construction of the Sampson

Connector (commonly known as Dutton Street), Arcand Drive, Father Morissette Boulevard, and the embrace of a design philosophy that elevated motor vehicles over pedestrians and neighborhood well-being.

City officials maintained that any harm to walkability and neighborhood coherence was a necessary trade off to achieve the economic benefits of car-centric infrastructure that would speed suburban residents to and from their inner-city jobs. The flaw in that reasoning was that most jobs followed the workers to the suburbs which left downtown Lowell hollowed out and unwalkable because of high-speed roadways that favored cars over people.

While Urban Renewal and highway construction likely did not benefit Lowell as intended, not all Federal government programs missed the mark.

By the time he became president, Lyndon Johnson recognized that earlier Urban Renewal programs had failed. In response, he pushed the Demonstration Cities and Metropolitan Development Act of 1966, better known as the Model Cities program. Instead of just constructing buildings, Model Cities combined physical reconstruction of things like housing and transit with social services like healthcare, job centers, and crime prevention.

Lowell became a federally designated Model City. Unlike other communities, which used their funding for standard housing projects, Patrick Mogan, the head of Lowell's Model Cities program, devoted most of the money to education. However, instead of financing traditional schools, Mogan envisioned the entire city as a school, a concept he called the Educative City. He hired professional planners to study the city's canals and history. Their report validated Mogan's contention that Lowell's canals and mills held national significance and, a few years later,

became critical evidence in convincing the federal government to create a national park in Lowell.

CHAPTER FIVE

Rebirth

The "new industry" forecast by Urban Renewal never materialized in Lowell, but the destruction of established neighborhoods had the unintended consequence of launching a nascent preservation movement in the city. Although many who had toiled in poor working conditions for low pay in the textile industry believed the mills of Lowell should not be celebrated, others accepted that the city's future might lie in its past.

At the same time, Pat Mogan's gospel that Lowell's diversity made it a classroom without walls, perfect for learning about the cultures and traditions of people from around the world, began winning converts. The kind of communal activities envisioned by Mogan began to materialize when business leaders organized festivals that celebrated the city's waterways and ethnic heritage. The Commonwealth of Massachusetts played a positive role by creating a Heritage State Park in Lowell and by merging Lowell State College and Lowell Technological Institute to create the University of Lowell (which later became the University of Massachusetts Lowell).

Concurrently with these efforts and ideas, the concept of a national park in Lowell had been quietly progressing

since the arrival of the Model Cities program in 1965. At some point the various efforts coalesced and Congressman F. Bradford Morse and his successors, Paul Cronin and Paul Tsongas, aggressively pursued the idea at the federal level. Their efforts ultimately succeeded and on June 5, 1978, President Jimmy Carter signed the legislation that created the Lowell National Historical Park and the Lowell Historic Preservation Commission. History, heritage and preservation replaced demolition as the future of Lowell.

A national park by itself could not pull Lowell out of decades of economic doldrums, so city leaders continuously sought other economic development opportunities. In the 1980s, computer-maker Wang Laboratories built several facilities including its world headquarters in the city and a Hilton Hotel was constructed in downtown Lowell. In the 1990s, the city, with considerable financial assistance from the Commonwealth of Massachusetts, built a civic arena and an outdoor stadium to house professional hockey and baseball teams. As all of this was happening, hundreds of buildings were renovated with the help of the Historic Preservation Commission, leaving downtown Lowell with the appearance of a period-piece movie set rather than of a fading industrial community.

Changes in U.S. immigration law had a profound impact on Lowell. The Immigration Act of 1924 had drastically reduced the number of immigrants allowed into the United States. However, those limits were effectively reversed by The Immigration and Nationality Act of 1965. That law replaced the race-based quotas of the 1924 law that had favored northern Europeans with a preference system based on skills and family relationships. This opened the door to immigrants from Asia, Africa, and the

Middle East and put them on an equal footing with Europeans. Additionally, the new law significantly improved the ability of those from Mexico and Central America to move to the United States.

This 1965 Act ushered in a new wave of immigration to Lowell. In fact, newcomers had begun arriving even earlier when, in the late 1950s, a volcano eruption in the Azores devastated the economy of the Portuguese-governed islands. At the time, the 1924 Immigration Act strictly limited Portuguese immigration to roughly 400 people per year for the entire country. However, to aid the "volcano refugees," US Senators John F. Kennedy of Massachusetts and John Pastore from Rhode Island sponsored the Azorean Refugee Act of 1958 which permitted nearly 5,000 families from the Azores to enter the U.S. immediately. Because many of these immigrants already had ties to New England mill towns, most came to places like Lowell, New Bedford and Fall River.

Soon after this initial wave of immigrants left the Azores, Portugal instituted a strict military draft to provide soldiers to fight in protracted guerilla wars in African colonies like Angola and Mozambique. The prospect of four years of mandatory military service in dangerous combat zones in Africa caused many young Azoreans to leave. Although the Refugee Act had expired, the 1965 Immigration Act had commenced. This law's "family unification" provisions permitted many more from the Azores to come to Lowell.

Another group whose arrival in Lowell predated the passage of the 1965 Act was textile workers from Colombia. In the early 1960s, the remaining textile operations active in Lowell were still using machinery that had been built in the early 20th century. Local workers who knew this

equipment were departing the workforce due to retirement or death and few younger people were entering the textile manufacturing business.

Decades earlier, U.S. companies had exported the same textile machinery still used in Lowell to Colombia to help start that country's textile industry. By 1960, technology deemed to be obsolete in the U.S. remained the industry standard in Colombia. Consequently, many Colombians were experts at fixing and running the very machines the Lowell mill owners were struggling to maintain. Lowell-based companies like the Wannalancit Mills and Joan Fabrics actively recruited skilled workers from Colombia, utilizing temporary worker visas to bring them here. Passage of the 1965 Immigration Act made it easier for Colombians to come to Lowell and helped reunify the families of those already here.

Lowell's population of Portuguese speakers increased significantly in the 1980s and 1990s with the arrival of immigrants from Brazil who fled an economic crisis in that country. While there were few manufacturing jobs in Lowell by that time, many Brazilians found work in construction and service industries.

Higher education was a big contributor to immigration to Lowell in the second half of the 20th century. UMass Lowell drew many students from Africa and South Asia. Once they earned their degrees, many stayed in Lowell. By 2010, between 3,000 and 4,000 Indians lived in Lowell, mostly in the Middlesex Village neighborhood which became home to several Indian stores and restaurants and two temples. Africans in Lowell are a diverse population from many countries on the continent. Each year, the Lowell African Festival attracts thousands of Africans and lovers of African culture to the north bank of the

Merrimack River to celebrate traditional and modern African food, music, and arts.

Residents of Puerto Rico began moving to Lowell in the early 1960s with the city's Puerto Rican community growing to nearly 8,000 by 2008. People from the Dominican Republic began coming to Massachusetts in the mid-1960s, mostly to Lawrence but also Lowell. The number of Dominicans in Lowell increased substantially in the late 1970s and early 1980s due to political turmoil at home. Also, many Dominican people who originally settled in New York City found it too expensive to stay there. The availability in Lowell and Lawrence of cheaper rents and low-skill manufacturing jobs that did not require English fluency caused a secondary migration of Dominicans from New York City to Lawrence and Lowell.

Without fluency in English and, for some, lacking proper documentation for immigration purposes, the ability of Latinos to assert themselves in Lowell politics was limited. That began to change in the mid-1980s when parents grew frustrated with the failure of the Lowell School Committee to provide equal opportunity and resources to students from minority groups.

In 1982, School Superintendent Patrick Mogan (seen by many as "the father of the National Park") criticized the School Committee for rejecting his plan to integrate Lowell's schools using district magnet schools. Five years later, School Committee efforts to purchase "portable classrooms" for bilingual education classes made the parents of minority students fear that segregation in the schools would become even more deeply entrenched.

The issue exploded on Saturday, May 16, 1987, with "Lowell students learn bitter lessons," a *Boston Globe* expose on the substandard conditions under which

minority students were being educated in Lowell. A powerful photo of a third-grade teacher conducting class while she and her four Hispanic students sat on the floor of the hallway of the YMCA provoked outrage. Dozens of parents of Hispanic students who had long pressed the city to make school facilities more equitable were now joined by the U.S. Department of Education which announced that it would file suit against the city of Lowell if the School Committee did not adopt a plan for more permanent and desegregated facilities.

Up until that point, the School Committee had been deadlocked with three members supporting the School Superintendent's desegregation plan and four opposing it. In the aftermath of the *Globe* story, School Committee member George O'Hare switched his vote from No to Yes and a central enrollment plan was adopted. However, when buses rolled in September, there were not enough of them and chaos ensued.

Desegregation opponents exploited the busing upheaval in that fall's city election campaign. Echoing "no forced busing" rhetoric from Boston ten years earlier and vowing to roll back the clock in Lowell to the way things once were, anti-desegregation candidates did well in the election (including defeating O'Hare). The Justice Department filed a motion in the U.S. District Court in Boston for a court ordered federal takeover of the Lowell public schools.

However, in January 1988, a slim majority of the just-elected School Committee convinced the judge to give them the opportunity to negotiate a settlement with the Hispanic parents. A settlement was achieved with a "controlled choice" desegregation plan as part of the settlement. That plan remains in place and is still under the supervision of

U.S. District Court which retained jurisdiction over the case.

As a result of the settlement and the desegregation plan, Lowell jumped to the top of the state's school building assistance program. More than a dozen new schools were constructed with the state paying 90 percent of the cost. Replacing facilities built before the Civil War, these new schools gave Lowell one of the most modern inventories of school buildings in the Commonwealth.

During this fight over school desegregation, thousands of Cambodian refugees arrived in Lowell. While the parents of Cambodian students did not start the desegregation lawsuit, they joined in the one filed by the Hispanic parents. The sheer volume of Cambodian students – in the spring of 1988, an average of 50 new students were enrolling in the Lowell public schools each week – added critical momentum to the cause of desegregation.

Lowell became home to thousands of Cambodian people due to the Vietnam War. The U.S. military presence in Vietnam began as a trickle of advisors in 1955, peaked in 1969 with 543,000 combat troops, and ended in 1973 with the withdrawal of U.S. ground forces. Two years later, South Vietnam fell and Vietnam united under the Communist regime of the north.

In neighboring Cambodia, a civil war between government troops and the Communist Khmer Rouge had been ongoing since 1970. In 1975, the Khmer Rouge prevailed and, over the next four years, waged genocide that killed 1.7 million of the country's 7.9 million residents. Thousands of survivors fled across the border into Thailand where they were held in refugee camps.

From 1975 to 1980, thousands of Vietnamese and a lesser number of Cambodians were allowed into the United States under a provision of the Immigration and Nationality Act of 1965 that granted the U.S. Attorney General authority "for urgent humanitarian reasons" to allow applicants for legal admission to wait within the U.S. until their cases were adjudicated, but this was only a fraction of those who sought admission.

Recognizing that this refugee crisis was the direct result of U.S. involvement in Southeast Asian wars, Congress pushed through the Refugee Act of 1980 which created a permanent procedure for admission to the United States of refugees "of special humanitarian concern" to the U.S. It also created the Office of Refugee Resettlement which took the lead on bringing refugees from Vietnam, Cambodia, and Laos to the United States.

In settling refugees from Southeast Asia, the primary goal of the Office of Refugee Resettlement was to widely disburse them across the United States to minimize the impact they would have on individual communities. Among the factors considered in choosing destinations, the Refugee Office looked for existing social service organizations that were willing and able to help; the presence of relatives, friends, or others from the refugees' country of origin; plentiful affordable housing; and plentiful entry level jobs that did not require English language skills.

Lowell was one of the initial settlement sites and a relatively small number of refugees – one or two thousand, perhaps – were sent to Lowell. They arrived when Wang and other area high tech companies were at their peak, offering plenty of jobs in the electronics manufacturing field. This was the so-called "Massachusetts Miracle" that

propelled Governor Michael Dukakis to the Democratic nomination for President in 1988.

Additionally, a small cadre of refugees who had arrived even earlier had already established a Buddhist temple in North Chelmsford and several small retail establishments that provided familiar foods and even Khmer language videotape rentals. The state of Massachusetts had a robust social service infrastructure that would assist those unable to work. And while housing in Lowell was neither cheap nor plentiful – the region had entered a condominium construction boom that drove up prices – the Cambodians, like every immigrant group that preceded them, made do with the housing that was available.

While the economy of Massachusetts soared, much of the rest of the country was in a deep recession. For refugees who settled elsewhere, jobs were scarce and familiar religious and cultural amenities were nonexistent. Word quickly spread of the opportunities and benefits offered in Lowell and a "secondary migration" commenced. Here, many thousands of former refugees who had settled elsewhere in the United States packed up and moved to Lowell. It was this secondary migration that gave Lowell the second largest concentration of Cambodians in the United States after Long Beach, California.

Today, Cambodian refugees and their descendants are nearly a quarter of Lowell's entire population. Without them the city would be a different place. It would be poorer, less populous, less diverse, and less interesting.

How the Cambodians became part of the community and how the community responded to their arrival is now seen as a positive story, but it did not have to turn out that way. In 1988, the School Committee settled the

desegregation suit by a four to three vote. Switch one vote and the U.S. Justice Department would have taken control of the city's schools.

On another race-related vote, the same School Committee reached a different outcome, voting on October 26, 1989, to endorse English as the official language of Lowell. Just ten days later in the city election, Lowell voters faced a related referendum that asked the following:

> Shall it be the policy of the people of Lowell that English is the official language of the city of Lowell and that our city government requests: (1) Our Senators and Congressmen to vote for English as our National Language; and (2) Our State Legislatures make English our official state language?

A staggering 14,875 Lowell voters said Yes to this. Just 5,679 said No.

Two months later, John Silber, who was running for governor of Massachusetts said that Lowell had become the "Cambodian capital of America" because "Massachusetts was a welfare magnet." Silber became the Democratic nominee. He lost the governorship to Republican Bill Weld, but Silber beat Weld in Lowell, 15,100 to 12,142.

While all this was happening, major changes came to the U.S. computer industry. In the 1980s, the "Massachusetts Miracle" was driven by computer giants such as Wang Laboratories, Digital Equipment Corporation, and Data General. Yet by the early 1990s, the center of gravity of the computer industry had shifted decisively to Silicon Valley. There were many causes of this outcome, but a primary reason for the collapse was that the

Massachusetts companies were vertically integrated, meaning they built everything themselves so if you bought a Wang computer, you were locked into the Wang ecosystem. In contrast, Silicon Valley companies were horizontally integrated, meaning different companies specialized in different things. For instance, Intel built chips; Microsoft built an operating system; and Dell built hardware. When the personal computer revolution arrived, the big, slow-moving Massachusetts companies could not innovate fast enough to keep pace while the nimbler California companies could and did, leading to their dominance in the industry.

Wang's fortunes dropped quickly. In the early 1990s, it filed for bankruptcy, and its office towers were auctioned for a fraction of their value. Another Wang facility, the downtown training center, closed its doors and lay vacant. Without the Wang trainees to occupy its rooms, the downtown hotel bounced from owner to owner without much success.

All of these were just temporary setbacks. The Wang Towers, renamed Cross Point, quickly filled with high-tech tenants and has thrived ever since. The abandoned Wang Training Center became the hub of Middlesex Community College in Lowell, and the struggling hotel became the University of Massachusetts Lowell Inn & Conference Center, and later an emergency shelter used by the Commonwealth.

As the 21st century arrived, Lowell repurposed vacant downtown office buildings into artist live-work spaces and general loft living. Driven out of Boston by sky-rocketing real estate prices, artists of all types flocked to Lowell, and the city embraced the creative economy as a development strategy. As the birthplace of painter James McNeill

Whistler and author Jack Kerouac, Lowell has a great artistic heritage. This new direction was also compatible with the national park's mission of celebrating the heritage and culture of the many immigrant groups that had come to Lowell from the start – and keep coming.

Conclusion

While resistance to newcomers inevitably exists in any community, most Lowellians recognize their own immigrant lineage and strive to treat new arrivals with the dignity they wish their own forebears had received. Moreover, for those who remember the exodus of the 1960s and 1970s, the fact that people are now choosing to move *to* the city, rather than striving to escape it, is cause for celebration.

One of the primary magnets drawing people to Lowell—whether from neighboring towns or the other side of the globe—is education. Lowell remains one of the few places in the country where a student can progress from pre-kindergarten to a doctorate within the same city limits. With Middlesex Community College and the University of Massachusetts Lowell both thriving, the city has the potential to redefine itself as a modern college town. This evolution is anchored by UMass Lowell's latest venture, the Lowell Innovation Network Corridor (LINC). This $800 million public-private initiative aims to transform the city into a regional hub for science and technology, creating a mixed-use district where researchers, private industry, and government will collaborate on aerospace, defense, biotechnology, and clean energy.

Because of this layered history, Lowell possesses the essential components for a city to thrive in 21st century America. Innovation, which first brought the city to life, continues to sustain it through the university and cutting-edge tech firms. Successive waves of immigration have infused the community with a distinctive cultural vibrancy. The city is socially and ethnically diverse, featuring neighborhoods that reached maturity before the automobile dominated urban planning, resulting in a walkable, human-scale environment. Lowell also retains a powerful tradition of bottom-up civic activism and is embracing sustainable approaches to daily life. Thanks to more than $1 billion in public and private investment since the late 1970s, the downtown stands as one of the most picturesque, preserved streetscapes in the United States. If the city can continue to harness this unique convergence of historic character and modern innovation, its next chapter may prove even more significant than its legendary beginning. Lowell stands poised not merely to survive the post-industrial age, but to serve as a vibrant model of how a mid-sized American city can flourish within it.

APPENDIX A

Legislation creating the town of Lowell

An Act to Incorporate the Town of Lowell
Special Laws Chapter 112 of 1825

[Spelling and punctuation are true to original text.]

Sec. 1. *BE it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same,* That the northeasterly part of the town of Chelmsford, in the County of Middlesex, lying easterly and northerly of a line drawn as follows, viz:

Beginning at Merrimack river, at a stone post, about two hundred rods above the mouth of Patucket Canal, so called;

Thence running southerly, in a straight course, until it strikes the Middlesex Canal, at a point ten rods above the Canal Bridge, near the dwelling-house of Henry Coburn;

Thence southerly, on said canal, twenty rods,

Thence a due east course to a stone post at Concord river,

Be, and hereby is, incorporated into a Town, by the name of Lowell, and the inhabitants of said town of Lowell are hereby invested will all the powers and privileges, and shall also be subject to the duties and requisitions of other incorporate towns, according to the constitution and laws of this Commonwealth.

Sec. 2. *Be it further enacted,* That the inhabitants of said town of Lowell shall be holden to pay all arrears of taxes which have been assessed upon them by the town of Chelmsford, before the passage of this act; and the said

town of Lowell shall be holden to pay two-fifths parts of the balance or residue of all debts due and owing from said town of Chelmsford, on the first day of March, one thousand eight hundred and twenty-six, after deducting therefrom the sum of twenty-seven hundred and twenty-six dollars; and after applying to the payment of said debts all the money belonging to said town, and all the taxes assessed by said town of Chelmsford, before the passing of this act.

Sec. 3. *Be it further enacted,* That the said towns of Chelmsford and Lowell shall, hereafter, be liable for the support of all persons who now do or hereafter shall, stand in need of relief, as paupers, whose settlement was gained or derived from a settlement gain or derived within their respective limits. And in all cases hereafter, wherein the settlement of a pauper was gained or derived from a settlement gained or derived, before the passing of this act, partly within the limits of both of said towns; or wherein it shall not be proved within the limits of which of said towns such settlement was gained, the said towns of Chelmsford and Lowell shall be equally liable for the support of said pauper.

Sec. 4. *Be it further enacted,* That until a new valuation is taken by the Commonwealth, the state and county taxes, and any reimbursements required by the Commonwealth, for the payment of the representative of the present and past years, of said town of Chelmsford, which may be called for from said towns of Chelmsford and Lowell, shall be paid jointly, by said towns, and in the proportion of three-fifths for said Chelmsford, and two-fifths for said town of Lowell.

Sec. 5. *Be it further enacted,* That any Justice of the Peace, in the County of Middlesex, be, and hereby is, authorized

to issue his warrant to any principal inhabitant of the town of Lowell, requiring him to notify and warn the inhabitants of said town of Lowell to assemble and meet at some convenient time and place, in said town, to choose all such officers as towns are required to choose, in the months of March and April, and to do and transact any other lawful business, relative to the affairs of said town.

[Approved by the Governor, March 1, 1826.]

APPENDIX B

Legislation creating the city of Lowell

Because of the rapid growth of its population and industry, the state legislature granted Lowell a city charter in 1836. It was the fourth city in the Commonwealth.

An Act to Establish the City of Lowell
Chapter 128 of the Acts of 1836
April 1, 1836

BE it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

Sec. 1. The Inhabitants of the town of Lowell for all purposes for which towns are by law incorporated, in this Commonwealth, shall continue to be one body politic, under the style and denomination of the City of Lowell, and as such shall have, exercise and enjoy all the rights, immunities, powers and privileges, and shall be subject to all the duties and obligations now incumbent upon, and appertaining to said town – and the administration of all the fiscal, prudential and municipal concerns of the city, with the conduct and government thereof, shall be vested in one principal officer, to be styled the Mayor, one select council, consisting of six persons, to be denominated the Board of Aldermen, and one council, to consist of twenty-four persons, to be denominated the Common council, together with such other boards of officers as are hereinafter specified. The mayor, aldermen and common council, in their joint capacity, shall be denominated the

City Council, and shall not, excepting the mayor, receive any compensation for their services.

[This Act contains 26 other sections, each explaining in considerable detail how city government will be organized and function. Instead of including the text in its entirety here, I have provided a short summary of each section.]

• Section 2: Establishes the city government structure, consisting of a Mayor, a Board of Aldermen, and a Common Council.

• Section 3: Provides for the division of the city into wards and the election of ward officers, including a warden and clerk.

• Section 4: Details the process for the annual election of the Mayor and the Board of Aldermen by the citizens.

• Section 5: Outlines the procedure for electing members of the Common Council from each ward.

• Section 6: Describes the formal organization of the City Council and the administration of the oath of office.

• Section 7: Defines the duties of the Mayor as the chief executive, including the responsibility to oversee the conduct of subordinate officers.

• Section 8: Vests executive power and the administration of the police in the Mayor and the Board of Aldermen.

• Section 9: Mandates the election and defines the duties of the City Clerk, including keeping records for both boards.

• Section 10: Specifies the powers of the Common Council as a distinct legislative body.

• Section 11: Authorizes the City Council to elect a City Treasurer, Collector of Taxes, and other necessary city officials.

• Section 12: Establishes the election process and responsibilities for the city's School Committee.

• Section 13: Provides for the election and duties of the Overseers of the Poor.

• Section 14: Requires that all city and ward officers be residents of the city and of the wards they represent.

• Section 15: Grants the City Council authority over the laying out, altering, or discontinuing of city streets and ways.

• Section 16: Empowers the City Council to act as a Board of Health or to appoint specialized health officers.

• Section 17: Describes the assessment and collection of taxes and the city's role in managing county and state tax requirements.

• Section 18: Ensures financial accountability by requiring city boards to report expenditures and provide an annual financial statement.

• Section 19: Grants the City Council the power to regulate the measurement and sale of lumber, wood, and coal.

• Section 20: Authorizes the creation of a Fire Department and the appointment of firewards to manage fire safety.

• Section 21: Governs the appointment of police officers and constables by the Mayor and Aldermen.

• Section 22: Outlines the role and duties of the City Marshal in maintaining public order.

• Section 23: Addresses the jurisdiction of the Police Court and the legal process for prosecuting violations of city bylaws.

• Section 24: Determines the city's representation and election procedures for the Massachusetts General Court.

• Section 25: Sets instructions for the first meeting of citizens to organize the new city government and elect initial officers.

• Section 26: Reserves the right for the Massachusetts legislature to alter or amend the act at any time in the future.

• Section 27: Establishes that the act must be accepted by a majority of Lowell's legal voters to become officially valid.

Passed by House on March 30, 1836; Senate March 31, 1836; signed by Governor on April 1, 1836.

APPENDIX C

Land Annexations to Lowell

The original grant for the town of Lowell consisted of 2,874 acres from the town of Chelmsford including the places we know today as Downtown Lowell, the Acre, South Lowell, and the Lower Highlands. Over time, the state legislature enlarged the geographic area of Lowell by annexing portions of Chelmsford, Dracut and Tewksbury.

This appendix identifies these annexations, first, with a brief description of the land involved, then by identifying four "corner points" that will help readers familiar with Lowell today to visualize the land box being annexed, and then by including the property description language from the relevant statute.

An Act to Incorporate the Town of Lowell

Special Laws Chapter 112 of 1825
Effective March 1, 1826

This is the original Lowell town charter. The original grant for the town of Lowell consisted of 2,874 acres from the town of Chelmsford including the places we know today as Downtown Lowell, the Acre, South Lowell, and the Lower Highlands. To visualize the land area included in the charter, consider these four points as the corner boundaries of the town:

> #1 (northwest) – the Merrimack River at intersection of Pawtucket and Broadway near Lowell Humane Society

#2 – (southwest) – Intersection of Rte 110 and Rte 3 near Cross Point

#3 – (southeast) – Concord River, south of Rte 495

#4 – (northeast) – Concord River at Merrimack River, near Lowell Memorial Auditorium

Statutory language:

(Summary) The northeasterly part of Chelmsford lying easterly of a line drawn as follows: beginning at Merrimack River at a stone post about 200 rods above the mouth of Pawtucket Canal;

thence running southerly in a straight course until it strikes the Middlesex Canal at a point ten rods above the canal bridge near the dwelling-house of Henry Coburn;

Thence southerly on said canal 20 rods;

Thence due east to a stone post at Concord River

Is incorporated into a town by the name of Lowell.

[effective March 1, 1826 - that's the day they start collecting taxes for the town; before that is still owed to Chelmsford].

An Act to Set Off a Part of the Town of Tewksbury and Annex the Same to the Town of Lowell

Special Laws chapter 159 of 1834
March 29, 1834

This statute annexed 384 acres from Tewksbury to Lowell. The place was then known as Belvidere Village but is now called Lower Belvidere. The parcel formed a triangle with the following corner points:

> #1 – (northwest) – Concord River at Merrimack River near Lowell Memorial Auditorium
>
> #2 – (south) – Concord River at Billerica and Lawrence streets, near Lowell Cemetery
>
> #3 – (northeast) – Merrimack River, opposite Pentucket Street

Statutory language:

> [summary] All that part of the town of Tewksbury lying within the following lines and bounds, namely:
>
> Beginning at the mouth of the Concord River at its confluence with the Merrimack River;
>
> Thence running easterly on said Merrimack River, 229 rods to a large rock in said river about 2 rods from the shore embracing all that part of the Merrimack River against said line which is in Tewksbury;
>
> Thence running south 17 degrees and one quarter west, 404 rods to said Concord River by the mouth of a small brook emptying into the same;

Thence running northerly on said Concord River 553 rods to the bound first mentioned.

Including all of said Concord and Merrimack Rivers which belonged to Tewksbury.

Is hereby set off from and separated from Tewksbury and annexed to and made a part of the town of Lowell. [March 29, 1834]

An Act to Establish the City of Lowell
Chapter 128 of the Acts of 1836
April 1, 1836

*Because of the rapid growth of its population and industry, the state legislature granted Lowell a city charter in 1836. It was the fourth city in the Commonwealth**. The change from a town to a city did not alter the boundaries of Lowell**.*

An Act to Annex a Part of the Town of Dracut to the City of Lowell

February 28, 1851

In 1851, the state legislature annexed 680 acres from the town of Dracut to the city of Lowell. This section was called Central Village and is today known as Centralville. Here are the corner points of this triangular parcel:

#1 – (west) – Merrimack River at Aiken Street

#2 – (north) – Methuen Street at Dracut line

#3 – (east) – Merrimack River at Duck Island

Statutory language:

> *So much of the town of Dracut as is commonly called Centralville bounded and described as follows:*
>
> *Beginning at the thread of Merrimack River near the foot of Hunt's Falls opposite the southeast corner of the land of the Proprietors of Locks and Canals;*
>
> *Thence running north 19 degrees and 30 minutes west about 300 feet to the margin of said river at said southeast corner bound;*
>
> *Thence in the same course northerly 3827 feet to the northerly side of the new county road leading from Lowell to Methuen;*
>
> *Thence north 89 degrees west, 5270 feet to the margin of said river near the end of a wall opposite the head or north end of Long Island;*

Thence in the same course about 100 feet to the end of Long Island;

Thence westerly in a direct line to the thread of said river;

Thence down said river by the thread thereof to the point of beginning.

All of the above is set off and separated from said town of Dracut and annexed to the city of Lowell.

This act shall take effect from its passage - approved by Governor, February 28, 1851.

An Act to annex a part of the Town of Chelmsford to the City of Lowell
Chapter 241 of the Acts of 1874
May 18, 1874

This annexation from the town of Chelmsford was 1,174 acres and consisted of the Upper Highlands and Middlesex Village. Here are the corner points of this box-shaped parcel:

> #1 – (northeast) – Merrimack River at Broadway and Pawtucket streets (near Lowell Humane Society)
>
> #2 – (southeast) – Routes 110 and 3 near Cross Point
>
> #3 – (southwest) – Westford Street at Chelmsford line (Drum Hill)
>
> #4 – (northwest) – Merrimack River west of Rourke Bridge

Statutory language

> *Section 1 – That part of the town of Chelmsford with all the inhabitants and estates thereon, lying easterly of the following described line, to wit: Beginning at a stone post, marked "C. and L.," on the boundary line between said town and said city, and about ten rods north of Chelmsford Street, thence running north-westerly in a straight line 9,270 feet to a stone bound, at the junction of the Chelmsford and Westford roads; thence northerly in a straight line, crossing said roads, 4,125 feet, to a stone bound on the southerly bank of Merrimack River at a point 1,000 feet westerly of the "twenty-*

eight mile" post on the track of the Nashua and Lowell Railroad Corporation, and thence northerly to the thread of said river,

Is hereby set off from the town of Chelmsford and annexed to the city of Lowell, and shall constitute a part of the fourth ward thereof, until a new division of wards is made.

[several other sections about taxation and representation]

Section 6 – This act shall not take effect until accepted by the city council of Lowell.

An Act to Annex a portion of the town of Dracut to the City of Lowell
Chapter 240 of the Acts of 1874
May 18, 1874

This annexation consisted of 2,168 acres and included the rest of Centralville and all Pawtucketville. Here are the corner points of this parcel:

#1 – (southeast) – Merrimack River at Aiken Street

#2 – (southwest) – Merrimack River at Tyngsborough line

#3 – (northwest) – Varnum Ave at Tyngsborough line

#4 – (northeast) – Willard Street at Humphrey Street

#5 – (east) – Methuen Street at Dracut line

Statutory language:

Section 1 – So much of the town of Dracut in the county of Middlesex lying upon the Merrimack River, thus bounded and described, to wit: Beginning on the northerly side of the new country road leading from Lowell to Methuen, at the northeast corner of that part of Lowell called Centralville, thence running north nineteen degrees and thirty minutes west, to a stone bound on the northerly side of the road in said Dracut, leading from George T. Whitney's house to and by the poor farm in said Dracut, (said line and course being a continuation of the course described as 3,827 feet, northerly from the margin of the river, in the act entitled An Act to Annex a part of Dracut

to Lowell passed February 28, 1851, chapter 8, section 1); thence running westerly in a straight line to a point on the margin of Merrimack River at the intersection of the town of Dracut and the town of Tyngsborough; thence southwesterly upon the boundary line now between said Dracut and said Tyngsborough to the thread of Merrimack River; thence down said Merrimack River by the thread thereof to a point in the thread of said river easerly in a direct line from the end of Long Island at the intersection of said city of Lowell and said Dracut; thence by the division line between said city of Lowell and said Dracut as descrbied in the act of February, 1851, to the point of beginning . . .

Section 11 – This act shall take effect on the first day of August 1874; provided it shall first be accepted by the city council of Lowell.

An Act to annex a part of Tewksbury to the city of Lowell.
Chapter 307 of the Act of 1874
June 5, 1874

Two annexations from Tewksbury added 210 acres in 1874 and 220 acres in 1888, all part of Belvidere. The corner points of this combined parcel are as follows:

> #1 – (northwest) – Merrimack River opposite Pentucket
>
> #2 – (northeast) – Merrimack River opposite Butman
>
> #3 – (east) – Rogers Street at Butman
>
> #4 – (southeast) – Boylston Street at B&M Railroad
>
> #5 – (southwest) – Concord River near Billerica and Lawrence Streets

Statutory language of 1874 annexation:

> *Section 1 – That part of the town of Tewksbury contained within the lines described as follows: beginning at a stone bounded in Merrimack River about 677 feet easterly of the northeasterly bound between the city of Lowell and the town of Tewksbury as established y chapter 159 of the acts of 1834; thence running south, six degrees fifteen minutes east, crossing the old Andover road, to a point in Andover Street; thence in the same course, crossing said Andover Street, to the corner of a new street, and by the westerly line of said new street about 463 feet to a point in a cross fence at a hum; thence south four degrees west, 3,664 feet, to a hub at the intersection of the southerly line of the*

highway called High Street, and otherwise known as Main Street, with the westerly line of the highway or town way known as the Billerica Road; thence southwesterly about 1,749 feet to a stone bound at the most southeasterly corner of the land of the proprietors of the Lowell Cemetery, enclosed, and known as "Lowell Cemetery"; thence southwesterly to the point in the Concord River at which the northerly line of the location of the Lowell and Lawrence railroad intersects the present boundary line between said town and city, and thus northerly by said boundary line to the point of beginning, . . .

Section 6 – This act shall take effect upon its passage.

An Act to annex a portion of Tewksbury to Lowell
May 17, 1888

Statutory language of the 1888 annexation:

> *Section 1 – So much of the town of Tewksbury . . . thus bounded and described, to wit: beginning at a point where the present dividing line between said Lowell and said Tewksbury crosses the northerly boundary line of the location of the Lowell and Andover railroad; thence running easterly by said northerly boundary line about 2,100 feet to the easterly line of Forrest street, so called, at the point of its intersection with said northerly boundary line of the location of said Lowell and Andover railroad; thence running northeasterly in a straight course to the junction of the northerly line of Rogers street with the easterly line of the Butman road, so called; thence running by said easterly line of said Butman road, northerly, northwesterly and northerly to Andover street, and in the same course to the northerly line of said Andover street; thence by said northerly line of said Andover street westerly about 35 feet; thence northerly by the westerly line of land, now or formerly of one Plummer in a straight course to the thread of the Merrimack river; thence by the thread of said Merrimack river southwesterly to the present western boundary line between said Lowell and said Tewksbury; thence by said present western boundary line southerly and southwesterly to the point of beginning . . ,*
>
> *Section 5 – this act shall take effect upon its passage.*

An Act to provide for the annexation of a part of Tewksbury to the city of Lowell.
Chapter 335 of the Acts of 1906
April 30, 1906

This final annexation consisted of 1,087 acres and included outer Belvidere and Wigginville (which is the neighborhood near the Woburn Street exit of Route 495). Here are the corner points of this parcel:

> #1 – (northwest) – Merrimack River opposite Butman
>
> #2 – (northeast) – Andover Street at Tewksbury line
>
> #3 – (east) – Rogers Street at Tewksbury line
>
> #4 – (southeast) – Boylston Street at Tewksbury line
>
> #5 – (south) – Woburn Street at Tewksbury line
>
> #6 – (west) – Rogers Street at Butman

Statutory language:

> *Section 1 – So much of the town of Tewksbury . . . as is substantially bounded as follows: Beginning at a point on the southerly side of the Merrimack river at a stone wall, at the dividing line between land of A J Trull and R G Bartlett; thence southerly and southwesterly by the dividing line between said Trull and Bartlett by a stone wall 3,366.98 feet to a point in the southerly line of said street, at the dividing line of John Fleming and C I Hood; thence south six degrees, nineteen minutes west by said dividing line and through land of C I Hood*

678.7 feet; thence south 21 degrees, fifty minutes, 41 seconds west by land of Haley through land of Clark, Hood and Gookin and Eliades across Clark street 5,708.33 feet to the southerly line of Main Street; thence south 28 degrees, 10 minutes, 59 seconds wet through land of French and Felker across Whipple and Billerica roads and Felker street 2,526.97 feet to the northwest line of Elm avenue; thence south 86 degrees, 51 minutes, 45 seconds west by the northwesterly line of Elm avenue across Lowell and Talbot streets and the southern division of the Boston and Lowell railroad and through land of Shedd and the United States Cartridge Company 3,600.16 feet to the Concord river; thence northeasterly down the Concord river 4,390 feet to a point opposite a stone monument on the southwestly side of Billerica street; thence southeasterly by the said monument across Billerica and Lawrence streets and the Lowell and Andover railroad to a stone monument on the easterly side of Boylston street; thence in a northeasterly direction 2,388.72 feet to a stone monument in the northeasterly line of Main street and the easterly line of the Butman road; thence northerly by the easterly line of the Butman road 5,114.13 feet to a stone monument in the northerly line of Andover street; thence westerly by the northerly line of Andover street 35 feet; thence northerly by the dividing line between the land of the Butler estate and land formerly of the Plummer estate across East Merrimack street, 897 feet to the Merrimack river; thence easterly down the Merrimack river about 5,200 feet to the point of beginning . . .

Section 7 – this act shall take effect upon its passage.

APPENDIX D

Population Statistics

The US Constitution requires the federal government to conduct a census every ten years. While the total population of the country, the states, and their political subdivisions are reported in each census, other items measured change from time to time. These variations are reflected in the following table of population statistics for Lowell.

- 1830 – 6,477
- 1840 – 20,981
- 1850 – 33,383
- 1860 – 36,827
    - American born – 24,670
    - Foreign born – 12,107
        - Ireland – 9,460
        - Germany – 34
- 1870 – 40,928
    - American born – 26,493
    - Foreign born – 14,435
        - British America – 3,039
        - Ireland & Great Britain – 11,282
- 1880 – 59,475
    - American born – 36,421
    - Foreign born – 23,054
        - British America – 8,768

        - Ireland & Great Britain – 13,879

- 1890 – 77,696
    - American born – 43,095
    - Foreign born – 34,601

- 1900 – 94,969
    - American born – 53,995
    - Foreign born – 40,974

- 1910 – 106,294
    - American born parents – 20,703
    - Foreign born parents – 43,457
    - Mixed parentage – 41,942

- 1920 – 112,759
    - American born – 74,643
        - American born parents – 24,676
        - Foreign born parents – 37,041
        - Mixed parentage – 12,752
    - Foreign born – 38,116
        - Ireland – 7,454
        - Great Britain – 3,560
        - Poland – 2,298
        - Russian – 916
        - Greece – 3,733
        - Portuguese – 1,669
        - French Canadian – 10,180
        - British Canadian – 3,610

- 1930 – 100,234
    - American born – 74,059
    - Foreign born – 26,175
        - Great Britain – 4,213

        - Ireland – 4,231
        - Poland – 1,602
        - Greece – 1,946
        - Franch Canadian – 7,763
        - British Canadian – 2,406

- 1940 – 101,389
    - American born – 81,834
    - Foreign born – 19,418
        - Great Britain – 2,569
        - Ireland – 2,883
        - Poland – 1,352
        - Greece – 1,649
        - Portugal – 921
        - French Canadian – 5,516
        - British Canadian – 1,955

- 1950 – 97,249

- 1960 – 92,107

- 1970 – 94,239
    - White – 93,062
    - Black – 766
    - Asian
        - Indian – 60
        - Japanese – 66
        - Chinese – 111
        - Filipino – 18
        - Other Asian – 136
    - Persons of Spanish origin or descent – 1,162
        - Persons of Puerto Rican birth or parentage – 385
        - Mexican – 24

        - Cuban 23

- 1980 – 92,418
    - White – 88,586
    - Black – 1,205
    - Asian – 604
        - Chinese – 226
        - Indian – 171
        - Vietnamese – 97
    - Spanish origin 4,585
        - Puerto Rican – 3,528
        - Mexican – 117
        - Cuban – 91
        - Other Spanish – 849

- 1990 – 103,439
    - White – 83,859
    - Black – 2,474
    - Asian
        - Cambodian – 6,475
        - Laotian – 1,553
        - Vietnamese – 743
        - Indian – 1,150
    - Hispanic origin – 10,499
        - Puerto Rican – 7,732
        - Other Hispanic – 2,767

- 2000 – 105,167
    - White – 72,145
    - Black – 4,423
    - Asian – 17,371
    - Hispanic/Latino – 14,371

- 2010 – 106,519
    - White – 64,240
    - Black – 7,238
    - Asian – 21,513
    - Other – 9,325
    - Two or more – 3,867
    - Hispanic/Latino any race – 18,396

- 2020 – 115,554
    - White – 43,287
    - Black – 15,905
    - Asian – 25,099
    - Two races – 5,755
    - Hispanic/Latino – 22,331

APPENDIX E

Form of Government

Through its 200-year existence, Lowell has had different forms of government. Below is a timeline for each of them followed by a more detailed narrative description.

- 1826 – Town charter: Selectmen with town meetings.

- 1836 – City charter: Mayor, six-member Board of Aldermen elected citywide; 24-member Common Council elected four per ward.

- 1896 – Charter change that increased powers of Mayor relative to the Aldermen and Councilors.

- 1910 – Commission form of government with Mayor and four Commissioners elected by voters with each in charge of one or more city departments.

- 1922 – "Casey Charter" with strong Mayor and a 15-member hybrid City Council with six elected at large and nine from the city's wards.

- 1923 – Plan B with strong Mayor and six at large councilors serving terms of two years and nine district councilors serving a single year term.

- 1942 – Plan E with City Manager and nine City Councilors elected citywide by proportional

representation (now known as ranked choice voting).

- 1959 – City Councilors elected at large by plurality rather than by proportional representation.

- 2021 – Council increased to 11 members with three elected citywide and eight elected by district.

APPENDIX F

Neighborhoods of Lowell

Any discussion of the neighborhoods of Lowell should begin with the city's geography and its history. The most prominent terrain features are the city's two rivers, the Merrimack and the Concord. As it passes through Lowell, the Merrimack flows from west to east with the neighborhoods of Centralville and Pawtucketville on the north side of the river and the rest of the city to the south. The Concord River originates near the town of Concord then flows north until it joins the Merrimack in a T-shaped intersection. To the east of the Concord is the Belvidere neighborhood; to the west is South Lowell and Downtown.

Lowell received a town charter in 1826 and a city charter in 1836. The physical size of the city then was much less than it is now. Originally, Lowell consisted of today's Downtown, the Acre, South Lowell, and the Lower Highlands. Roughly speaking, the northern boundary was the Merrimack River; the eastern boundary was the Concord River; the southern boundary was the town of Billerica; and the western boundary was Stevens Street (which is today considered the boundary between the Upper and Lower Highlands).

Over time, the State Legislature annexed portions of the adjacent towns of Dracut, Tewksbury and Chelmsford to Lowell to enlarge the city's geographic footprint. Although it may be hard to imagine this from our 21st century perspective, the people who lived in the areas that were annexed to the city for the most part supported the change.

On February 28, 1851, lower Centralville was formed with 580 acres annexed from Dracut. This area was bounded to the north by the line of Aiken-Ennell-Richardson-Thirteenth Streets; to the east by the Dracut town line; and to the south and west by the Merrimack River.

Two more annexations occurred on May 18, 1874. The largest was 2,168 acres north of the Merrimack River taken from Dracut to form Pawtucketville and the remainder of Centralville. The second annexation was 1,129 acres taken from Chelmsford to form the rest of the Highlands. This included everything west of Stevens Street, bounded by the Chelmsford town line to the south and west and the Merrimack River to the north.

The final two annexations took land from Tewksbury to form the rest of Belvidere. The first, on May 17, 1888, was a half-moon-shaped slice of 220 acres that ran along Butman Road to Stratham Street. The second, on April 30, 1906, added the rest of today's Belvidere and South Lowell.

While Lowell's current boundaries were finalized in 1906, there is nothing final about the names of the city's neighborhoods or their boundaries. Before exploring some of these nuances, let me suggest a framework for visualizing the main neighborhoods of the city: Think of the city as the face of a clock.

At the center is downtown, which initially contained only the textile mills and company-owned housing for those who worked in the mills. However, many retail, commercial, financial and religious buildings were soon added. In the 1980s, as businesses left the city core, the upper floors of many downtown buildings were converted into housing units making downtown a residential neighborhood as well as the city's central business district.

At the start of the 21st century, the city embraced the "creative economy" for downtown with mixed results.

Returning to our clock analogy, at 12 o'clock is Centralville. An early subdivision plan recorded at the Registry of Deeds refers to some of this area as "Central Village" which I suspect is the basis of the neighborhood's name. Centralville's proximity to the mills just across the river made this an attractive place for worker housing once the bridge across the Merrimack was constructed on Bridge Street.

Moving clockwise to 3 o'clock, we have Belvidere. Bounded by the Merrimack River to the north, Tewksbury to the east, Billerica to the south and the Concord River to the west, Belvidere contains single family housing that ranges from mansion-like structures built for mill executives to more modest single-family homes with spacious yards. The sub neighborhood known as Lower Belvidere runs from the Concord River to the west to Nesmith Street to the east. This wedge is dominated by multifamily housing.

Continuing around the clock to 6 o'clock is a collection of neighborhoods and sub neighborhoods that I'll call South Lowell although its components are known variously as Chapel Hill, Back Central, Sacred Heart, the Flats, the Bleachery, the Grove, Swede Village, the South End, Riverside Park and Wigginville. This cluster is bordered to the north by Church Street and Downtown; to the east by the Concord River; to the south by East Chelmsford and Billerica; and to the west by Gorham Street. Although it is now largely residential, there was once considerable heavy industry along the banks of the Concord River.

At 8 o'clock there is the Highlands, another of the city's large residential neighborhoods. This neighborhood's

northern boundary is the Merrimack River and the Acre neighborhood; its boundary to the east is Thorndike/Gorham Street; and the Chelmsford town line to the south and west. Initially part of Chelmsford, much of what is now known as the "Lower Highlands" was part of the original 1826 Lowell grant. (Draw a line from UMass Lowell's South Campus to Cross Point to get an idea of the original boundary). The rest of the Highlands, including Middlesex Village, was annexed from Chelmsford in 1874.

At a close-in 9 o'clock is the Acre neighborhood. The entrepreneurs who conceived the great textile mills were immediately joined by Irish immigrants who did the back-breaking work of digging the canals and building the mills. The mill owners granted these immigrants an acre of land just to the west of downtown to use for housing and so the neighborhood became known as The Acre. Initially settled by Irish immigrants, it has always been the first stop for many of Lowell's newest residents.

Finally, at 10 o'clock is Pawtucketville. The northern boundary of this neighborhood is Dracut; to the east is Centralville; to the south is the Merrimack River; and to the west is Tyngsborough. When it was first made part of Lowell in 1874, Pawtucketville was mostly farm and woodland with its greatest value coming from its freshwater wells which supplied the city with clean drinking water for a time. Today, Pawtucketville is predominantly a neighborhood of single-family homes.

A map in Sustainable Lowell 2025, the city's ten-year master plan, identified eleven neighborhoods: the Acre, Back Central, Belvidere, Centralville, Downtown, Highlands, Lower Belvidere, Lower Highlands, Pawtucketville, Sacred Heart, and South Lowell. Many would disagree with this list. Some recognize no distinction

between the upper and lower Highlands or upper and lower Belvidere. Others know Back Central as Chapel Hill and see Sacred Heart as a parish and not a neighborhood, calling the whole section South Lowell. Ayers City is wedged between the Highlands and South Lowell but claimed by neither. Middlesex Village predated Lowell by almost two centuries but it has been lumped in with the Highlands and has lost its independent identity.

A map created by Lowell historian Mehmed Ali includes all of these and adds several other sub neighborhoods. On this map, Centralville includes Christian Hill, Jersey, West Centralville and Rosemont Terrace. The Acre has Little Canada and Uptown. The Highlands has Scotchtown, Gageville, and Hale-Howard. And Belvidere has The Oaklands, Atherton Village, and Belvidere Hill.

Like an archeological dig, identifying Lowell's neighborhoods is a never-ending process. The more we dig into old and new maps, plans, deeds, newspaper articles, oral histories, and other sources, the more our knowledge of these familiar and unfamiliar names will be enhanced.

APPENDIX G

Further Readings

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A Note about the Author

Richard P. Howe Jr. served as Register of Deeds for the Northern Middlesex District of Massachusetts for thirty years. Prior to that, he was a lawyer in private practice in Lowell. Howe holds a B.A. in political science from Providence College, an M.A. in history from Salem State University, and a J.D. from Suffolk University Law School. In the early 1980s, he served as an intelligence officer in the U.S. Army along the Iron Curtain in West Germany. He is the author of *Legendary Locals of Lowell* and *Lowell: Images of Modern America*, and the co-editor of *History as It Happens: Citizen Bloggers in Lowell, Mass.* He is the founder of richardhowe.com, a hyperlocal website about Lowell's history and politics, and frequently leads tours and gives talks on the history of the city.

Textile manufacturing was to 19th century America what high tech is to the 21st. As the Silicon Valley of the mid-1800s, Lowell transformed from a quiet farming village into a global industrial powerhouse. Powered by the Merrimack River, the city attracted presidents and world leaders before sliding into a long economic decline that deepened during the Great Depression. Yet, through persistence and experimentation, Lowell has reinvented itself. This book chronicles that journey, explaining how innovation and immigration ignited the city's explosive growth in the 1820s—and how those same forces are propelling its resurgence two hundred years later. It is the story of one of the most dynamic mid-sized cities in post-industrial America.

Richard P. Howe Jr. is a historian in Lowell who frequently writes and lectures about the history of the city. He is the author of Legendary Locals of Lowell and Lowell: Images of Modern America, and the founder of the hyperlocal blog, richardhowe.com.

The Encyclopedia of Lowell History is a comprehensive series dedicated to preserving the city's legacy. Blending original scholarship with rare archival reprints, the collection documents Lowell's evolution from the Industrial Revolution to the present. Covering topics from election statistics to local monuments, this series ensures Lowell's history remains accessible to future generations.

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