

Ivory and Company Towns

Overview

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Provided by:

Department of Education

Overview

This topic can be integrated into unit on industrialization, the market economy and company towns for 8th grade/10th grade

Lesson plan contents:

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Compelling Question: How did company towns shape communities and the people that lived there?

Introduction

This lesson fits in the context of a larger unit on globalization and industrialization.

The ivory trade was a part of a larger trading system in Africa and Asia in the nineteenth century. Ivory was a key commodity in

intercontinental trade due to the surging demand in India, a colony of Great Britain, Europe and North America to make knife handles, piano keys, billiard balls and other luxury items.

Zanzibar became a thriving port as a result of this trade. Other exports to China and India, in addition to ivory, included metals, tortoiseshell and slaves. Imports included cotton (from the American South) as well as rifles and ammunition. Connecticut traders participated in this ivory trade. In fact, Deep River and Ivoryton were the center of ivory milling in the United States.

Comstock, Cheney & Company in Ivoryton and Pratt, Reed and Company in Deep River were Connecticut's ivory manufacturers. In fact, Deep River and Ivoryton processed up to 90 percent of the ivory imported into the United States. Both companies bolstered the economy of the lower Connecticut River Valley. Increased employment opportunities in the late 19th century drew hundreds of immigrants to the area's ivory workshops; the majority of these workers came from Poland, Italy and Scandinavia.

Supporting Questions

Eco 8.3, Eco 9-12.1, and Eco 9-12.5 refer to the [Connecticut Social Studies Frameworks](#) .

- How have science, technology, innovation, and natural resources affected the development of our community and state? (Eco 9-12.5)
- What impact did new technologies have on the production of goods and services in Connecticut? (Eco 9-12.5)
- Did different towns, cities, or other regions in Connecticut tend to specialize in certain types of production? (Eco 9-12.1)
- How did the rise of manufacturers affect the wages and living standard of workers? (Eco 9-12.1)
- In what ways have the rivers and waterways in Connecticut influenced economic development? (Eco 8.3)
- What types of economic opportunities were available to these immigrants? (Eco 9-12.5)
- Was America a land of opportunity for immigrant groups that

came to the United States from the 1870s to World War I? (Eco 9-12.5)

Purpose

Students will understand the role that ivory production played in the industrial development of the Connecticut River Valley. In addition, students will analyze the social and economic implications of the company town on workers and their families.

Historical Context

At one time, manufacturing facilities in the lower Connecticut River Valley town of Deep River and the village of Ivoryton in Essex processed up to 90 percent of the ivory imported into the United States. Ivory, a dentine of exceptional hardness that composes the main part of the tusks of the elephant, walrus, and other animals, had for centuries been a prized natural resource. Used mostly for carving and ornamental purposes, its unique strength and beauty made it an ideal material for such goods as combs—and Connecticut entrepreneurs were not slow to recognize its potential. As trade between eastern Africa and the United States, England, and the Netherlands expanded during the first part of the 1800s, ivory became readily available. This development, and its effect on the local area, became an important part of the Industrial Revolution in the United States.

Combs and Comb-Making

The ivory trade's transformation of the lower Connecticut River Valley all started with hair combs. In the late 1700s, craftsmen made combs primarily out of cow or ox-horn cut and fashioned by hand. This limited production and created a relatively expensive grooming tool. In 1798, silversmith and Congregational church deacon Phineas Pratt, who made the clockwork timer for David Bushnell's submarine, *Turtle*, invented a device that allowed for the mechanical cutting of combs. This sped production and lowered costs—and demand for combs, an essential article of human hygiene, rose quickly.

The comb-making business centered along the Falls River, where Phineas Pratt owned land, and the Deep River in Potapoug (the

Native American name for the area that became known as Deep River and Ivoryton). Prior to 1810, Ezra Williams established a comb-making shop at his father's shipbuilding yard at the mouth of the Falls River and soon moved it to Deep River, where it became the largest of its kind in the country. George A. Read, another ivory pioneer, partnered with Williams and carried on the business after Williams's death in late 1818.

Piano Keys and the Demand for Ivory

The start of the Industrial Revolution in the United States coincided with the advent of widely available popular sheet music. And, as playing music became a significant feature in American homes, a growing middle class with money to spend made pianos a mainstay of 19th-century culture. The demand for ivory then accelerated because it was regarded as the best covering for piano keys, and an adult African elephant tusk of 75 pounds, properly milled, could yield the wafer-thin ivory veneers to cover the keys of 45 pianos.

George Read and the Pratt Brothers in Deep River, along with Samuel Merritt Comstock in West Centerbrook (later Ivoryton), had become the leading manufacturers of ivory combs and when the demand for ivory piano keys exploded in the decades prior to the Civil War, these men moved into that field. Their firms, however, were generally underfinanced, which limited production.

Yet, what occurred in 1862 and 1863 made Deep River and Ivoryton the center of ivory milling in the United States. George Read & Company combined with the Pratt Brothers and Julius Pratt & Company of Meriden, Connecticut (Julius was the youngest son of Phineas), to form Pratt, Read & Company in Deep River. The S. M. Comstock & Company in Ivoryton expanded into Comstock, Cheney & Company with the infusion of \$4,500 by George A. Cheney, an ivory trader who spent 10 years as a buyer on the East African island of Zanzibar.

Connecticut's Ivory Giants

These mergers proved monumental for the piano industry; each factory expanded into the manufacture not only of ivory key veneers but of piano actions, keyboards, and sounding boards as well.

Employment rose rapidly, so that by 1900 these two factories employed more than 1,400 men and women.

A few smaller ivory shops, such as A. Griswold & Company and George Dickinson & Company, also established roots in the immediate area, but they did not approach the size of the two giants, and in Ivoryton, Comstock, Cheney & Company absorbed most of these small firms. The increased employment opportunities in the late 19th century drew hundreds of immigrants to the area's ivory workshops; the majority of these workers came from Poland and Italy.

During the initial decade of the 20th century, the annual figure for number of pianos sold exceeded 350,000. Pratt, Read & Company, along with Comstock, Cheney & Company, supplied the majority of keyboards and actions to the various piano manufacturers, including Baldwin, Chickering, Wurlitzer, Everett, and Sohmer.

Factories also produced toiletries, toothpicks, billiard balls, letter openers, and many other household items made from ivory. These items emerged from the thousands of tons of ivory purchased and shipped from Africa. Comstock, Cheney & Company records show that the firm milled an estimated 100,000 tusks before 1929. The ivory initially came from central East Africa through the island port of Zanzibar, but later purchases came from the Congo and Egypt as well.

—From: *Ivory Cutting: The Rise and Decline of a Connecticut Industry*
by Donald L. Malcarne and Brenda Milkofsky, CT History.org,

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How To

Classroom Setup

Teachers will have students work in groups of three to four. Student will need access to the internet and large poster paper. In addition, students will be taking notes and writing reflections in their journals.

Procedure

Part 1: Have students in groups brainstorm answers to the following prompt and record on poster paper to share with the class:

- *What are the elements (geographical, social and economic) that are necessary for success in an industrial economy?*

Consider prior class discussions about the emerging industrial economy of the late 19th century. Possible answers could include but are not limited to:

- Transportation Networks
- Natural Resources
- Innovative Individuals
- Capital

Part 2: Now have students review [Documents 1-11](#). Students should record their answers on [anchor charts](#) to share with the class.

- *What elements contribute to the industrial success of Deep River and Ivoryton in the late 19th, early 20th century?*

Part 3: Ivoryton as a Company Town

Have students review [Documents 1-12](#). Consider the following prompt and record their answers for discussion in [anchor charts](#) :

- *What were the benefits to workers of living and working in Ivoryton? Explain.*
- *Were there any disadvantages?*
- *Why do you think the owners of the Company provided housing and other amenities for their workers?*

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Related Resources

- Anne Farrow, [Hartford Courant-The Last Slaves](#), 2002.
- Bill Ryan, [Two Towns-Sad Legacy of Ivory Trade](#), New York Times, 1998.
- [CT Explored: Ivoryton](#), by Christopher Pagliuco
- [Connecticut History Illustrated](#)
- Deep River and Ivoryton, By Don Malcarne, Edith DeForest, Robbi Storms, 2002
- [Elephant Slaughter, African Slavery And America's Pianos](#), NPR, August 18, 2014.
- [History In Black And Ivory: New Series Traces Towns' Key Industry](#), September 25, 1998, by Claudia Van Nes.
- [Ivory Cutting: The Rise and Fall of a CT Industry](#), Connecticut History.org, Donald L. Malcarne and Brenda Milkofsky.
- [Legacies of White Gold: An Ivoryton Library Production, 2006, Looking Back:History of Ivoryton Inn in the 'town that elephants built', E Alvord](#)
- Paula Kahumbu, [Deep River and the African Elephant National Geographic](#), 2013

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Register Of The Pratt, Read Corporation Records, 1838 - 1990
by Craig A. Orr.

- [Strange Behaviors, Richard Conniff, March 2012](#)
- [The Rise and Decline of Welfare Capitalism and the Emergence of a Union in Ivoryton, Connecticut: 1900-1941, Tom Furrer, Wesleyan University.](#)

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What's Next

Informed Action

Have students research the innovative industries in Connecticut today using this site: [Connecticut Business Industries](#). Identify the industry leaders in each category and explain how each industry helps to support the economy and workers in the state. Share research with the class using a Google site or other digital platform.

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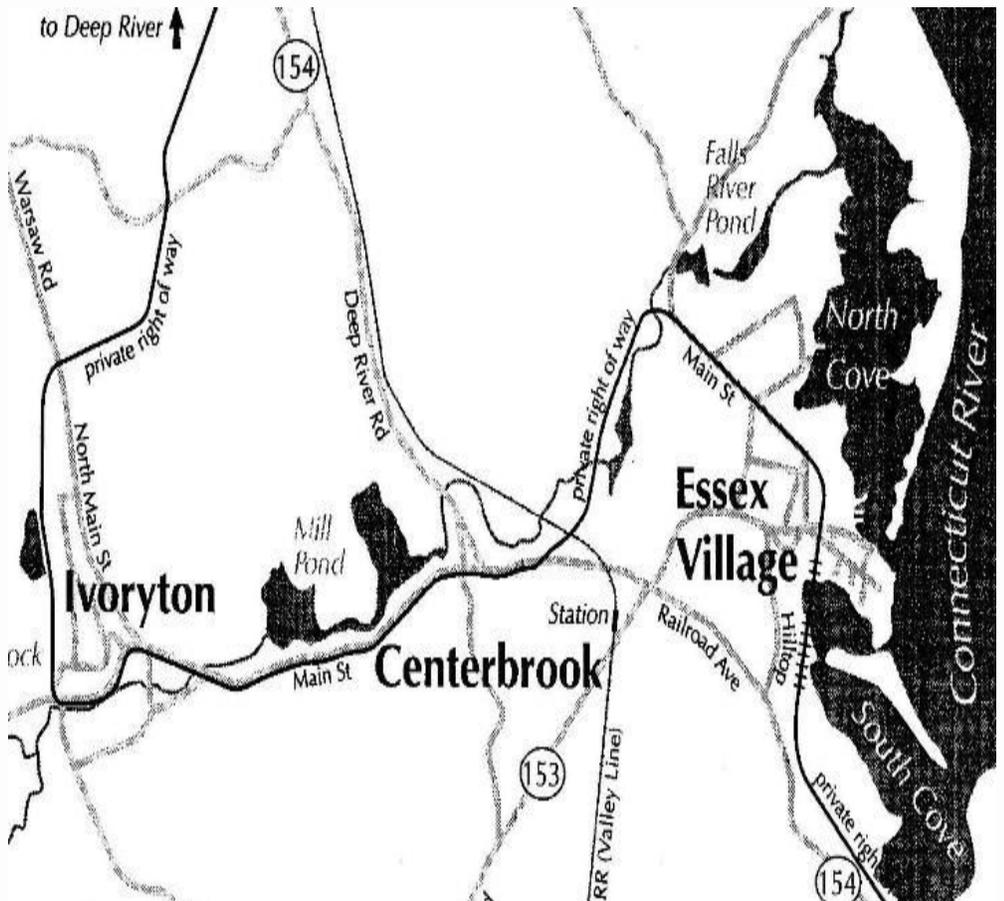
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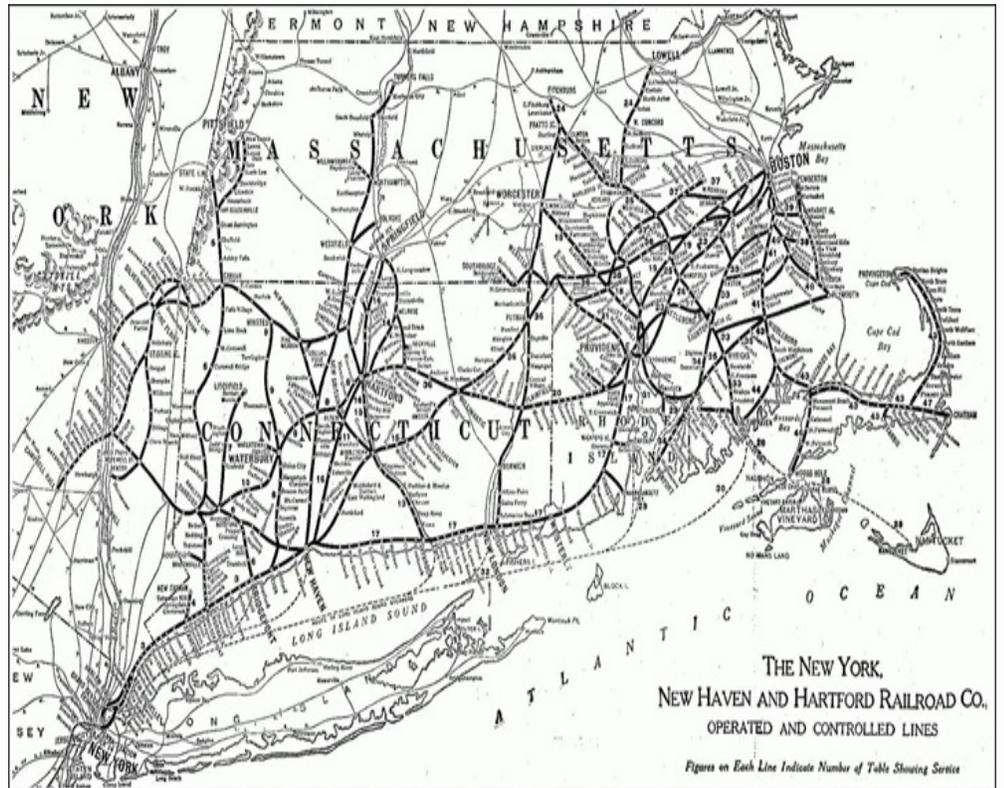
[Documents/Forms](#)

[Classroom Setup, Part 2](#)

Document 1, Map of Ivoryton and Essex Village



Document 2, New Haven and Hartford Railroad Map



Document 3, Advertisement for Hartford New York Steamship Line



TO
NEW
YORK
DAILY

Stopping
at all
Landings
on the
Conn.
River.

LOW
RATES.

Quick
Dispatch.

Passenger
and
Freight
Line.

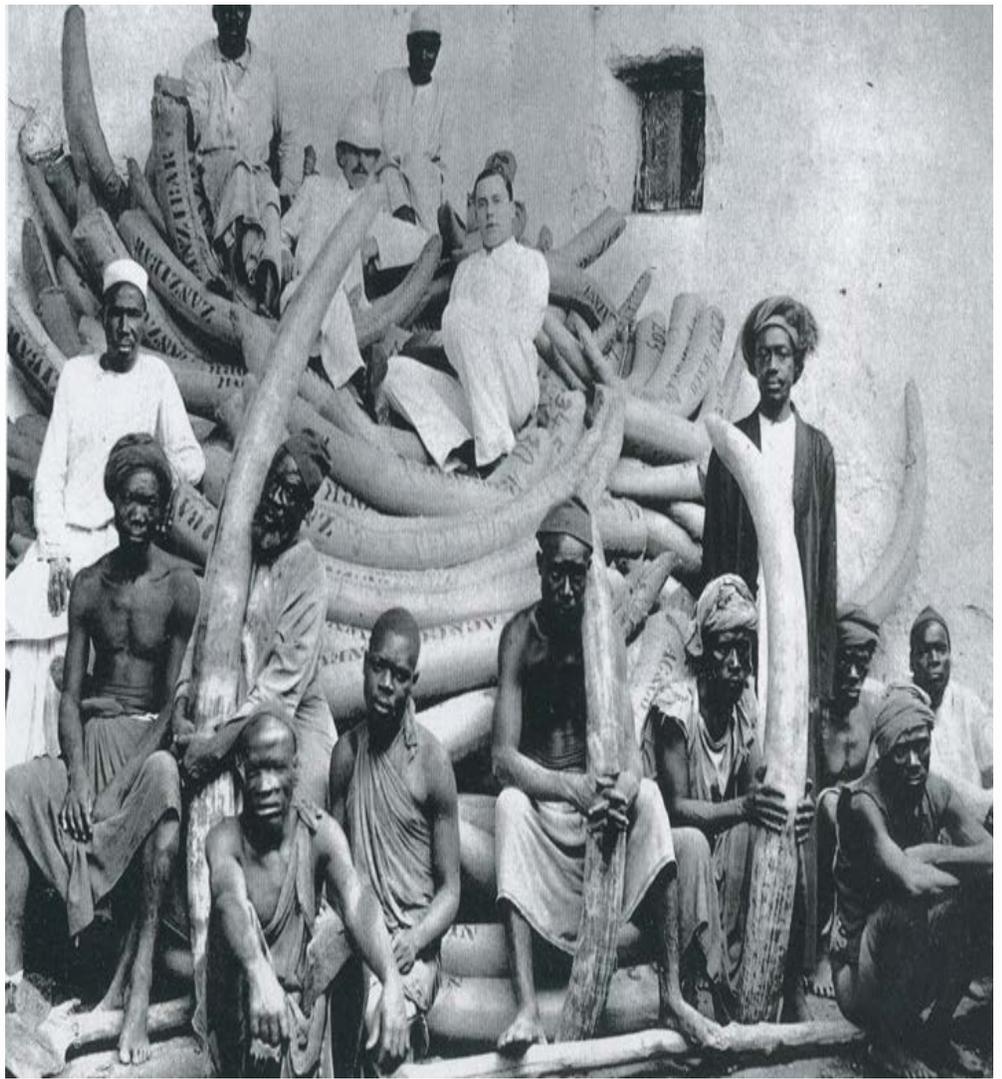
SECURITY. COMFORT.
REFRESHING SLEEP.
Passenger Accommodations First Class.

←→ **Hartford and New York Transportation Co.** ←→

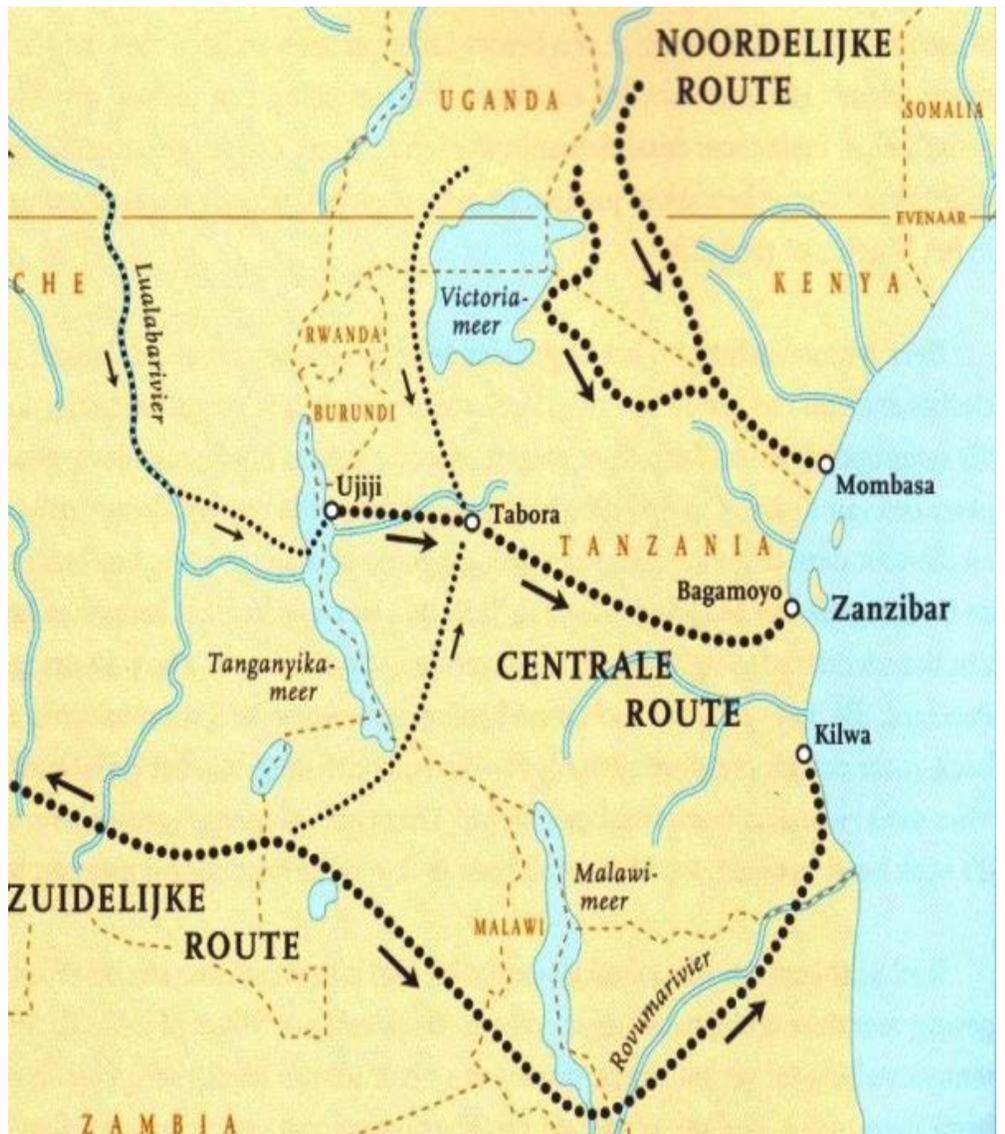
Steamers "MIDDLETOWN" and "HARTFORD"—Leave Hartford from foot State St. at 5 p. m.—Leave New York from Pier 24, East River, at 5 p. m.—Daily except Sundays.

Shipments received on pier in New York until 6 p. m. and forwarded to all points mentioned on Connecticut river, and points North, East and West from Hartford. We also have through traffic arrangements with lines out of New York for points South and West, and shipments can be forwarded on through rates, and Bills of Lading obtained from offices of the Company. For Excursion Rates see daily papers.

Document 4, E.D. Moore, Pratt Read Company Trader, in Zanzibar



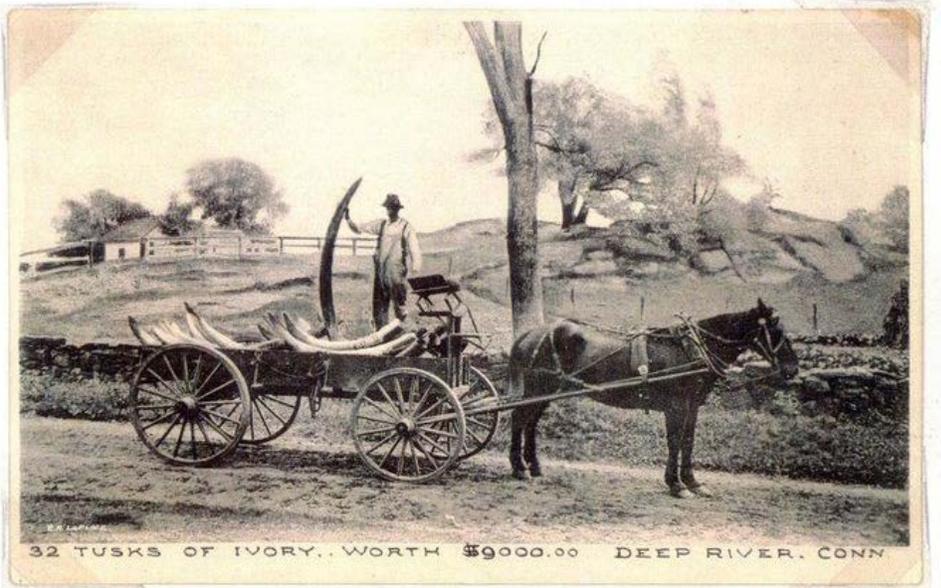
Document 5, Ivory Trade Routes in Africa



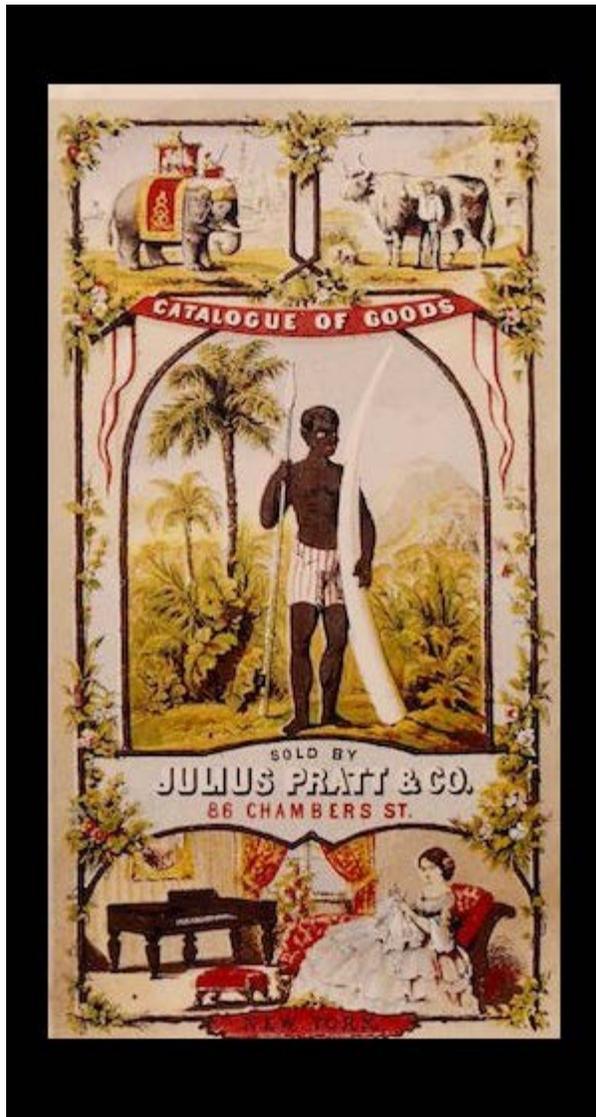
Document 6, Delivery of Ivory to Deep River Factory



Document 7, Deep River



Document 8, Mid-19th Century Catalog from Julius Pratt Co in Deep River



Posters from the the Connecticut Historical Society, Ivoryton Library, Connecticut Explored and Deep River Historical Society.

Document 9, *One Elephant, 45 Pianos*

Indeed, Deep River owes a steep debt to the African elephant. Nestled in the lower Connecticut River Valley, it and the nearby village of Ivoryton in Essex at one time processed up to 90 percent of the ivory that was imported into the United States. John Heminway, writer and director of *Battle for the Elephants*, and I spent hours learning about the fascinating history of the town's ivory past, which is beautifully documented and displayed in its local museum.

We discovered that during the 19th century, the trade contributed to the slaughter of 100,000 elephants each year, and this went on for decades.

According to the Deep River Historical Society, it began with Phineas Pratt's invention of the circular saw. This led to the area's dominance in the production of piano keys—made of ivory. The ivory business was so profitable for Deep River that it won the town the dubious title of "Queen of the Valley," which refers to its location in the lower Connecticut Valley. Between 1862 and 1863, Deep River and Ivoryton were at the center of ivory milling in the United States.

It was a lucrative business; a 75-pound adult African elephant tusk could yield the wafer-thin ivory veneers to cover the keys of 45 pianos. Ships sailed for East Africa, docking at Zanzibar to load the ivory cargo taken from elephants gunned down deep in the interior of Africa. The business takes an even darker pall when one considers that the ivory was carried on the backs of African slaves.

—From: [Deep River and the African Elephant](#), by Paula Kahumbu

Document 10

"The publication of sheet music that was played on pianos encouraged songwriters such as Stephen Foster, and essentially a new industry was started. The overriding factor for (interest in the piano) was the continuing growth of a middle class in the United States, due to the Industrial Revolution. This group demanded more and more consumer goods. In addition, it became almost obligatory that young women of this class learn to play a musical instrument, and the piano was ideally suited for this purpose. Home entertainment was paramount in the Victorian Age, so all the above factors came together and the production of pianos skyrocketed...

As the demand for ivory expanded due to its use on piano keys, special purpose machinery to properly cut the ivory and to manufacture piano keyboards was required. Samuel Comstock was an inventor of machinery specifically concerned with ivory...George Cheney became invested with Samuel Comstock in 1860 when he invested \$4500 into the firm of SM Comstock...Thus was born Comstock, Cheney and Company."

—From: Legacies of White Gold, Ivoryton Library Production

Document 11

People called Deep River "the queen of the valley" 150 years ago. Mills and factories and timber made the town well-to-do. But it was ivory that made Deep River rich.

Between 1840 and 1940, the wagons of Pratt, Read & Co. traveled this same route (Connecticut River Valley), carrying hundreds of thousands of elephant tusks from ships up to the company's factories and workshops. Pratt, Read was the biggest importer of ivory in the world at the time.

The big brick factory at the top of the road — it's longer than a city block — is now a condominium called Piano Works. Water still cascades through a nearby sluice that ran the factory's machines.

Jeff Hostetler, president of the Deep River Historical Society, says it was one machine in particular that brought ivory to this town and this factory. "What happened is Phineas Pratt, a very good mechanic and inventor, developed an ivory lathe to cut the teeth in ivory combs," he explains. "And, of course, all of Phineas' relatives bought one of Phineas' machines and went into the comb business."

And then into making billiard balls, cutlery handles, shirt buttons — all manner of ivory knickknacks.

Then came the piano; in the mid-1800s, a piano in the parlor became a symbol of middle-class cultivation. Pratt's efficient, mechanized cutting lathes were modified to make ivory piano keys. Piano keys required extra labor, and soon the business sprawled all over town. "Pianists liked white," Hostetler says of the piano keys. "So the way to get a good, uniform white color is to take these thin wafers of ivory and just bleach them in the sun." Acres of bleaching houses sprang up — huge greenhouses containing blocks of ivory instead of plants. People fertilized gardens with ivory dust. Kids swimming in local ponds came out of the water coated in it.

—From: *Elephant Slaughter, African Slavery and America's Pianos*

Classroom Setup, Part 3

Document 1

"It's hard for us now to grasp the extraordinary intimacy with elephant tusks that was once commonplace in town. These days, scientists tracking the illegal ivory trade can map the provenance of a tusk by studying its isotopes, persistent biochemical traces of what the elephant ate and where it lived. But the old ivory cutters had something like that knowledge in their hands. They could tell Congo ivory from Sudanese, Mozambique, Senegalese, or Abyssian ivory, Egyptian soft from Egyptian hard, Zanzibar prime from Zanzibar catch. They knew it not just by how it responded to their saws, but by how it felt beneath their fingertips. "To observe a man at work with ivory," a reporter who visited the Pratt, Read cutting rooms once wrote, was "to watch a man in love. As it is sorted, sliced, cut, and matched, each workman actually fondles and caresses it."

Nobody in the factories would have phrased it quite that romantically. The work started with "junking" tusks into squared-off cylinders. A skilled marker then studied each cylinder and drew a precise map on one end to identify the least wasteful pattern of subsequent cuts. As the ivory went under the saw, a jet of water played over the surface to prevent burning. Even so, the air in the workrooms was filled with ivory sawdust, and what the reporter called "a penetrating, unpleasant odor not unlike the smell of burning bones."

"To tell you the truth, I didn't think much of it," an old ivory cutter once told me. "Your hands were in water all day and once in a while you'd hit a pus pocket in the ivory and—whoosh, it would smell." Bullets embedded in the tusk were also a frequent hazard.

Every scrap and wedge of ivory got cut into some useful product, from cutlery handles to collar buttons and nit combs (small and fine-toothed for picking lice and their eggs out of the hair). The sawdust that didn't wash down into the river served to fertilize tomatoes in local gardens. "Nothing was wasted out of those damned elephant tusks," another worker told me.

But what the ivory workers of the Connecticut River Valley came to know best was the art of cutting tusks into narrow, four-inch-long blocks, and wider, two-inch-long blocks. These blocks then had to be "parted" horizontally into veneers, at a rate of 16 per inch. The narrow veneers, called tails, were then glued down between the black keys

on a piano, while the wider veneers, or heads, went on the front of the piano key, where the fingers touched. Beginning in the early 1850s, when this country produced just 9,000 pianos a year, the business boomed.

By the peak year of 1910, when production hit 350,000, this country had become the largest manufacturer of pianos—and ivory keyboards—in the world."

—From [Strange Behaviors](#) by Richard Conniff

Document 2

"Cheney developed new strategies in advancing Comstock's plan for Ivoryton as a town built around the factories, its streets lined with Victorian structures, its neighborhoods divided into ethnic sections, its residents treated to socially reforming entertainment. The company kept an agent in New York to funnel immigrants to meet the factories' growing labor requirements. As the immigrants arrived from Sweden, Italy, and Poland, Cheney, and later Robert H. Comstock, Samuel's son, exercised a form of social control over the workforce.

Unlike neighboring Deep River, which had a more diverse economy, Comstock, Cheney was the only substantial employer in Ivoryton, making it a typical company town. For a time, as the village's sole employer, largest taxpayer (accounting for approximately 35 percent of the town's tax revenue), and largest real estate holder, Comstock, Cheney wielded almost complete control over the workers' lives and community...

During the Gilded Age, a period characterized by confrontational labor relations, Comstock, Cheney was able to stave off the formation of labor unions through a practice called welfare capitalism. Under this business strategy, companies made selective investments in the local community in the hope of counteracting labor unrest caused by low wages and employees' lack of control over their own lives. Such philanthropies also significantly increased productivity and decreased absenteeism among the workforce. This "welfare capitalism" system was successfully employed by Comstock, Cheney until the onset of the Great Depression. The company didn't need highly educated employees; just well-behaved, reliable workers.

Beyond creating factory housing, Comstock, Cheney and Company financed the construction of, and many times retained control over, many other buildings in town. In 1889, the Ivoryton library was established with a thousand-dollar gift and land donated by the Comstock family...

One common practice of welfare capitalist's was to create constructive opportunities for workers to socialize in an effort to reduce the amount of time spent at the saloon. In Ivoryton, a "wheel club" was established to provide for bowling, bicycling, a band and other social activities. In 1886, a competitive baseball team was established, along with a new ballpark, which still is used by the town today."

Adapted from [PDF File](#) [Explored: Ivoryton](#) , by Christopher Pagliuco

Document 3, Worker Cutting Ivory



E.D. Moore Collection, Ivoryton Library Association and the [Treasures of Connecticut Libraries](#)

Document 4, Cheney Employee Cutting Tusks, 1900



Ivoryton Library Association and the [Treasures of Connecticut Libraries](#)

Document 5, [Comstock Cheney Factory](#)



Document 6, Ivoryton Baseball Team, 1897



[Essex Historical Society](#)

Document 7

"The Ivoryton Inn, like the village in which it is located, has had its share of peaks and valleys, its times of prosperity and austerity. And like its namesake village, the Ivoryton Inn is experiencing a revival.

Historically, for better or for worse, Ivoryton, is, indeed, "the Town that Elephants Built." A true factory town (although it is a village of Essex), Ivoryton was built around the ivory trade, primarily by Comstock, Cheney and Co. Until World War II, Ivoryton, along with its next door neighbor of Deep River, was a dominant economic power in the Lower Connecticut River Valley. Comstock, Cheney & Co. was responsible for the construction of many buildings in the village, most of which stand to this day.

The Ivoryton Store, known previously as the Rose Brothers Store and most recently as the home of Gather of Ivoryton, was built by Samuel Comstock to be a store, post office and recreation hall (upstairs) for the village. In 1904, the Post Office was moved to a new building west of the library, now home to Hammered Edge and the Ivoryton Studio. The recreation hall was no longer needed when Comstock Cheney Hall was built in 1910. This building is now known, of course, as the Ivoryton Playhouse. Even the Ivoryton Library Building Committee, formed in 1988, consisted of people all directly connected to

Comstock, Cheney & Co. Several of the houses in the village were built by or mortgaged through the company for employees' residences. On Main Street is the largest residence of all, the Ivoryton Inn.

In 1865, the Ivoryton Inn was built on property owned by Samuel Comstock, the president of Comstock, Cheney & Co. and expanded by the addition of a section of the Reverend Denison School, a girls' boarding school in the Winthrop section of Deep River. As was common at the time, this dormitory was brought down by rollers and affixed to the new structure. The Inn served as a boarding house for male workers at the Comstock, Cheney & Co. factory. In 1866, Samuel Comstock transferred ownership to Comstock, Cheney & Co."

—From: [Looking Back:History of Ivoryton Inn in the 'town that elephants built'](#), by E. Alvord

Document 8, Ivoryton General Store



[History of Essex](#)

Document 9, Ivoryton Inn



Looking Back: History of Ivoryton Inn in the 'town that elephants built'

Document 10, Ivoryton Library



Document 11, Comstock Cheney Hall



Connecticut History Illustrated

Document 12, Interviews with Comstock Cheney Workers

"If a husband died and there were three or four kids, without tooting their horns, they (company) took care of it. They weren't the kind who was throwing their money around right and left every time somebody wanted it. But if somebody was in trouble they helped."

—Alfred Griswold

"This town was the Comstock's town, that's all you can say. And it was a good town. It was much better than it is now. Everybody kept their places nice. You never saw any garbage and cans lying in the street the way you do now...in those days it was different. The company kept their places up. And whenever you wanted anything done, why, like papering or painting, you got it. They had a man who went around and kept them up."

—Edna Gill

"Those immigrant workers, they had allegiance to the company. When one got a job here, pretty soon his relatives came from Poland

or Italy, and worked there and were glad to work there. And the company was glad to have them."

—Anonymous

"The older men, like our parent's generation were told to vote Republican. And they said so, and they were afraid. They had that fear, apparently enough in them, that they—they did it. And another thing...they weren't even supposed to talk about it (politics) and they didn't. You know those people, their lives depended on this (living and working here) and they did what they were told to do."

—Lillian Pandia

—From *The Rise and Decline of Welfare Capitalism and the Emergence of a Union in Ivoryton, Connecticut: 1900-1941*, Tom Furrer, Wesleyan University, 1980