



Manufacturing Through Time : Unfolding The Truth

IDC1001H at Baruch College

Yan Li, Jawad Shamim, Erwin Ramirez, Claire Kamali

Professor Alaina Feldman

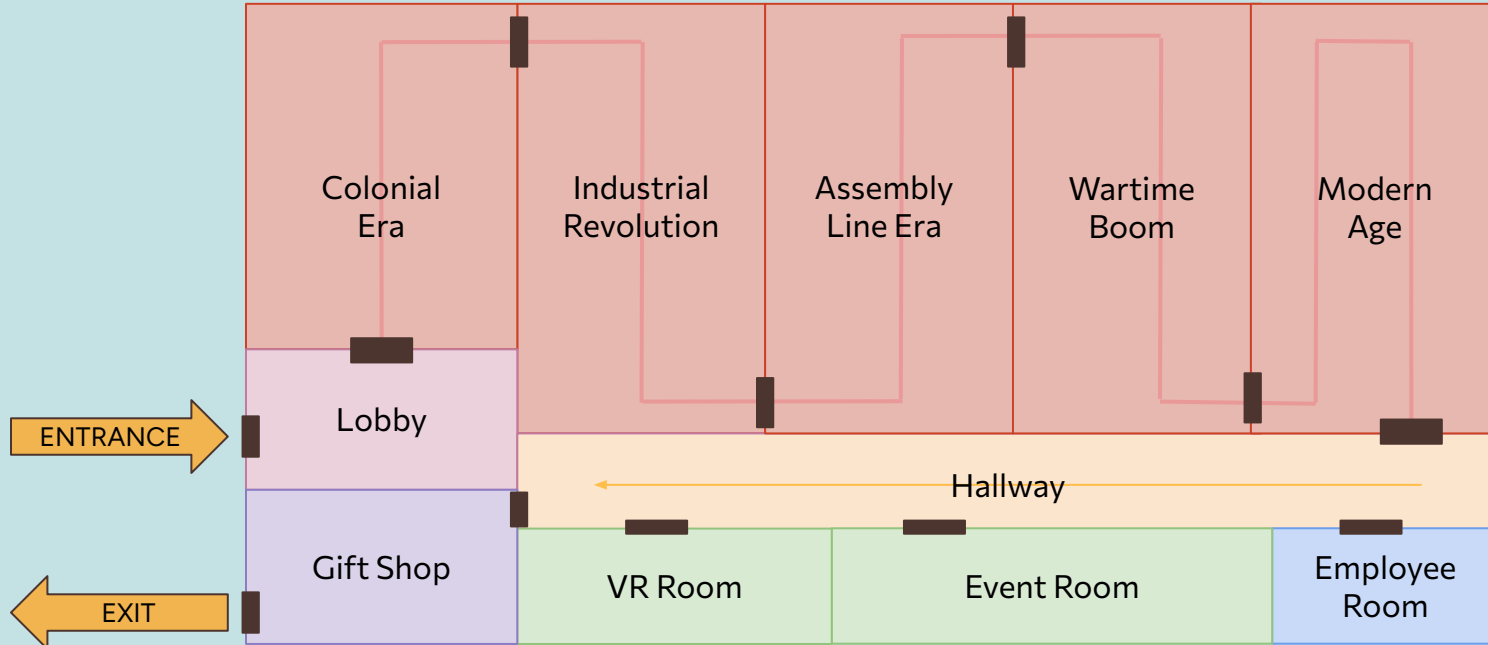




We aim to transport visitors through the ages of mass manufacturing, displaying the evolution of various factory settings throughout history and highlighting the enduring issues within factories today.



Floor Plan





The Manufacturing Eras

2

Industrial Revolution: 1760-1850

Mechanized production,
factories, steam power

3

Assembly Line Era: 1900-1930

Mass production methods
like electricity, combustion
engines and assembly lines

4

Wartime Boom: 1939-1945

Manufacturing mobilized
for wartime production

1

Colonial Era: 1607-1783

Small-scale craftsmanship and
artisanal production

5

Modern Era: 1970-Present

Automation, high-tech,
computerization

Characteristics





So how will these rooms look like?





In each room...

- You will see QR Codes displayed around the area, that once accessed, will lead you to more information about the era which you are exploring.
- Next to every object around the room, their small descriptions about what they are and how the usage of said items impacted their respective era



Colonial Era 1607-1783

- Relied on **manual labor** and **skilled craftsmanship**, with artisans producing goods in small workshops.
- Localized production through cottage industries
 - Limiting scale
 - Community-based manufacturing
- Iconic items:
 - Hand-carved **wooden** furniture (spinning wheel)
 - Handwoven textiles (clothing, blanket)
 - Metalwork & blacksmithing



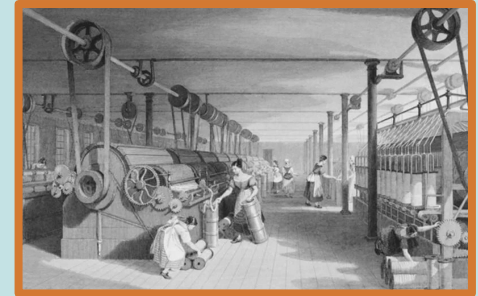
Spinning Wheel

Industrial Revolution 1760-1850

- Production shifts from manual labor to **factory-based manufacturing**.
 - Interchangeable parts allowed for mass production.
 - Machines, steam engines, pulleys
- Urbanization → Rise of factories → **Horrible conditions**
- Display key inventions:
 - Cotton gin
 - Sewing machine
- Exhibits on railroads, steel mills, textile factories



Cotton Gin



Rows of Sewing Machines

Assembly Line Era 1900-1930

- **Automobiles:** Henry Ford's Model T
 - Made through assembly line and mass production
 - Accessible and affordable
- **Electric Appliances:** Refrigerators, Washing machines
 - Exhibits on electricity and combustion engines
 - Meatpacking industry → Chicago slaughterhouses
- Rise of consumer goods with **recognizable brands**



Henry Ford - Model T



Refrigerator

Wartime Boom 1939-1945

- Manufacturing rapidly shifted to **support wartime needs**
 - Government intervention directing production
 - Propaganda posters exhorting production
- Exhibit on key industries: **Shipbuilding, Aircraft, Munitions**
 - Tech advancements: Radar, Jet engines.
- **Women entering workforce** (male workforce deployed)



Munition



Rosie the Riveter

Modern Era 1970-Present

- Automation and Robotics → Efficiency and precision.
- Manufacturing became globalized with supply chains spanning multiple countries
 - Exhibits on supply chain, logistics, offshoring
- Displays on high-tech areas:
 - Computing
 - Biotech
 - Advanced materials



Robotics

VR Room

- Virtual Factory Tour
 - VR, 360-degree, tour that allows visitors to get a true factory worker experience
- Digital Archives
 - Visitors use the archive to get a deeper understanding with the assistance of historical documents, photographs and videos
- Interactive Screens
 - Workstations to explore digital models of machinery, more technical



Virtual Reality



Reflection

How has manufacturing evolved?
What aspects have remained
constant or changed over time?



Event Room

- Educational Games
 - Task visitors with optimizing a production line
 - Make ethical decisions in a virtual factory setting
- Final Reflections
 - Surveys and video recording booths
 - Encourages visitors to share their thoughts and reflections about their manufacturing educational experience





Where is it located: **Williamsburg, Brooklyn**

- **Industrial history**

- Brooklyn has a rich manufacturing heritage as an industrial center which peaked in WWII era production

- **Access to populations & public transit**

- Dense metro area = NYC residents and tourists.

- **Available spaces**

- Brooklyn has large developable spaces in former factories or warehouses that could house the museum complex.





Budgeting

How much are the tickets?

Entry Tickets

Adults (ages 19-64) - \$15

Students & Youth- \$10

Seniors (65+) - \$10

Children (under 12) - Free

VR Experience

\$16 for a 5 minute walk-through

Prices vary for events/workshops

Our Budget: Unlimited

Allocation of Budget

- Land & Building: **\$30,000,000**
 - Maintenance: **\$1,000,000**
 - Utilities: **\$1,000,000**
- Advertising: **\$500,000** per year
- Employees: **\$2,000,000** per year
 - 35 Employees
 - \$60k Average Salary

