DESIGN VIEW

Industrial Revolution | Birth of Mass Production
Previously in class...

Assessing good vs. bad design
Defining ‘design thinking’
The creative problem solving process
This class...

How the Industrial Revolution influenced designers
Major luminaries and inventions of the 18th century
The ways in which technology and mass production influenced style and consumption
Académie des sciences, 1671
AGE OF ENLIGHTENMENT
An intellectual movement which dominated the world of ideas in Europe in the 18th century.

It included a range of ideas centered on reason and came to advance ideals such as liberty, progress, tolerance, constitutional government, and separation of church and state.
Emphasis on learning became more widespread, especially with the growing middle class.
Dictionaries and encyclopedias
Scientific and literary journals
Debates
Masonic lodges
Everywhere in Europe people devoted themselves to the arts and sciences as both consumers and producers of the growing cultural offerings.
INDUSTRIAL REVOLUTION
1760-1840

The transition to new manufacturing processes.
The Industrial Revolution is the most important event in the history of humanity since the domestication of animals and plants.
That growth in consumer demand stretched across geographic and social boundaries, widespread changes in the organization of labor and manufacturing technology occurred.
New materials and processes were developed, greater productivity achieved, and the attainment of material comfort emerged.
FRANCE
State-owned Manufactories

The growing demand for luxury goods (painting, sculpture, tapestries) and furnishings at the court of Louis XIV stimulated the development of large state-owned production facilities known as “manufactories”
Gobelins Manufactory, Paris
**Cons**

The products only served the needs of a small and wealthy clientele.

**Pros**

Material progress for all of society

Stimulating the economy (employing more people at all levels of production and promoting exports of such goods abroad)

Increasing wealth through trade

More money into circulation
Privately-owned Guilds

Smaller workshops employing apprentices and journeymen working under the direction of a “master” who was trained in all aspects of a particular skill such as furniture-making, glass manufacture, or metalwork.
Guilds
Andre-Charles Boulle, 1665-70
Cabinet for Louis XIV
French Revolution, 1789-99
FRENCH REVOLUTION 1789-99

Profoundly altered the course of modern history, triggering the global decline of absolute monarchies while replacing them with republics and liberal democracies.
In 1791, the revolutionary government in France abolished the guild monopolies as they were vestiges of monarchy and privilege.
GREAT BRITAIN
A new breed of **craftsman-merchant** led to a number of successful enterprises in the decorative arts that both competed with continental luxury production and expanded the trade in such goods to include an upwardly mobile middle class.
Yay, middle class!
Division of labor

Use of molds rather than potters’ wheels

Use of a transfer method of printing decorative borders rather than hand painting

Saved time and insured uniformity and high quality

Maximized consumer choice within a limited range of shapes and decorative patterns
UNITED STATES
The demand for commodities accompanying westward expansion in the early nineteenth century and the scarcity of labor hastened the adoption of rationalized production methods and the beginnings of mechanization.
The key element was the **mass production of interchangeable parts** in the manufacture of firearms in the early nineteenth century, a process that required precision and careful oversight in order to insure exact uniformity.
The early 18th century witnessed the expansion and acceleration of manufacturing and consumption due to technical advances and a political climate generally favorable to production, trade, and competition.
Eli Whitney, Cotton Gin, 1794
Extracts from a Pamphlet on Slavery lately published, intended to demonstrate that the labor of Slaves in any country is less productive than that of freemen. Free people who raise an abundance of provision, consume what they please; slaves, if they are not limited in the quantity of their food and clothing, are still obliged to subsist on a few articles of coarse cheap food. It is probable therefore, if we could ascertain the value of the home productions consumed in these several countries, we should find the amount of the value of the whole produce of each country to be much more in favor of...

| Number of ditto north of Delaware, | 1,967,000 Dollars. |
| Annual value of exports both of Pennsylvania, | 8,326,000 |
| Value of Exports north of Delaware, | 9,245,000 |
| Difference in number of inhabitants in favor of the northern district, | 42,000 |
| Difference in value of Exports in favor of the northern district, | 918,000 |
| Surplus of Exports in the northern district, beyond the proportion of inhabitants, | 721,000 |

France and Russia did not shake off the fetters of that system till within the present century; and Spain, Portugal, Bohemia, Hungary, Poland and Russia, show by their poverty and sparse population, that those countries are still held in chains. England vindicated her rights at an early period, and has become proportionally richer.

Facts of this kind can be neither evaded, nor contradicted, for their evidence is conclusive and irrefutable; they demonstrate the doctrine before advanced, that "slavery in all its forms, and far from being a necessary evil, is a fertile source of mischief and woe."
APOTHEOSIS OF NAPOLEON.

PROGRAMME.—From the Sea a Cloud will arise, the Centre of which represents THE

TOMB OF NAPOLEON!

In SLANE'S VALLEY, in the Interior of St. HELENA. A number of ancient Warriors will pass and repass in antique Barges, rendering homage at the Shrine of the great Man. The Scene will change and discover to the spectator the Interior of THE CHAPEL OF THE INVALIDS, at Paris, at the moment of the grand Ceremony of the Re-Interment of the Remains of NAPOLEON! in the centre of this View will be seen the MAGNIFICENT TOMB in which the HERO'S Ashes are now deposited. The Scene will terminate with

THE APOTHEOSIS OF NAPOLEON, ACCOMPANIED BY HIS SON,

And surrounded with the Emblems and Trophies of Glory.

This Piece will be accompanied by an extraordinary Instrument, consisting of SIXTEEN TRUMPETS,

SECOND PART.—THE BRIDGE OF ST. ANGELO, AT

ROME

Taken from the side of the Castle of St. Angelo, executed after a drawing by the celebrated PIRANESI. Along the Bridge will be seen passing and repassing, a number of Persons on Foot, on Horseback, in Carriages, &c. The View will conclude with the GRAND MASQUERADE

FEAST OF THE MASt OF COCAGNE ON THE RIVER.

THIRD PART.—By particular desire, and for the last time, Voyage of CAPTAIN PARRY to the

NORTH POLE!

His passing through the STRAIT called the FURY and HECLA, amidst the FLOATING ICE and the extraordinary
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