

Introduction to Urban Planning
Prof. Harshit Sosan Lakra
Department of Agriculture and Planning
Indian Institute of Technology - Roorkee

Module No # 04
Lecture No # 19
Contextualizing Cities (Industrial Revolution)

Welcome to this course introduction to urban planning in the previous lectures we reviewed the emplotment and covered Mesopotamia and Egyptian, Indus valley, Vedic, Greek and Indus valley civilization. Today we are going to discuss about the industrial revolution and its effect on growth of town planning from seventeenth to twentieth century. We see that these particular during this period of industrial revolution not only the transformation was happening. But it, was happening at a very rapid scale and it was happening at different scale altogether.

(Refer Slide Time: 01:12)

Coverage

- ① Introduction to Industrial Revolution, its geographical spread, Historical overview, and phase wise Technology.
- ② Innovation and Impact, Growth of Industry, City developments and Housing Needs and issues, Socio-economic lifestyle.
- ③ Utopianism and Planning.
- ④ City Beautification Movement.

So accordingly today our coverage would include we will look at what industrial revolution was? What was its geographical spread? The historical overview; of it and what kind of phase wise technology interventions and innovations took place? What were the different innovations and what were their impacts? How industries were growing? What was happening with the city development and housing needs?

What kind of issues and socio-economic lifestyle was evolving in this period? We will also see Utopianism and planning which came up eventually following this period. We also see city

beautification movement which came up. So we are going to cover all these aspects in today's session.

(Refer Slide Time: 02:04)

Learning Outcomes

- ① Contextualize Industrial Revolution, its Geographical spread, the Technology and Innovation, and Contemplate its impact on Urban Planning.

- ② Able to review the Spatial pattern, Urban Transition, and the change in the Social- Economical Structure at that time.

- ③ Able to identify the key people and element of Utopianism and Planning.

- ④ Able to understand City Beautification Movement.

After completion of this session you should be able to critically contextualize industrial revolution its geographical spread the technology and innovation. And you should be able to contemplate its impact on urban planning. Likewise you should be able to review this spatial pattern how the distribution was about the cities? And how the land uses were changing? Urban transition you should be able to see and the changes in the socio-economics structure that was happening at that time.

You should be able to identify the key people and elements of Utopianism and planning and city beautification movement. Let us begin with understanding the basic concept of industrial revolution what was industrial revolution?

(Refer Slide Time: 02:57)

Industrial Revolution

- The Industrial Revolution was a period, when people stopped making things at home and started making things in factories.
- The Industrial Revolution was a period, where major changes in agriculture, manufacturing, mining, transportation, and technology had a major effect on the socioeconomic and cultural conditions of the times.

It was a period of major industrialization and innovation that took place during the 1700 and late 1900. It was the process by which an economy was transformed from a primarily agriculture to 1 based on the manufacturing of goods. So individual manual labours were often replaced by any mechanized mass production. Further people stopped making things at home and started making things in factories. So, this was the time when there was a major change in the field like agriculture, manufacturing, mining, transportation and technology.

(Refer Slide Time: 03:44)

Industrial Revolution

The case of Lodz



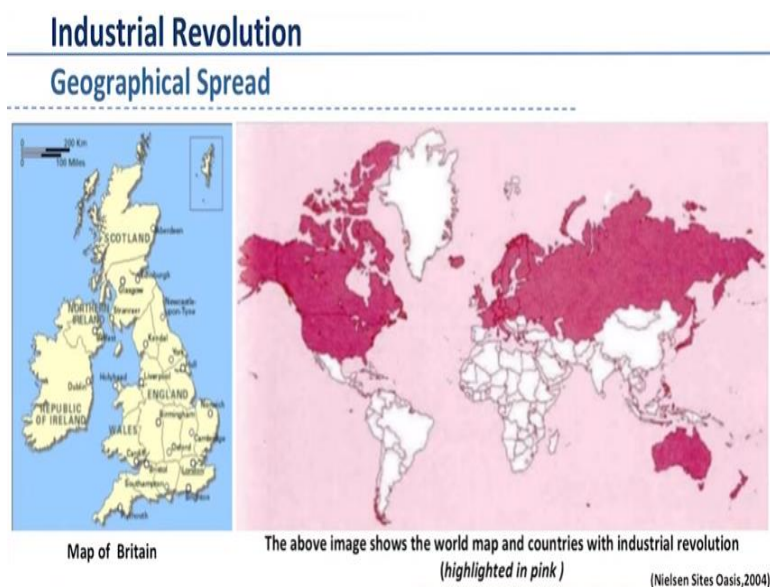
- Little agricultural town which changed into one of the biggest textile production centers in continental Europe over less than a century.
- There was a shift from an agricultural (farming) economy to one based on industry (manufacturing).

Distinctively economy shifted from farming to manufacturing industry for example Lodz's agriculture town in Poland we see which is popularly known for this transition. This little agricultural town was completely transformed into a biggest textile center of Europe. So let us

now look into how industrial revolutions swept across different countries. The industrial revolution began in Britain the evolution starting in Europe and United States in the period from 1760 to 1840 by the mid 18th century Britain was there was leading commercial Nation.

Controlling a global trading empire the effect; of industrial revolution lead to the development of trade as well as lead to rise of the businesses. Eventually industrial revolution spread across the world. Therefore the industrial revolution also leads to an unprecedented rise rate of population growth in the urban areas.

(Refer Slide Time: 04:45)



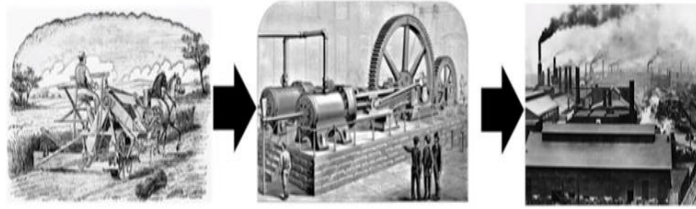
The image on the left hand side where you can see the map of Britain where the entire revolutions started and the right hand side you can see the world map showing the countries following the industrial revolution highlighted in the pink. In the later period industrial revolution came to Asian countries. So we see that the industrial revolution began very slowly where the house hold activity was done through machines.

And later machines were brought in for mass production which evolves the factories and the evolution started to begin as a revolution.

(Refer Slide Time: 05:25)

Industrial Revolution

History of Industrial Revolution

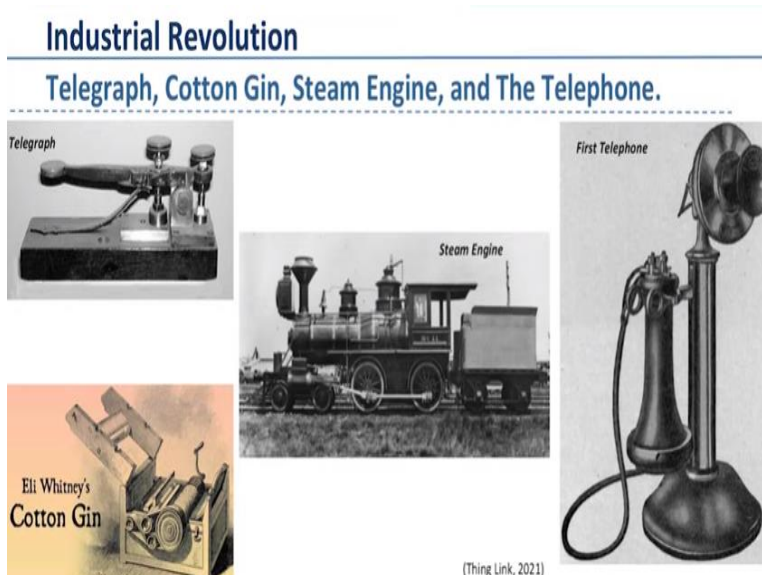


- Throughout the Industrial Revolution there were several new inventions and machines transformed the time era. Such as the telegraph, cotton gin, steam engine, and the telephone.
- This new inventions and technological achievement during industrial revolution like steam engine was used to improve transportation and it reflected the connectivity between industries and raw material ultimately it led to increase the industries .

(Local Histories Org, 2021)

When factories got wider with larger machineries the industrial revolution brought a new interventions according to the time they lived and evolved. The machines transformed to larger machineries.

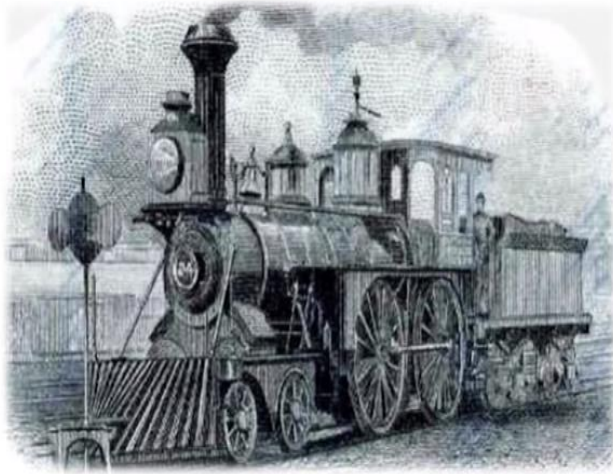
(Refer Slide Time: 05:43)



(Thing Link, 2021)

Some of the key examples include telegraph, cotton Gin, steam engine and the telephone. These new inventions and technology improvement during the revolution brought in revolutionary changes through time.

(Refer Slide Time: 05:59)



(Industrial Revolution Research, 2021)

For example the invention of steam engine which was used to improve the transportation drastically by time and scale. Now goods and people could travel longer distance in considerably very short time. This enhanced the trade and connecting routes between industries improved larger and quick movement of raw material. Ultimately increase the industries production and trade thus all turn in increasing the economy.

Let us now look into the chronology of industrial revolution which includes major inventions and their impact. We see that in 1652 the public water supply system by gravity was invented in Boston which boomed up the industries.

(Refer Slide Time: 06:51)



Water supply system by gravity in Boston

(BWSC,2021)



Steam Engine

(Abdelmegid, 2014)

In 1765 steam engine was invented improvised the connectivity and the trade also brought in major change in the economic growth. In 1776 the capitalism theory increased the labour and the owners of the industry. In 1825 we see this steam rail road mass transit system this improvised the transit within the city creating a decentralized society. In 1850 and 1876 the communication system like the telephone, and telegram also developed which routes the faster growth in the industrialization as the communication began easier.

(Refer Slide Time: 07:35)

Industrial Revolution

Industrialization Phase- Technology (17th Century ACE)

Year	Invention	Impact
1652	Public water supply system by gravity in Boston	Bloom of Industries
1765	Steam Engine	Economic Leadership Change
1776	Capitalism Theory	Increase in worker/owner
1825	Steam Railroad (Mass Transit System)	Transport starts in cities leading to decentralization of people
1850 & 1876	Telegraph and Telephone stated consecutively	Faster growth of Industrialization
1885	Electrical Railways started and internal combustion engines were invented	Crowding of streets
1897	Underground Railway stated in Boston	

We further see that in 1885 the electrical railways and internal combustion engine were invented. Which; made the transit and trade between states easier while crowding the streets in 1897 the underground railway was also invented. In this time we see that reverse played a major role in transit of finished product from the factories through the coast. The seventh (()) (08:06) and Trent were the most navigable rivers of England.

(Refer Slide Time: 08:14)

Industrial Revolution

Transportation



• RIVER-



• CANAL-

- Rivers played a major role in the transportation of finished products from the factories to the coast.
- The Severn, Thames, and the Trent were the most navigable rivers in England.

- The main international seaports of England were London, Bristol, and Liverpool.
- The British began to build canals in the late 18th Century.



•ROADS-



•RAILWAYS-

(Pierre-LouisViolet, 2017)

The main international sea port of England was London, Bristol and Liverpool. The British began to build canals in the late eighteenth century. In 1720 roads gave importance for the industrial revolution after the road lines were built the turn pikes were established to charge a toll for maintenance of roads. The railway line reduced the role of canal and now any area with railway line was available for goods transport.

(Refer Slide Time: 08:43)

Industrial Revolution

Transportation



Robert Fulton



(historylearningsite, 2021)

Robert Fulton made the first steam powered engine to power steam boat to fasten the travel through water. So this further improved another mode of transportation later in the sixteenth and seventeenth century the (()) (09:01) Porter in London became famous manufacturer. However

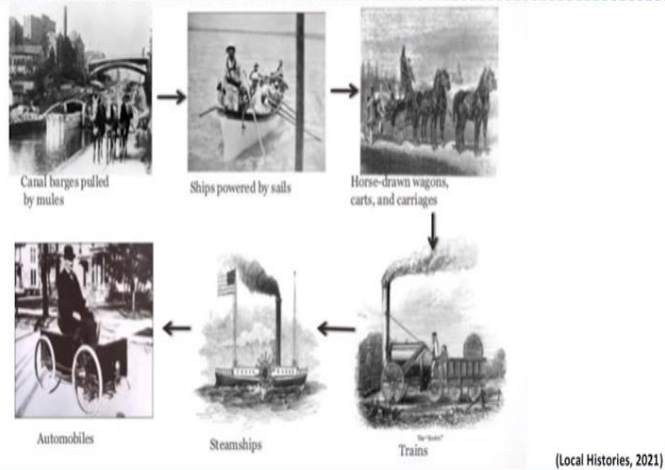
Porter found very difficult to shift the raw material from one place to another which cause challenges to convert raw material to finished products and also send them to the market.

To; make it easier roads were constructed parliament approved to build roads by businessman. So that the transportation is increased which; in turn increase the trade. So we see that how for the purpose of trade the parliament is also making provision for wide construction of road. Then the (()) (09:42) road was constructed this enrout the connection between the factory and market and then to national road which further expanded to connect the cities.

(Refer Slide Time: 09:52)

Industrial Revolution

Technological Achievement and its Reflection in Improved Connectivity

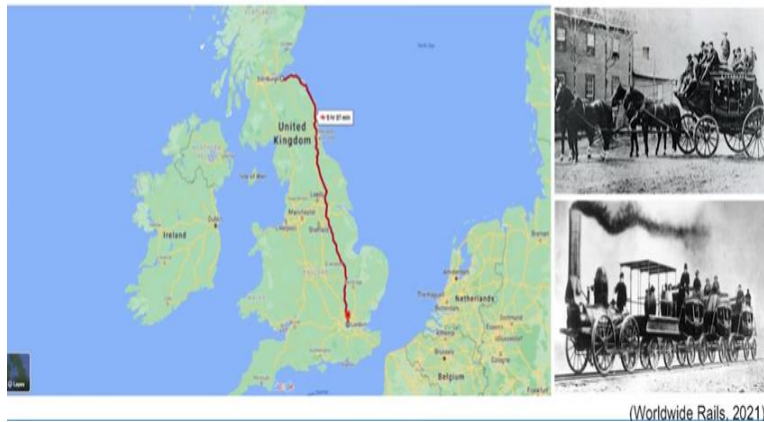


Canals, motor ways were created by private entrepreneurs to transport their goods at cheap rates. Canals connected the coast and network Navigation Rivers for trade and transportation. The construction of railway lines and roadways reduced the wait time for goods that were transported within the city and the states. So further we are saving time and we can work faster it saves several hours for example the time taken to travel from London to Edinburgh was 43 hours.

(Refer Slide Time: 10:25)

Industrial Revolution

The Impact of the Railroad

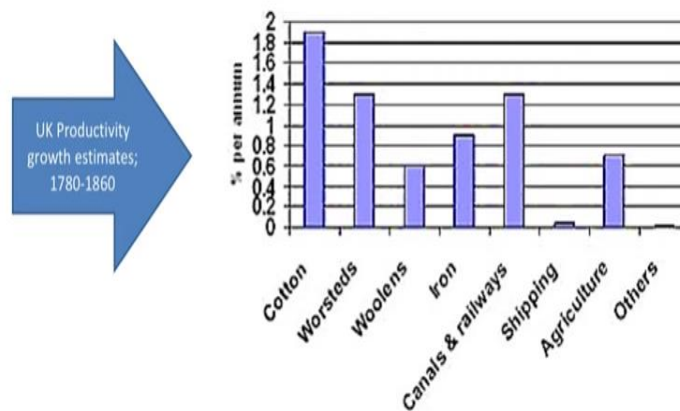


But after the establishment of the railway line the time reduced to 12.5 hours similarly to the other cities the time was reduced to multiple, force. As demand for the products increased like there were increased demand for cloth newer discoveries were made by inventors with multiple technological improvement, in the machines to ease the production of cloth. To house these new machines manufacturers built the first factory slowly this production, become larger scale which ultimately held in economic growth of the country in various sectors like agriculture, shipping, cotton wool and so on.

(Refer Slide Time: 11:07)

Industrial Revolution

Growth of Industry



(Winton Bates, Freedom and Flourishing, 2011)

The graph represents the productivity estimated growth in UK from 1780 to 1860. As a growth started expanding people started to settle in and around the work place which lead people to

leave the places they lived and settle at the place they work. So here we can start seeing the transition in the settlement pattern increase in migration people were coming from their rural area to the places where the industries were set up and increase in urbanization.

Because more and more people were coming together and then the changing pattern of land use now you can see industries also taking place and then settlements living around that. And our life was surrounded close to industries. So we see that kind of pattern change here then we also see rising population and increase in demand for workers which lead people to move from villages to cities to work in factories.

Because of which small towns near natural resource and cities near factories grow instantly. So we also see that how different kinds of cities are growing you can see cities in growing near the natural resources as well as you can see cities growing where the factories are growing. Further we see how the demography of the place was changing. We were seeing people shifting from agriculture to non-agriculture base activities which you may recollect.

That we saw in our first lecture about how we defined the urban areas in different countries with respective to economy and the size of population. Further we see geographical spread of cities now aligned with natural resources in factories and the distance between the cities reducing by rail, road, canal, river and sea.

(Refer Slide Time: 13:01)

Industrial Revolution

MIGRATION TO CITIES URBANIZATION

- The movement of people to cities
- Changes in farming, rising population, and an increase in demand for workers led people to move from farms to the cities to work in factories
- Small towns near natural resources and cities near factories grew instantly

So we see how the entire landscape is transforming in this particular era let us now discuss the conditions of the family dwellers. So these kind of understand lot of change and it also implied of lot of health interventions also which we took place. Now let us discuss the condition of family dwellings this particularly highlighted the living condition at point in time. And also brought in lot change well how the planning was handled? How the cities were handled at that time?

These migrants were forced to live in cheaply built houses for accommodation and these houses were stationed near the work place. The houses were multiply stories which lack of water facility. No toilets the sewerage were drained through the streets trash stone out into street as there waste improper waste management system, each unites were covered like 5+ people living which was living in one room.


(Refer Slide Time: 14:04)

Industrial Revolution

Households

Housing Tenement = a substandard, multi-family dwelling, usually old and occupied by the poor,

- Built cheaply
- Multiple stories
- No running water
- No toilet
- Sewer down the middle of street
- Trash thrown out into street
- Crowded (5+ people living in one room)
- Breeding grounds for diseases
- Pollution from factory smoke



(Joels hogg, 2021)

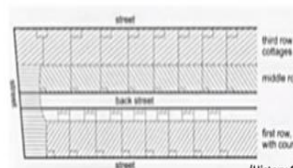
Which; was ultimately a breeding grounds for diseases also the pollution from factory smoke was found in the living atmosphere of the people. They were built in courts major principle that was followed 3 walls, were shared with other houses reducing material usage.

(Refer Slide Time: 14:26)

Industrial Revolution

Households

- 3 walls are shared with other houses reducing the amount of materials used,
- Compact planning and streets were very tight and would not allow for light or sufficient air to enter the house.



(History Crunch Writers, 2016)

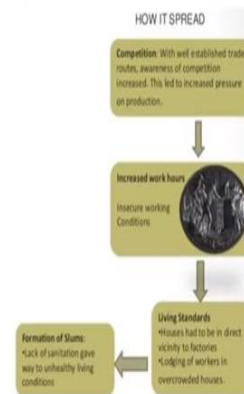
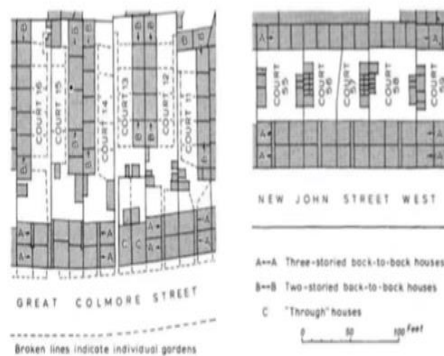
The units were very compact and cramped the streets were very narrow that would not allow light a sufficient air to enter through the house.

(Refer Slide Time: 14:36)

Industrial Revolution

Households

Plan of back to back houses of poor mass.



(Mike jee, 2011)

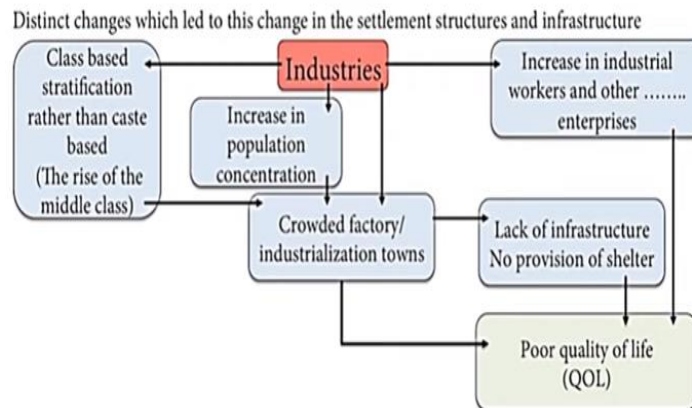
In the image which we can see plan of these houses which were there at that time you can see how the houses of poor masses were placed back to back. And how the streets were narrow and did not allow the light to penetrate through. So you can visualize how unhealthy was the environmental that point of time. Overall we see how industrial revolution evolved with the established trade routes competition increased for trade that led to increase pressure on the production this leading to increased working hours for labourers and producers.

Thus they settle near to their work place that lacked the basic facility too these lodging of the workers in overcrowded houses the formation of slums. Lack of sanitation gave way to unhealthy living conditions industries lead to class based stratification like we can see middle class people we can see a working class people we can see industrial people.

(Refer Slide Time: 15:45)

Industrial Revolution

Industrialization Phase- Socio-Economic Implications



Labourers lived in crowded areas and also had lack of infrastructure which leads to poor living condition. Industrialization brought in change in the cities living and working condition also in the class tensions here because of industrialization the cities expanded in size holding factories in large scale. Whereas the living conditions were cramped crowded leading with sickness with no safety. Industrialization also increased the working hours of labourers with less pay under dangerous circumstances.

These increase the tension in the classes where there were middle class people who were economically growing and there were large gap between the poor and the rich. Meaning the rich were getting richer and the poor were being poorer and unhealthy.

(Refer Slide Time: 16:38)

Industrial Revolution

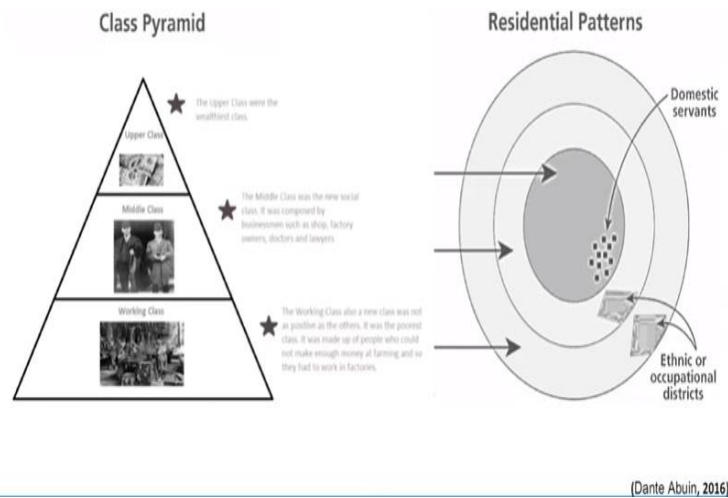
How did industrialization change the way of life?



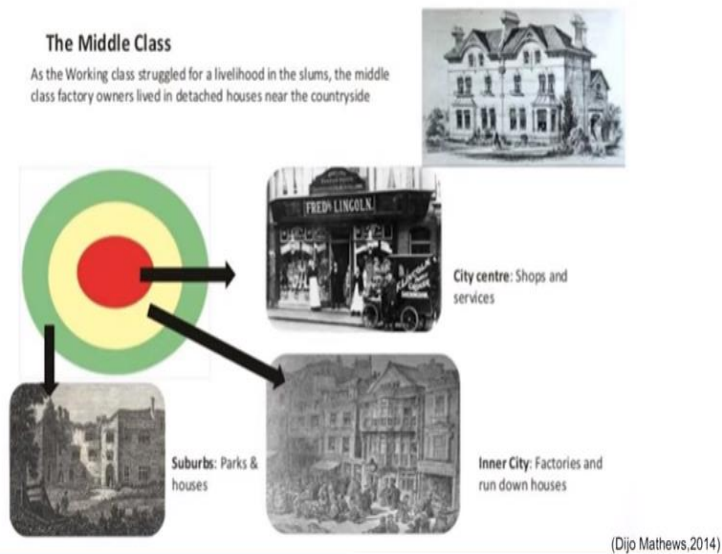
Here you see in this diagram that how the way of life where changing in this period. You can see cities how they are changing in size and how they are factory centric you can see the living condition there were no safety and there was sickness and then the people were getting poor. Then the working condition you can see there were long hours and little pay and then the dangerous condition. And you also see they were class tensions with increasing difference in the rich and poor and then there were also the rise of middle class.

The planning of the city was developed where classes were linked in residential pattern. They leads were situated at the inner most concentric path while the middle class were situated with the next level of the circle.

(Refer Slide Time: 17:31)



And the outcast the ethnic minorities were situated in the French part of the city.
(Refer Slide Time: 17:47)



Example of how the planning of the city was evolved as the city center was held up with shops and services with next level ring was accommodated with factories and run down houses and the suburbs were situated with parks and houses. We see that industrial revolution reflects to a profound influence of new developing science and technologies.

(Refer Slide Time: 18:04)

Industrial Revolution

- The industrial revolution refers to a profound influence of new developing science and technologies.
- The buildings and squares of the Neo-classic period, the monumental vistas, royal gardens etc. were all for the upper classes, the wealthy merchants and the kings, but the condition of the poor mass remained same.
- But this oppression brought serious social and socio-economic unrest making grounds for revolution.

The buildings and square of the new classic period the monumental vistas royal gardens and so on where all for the upper classes the wealthy immersions and the kings but the conditions of the poor mass remained same. But the operation brought series social and socio-economic unrest making grounds for revolution. Looking at physiographic factors newly productive industries opened in areas that were suitable for agriculture.

Since people started moving and settling in different places near to their work place initiated the growth in different patterns of settlements. Thus regional planning also started we also see there was change in power and politics as the industries boomed up the industrial entrepreneurs emerged as powerful bodies.

(Refer Slide Time: 19:03)

Industrial Revolution

Influential Factors

Physiographic Factors

- Newly productive industries opened in areas not necessarily good for agriculture.
- Different patterns of settlements started.
- Start of regional planning.

Power and Politics

- The British Crown was in decline
- The power of nobles and landlords were declined.
- Industrial entrepreneurs emerge as powerful bodies.
- Administration becomes difficult.
- Colonization starts.

The British powers started to decline which started to include the power of nobles and landlord as administration. As administration became difficult hence colonization's started. Further we look at the socio-cultural characteristic middle class came up they were growing also class based on the residential pattern evolved. Thus housing and infrastructure facilities started to improve. We can also relate with the technological interventions which were happening at this time.

(Refer Slide Time: 19:36)

Industrial Revolution

Social Cultural Characteristics

- Rise of middle class.
- It had a creative effect and planned housing development was undertaken. There developed a passion for improvement.
- Lease system of land tenure started.
- Capitalism of the industrial system started. Few industrialist were having the monopoly.
- The new industrial economy brought exploitation of the poor and with poverty, came the slums.
- The number of employees in proportion to the owners increased very rapidly.
- Trade unions among industrial workers started, in contrast to the medieval guilds of the proprietors.

The land tenure was based on the lease system capitalism brought in the class differentiation where few of the industrialists were having the monopoly. The new industrial economy brought poor with poverty that in turn raise the slums for them to reside at. The number of employees in

proposition to the owners increased very rapidly. Trade union among industrial workers started to take care of the traders in contrast to the Medieval guild of the proprietors.

Further we see that modern planning approach was also evolving the industrial revolution brought the necessity to provide public utilities as inseparable part of settlement to increase the livability. We will also look in our other urban issue section when will study about health how this particular period as an important role to play there.


(Refer Slide Time: 20:43)

Industrial Revolution

Modern Approach of Planning- Need

The industrial revolution necessitated intervention through public utilities as essential and inseparable part of settlement livability.

- Ventilation
- Potable water.
- Safe disposal of liquid and solid waste.
- Fire safety
- Drained lands and
- Green lungs were the prime catch words in an integrated process of both, redevelopment and development within settlement or town limits



STREETS OF NEW YORK IN 19TH CENTURY

FRANCE DURING 19TH CENTURY

HOME LESS IN NEW YORK DURING 19TH CENTURY

(Elizabeth Gaffney, 2021)

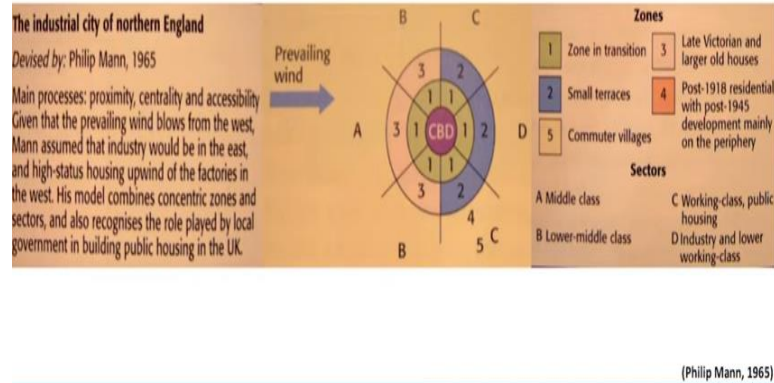
Here the living condition was increased by providing ventilation to the housing units increasing water facilities providing safe disposal of liquid and solid waste. Fire safety proper drained lands were equipped for redevelopment and development within settlement or town limits. We look at the initial approach started by an industrialist in England called Robert Owen during 1846 to 1912. He proposed plan for community to make the living healthy for industrial workers.

He proposed plan which occupies 50 to 100 acres for a population of 1200 which was supposed to be self-sustained with open spaces around. This was evolved from the concept of cooperative community combining industry and agriculture. Our model of British urban development which; combines the sector theory with the concentric zone model.

(Refer Slide Time: 21:40)

Industrial Revolution

Mann's Concentric Circles and Sector Model



4 basic zones are middle class, lower middle class, working class and lower working class to which the CBD the transitional zone or zone of small house and the outer most zones were added.

(Refer Slide Time: 21:57)

Industrial Revolution

Utopianism and Planning

What is Utopia?

- Utopia as a concept in writing, design, thinking
 - The Culturalism / Romantic Utopia
 - The Progressive/Modernist Utopia
- New Urbanism—a return to the “utopia’ of traditional neighborhoods and cities

It is imagined place or a state of things in which everything is perfect as Utopia. New urbanism returned to the Utopia of traditional neighborhoods and cities. The objectives of Utopianism were a distinct tense of place responding to the local context continuity of frontages define public and private spaces.

(Refer Slide Time: 22:25)

Industrial Revolution

Utopianism Objectives

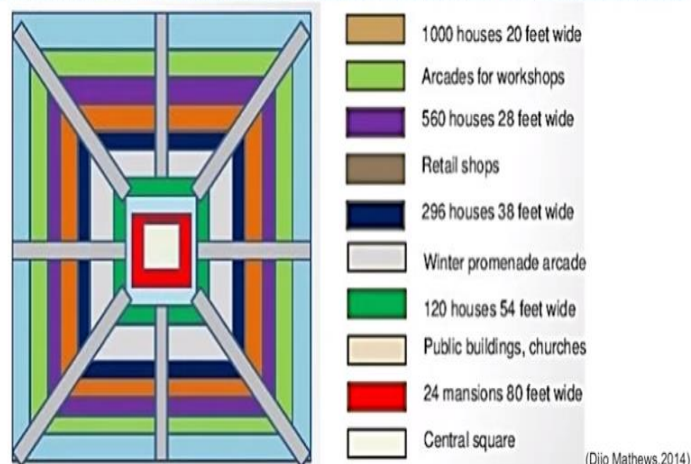
- **Character** --- A distinct sense of place responding to the local context.
- **Continuity and enclosure** --- Continuity of frontages, defined public & private spaces.
- **Quality of public realm** --- safe, attractive, lively and functional public space.
- **Ease of movement** --- An accessible, well connected, pedestrian friendly.
- **Legibility** --- A readily understandable, easily navigable environment.
- **Adaptability** --- flexible & adaptable public & private environment.
- **Diversity** --- A varied environment offering a range of experiences Utopian Design objectives.

Quality of public realm safety attractiveness, living and functional public space and accessible space well connected space, pedestrian friendly space with a readily understandable. Easily navigable environment which was flexible and adoptable public and private environment all these things were targeted for. A varied environment offering a range of experience was the Utopian design objectives.

(Refer Slide Time: 23:00)

Industrial Revolution

Utopian Proposal by Robert Owen and J S Buckingham



Robert Owen and J. S. Buckingham tried to design a Utopian design which had 1000 houses 20 feet wide arcade for workshops. 560 houses 28 feet wide retail shops, 296 houses 38 feet wide winter promenade arcade with 120 houses 54 feet public building churches 24 mansions 80 feet

central square 1849 he published a treaty in which he has also mentioned his plan for a model town with 10000 inhabitants.

(Refer Slide Time: 23:33)



Now we will look at the city beautiful movement flourished between 1890 and 1920. The idea for organized comprehensive planning in United States started from city beautiful movement which claimed that design could not be separated from the social issues and should encourage civic pride and engagement. Its influence was most prominent city Cleveland, Chicago, Washington DC. The city beautiful movement emerged at time in US history when the countries urban population first began to outnumber its rural population.

Most city dwellers perceived that cities were ugly, congested, dirty and unsafe as it is grew and increasing rapid condition enhanced by an influx of immigrants. At the end of the nineteenth century public space was being taken away from increased congestion. City dwellers needed open outdoor areas for recreation. In addition the (()) (24:42) approach to; sanitation, pollution and traffic found in big American cities effective rich and poor alike.

Which is how the; city beautiful movement get more financial and social support great effort was devoted to plan for redevelopment of Mississippi. The Mansard Roof tells us that Burnham was using Paris as this model he also wanted all the bridges over the rivery built to be more attractive. His idea of river front-park has been implemented in recent years as well. For example we can see Daniel Burnham of Chicago.

(Refer Slide Time: 25:24)

Industrial Revolution

City Beautiful Movement

- City beautiful movement : planning response to the industrial city.
- The World Fair grounds in Chicago in 1892 resulted in the development of a new attitude toward industrial cities. This fair was visited by more people than any event in the history of the world.
- The Chicago-based railroads brought people from all across the country to visit the grounds with its pavilion and the exciting Midway entertainment district.
- It was an opportunity to show off all sorts of new designs and styles.

We further see that city beautiful movement, in the city beautiful movement we also look at the world fair ground in Chicago held in 1892 which resulted in the development of a new attitude towards industrial cities. This fair was visited by more people than any event in the history of the world the Chicago based rail road brought people from all across the country to visit the ground with its pavilion and exciting midway entertainment district.

(Refer Slide Time: 26:13)

Industrial Revolution

City Beautiful Movement

- The Fair Committee gave the task of designing the fair to Daniel Burnham, a Chicago architect who was devoted to the City Beautiful Movement and the Beaux Arts Style.
- He was essentially a backward looking designer who used classical motives and French Second Empire styles. It is interesting to note that the Fair Committee did not select Louis Sullivan or one of the other modern architects working in the city at the time.



(Spur, 2010)

It was an opportunity to show off all sorts of new designs and styles the fair committee gave the task of designing the fair to Daniel Burnham, a Chicago architect who was devoted to the city beautiful movement and the box arts style. It was essentially a backward looking designer who


used classical motifs and French second empire style. It is interesting to note that the fair committee did not select Louis Sullivan or one of the other modern architects working in the city at the same time.

(Refer Slide Time: 26:50)

Industrial Revolution

City Beautiful Movement

- The City Beautiful movement argued that cities did not have to be ugly to make money.
- The fairgrounds were filled with huge, white fanciful buildings, statues and public spaces that were fundamentally different from the gritty industrial cities of the time.



(Spur, 2010)


The city beautiful movement argued that cities did not have to be argued to that city did not have to be ugly to make money.

(Refer Slide Time: 27:02)

Industrial Revolution

City Beautiful Movement

- The leaders of Minneapolis were proponents of the City Beautiful movement and hired Burnham's firm to create a plan for the city which was released in 1917.
- Burnham viewed Minneapolis as if it were a great metropolis, although he did not make detailed plans for the entire area until he clearly understood the connections among the various parts.
- He designed a metro area with Minneapolis as the core.



Library of Congress, Washington, D.C.

Like we have been something in the industrial revaluation time (refer time: 27:02) the fairground was filled with huge white fanciful buildings. Statues and public spaces that were fundamentally different from the gritty industrial cities of the time. The visitors were mesmerized we further see

that the leaders of Minneapolis were proponents of the city beautiful movement and hired Burnham's to create a plan for the city which was realized in 1917.

This is the front (()) (27:41) Burnham viewed Minneapolis as if it were a great metropolis although he did not make detailed plan for the entire area until clearly understood connection among the various parts. He designed a metro area with Minneapolis as the core.

(Refer Slide Time: 28:02)

Industrial Revolution City Beautiful Movement



- Burnham believed a city needed a grand entrance.
- For him that was the railroad depot. Therefore, he proposed that two new depots be built in the gateway district of the city which would provide a grand backdrop to a busy and attractive public space.

We believe the city needed grand entrance for him that was the rail road depot. Therefore he proposed that the 2 new depots we built in the gateway district of the city which would provide a grand backdrop to the busy and the attractive public place.

(Refer Slide Time: 28:22)

Industrial Revolution

City Beautiful Movement

- Grand boulevard was justified as a solution to traffic problems encountered by suburban commuters and a way to provide housing for higher income people in the city.
- The boulevard would be a way to clear low quality housing in an early urban renewal program. In addition, it would provide a fire break in the event of a conflagration such as the ones that devastated Chicago and San Francisco.



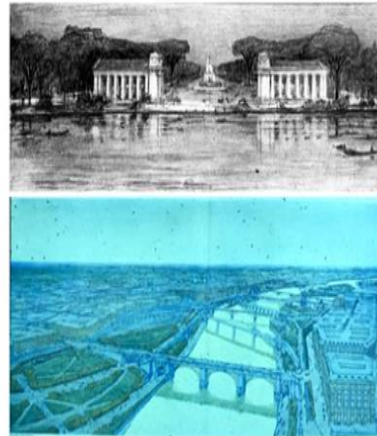
We further see that this grand boulevard was justified as a solution to traffic problem encountered by suburban commuters and a way to provide housing for higher income people in the city. The boulevard would be a way to clear low quality housing in the early urban renewal program in addition it would provide a fire brake in a event of a conflagration such as ones that devastated Chicago and San Francisco.

(Refer Slide Time: 29:07)

Industrial Revolution

City Beautiful Movement

- Watergate where the boulevard terminated on the shore of Lake Harriet. It is the approximate location of the Rose Garden.
- Great effort was devoted to a plan for the redevelopment of the Mississippi. The Mansard roofs tell us that Burnham was using Paris as his model. He also wanted all the bridges over the river rebuilt to be more attractive. His idea of a riverfront park has been implemented in recent years.



Here we can see the water gate where the boulevard terminated on the shore lake Harriet it is the approximate location of the rose garden. Great effort was devoted to plan for the redevelopment of the Mississippi. The Mansard roof tell us that the Burnham was using Paris has is model. He

also wanted all the bridges over the rivers rebuilt to be more attractive. His idea of a river front park has been implemented in recent years as well.

(Refer Slide Time: 29:36)

Industrial Revolution

City Beautiful Movement

Involved actions intended to improve the appearance of the city as well as improvement in public design.

CB movement included 4 main elements or themes:

- Municipal art
- Civic improvement
- Outdoor art
- Classical design

We see that city beautiful movement included 4 main elements municipal art, civic improvement, outdoor art and classical design. Civic improvement brought 2 tempers the effect of industrialization the domestic home and neighbourhood environment this was often lead by women who promoted clean urban beautification of communities. Improvement in the appearance of the front yards promotion of decorative home garden.

(Refer Slide Time: 30:06)

Industrial Revolution

City Beautiful Movement

Outdoor Art

American Park and Outdoor Art Association (APOAA).

Frederick Law Olmsted a major figure of APOAA and - American Civic Association joined APOAA*. Together they pushed for:

- A National Park System.
- City parks for enjoyment working people.
- Planned urban development.
- Better housing, civic art, sanitation and traffic safety.

So we see that how now even the places where people live also getting beautified in this period. The other component which we see is the outdoor art we also find outdoor art which was led by American park and outdoor art association. A national park system that was park particularly made in the city in the enjoyment of the working people. It was planned urban development for better proposing were civic arts, sanitation and traffic and safety.

(Refer Slide Time: 30:37)

Industrial Revolution

City Beautiful Movement

Classical Design

- Objective: To integrate European classicism and grand design in American city, including:
- Traditional Grecian-Roman design themes, into city plans.
- See for Example: Daniel Burnham's Plan of Chicago.
- [But preceded by other examples like Pierre L'Enfant's street plan of Washington, D.C. in 1790]

We also see classical design lead by architects of the time his design was to integrate European classicism and grand design in American city. Including traditional Grecian-Roman design themes into city plans see for example Daniel Burnham's plan of Chicago.

(Refer Slide Time: 30:57)

Industrial Revolution

City Beautiful Movement: Classical Design



Daniel Burnham's Plan of Chicago



Pierre L'Enfant's street plan of Washington

So you see how people started looking at cities and then also incorporated the elements of history in their built environment. Further we also see that Britain's rise for 200 years was financed by its depredation in India. In fact Britain industry revolution was actually premised upon the deindustrialization of India. The handloom weavers for example framed across the world whose product was exported around the world.

Britain came right in there were actually these weavers making fine (()) (31:38) as light as Owen (()) (31:40) it was set and Britain came right in smashed their thumbs broke their looms imposed terrace and beauties on their cloth and product and started of course taking their raw material from India. And shipping back manufactured cloth, flooding the world's market with ward became the product of dark and satanic mills of the Victoria in England.

So summarizing were we saw today we first saw that of the industrial revolution to place how was the geographical spread in this period how the technology and innovation was bringing in transformation and transformation at a different scale and phase. And we see how it was impacting all the places how the planning were happening. Likewise you have also seen that how the spatial pattern was changing you saw the planning transition and you also saw the socio-economic structure which was evolving in this particular period.

And also the social stress social which was evolving at the time further you also saw key people in elements of Utopianism. And also you looked at the city beautification movement where all how we were looking at how our living spaces need to be beautiful as we had experienced during an industrialization period that how things were ugly and dirtier.

(Refer Slide Time: 33:21)

Summary

- ① Contextualized Industrial Revolution, its geographical spread, the Technology and innovation, and contemplate its impact on urban planning.

- ② Reviewed the spatial pattern, urban transition, and the change in the social- economical structure at that time.

- ③ Identified the key people and element of Utopianism and Planning and City Beautification Movement.

So in today's lecture we saw that how the industrial revolution how was it is growth and how it is impacted the planning framework.

(Refer Slide Time: 33:31)

References

- Howard Ebenezer (1944) **Garden Cities Of Tomorrow** ; Faber & Faber , London, <http://urbanplanning.library.cornell.edu/DOCS/howard.htm>
- Fishman Robert (1977) **Urban Utopias In The Twentieth Century : Ebenezer Howard, Frank Lloyd Wright And Le Corbusier**; Basic Book Inc, Newyork, <https://mitpress.mit.edu/books/urban-utopias-twentieth-century>
- Macfadyen Dugald (1970) **Sir Ebenezer Howard And The Town Planning Movement**; The MIT Press, <https://www.worldcat.org/title/sir-ebenezer-howard-and-the-town-planning-movement/oclc/99615>

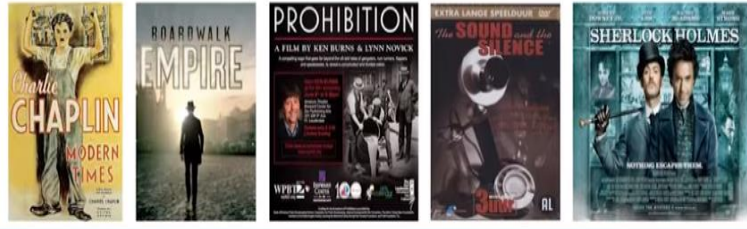
So that was our coverage for today these are the references which we have taken

(Refer Slide Time: 33:36)

Suggested Reading and Watch



(to contemplate different layers of Industrial Revolution)

- https://www.youtube.com/watch?v=Say7pKaPeS8&t=41s&ab_channel=PlanetizenCourses
- https://www.youtube.com/watch?v=qOJXOzwUYIA&ab_channel=DavidBell
- https://www.youtube.com/watch?v=9xf1Lsy4CZ8&ab_channel=HistoryHub
- https://www.youtube.com/watch?v=XAOBXb46wmo&ab_channel=StudyQeducation
- https://www.youtube.com/watch?v=GYIn_S2PVYA&t=11s&ab_channel=BBCDocumentary






Our coverage was limited with the scope to make you aware of the topic there are enormous readings and movies available to explore. Few are suggested here this is not an extensive list you may feel free to suggest more from your experience.

(Refer Slide Time: 33:50)

 Please feel free to ask Questions. 

Let us know about any Concerns you have .

 Do share your Opinions, Experiences and Suggestions.

Looking forward to Interacting and 
Co-learning with you while exploring Cities and
Urban Planning. 

Please feel free to ask questions let us know about your concerns you have to share your opinion, experiences and suggestions. Looking forward to; interacting and co-learning with you while exploring cities and urban planning thank you.