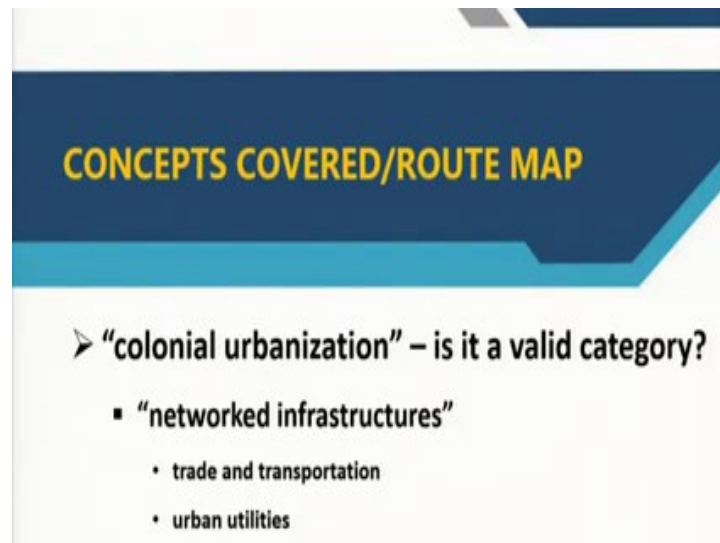


Urbanization and Environment
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Module - 03
Urban (environmental) trajectories in India: Plans, policies, visions and missions
Lecture - 12
“Colonial Urbanization”

Alright, with this we continue with module 3 which is Urban environmental trajectories in India: Plans, policies, visions and missions. This particular lecture, that is lecture 12 will focus on the Indian experience when India was part of, India was part of the British Empire. So, she was a colony. So, in this particular lecture we would be focusing on the urbanization process and the relationship between urbanization and environment within the you know colonial context, within the colonial framework.

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So, the topics that I will be covering in this lecture include the first question actually which I will be raising is, is it alright to use colonial urbanization you know as a category? So, is colonial urbanization a valid category and I must say that you know when I raise this question to a great extent I draw insights from Deepak Kumar who is a historian of science and technology so far as colonial India is concerned. And he used this particular term called colonial science in his path breaking book called Science and the Raj.

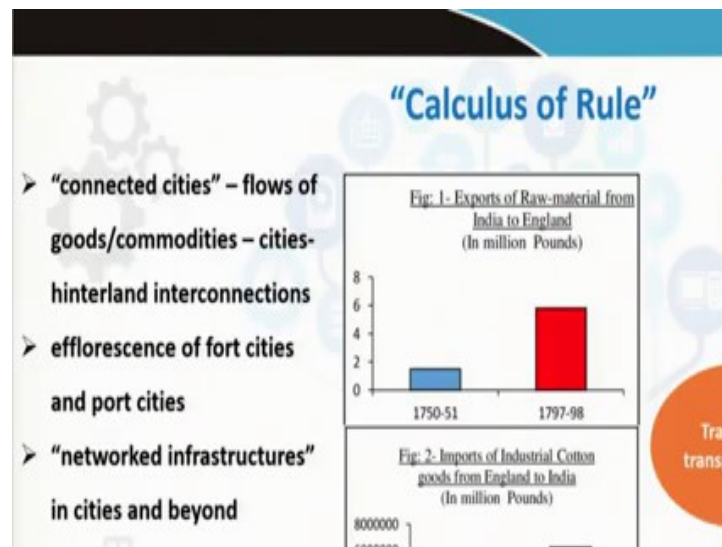
And then Rohan Dsouza who is an environmental historian focusing on the water scenario in South Asia mainly you know floods and all. So, Rohan talked about colonial hydrology. And in my book Blue Infrastructures I had also talked about colonial urban hydrology when I discussed blue infrastructures in the particular city of Kolkata. So, we will discuss this that is it right to use colonial urbanization as a category or not.

And when we use colonial urbanization so, do we think that in a it is only a kind of a temporal context, is it a temporal category or it has relational and you know symbolic component or layers added to it. So, with this we would argue that in this particular lecture that colonial urbanization. If it is not only a temporal scale if it is not constricted within the purview of temporal scale or temporality, then it is important for us to delve deep into the distinct features of colonial urbanization.

And with this we will be mainly focusing on the emergence of networked infrastructures. So, how networked infrastructures emerged and it also involved definitely you know in colonial techniques, colonial hydraulic techniques when they tamed and manipulated with the ecological resources of different special sites which were conquered and how this network infrastructure facilitated trade and transportation on one hand and fundamental urban utilities on the other.

And then finally, this lecture would also shed light on the fact that you know the British not only transplanted techniques or technologies, but they have also transplanted you know their entire mindset which is very much evident in their battle against filth again which is absolutely manifested in the implementation of imperial sanitary reforms. So, these are the things which we will be covering in this particular lecture.

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Now, the first point which is absolutely related to the you know conceptual notion of colonial urbanization is that one need to understand that you know this colonial urbanization as part of colonial projects is connected to or directly connected you know to the notion of drain of wealth.

So, for example, I mean being a student of history, I would like to discuss this a bit because like the Indian National Congress for the first time you know they, one of the major contributions they actually made in the history of, in actually writing the history of India, is that they provided a very staunch and strong critique or economic critique of colonialism.

So, for example, the early Congress leaders like Dadabhai Naoroji, Sakharan Ganesh Deusskar, R P Dutt and others they became disillusioned after a point of time and they could realize that India was actually bleeding. So, her you know balance of trade absolutely turned into negative and India was kind of you know she was importing bulk of finished products and she was, she raw materials were looted and plundered from the colony from India to England the mother country.

So, this is a particular like this graph figure 1, figure 2; it explain you know what I try to say and this is from Dadabhai Naoroji's pivotal path breaking book called Poverty and Un-British rule in India. So, you know if you understand this larger context and if you

understand the calculus of rule extremely contextualized within the larger theory or argument of drain of wealth.

Then we will understand that you know cities when cities were constructed. The whole idea was the emergence or the construction or creation of connected cities to ensure flows of goods and commodities you know from the hinterlands to the cities and that is why it also explains that why you know the cities which came up during the colonial time they were port cities and fort cities.

So, the colonial period also visualized the efflorescence of fort cities and port cities like Mumbai, Calcutta, Madras, etcetera. So, yes I was also discussing about networked infrastructures. So, the British built and they constructed networked infrastructures which catered the interests and needs and requirements of an expanding urban area of an, of expanding you know metropolis on one hand.

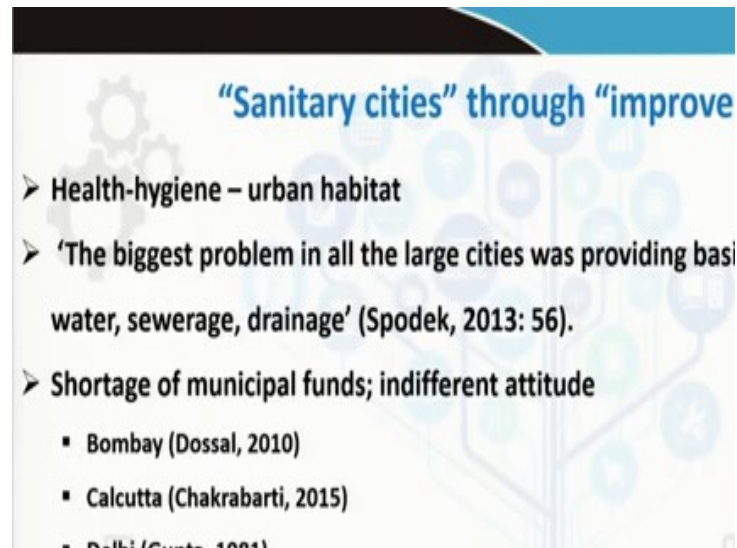
So, you know kind of laying out provisions to cater to or to meet the urban utilities water sanitation needs, drainage sewerage needs. So, water in water out. So, providing drinking water to the households and to the city and at the same time you know disposal of a mechanisms to dispose waste water at very affordable price.

So, everything has to be extremely, had to be extremely cost effective in the cost effective mode. And on the other hand network infrastructures like canals, you know manipulated rivers they were also used as arteries of trade and transportation to kind of establish the smooth connection or interconnection between cities and the larger hinterlands.

So, and everything was, I mean things were geared to what I call the rule of profits. So, this I think this, you know this illustration or the diagram on the right hand side is very very important. Because we need to understand that how a colonial urbanization process which also manipulated and tamed natural or ecological infrastructures in cities and you know ecological infrastructure surrounding cities.

So, how and why they were actually manipulated in order to establish the rule of profits. So, the primary objective or the primary agenda was profits over you know expenditure and lot of profits or revenue generation from investments which were made.

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Yes, we discussed you know the rise of modern cities in the west and when we discussed the rise of modern cities when we discussed rise of networked cities in the west, we definitely talked about sanitary reforms we talked about the emergence of sanitary cities, the same thing you know happened here.

But of course, there were transplantation constraints and this slide to a great extent explains that how the British also planned the emergence of sanitary cities within Indian context through the implementation of regime which is called the regime or the era of improvement. So, health, hygiene, urban, habitat all these things they are extremely interconnected within the colonial context.

And for example, H. Spodek, he has extensively worked on a city planning during the British time, city planning in India and there is one particular article which he wrote in 2013 which came out in EPW and the name of the article itself is like City Planning in India Under the British. So, there he says that the biggest problem in all the large cities was providing basic infrastructures. And why it was a problem?

Because you know one needs to understand as I mentioned that here in India the British faced transplantation constraints. So, for example, if South Asia is a huge context, it is very very diverse plural, so there are I mean there is extremely rich regional specificities. So, each you know each particular region being very much determined by their own cultural and political variables which in turn you know responded to the different

reforms or the different projects which were actually implemented in those particular context.

So, it is not a linear story and there are very good books there are works by specific urban experts and also like urban historians; historians on cityscapes who had discussed you know this urban environmental more like urban planning discourses and dimensions during the colonial time. So, for example, Mariam Dossal, she has focused on the city of Bombay.

We have Pratik Chakraborty a fairly recent work focusing on Kolkata and we will discuss this in a more elaborate and detailed way. When we take up the module on urban environmental social sciences framework and when we will mainly focus on urban environmental history as a very recent, but a very dynamic framework or approach to understand the making and unmaking the shaping and unshaping of urban nature.

So, yes Narayana Gupta she has focused on Delhi and Lewandowski he has worked it is I mean Lewandowski's work dates back to the 70s. So, Lewandowski had focused on Madras. And in all these works you will find one again another major constraint or challenge was shortage of municipal funds on one hand and indifferent attitude for a long period of time mainly indifferent attitudes towards the improving you know improvement so far as housing conditions or other living conditions of the poor or the native people were concerned. So, you know if you remember when we discussed the rise of modern cities in the west we also saw that how for example, England was tackling with the challenge of resource crunch or fund crunch.

And one can understand that how you know for the South Asian context this problem, this problem was, I mean even took a far rooted or took I mean it had a deep rooted implication and the challenge was more severe. Because you know the context was already the colonial capitalist, political economic mode of production or colonial economic context.

So, and again like we are talking about sanitary cities and now we understand that why and how the issue of health, hygiene and like the continuous outbreak of epidemics also played a very important role behind the implementation of the era of improvement.

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Empire, epidemics and ecology in

- plague, cholera, malaria, etc.
- 1896 – 1921 – 12 million Indian lives lost! (Echenberg, 2007)
- 1867 – Bombay – “cholera nest” (Dossal, 2010)
- 1896 – huge toll – mortality; economic losses

The slide features a historical black and white photograph of a hospital ward with several patients lying in beds. The title 'Empire, epidemics and ecology in' is at the top in blue text. The background has a faint gear pattern.

So, I think empire epidemics and ecology in cities they are inherently connected. So, there is an inherent connection between empire epidemics and ecology in cities. So, this is true when, I mean so far as the western cities are concerned this is also true. So far as the colonies of the west are also concerned.

So, plague, cholera, malaria just you know it out broke in a rampant manner in the different urban sites for example, Bombay for example, Kolkata and there is a you can see the book on the right hand side. So, this is by Myron Echenberg. So, Echenberg has worked on plague in different port cities.

So, the name of the book is Plague Ports, the global urban impact of bubonic plague and in this book he provides the data set, where argues where it shows you know kind of that how like between 1896 and 1921, 12 million Indian lives were lost due to bubonic plague and you will be shocked to find out that you know while the whole world actually lost 3 million people only the subcontinent of India. So, far as the subcontinent of India was concerned 12 million lives were lost.

So, one can understand how severe and serious this issue was and an international conference you know on epidemics like cholera was held in Constantinople in 1867 and there delegates from different countries assembled and met.

And, so we have data whose archival records speak and say that the representatives from France and Egypt, so the French and Egyptian representatives they apprehended and they talked about you know this the severity of the problem relating to bubonic plague in the colonial city of Bombay.

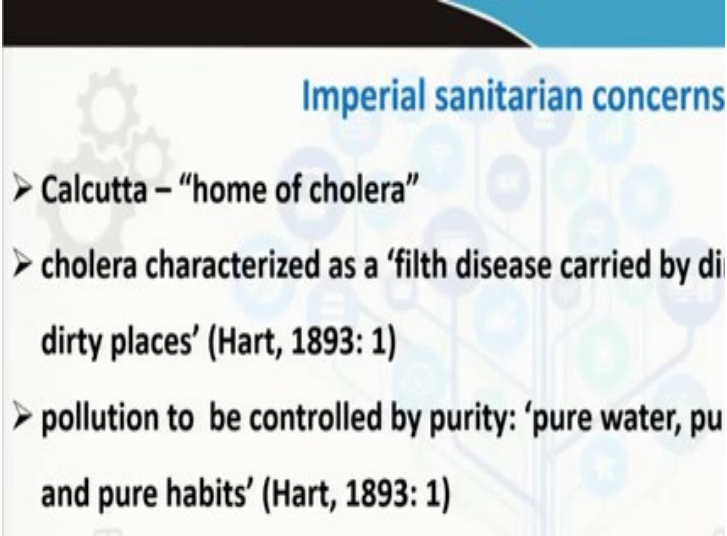
So, Bombay was actually described as the cholera nest and there were also like discussions among different you know among different countries delegates coming from different countries that why they should actually not allow ports coming from Bombay; sorry ships coming from Bombay to enter their ports.

And this apprehension actually turned into a reality when a major like epidemic outbreak in 1896 in Bombay and it I mean the toll was huge like lot of death and huge economic losses for the commercial, colonial commercial center of Bombay.

So, Hazaree Singh again working on epidemics in Bombay and on urban planning in general in Bombay he says that in 1896, plague initially closed the ports of Europe to ships from Bombay yes.

So, the particular idea or you know the apprehension really transformed into a reality and as these ships no more could enter this European ports the ships which came from Bombay. So, the export trade of the city got disrupted and it also paralyzed the commercial life of the city of Bombay.

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Imperial sanitarian concerns

- Calcutta – “home of cholera”
- cholera characterized as a ‘filth disease carried by dirty places’ (Hart, 1893: 1)
- pollution to be controlled by purity: ‘pure water, pure food and pure habits’ (Hart, 1893: 1)


Similarly, Kolkata was also the den of cholera and cholera was characterized as a filthy disease, filth disease carried by dirty people to dirty place. So, one can see that how you know the colonizers wanted to conquer both nature and native in order to improve the health regime and the hygiene regime of this particular special sites. And so, pollution had to be controlled by purity.

So, the notion of purity the discourse of purity was formulated and the regime of purity was crafted; pure water, pure air, pure soil and pure habits. So, the whole emphasis was on purity and Pratik Chakrabarti he has done a very interesting work on Kolkata; Kolkata's you know mainly the river Hooghly and he talks about the emergence of this. I mean of discourses and practices on purity, pollution and purification.

And he also talks about clashing notions you know of purity between these the officials the municipal officials who were appointed by the British and the Hindu spiritual lobbies. So, again we will discuss this in great detail when we discuss urban environmental history.

So, this is a very interesting case of how like during the colonial times how modernist production of spaces intent you know within the larger process of colonial urbanization.

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Era of technolegal "improvements"

- passage of the Improvement in Towns Act (Act 26 of 1850)
- water works and sewerage in Indian cities
- colony-towns on greenfield sites – canal colonies of Punjab (Ludhiana, Montgomery and Sargoda) – hybrids of British design and Indian reality (Tandon, 1968)
- Adoption of the Act in Bengal Presidency (1850s), Punjab Presidency (1850s)

Yes. So, the era of what I call techno legal, techno legal improvements technologies and various laws, you know various laws legislations and acts were enacted were passed to

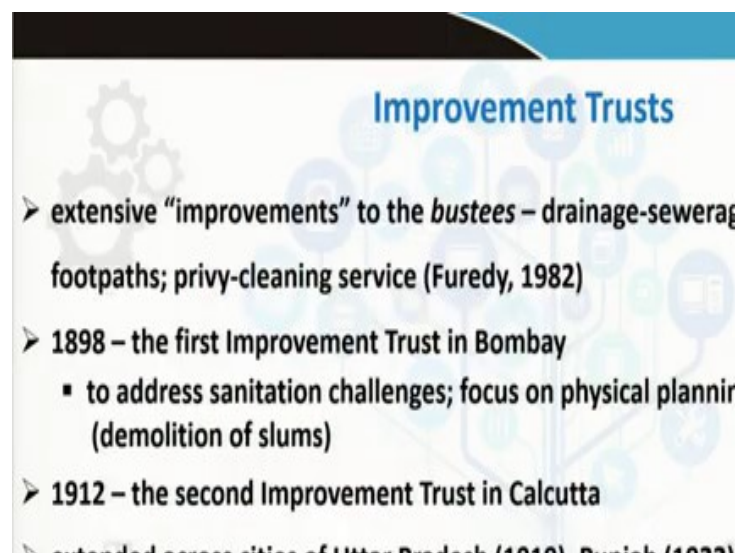
kind of to facilitate the imperial sanitarian reforms and morality. The major act was the ITA which is Improvement in Towns Act, it was passed in 1850s.

And the major idea was that you know this the water works and sewerage in mega I mean in Indian metro policies would be carried in Indian cities major colonial Indian cities would be carried out. And during this period like 80s, 50s, 60s, 70s, we also find the emergence of colony towns or greenfield sites are the examples include canal colonies of Punjab and Tandon has worked on this canal colonies of Punjab.

And he says that you know these can be kind of designated as hybrids of British design and Indian life, but he also mentions that you know the vibrance or the how do I say that you know these were not lively. These colony towns seem to be too manicured and manufactured. So, it was drab and colourless. Again, you know this Improvement in Towns Act this act was imp this act was adopted in the Bengal presidency in the late 50s and also in Punjab presidencies in 60s.

And the idea was also to set up municipal committees and through the support of municipal committees which would also generate funds, the idea was to maintain urban utilities basic water sanitation system for cities.

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Improvement trusts. So, the improvement trusts were created and the idea was to kind of extend improvement facilities to the bustees means the slums and also like cover to bring

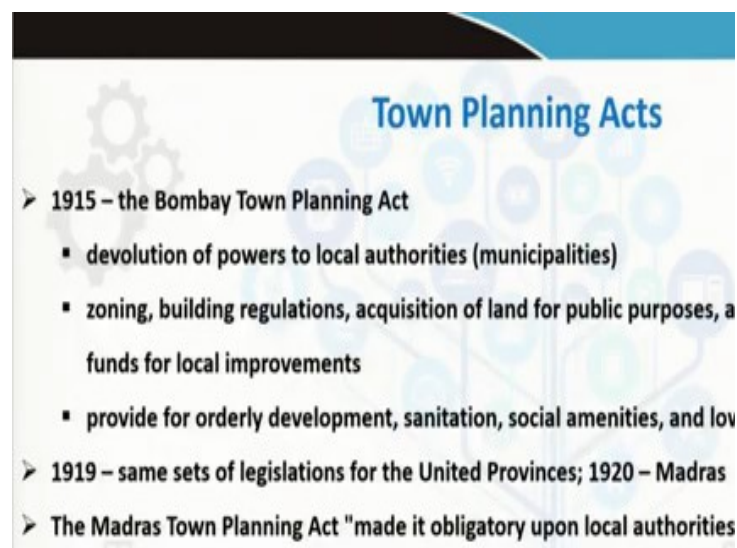
these areas under drainage sewerage coverage to create footpaths and a privy-cleaning service.

And the first improvement trust was set up in Bombay in 1898, one can understand and easily contextualize it within the you know context of outbreak of the epidemic in Bombay in 1896. And like as per official data archival records between 1891 and 1896-97 Bombay's population plummeted from roughly 8 lakh people to 4 lakh people; so almost half.

So, one can understand when the population actually it fell or it declined from, I mean almost by half then why there were so much of anxiety, why there was so much of anxiety in the colonial anxiety to flush out field from Bombay. So, the first improvement trust was set up and it had to focus a lot on physical planning to address sanitation challenges.

And we will learn later that how you know this entire focus on urban or physical planning also led to demolition of slums. In 1912 the second improvement trust in Calcutta was established and finally, you know this was extended across different cities of Uttar Pradesh, Punjab and also cities like Nagpur and Madras.

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Gradually we see how nationalist agendas, nationalist aspirations also started getting accommodated within larger urban planning discourses and designs. So, for example,

and also you know this legal framework that I was talking about. So, the first town planning legislation was passed in 1915, again this was the Bombay Town Planning Act and it gave powers to the local self-governing institutions.

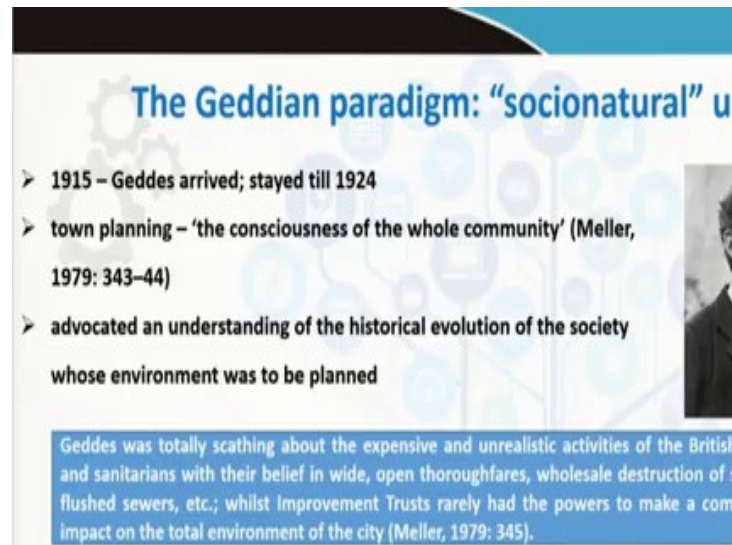
So, if you see the, if you go through the various provisions of the Bombay Town Planning Act you will find that you know power was devolved or power was given to local authorities and local municipalities and who were allowed to continue with several activities like zoning, building regulations, acquisition of land for public purposes, collection of funds for local improvements etcetera and also mainly to kind of provide orderly development, sanitation, social amenities and low cost housing.

Again, we will get into this in our next lecture in our next presentation that the aim or the target was you know low cost housing providing low cost housing, but could it really meet its target and objective so far as practical implementation or execution was concerned or not. So, this is a major question which we would and the answer we would try to discuss in our next presentation.

So, in 1919 you know same sets of legislations for United Provinces I mean we find similar sets of legislations for other areas including United Provinces 1919 and Madras South 1920. And the Madras Town Planning Act it says like so, it actually made obligatory for local authorities to prepare general town planning schemes with respect to land under their jurisdiction. So, under local jurisdiction and in the immediate vicinity.

So, one can definitely understand that how nationalized needs were getting accommodated within the larger colonial urban planning and development discourse.

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The Geddian paradigm: “socionatural” u

- 1915 – Geddes arrived; stayed till 1924
- town planning – ‘the consciousness of the whole community’ (Meller, 1979: 343–44)
- advocated an understanding of the historical evolution of the society whose environment was to be planned

Geddes was totally scathing about the expensive and unrealistic activities of the British and sanitarians with their belief in wide, open thoroughfares, wholesale destruction of old buildings, etc.; whilst Improvement Trusts rarely had the powers to make a complete impact on the total environment of the city (Meller, 1979: 345).

I think this lecture would be absolutely incomplete, rather you know my idea was also to have a separate lecture on Patrick Geddes, but then I decided to just you know talk about Patrick Geddes in this particular lecture. But of course, I would encourage you to you know learn more or know more about Patrick Geddes and his theories and principles on urban planning and more.

So over like his you know philosophy I would say philosophy on urban environmental planning. Because I think this is I mean he was a visionary and lot of things that we are discussing today was discussed long back by Patrick Geddes.

So, it is an interesting story that how he arrived here. So, he was actually invited by the governor of Madras to come and exhibit his city designs. So, he came in 1915 the year when the Bombay Legislation Act was passed. And, so he came in 15, but then the rulers of the princely states were so impressed by him that they asked him to stay back and to also design city designs for their capitals, for the capitals of the princely states.

So, Patrick Geddes stayed here for almost 9 long years and he left only in 1924. So, he was basically a Scottish designer, a Scottish architect and to him town planning was not restricted you know to physical planning or physical layout, but it had to address the consciousness of the whole community. So, this was Geddian paradigm the Geddian idea and he advocated the understanding of historical evolution of society whose environment was to be planned.

So, this connection between you know society and environment, the connection between social processes and special forms, the connection between social development of community and you know physical environment. This was highlighted you know by Patrick Geddes during you know that particular point of time.

So, and for example, if you see this triangle, if you see the triangle on the you know right side bottom of this presentation Patrick Geddes talked about like how people actually you know they act on economic processes like farming, construction, etcetera that also shape a place.

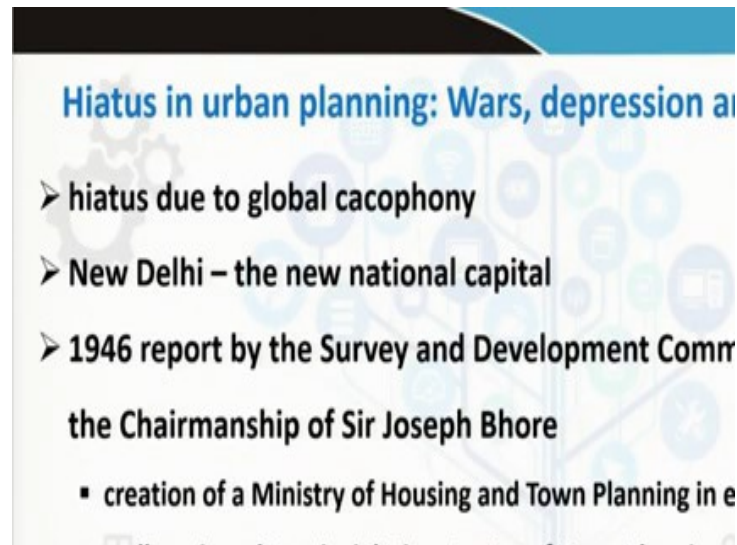
So, the I mean place, folk and work they were to the Geddisian paradigm, these were inherently interconnected to each other. And so, Meller has worked on the Geddisian paradigm and Meller says that Geddes was totally scathing about the expensive and unrealistic activities of the British engineers and sanitarians with their belief in wide open thoroughfares, wholesale destruction of slum areas flushed sewers etcetera.

So, while improvement trust really had the powers to make a comprehensive impact on the total environment of the city, so, he was critical about you know the way colonial urbanization was you know taking place and, but unfortunately you know with the apparatus of rule in colonial hands the I mean the Geddisian paradigm it had its limited reach and impact on the colonial cities of India.

But of course, his ideas, his philosophy relating to urban environmental planning, it had a long influence and on even like on planners like Bogle and on like urban experts and like sociologists like R Mukherjee and who also talked about social planning and the role of community, you know the community role of community superseding zoning in planning.

So, how why society and community and the interrelationship between the metabolic relationship between society and nature were so very important. So, this was I think highlighted and emphasized in the works of Patrick Geddes and definitely you must go through his seminal work called City in Evolution.

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So, yes with this I move on to the last part of this presentation the last slide, I mean number of plans which were kind of designed or which were discussed during 1930s and 40s could not finally get materialized.

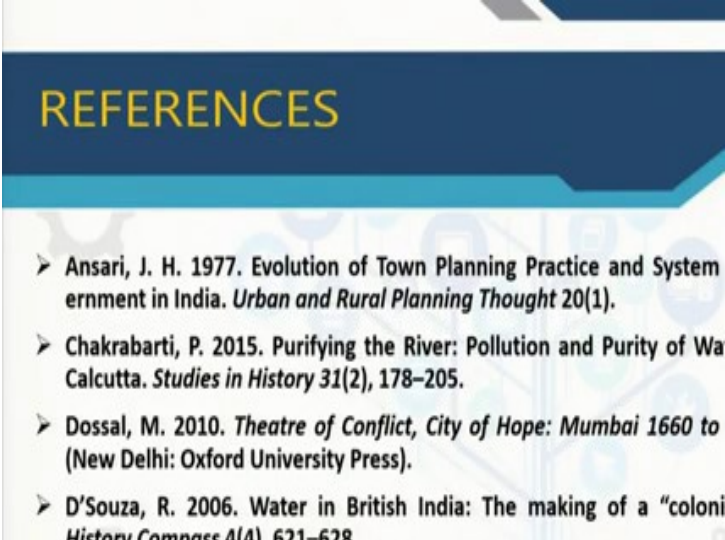
Because you know there, I mean the if you take a look into the global context then the during this time the world was, I mean, encountering a number of problems, Great Depression, the two World Wars and the very topsy turvy period of the I mean the very top system inter war period.

So, the priorities had to shift and national, this this period can be best or described and explained as national hiatus due to global cacophony. New Delhi is the only exception because like development work and construction of New Delhi as a new capital it continued. And in 1946 finally, a report was published by the survey and development committee under the chairmanship of Sir Joseph Bore where they talked. And this is the, I think the most important report before India actually got independence.

So, this is the last and seminal report on urban planning in India and of colonial urban planning in India and this particular report it talked about the need for the creation of ministry of housing and town planning in every province and talked of you know the need for well-equipped provincial directorates of town planning and also the appointment of an expert in the central ministry of health who would scrutinize the

various and also advice on the various town planning schemes seeking financial support from both centre and state.

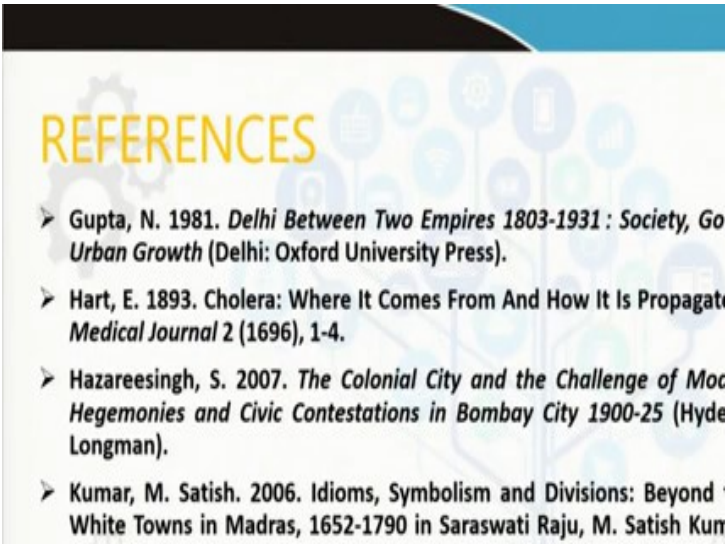
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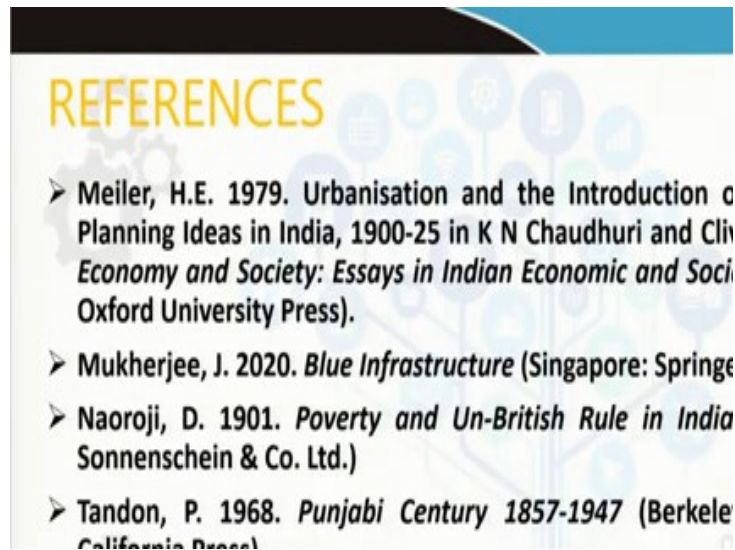
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So, these are the references to go through Mariam Dossal and Pratik Chakrabarti, Narayan Guptas works, Spodek's works of course.

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So, to conclude the key highlights that have been covered in this lecture include you know colonial categorization or colonial urbanization. We have shown, we have argued that why colonial urbanization is a valid category because it is tuned to the concept of the drain of wealth and it was absolutely geared you know to the agenda to the colonial

capitalist agenda of drain of wealth from the colony to the mother country that is great Britain.

And we discussed like how the imperial battle against filth you know crafted the regime of improvement and definitely you know when this regime of improvement was crafted how different technolegal you know arrangements and apparatus were made to implement the era of improvement.

So, this includes the passage of Town Planning Acts and legislations and also the creation of improvement trusts. So, Town Planning Acts and legislations were passed and improvement trusts were created to tackle urban environmental needs. So, we were mainly focused on the major cities like Bombay, Calcutta and Madras.

And we also discussed a bit on the Geddisian paradigm because I talked about the importance of the philosophy and the idea or rather ideal also of Patrick Geddes. So far as you know the metabolic relationship between city and nature between society, societal development and physical environment you know in cities were concerned.

And finally, we ended this lecture with a little bit I mean with a discussion on the hiatus in implementation of the plans due to the different challenges that the world started encountering during the period of grid, during the you know first half of the 20th century I mean from 30s. So, 30s the war, I mean the Great Depression with its impact on the different other countries. So, it started with the United States and like as the economy of different other countries were closely tied up with the United States.

So, definitely it also had a global impact. So, the Great Depression on one hand and on the other hand the two World Wars and also the inter war period the various constraints you know and or the various challenges that cropped up that appeared you know that during the inter war period to a great extent.

It obstructed the materialization and consolidation of various plans which were initially designed. So, there was hiatus in implementation of plans due to global cacophony. So, we had discussed all these in details you know in this particular lecture and I would very much encourage you to go through some of the major references that is there in the slides in the in text the I mean the references have been inserted as intext citation. So, please go through those references.

So, that what we had discussed the some of the basic points, you can have a more detailed understanding of some of the points covered in this lecture once you go through, at least if not the full articles. But the abstract of the reference, I mean the articles that are there in the reference list.

So, thank you.