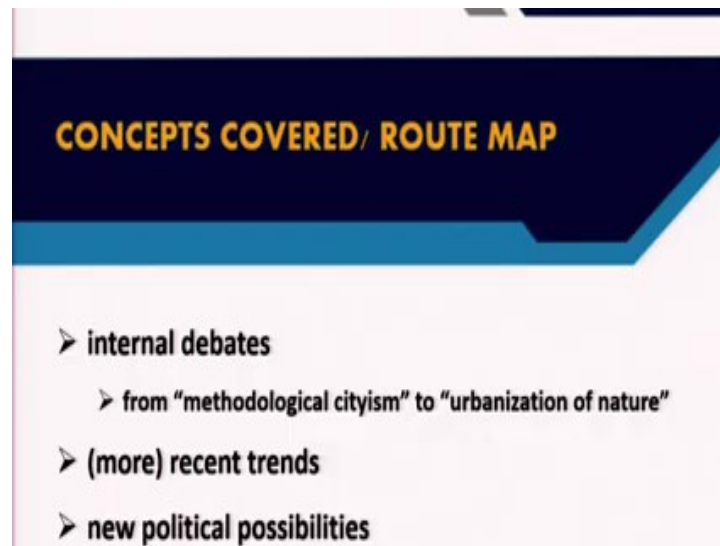


**Urbanization and Environment**  
**Prof. Jenia Mukherjee**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Kharagpur**

**Module - 04**  
**Urban environmental social sciences frameworks**  
**Lecture - 30**  
**Urban Political Ecology Part III:**  
**Internal Debates and New Political Possibilities**

So hello everyone, in this particular lecture I would be discussing the internal debates within the field of urban political ecology, the internationalisms and debates and also touching base on new political possibilities. You know that Swyngedouw Heynen and Ernstson you know discuss in their latest book that came out like 2 years back in 2019.

(Refer Slide Time: 00:41)



So, yes I will be discussing internal debates; I mean between this methodological citizen and how methodological citizen in urban political ecology scholarship has been critiqued by urban political ecologists themselves, because they say you know that methodological citizen is a reductionist lens of analysis or perspectives and I mean the idea is to basically understand urbanization as a process.

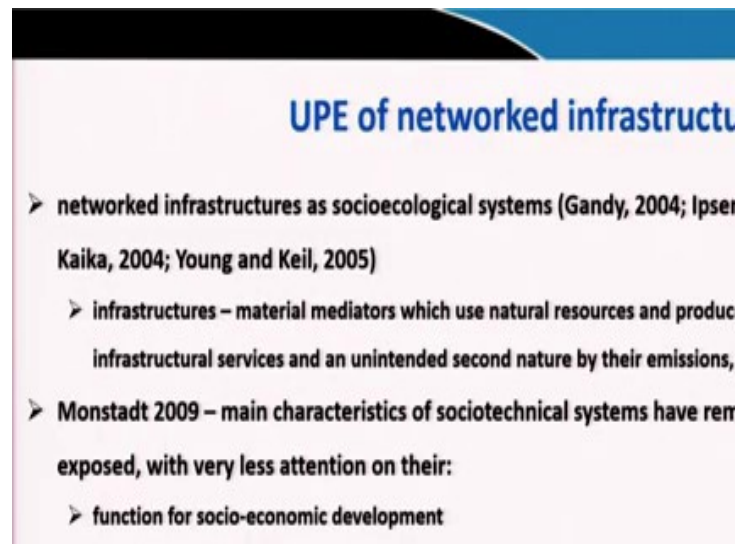
So urbanization of nature you know is a more validated or is a more acceptable domain or kind of methodology than methodological citizen which is otherwise a reductionist lens of you know analysis that had developed in the urban political ecology scholarship.

So, we will also see that you know whether this criticisms are also absolutely valid or not.

So, we will also discuss the propositions by other urban political ecologists who also had participated in this debate by saying that, no this charge on the urban political ecology scholar is actually you know its absolutely not right.

So we will discuss this debates you know about methodological citizen and urbanization of nature within the domain of UPE and I will talk about the more recent trends that had developed in this particular field that have emanated now in this field, and finally, talking about I will be talking about new political possibilities.

(Refer Slide Time: 02:24)

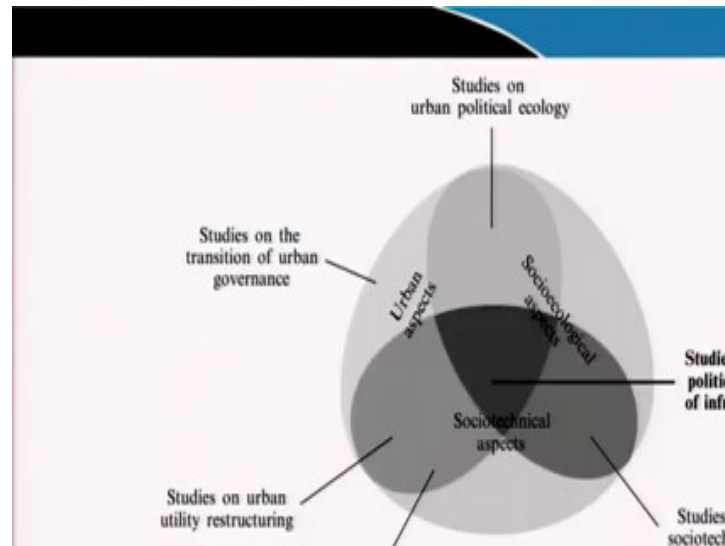


So, before I you know expose you to the critique of methodological citizen, I thought it important to you know discuss this critique by Monstadt long back 2009. So, Monstadt in 2009, he wrote an article where he discussed urban political ecology of network infrastructures and also says that you know what are the limits or the what are the limitations within UPE, so far as discussions on networked infrastructures are concerned.

So he says that you know that the main characteristics of socio technical systems remained under exposed within UPE because very less attention was paid on you know for example, function for socio economic development and very less attention was paid to the material metabolism in cities and also you know the path dependencies.

So, path dependency is again I think something which had been discussed by the urban environmental historians to a great extent, but according to Monstadt the urban political ecology of networked infrastructure, scholarship or literature remain you know quite limited in terms of you know shedding light on path dependency or path dependent trajectories.

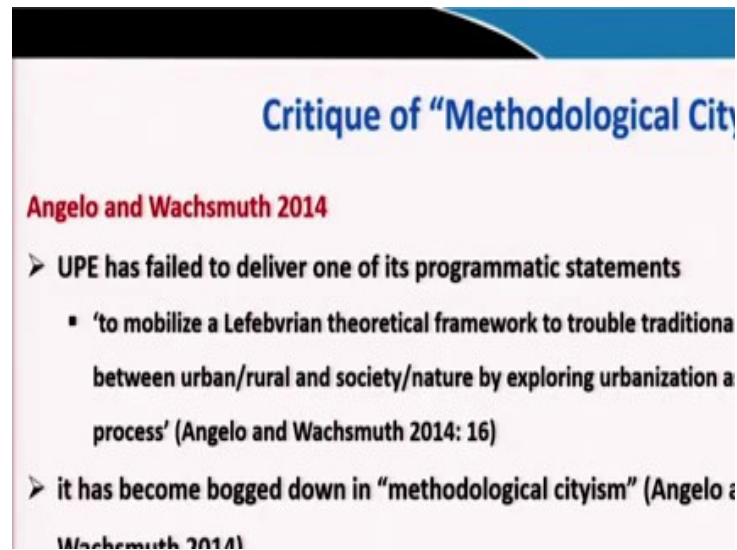
(Refer Slide Time: 03:47)



And, the solution that has been provided by Monstadt in the same article is that, he says that if you really need to you know do a robust analysis on political ecology of infrastructures or urban network infrastructures. You have to converge and cross fertilize several fields together.

So, this diagram which I have taken from Monstadt, I think to a great extent explains like what are the different domains that he is talking about which should converge to provide us with a more comprehensive a kind of a I mean widely encompassing and all comprehensive perspective to understand urban or networked urban infrastructures.

(Refer Slide Time: 04:35)



But, the major critique or you know on which we find a very exciting otherwise internal debate is the critique on or of methodological citizen. So, Angelo and Wachsmuth they wrote an article which was published in volume 39 of Indian of International Journal of Urban and Regional Research where they talked about how UPE.

Though UPE is they say that the UPE is a significant field in terms of you know in terms of introducing critical, political, ecological, studies to the urban settings and also in terms of re-theorizing the city as the product of metabolic processes of socio-natural transformation, but at the same time UPE has failed to deliver one of its programmatic statements.

So, what was the programmatic statement? The programmatic statement was to mobilize a Lefebvrian theoretical framework to trouble traditional distinctions between urban, rural, society, nature by exploring urbanization as a global process. And they said unfortunately UPE has not been able to deliver you know this particular task or this programmatic statement of mobilizing this Lefebvrian paradigm.

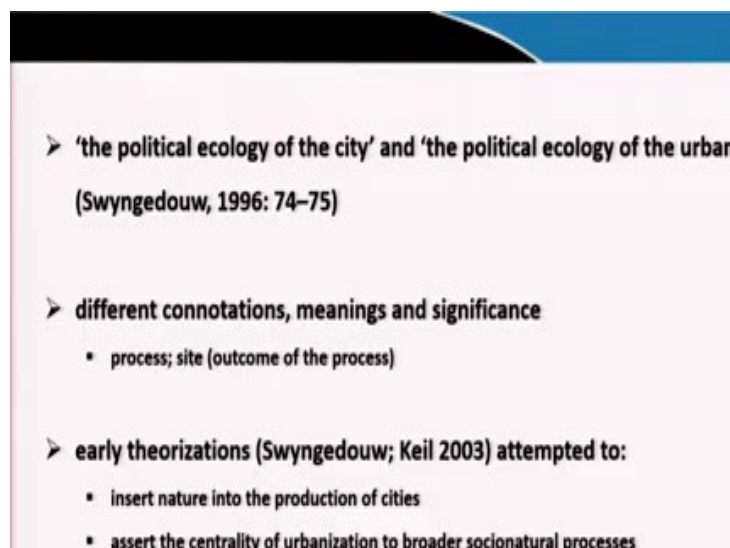
And, so they charged UPEs scholarship with you know with I mean that's that this scholarship they said that it has become bogged down in what they call methodological citizen, where the city is only understood as a site and not as a process right. So, and they say that if you see all the different works by the urban political ecologist in the earlier

decades, so they had mainly discussed you know social production of nature within the limits of the city, but not beyond that.

And they consider this to be a major failure by UPE scholars or the UPE domain to provide insights into the new era of planetary urbanization. So, whether you are comfortable with this term or this connotation, planetary urbanization or not that is a different thing altogether.

But I mean there is no doubt about the fact that the world is you know dramatically it is getting urbanized rapidly it is getting urbanized with a whole lot of implications on social and ecological aspects. So finally, Angelo and Wachsmuth said that, yes the socio natural moment has been met in UPE, but not the Lefebvrian moment.

(Refer Slide Time: 07:18)



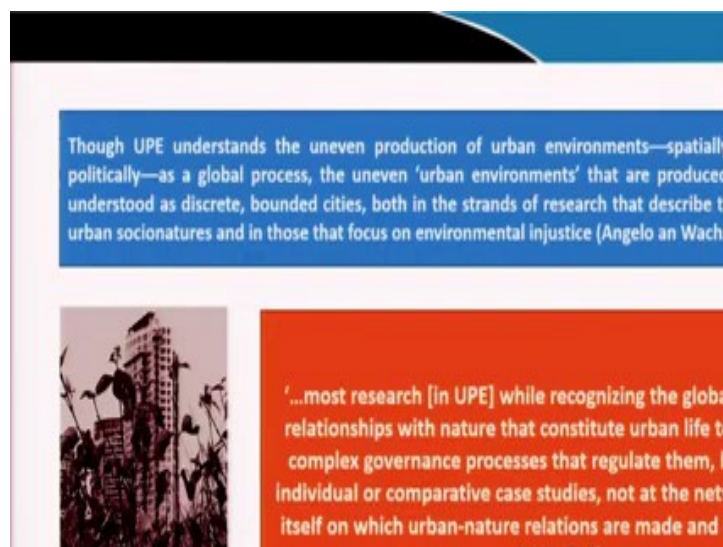
So, I mean this definitely said that in the work of Swyngedouw, the seminal work that I discussed in the part one of UPE presentation or lecture, we have seen that how a Swyngedouw at least you know tried to discuss both I mean political ecology of city and the political ecology of the urbanization process and their interrelationship.

And, he talked about you know different connotation, different meanings and significance of the urban as a process, the urban as a site, the urban as a outcome of the process, etcetera. So, in early theorizations works by several works by Swyngedouw and

Keil, they attempted to insert nature into the production of cities and they also asserted the centrality of urbanization to broader socio natural processes.

But, then somehow according to Angelo and Wachsmuth you know UPE lost this Lefebvrian flavor or this Lefebvrian commitment and they narrowly started focusing on city as the empirical research site. So, the entire analysis then seem to be surrounding just on the city and within the limits of the city. So the city became the empirical site of reference.

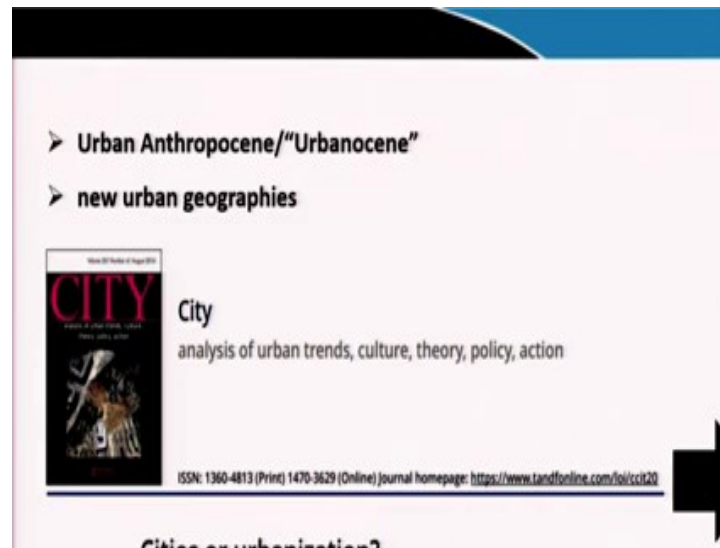
(Refer Slide Time: 08:46)



So, the in their criticism they also discussed this particular book and they say that you know all the chapters that we will find in this book, these chapters also unfortunately you know remain restricted; I mean, so far as the analysis of the urbanization or urban environment is concerned because these chapters also mainly try to talk about social production of nature within cities, within limits of cities.

And, there is only one exception though, because there is a chapter by D Pellow, where Pellow actually talks about the links or he actually makes the connection between high tech; between high tech consumerism in western cities and environmental degradation in the computer recycling operations in the global south, but that is the only exception in this particular book. Otherwise, you know all the chapters they narrowly focuses on the city as the analytical or empirical frame of reference.

(Refer Slide Time: 09:49)



So, David Harvey's argument you know in this particular article, very strong article again, 'Cities or Urbanization'. That urbanization must then be understood not in terms of some socio organizational entity called the city. The theoretical object that so many geographers, demographers and sociologists erroneously presume, but as the production of specific and quite heterogeneous spatial temporal forms embedded within different kinds of social action.

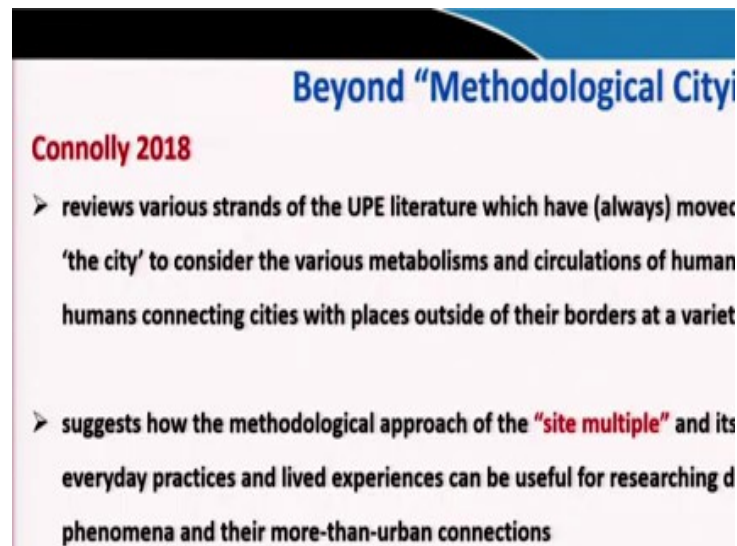
So, these conceptualization or this understanding it really it has gained fresh grounds and new meanings within the within today's provocative context of the urban Anthropocene or urbanocene again you know whether you agree with the I mean, whether you are ready to accept this terminologies or these connotations or not that is a different question, but no one can deny or we definitely understand how today's I mean how the intensity rate scale pace and intensity of today's urbanization is.

So, very significantly and strikingly different from the urbanization processes that the world visualize a few decades back. So we all know this now. And, so within this transformative context, I think that you know David Harvey's this you know this formulation, it kind of has gained significant insights or it has gained like fresh significance in that sense.



So, and also Angelo and Wachsmuth criticism that urban political ecology is kind of failing by just focusing on the city. It is failing to offer analytical insights to the contemporary era or the process of planetary urbanization.

(Refer Slide Time: 11:45)



But, then I came across you know this particular article by Connolly again published in the same journal; International Journal of Urban and Regional Research in volume 43. So, Angelo and Wachsmuth published in 2014 volume 39 and Connolly published the article in 2018 in volume number 43.

And this article can actually be kind of understood as response, as a response to Angelo and Wachsmuths you know formulation of or that rather the charge of methodological citizen on urban political ecology or urban political ecologists for that matter. Connolly shows, he says and you know he does so by reviewing various trends of UPE scholarship and he says that UPE scholarship have always moved beyond the city. So, this charge to a great extent is not absolutely true.

So, the fundamental pretext on which this charge has been brought against urban political ecology is somewhere faulty, that is what Connolly shows, he establishes. Not only demonstrates, but he definitely demonstrate with whole lot of empirical evidences to his argument. So, he says that, UPE never you know remained kind of restricted to the limits of the city, and because it is considered various metabolisms circulations of

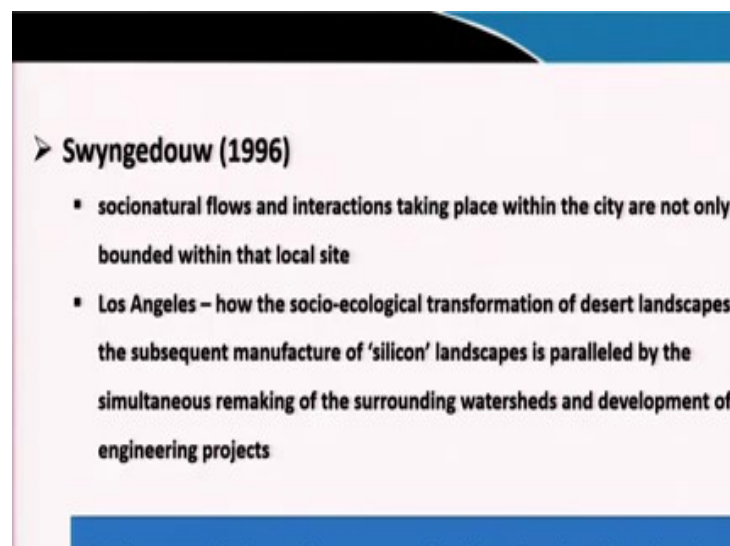


human, non humans connecting cities with places outside of their borders at a variety of scales.

So, and then definitely Connolly says that, it is important even to make more advancement, more significant advancements in the field that is for sure and he also suggests how the methodological approach of the site multiple which we will discuss in our subsequent slides, that how the methodological approach of the site multiple and its focus on everyday practices and lived experiences can be useful for researching diverse urban phenomena and they are more than human connections.

So, he says that, yes, it is important to recompose and re assemble political ecological approach in studying urbanization as a process, but before that it is also important to decompose you know the arguments against urban political ecology. And how does he do so? How did he do that?

(Refer Slide Time: 14:27)



So, he definitely discusses Swyngedouw, he discusses Kaika, he discusses several works you know by Swyngedouw. So, he says that in the earlier works by Swyngedouw this I think Angelo and Wachsmuth also said, but you know Connolly you know highlights these all these particular points because he wants to kind of free yeah it seems like you know he is passionately tries to free UPE from the charge of methodological citizen.

So, he shows that how Swyngedouw actually you know he had talked about socio natural flows and interactions are taking place within the city that are not bounded within the local side. And, for example, Los Angeles has been discussed. So, how the socio ecological transformation of desert landscapes and subsequent manufacture of silicon landscapes is paralleled by the simultaneous remaking of the surrounding watersheds and development of new engineering projects.

So, the relationship between cities and their larger or the wider environments definitely had been discussed since long back in UPE scholarship. So, and he also seems to kind of quote another recent work with which he was inspired. This is by Loftus and March 2016 work.

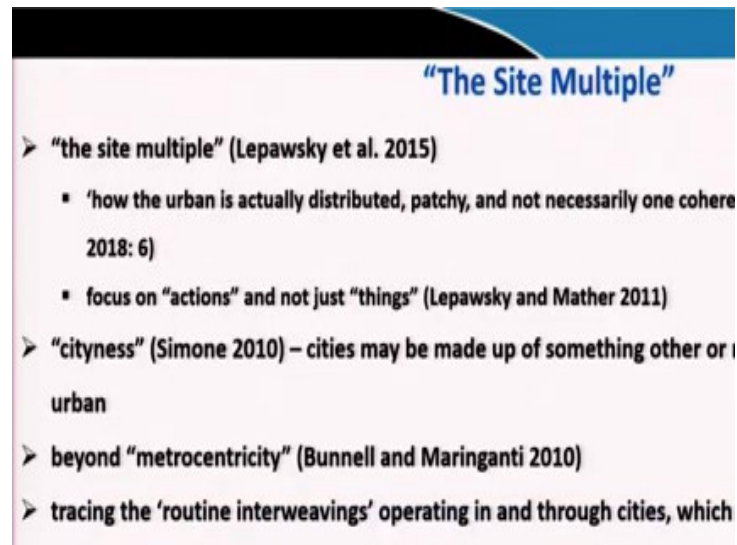
So, where they have said that UPE is actually never been constrained by the urban form, but has rather developed an approach that always moves beyond the local to understand the broader ensemble of socio-ecological relations out of which specific urban forms are produced. So, this has always been the case.

So, why is this why should the charge of methodological citizen be valid at all. And, you know there the Angelo and Wachsmuth also charged Maria Kaika you know with this, with methodological citizen. And, this specifically mentioned this particular book city of flows, which we had already discussed in part 1 of you know this UPE chunk.

So they said that Maria Kaika, definitely she focused on cities like Athens and London. But you know Connolly shows and says and this I think I agree with him that Kaika definitely, if she demonstrated the choreography of materials and actors, places that are enrolled you know within the larger process of urbanization.

Similarly, in liquid power for example, Swyngedouw discusses the water engineering and infrastructural projects in Spain and how it had kind of impacted the overall urban and beyond urban hydroscares. So, yes, the I mean urbanization as process had always gained focus in the UPE scholarship or literature.

(Refer Slide Time: 17:30)



So with this, then Connolly suggests that UPE should keep expanding definitely, keep advancing because it has to offer whole lot of you know if not solutions, but whole lot of how do I say like insights significant insights and inputs for us to you know kind of address the contemporary challenges being offered by the by planetary urbanization or the urbanoscene.

So, site multiple is something on which now the UPE scholars are actually focusing on. So, what is the site multiple? So, the site multiple actually has been you know developed by Lapawsky and colleagues and they to a great extent they seem to be inspired by Annemarie Mol and the her concept of the body multiple. And, the site multiple is all about how the urban is actually distributed, its patchy and not necessarily you know one coherent space.

So city is not a site, but its a process right. And, so the whole focus is actually on actions and not just the things. And, so city-ness again occupies, I mean occupies significance in this understanding. So, city-ness about, city-ness is all about how cities may be made up of something other or more than the urban right.

So, beyond metro-centricity and for example, what-more talks about tracing the routine interweaving. So, I told you earlier that why this intertwining, end machine, interacting, interweaving these are so important. I mean these are the fundamental, this is the fundamental jargon or vocabulary of urban political ecology, ecological research.

Because I mean through this cities are actually explained as hybrids and socio natural assemblies and cities you know kind of imply and signify not only the urban, but definitely more than urban more and more than human into interactions. So, what more talks about tracing or the significance of tracing, the routine interweaving operating in and through cities which link the various people, non humans resources and infrastructures comprising urban spaces with other non urban sites.


So, I find this you know this explanation to be so comprehensive right. It is very very all pervasive in that sense. And, it is important for us to discuss the difference between multi sited and the site multiple here. So, multi sited is basically when researchers they study or they explore a particular phenomena across multiple sites.

And how is site multiple different from this multi sited? Because, in again I am repeating, in multi sited studies the researchers they focus on a particular phenomena and this take up that phenomena and study it in several sites or multiple sites. On the other hand, in site multiple phenomena and places they are kind of understood as enacted through practices that are largely you know diffused and scattered right. And, here again as I mentioned that the city does not remain any sight anymore, it I mean the urban becomes a process.

So, and everyday urbanizations or sorry everyday urbanisms felt experiences, leaved you know practices and experiences, situatedness I mean everything that goes or go into the shaping of urban environment take such an important role. So, that is why this focus on the site multiple and several cutting edge and path breaking works focusing on or rather deploying this site multiple framework is a recent phenomenon within the urban political ecology scholarship.

Which is quite exciting, because to a great extent I mean it seems to be a methodological breakthrough or analytical and conceptual you know watershed enabling researchers to kind of even scramble you know the binary between the global local, between global north and global south, between urban rural and definitely between nature and culture. And, so you know it will be fascinating if you can really go through some of these works deploying this site multiple framework.

(Refer Slide Time: 22:30)



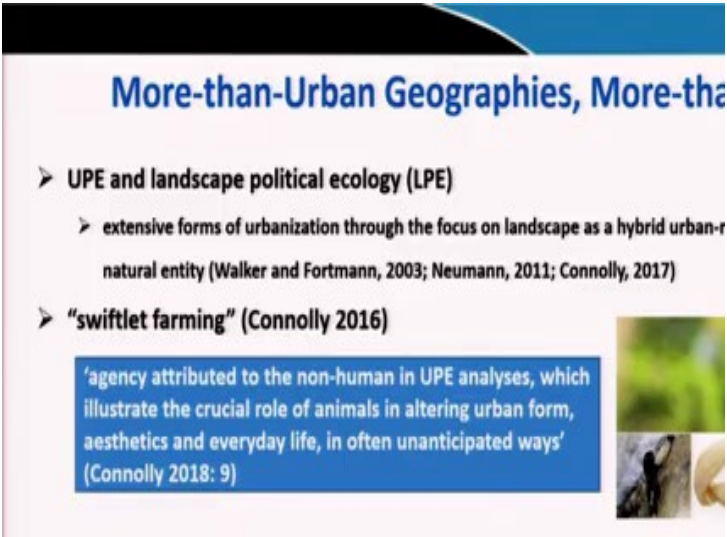
**Rural-urban and Socio-natural Met**

- **UPE – city’s transnational connections and integration within regions and hinterlands**
- **“megapolitan political ecology” (Gustafson et al. 2014)**  
**‘across the nature–society and urban–rural matrix to account for the flows of resources, and knowledge that constitute regional urbanization’ (665)**
- **UPE and the literature on suburbanization and post-suburbanization**

Yes. So, Gustafson this megapolitan political ecology approach is again quite important. And it works across the nature society and urban rural matrix to account for the flows of people, objects, resources and knowledge that contribute regional, contribute that constitute regional urbanization.

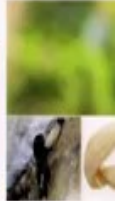
So, in that sense like UPE literature is also now focusing on sub urbanization and post suburbanization and these are fundamental concepts helping us to understand city as subsystem located within a broader urban region.

(Refer Slide Time: 23:13)



**More-than-Urban Geographies, More-than**

- **UPE and landscape political ecology (LPE)**
  - **extensive forms of urbanization through the focus on landscape as a hybrid urban-rural natural entity (Walker and Fortmann, 2003; Neumann, 2011; Connolly, 2017)**
- **“swiftlet farming” (Connolly 2016)**  
**‘agency attributed to the non-human in UPE analyses, which illustrate the crucial role of animals in altering urban form, aesthetics and everyday life, in often unanticipated ways’ (Connolly 2018: 9)**



So, more than human or more than urban geographies and more than human world, these are the fundamental like these are the key ideas, these are key highlights in UPE literature now. So, this is not new again definitely in the earlier works also just let us think about Swyngedouw, let us think about Kaika, let us think about the works by Heynin, let us think about the work by Gandy.

So, I mean they had definitely talked about more than urban geographies and more than human world, because and also after a particular point of time like UPE also had significantly drawn from ANT or the Actor Network Theory. And, the scholars has been significantly inspired and influenced by Bruno Latour and the and his idea about Hybrid Assemblage etcetera.

So, but what is important is that you know more like I mean UPE is making fresh and further advancement in this particular field and new researchers you know on these lines are flooding the scene. And unpacking several gamuts and sub gamuts you know these kind of gamuts and sub gamuts within the UPE literature.

So, for example, UPE has now also drawn insights from landscape political ecology. And so for example, let us think about Paul Robbins works on the landscape and Connolly's own work on swiftlet farming.

So, it is very interesting work where he shows that swiftlet is a bird. So, you can see the picture here. And, they are very interesting because their nests are actually edible. So human beings, people consume there so it is a delicacy actually. So, and so Connolly he traces this whole story within the context of Malaysia, yes.

And he shows that you know how swiftlet birds they are encouraged to build nests in urban infrastructures and not in caves because you know he discusses the entire system through which swiftlet nest are actually kind of I mean the birds are encouraged to build their nest in on the rooftop of commercial and residential buildings.

And, he discusses its impact on the ecology on long term public health, well being, urban heritage, etcetera. And this kind of studies you know with the focus on birds, with focus on animals it this these studies provide agency. So agency is attributed to the non human in UPE analysis. So, which illustrate the crucial role of animals or more than humans and

you know in altering urban form aesthetics and everyday life in often unanticipated ways.

So, the beyond human agency is something in which you know urban political ecology is focusing quite a lot and now. Another final trend also we can see now is a new wave of engagement with urban water infrastructures to understand the nature of extended urbanization.

So, again urban like water, it had always remained a very significant component within UPE scholarship, but we can see and trace a new wave of engagement where scholars study the connection between you know water infrastructures and in city and its larger you know ecological infrastructure and its and its wider environment.

So for example, there are works which show how the Reliance on electricity in particular cities to a great extent are determined by you know the by how to pass generation in places that are remote that are I mean that are quite distant from the cities. So, and this is something again which is a very significant theme or important key theme you know.

So, far as urban environmental history is concerned, this we have discussed in detail I guess when we discuss you know urban environmental history. But urban political ecologists are now you know they are really interested to kind of focus on urbanization as a process.

So this whole idea of the whole idea and the chart that you know UPE is, UPE is reductionist, UPE is restrictive in the sense that it only tries to discuss city as a site and you know tries to analyze city as the main empirical point of reference is absolutely not true.



(Refer Slide Time: 27:51)



So finally, this is the latest book that I had come across so far as UPE is concerned. And, this has an interesting title and this is an edited volume by Ernstson and Heynen, Heynen Ernstson and Swyngedouw. And, like so there is a clarion call by the editors, and editors say that why we need to kind of insert or re insert new political possibilities you know through UPE literature.

So what should be the motivation of the urban political ecologist at this particular you know critical juncture when you know socio ecological inequalities have sharpened when contestations are proliferating. So, what kind of thing, what kind of like agenda should urban political ecologists have. And they say that you know we have to think about emancipatory politics.

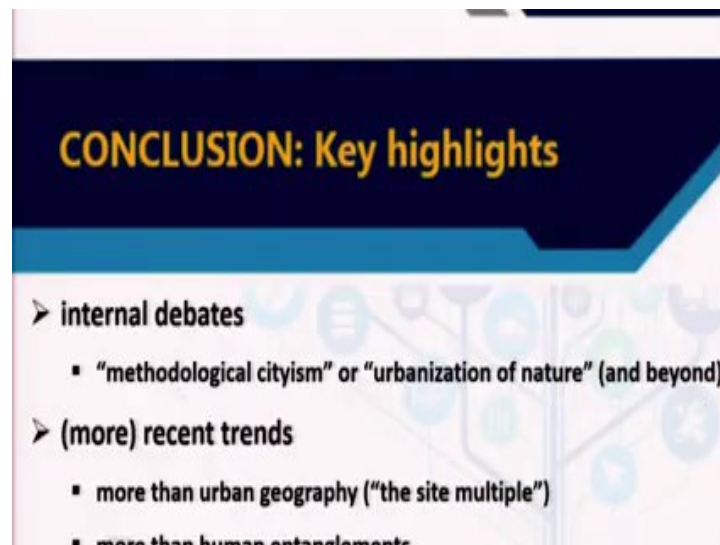
But then what could emancipatory politics be about in our time. And, interestingly you know this book just came out in 2009 and after that the world now is facing in Covid, the Covid crisis. And, definitely you know with the Covid crisis some more significant additions or is some more detailed discussions and understanding about inequity and injustice had kind of had occupied and should occupy the scene.

And that is why I think this entire rationale of new political possibilities and imaginaries and imaginations within UPE is you know it is such a, it is imperative, is its a necessity. So, I have also pasted the table of contents here and so that you can understand what is the exact situation or position of the UPE scholarship now.

So, yes, with this I would like to conclude I mean this discussion on urban political ecology so far as the global literature is concerned and then we would move into the urban political ecology scholarship within the context of India. So, I am just you know quite passionate and I feel motivated to read the last line from this book.

So, where the editor say that we still have hope and the hope is to contribute discussions that can expand and rearrange critical environmental studies to remain relevant in a time of deepening deep politicization and the rise of post truth politics. So let us all plunge into this, and you know this makes more sense now in this Covid and the forthcoming post Covid world. So, yeah.

(Refer Slide Time: 30:49)



So yes, in this particular lecture we have discussed methodological citizen or urbanization of nature and shown that like UPE definitely from the very beginning only, it definitely, already it was talking about urbanization as a process and not urban as a site. So, we discuss the more recent trends, we talked about more than urban geography, the site multiple, how you know urban political ecologists are deploying this framework in their research.

We discussed more than human entanglements, we are we have discussed how you know the animal world the more than human world are being given agency and are being given agency not in that sense. So, what am I am trying to say is that, why it is important to you know also unpack more than human agency into the emergence of the urban you

know as the product of the metabolic process. And, we also discussed new political possibilities and imaginations within urban political ecology domain.

So, thank you.