

## **Nature in the city: interactions and contradictions**

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The session has as theoretical reference the field of Political ecology of urbanization, seeking to articulate some interactions and contradictions related to the multiple ways that nature reveals itself in the city. The session welcomes topics discussing disputes over natural assets such as land, water, air, and biodiversity, resulting in social and environmental conflicts leading to different notions of justice, vulnerability and risk. Discussing nature in the city may help the understanding of the emerging concept of the urban commons; their forms of appropriation and reproduction as in water fronts, urban agriculture, protection areas among other contentious uses. The session aims to explore the role and agency of social agents involved, their forms of representation, appropriation or knowledge relates do nature.

## **Urban agriculture as urban nature?**

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Agriculture and nature are often placed in opposition to each other, particularly in the age of industrialized agriculture. Similarly, city and nature are commonly placed in confrontational terms. However, both oppositions are problematic. Increasingly, the place of nature in cities is receiving attention as vital to addressing larger environmental challenges as well as to the functioning of urban systems. Moreover, food production can be seen as playing a central role in the naturalized environment within the urban sphere. This talk stakes the claim that, indeed, urban agriculture needs to be seen as an integral component of urban nature.

The author relies on his experience with the Carrot City initiative ([www.carrotcity.org](http://www.carrotcity.org)) to illustrate different facets of this relation. Eight cases are provided to show the multiple ways in which urban agriculture fits within the urban environment and can be understood as part of urban nature. In Middlesbrough, UK, the concept of a “continuous productive urban landscape” is used to show how a whole urban landscape can be reimagined as a web of connected productive spaces. In contrast to lower density England, in very dense slums like those in Colombo, Sri Lanka, the only real possibility of maintaining vegetated spaces may lie in their use by poor residents who can turn the tiniest gaps in the urban fabric into spaces for growing food. Six other examples show how approaching urban agriculture as part and parcel of urban nature can help strengthen community, build knowledge, transform the living space, redesign home, turn roofs and other hard built surfaces into green areas, while producing food on a scale that cannot be dismissed as symbolic.

The talk concludes with some broader reflections. The range of contributions that urban agriculture makes to urban nature is analyzed, such as empowerment of urban population, expanded access to nature, and multifunctionality of food growing. On the other hand, the range of conflicts between urban agriculture and urban nature is also recognized, from productivism to control to appropriation of space. The talk

concludes with some final considerations, including: how urban agriculture can serve to reimagine urban parks, green spaces and landscapes; conversely, how nature can be used as a lens to view urban agriculture; and lastly, what the implications of this regard of urban agriculture as urban nature are for urban and regional planning.

## **Nature in the city: green, blue, brown and social**

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The idea of **Town Planning** appeared after the industrial revolution as a set of principles aiming to make cities better, based on the public interest

**Environment** is understood as a set of physical, chemical, biological and social factors likely to have a direct or indirect effect, immediate or long-term, on all living creatures, including man (IBGE, 2004, s.p. 2a ed).

The **nature as environment** is one more "subject" of the "social contract"; a large territory to be demarcated

Nature is present in the city under different aspects: In the water, as regards sanitation: supply of fresh water, destination of sewage, drainage and flooding; the vegetation in its relation with the climate, with contemplation and leisure; the air in the regard to its quality and to the impacts of pollution and production of carbon.

The social contract around environment frequently disadvantages weaker members of society through interventions that invoking the public interest and the environmental benefit disguise a practice of social exclusion. It consists in removals of poor and informal settlements along streams, lakes and watersheds what may be summed to large urban projects at the edge of the most valued areas of the city, as it is the case highlighted in this article.

In Brazil, in the 80s it took place the institutionalization of the environmental question by its translation into a dimension of public policy. It has been created the National Environmental System, at the federal level, focusing mainly on the protection of forests. On the other hand, planning and regulation of cities are assigned to

municipalities since the colonial period, in which it was exercised by the House of Chamber, constituting local responsibility since then. The both systems cross one to another in the city

It is urgent to discuss the concept and specificity of the urban environment, observing it in all its dimensions, in a context in which the great social inequality causes that the difficulty of access to housing occupies a place of centrality in the approach to the cities and to the environmental issue.

These questions put in opposition two kinds of rights: one expressed by the concept of “diffuse interests”, other by the concept of “social rights”.

Diffuse interests are those indivisible ones that supposedly apply to all, such as the access to good quality air. It includes the environment and the urban regulation. On the other hand, social rights are those related to acquisitions, such as education, health, transport, housing.

Is considering these points that one must think about the meaning of “Public Interest”, whose promotion is the founding reason of Planning

A mitigation policy and the search for technical solutions that enable adequate treatment of informal settlement and environment is starting in academic circles and in some municipal experiences in interesting cases of intervention. The regularization of informal settlements and slum upgrading are the evidence of a paradigm shift in which the provision of infrastructure and stability of these settlements begins to be understood as environmental improvement - provided with alternative techniques, with low impact and countervailing solutions.

Prior research and outreach activities developed in last years moved in this attempt particularly in areas close to water sources and streams banks in the search for alternatives to regularize and qualify poor settlements. In the same sense, with the same concept of qualification of local conditions we worked in forms of densification in central areas, attempting to ensure environmental quality, in terms of ventilation, insolation and public spaces

Counting on this background it is possible to analyze the nature of the “Public Interest” in an urban intervention in São Paulo where the discourse of environmental benefit supports a project of “making green” exactly the area of slums in a region at

the edge of a valued neighborhood, an area of great real estate interest. It is the case of “Operação Urbana Consorciada Água Espreada” – OUCAE

The OUCAE consists in a group of interventions coordinated by the Municipality, through the Municipal Urbanization Company (SP URBANISMO) aiming the improvement of the urban, environmental and social aspects of this specific area.

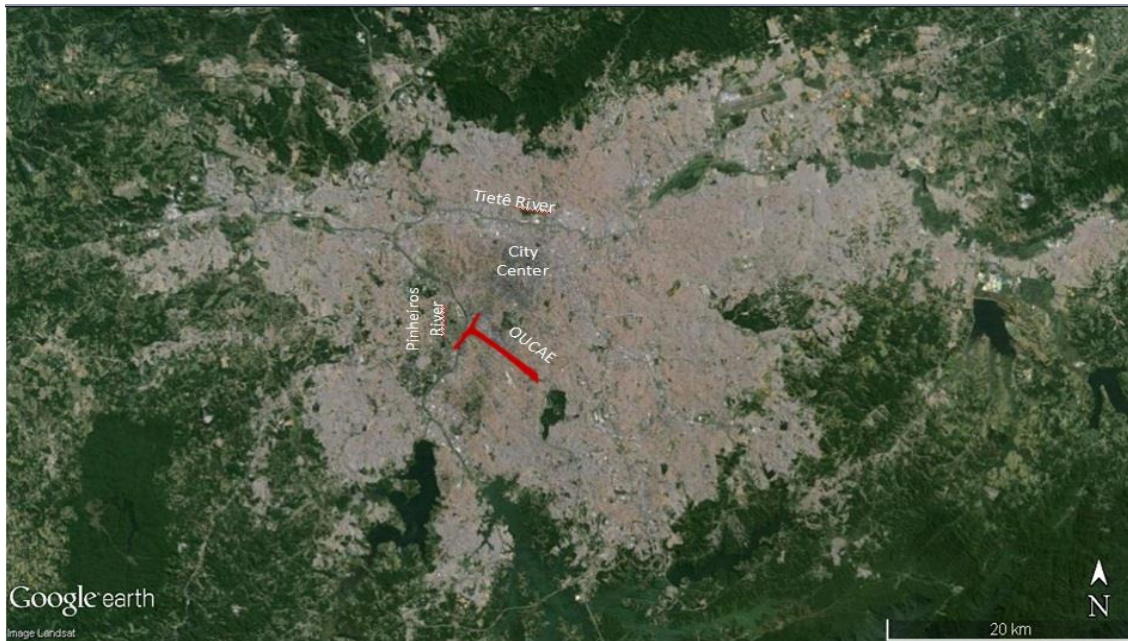
It covers an area of 1400ha in the south-west of São Paulo near the local airport, between the United Nations Av. (margin of the Pinheiros River), one of the main expressways of the city and a very wealthy location, and the Imigrantes Highway that goes to the coast. Both roads are supposed to be connected by an avenue along the stream. Both sides of the stream are slum areas and the OUCAE is supposed to comprise the reallocation of the families, the recovery of the stream, the improvement of the drainage, the offer of green areas. This should involve the green, the blue, the brown and the social.

If these are the questions, many different projects for improvement could be done. But regarding the slums location (in gray) and the huge area of the proposed park, one may argue: The reason for Planning is the Public Interest. But what is effectively Public Interest? What does mean nature and environment for Public Interest in a case like this?



### The park and the slums

Source: SP Urbanismo, Operação Urbana Água Espreada, 2016.  
[http://www.prefeitura.sp.gov.br/cidade/secretarias/upload/desenvolvimento\\_urbano/sp\\_urbanismo/arquivos/OUCAE\\_caderno\\_GESTAOURBANA.pdf](http://www.prefeitura.sp.gov.br/cidade/secretarias/upload/desenvolvimento_urbano/sp_urbanismo/arquivos/OUCAE_caderno_GESTAOURBANA.pdf)



### **São Paulo with metropolitan sprawl and OUCAE location**

Source: Author's drawing on Google Earth base map

## **Landscape in the city**

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This abstract highlights various aspects of provision of public domain which includes open spaces, roads & public amenities in cities and towns in Indian subcontinent. It also highlights siting of a city in the landscape with the consideration of ecologically sensitive areas around. The magnitude and spatial distribution of green spaces in urban context is primarily the result of the planning and evolution process of cities. It is also important to look at the availability of spaces related to the public and private domain at various scales of planning & design starting from the individual dwelling unit, cluster level, community level, neighborhood level, local area planning level City level and also in the context of metropolitan region.

In the Indian context, though the overall urbanization level is relatively low at around 30% of the entire population, but there is emergence of megacities with more

than 5 million population. There is significant rural-urban migration with high population growth. Smaller towns are not growing in size. However there is also emergence of cities with population of million & above. It is observed that larger cities offer more employment opportunities and as a result around 20-50% of the population in large cities live in slums & squatter settlements occupying land earmarked for public open spaces and social facilities or other ecologically sensitive areas.

The rapid expansion of megacities calls to regional planning approach to deal with rural – urban interface without which haphazard development would have occurred in ecologically sensitive areas or in fertile agricultural land. Indian cities are much more compact at the core with less space for public domain and consequently needs an approach to spatially expand the cities with transit oriented development corridors rather than outdated concepts of satellite towns as borrowed from the British Planning Legacy.

Absence of land development mechanism other than land acquisition makes it very difficult for urban local bodies to provide adequate spaces for roads, open spaces and social facilities which results in extreme congestion in most parts of the cities. Existing waterways have been encroached in some cities; hills have been cut and thus resulting in severe environmental degradation, which often result in frequent flood & landslides during monsoons.

There is a need to look at provision of affordable housing for the poor in the form of sites and services schemes rather than multistoried flats; besides improving the existing slums. We can learn a lot from our historic cities and reinterpret it in today's context to design & build our new cities with emphasis on public transport, bicycle and pedestrian movements. Indian cities should have low-rise high density, which is appropriate to the climate, culture and lifestyle of the majority of the urban population built form.