**Columbia University**

**Graduate School of Architecture, Planning and Preservation**

**Advanced Architecture VI Studio - Spring 2019**

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ARCHITECTURE AS (GREEN) INFRASTRUCTURE

& OTHER HYPOTHESES FOR SÃO PAULO

# BACKGROUND

"Unlike the Anglo-American world where aesthetic form, philosophical reflection, and politics are as seen incompatible, in Brazil this seems not to have been the case, which surely explains why the practice of architecture in Brazil has never been entirely divorced from radical politics."
Kenneth Frampton

In 1968, Lefebvre published the book Le Droit à la Ville. Over the years, the "right to the city" became a hot topic for the urban agenda and was widely appropriated, from social movements to the United Nations Habitat III conference. The idea advocates for the city as a collective territory, where citizens are placed at the core of urban life and drive its transformations. According to David Harvey, "the right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves, by changing the city."  In that sense, the right to the city goes beyond an argument for urban justice, it also has a liberation component. It refers to how people build and experience the city.

Fifty years after the book was launched, we are turning into an essentially urban planet. The most populated and fastest growing cities are located in developing countries, where they face monumental challenges: poor planning and top down decisions; unequal distribution of infrastructure and services; environmental harms and climate change; urban violence; and so on and so forth. Inequality is increasing while democracy is being challenged globally.

Brazil is the 10th most unequal country in the world and its 9th economy. São Paulo, its powerhouse, is the largest metropolis in South America, with 21.5 million inhabitants. The city's accelerated urbanization, driven by an eager development spirit, produced a brutal landscape dominated by massive infrastructures that have fragmented the urban space into a series of isolated neighborhoods populated by an ecology of walled spaces that precludes street life. It also resulted in a city that faces recurrent environmental damages such as floods, water shortage and air pollution. A global city with tremendous social and environmental challenges.

Such hyper urbanized context led to the development of a unique architecture, rooted in a tradition initiated by Vilanova Artigas and Paulo Mendes da Rocha (Pritzker, 2006), among others, in the mid 20th Century. In a city where public space is neglected and dismissed from a civic dimension, the so-called Escola Paulista explores the relation between architecture and infrastructure as a conceptual and aesthetic driver to create radical designs that simultaneously evoke and detach from the city to propose experimental forms of collectively inhabiting the space.

This conceptual background led to a particular approach for architects to think the city. According to São Paulo architect Milton Braga, "(infrastructure has) a progressive importance in the structuring and qualification of increasingly interactive urban spaces, in that it is infrastructure that constitutes the physical structures and urban and metropolis functions of greatest permanency." Braga argues that infrastructures should be designed as urban architectures, meaning they should incorporate additional criteria beyond their primary functions, activating and improving the quality of urban life.

Parque Dom Pedro II is a historical site in the lowlands of the Tamanduateí River, right in the heart of São Paulo. About the size of Governor's Island, in New York, it configures a glade in the middle of densely built areas. Organized as the main public park of São Paulo in the early 20th century, the place was overtaken by a series of large-scale infrastructures as the city grew, including the channeling of the river, and became a major metropolitan transportation hub. Everyday a population the size of Uruguay arrives in the city center, many of which at Dom Pedro. Built without coordination or relation to the scale of the place, these infrastructures turned the picturesque landscape into a fragmented and hostile urban void, severely affected by pollution, floods and grave social problems.

# FRAMEWORK

In such a connected world, where the limits between urban, rural and nature are blurred and interwoven, built and natural environments are a single entity. We cannot distinguish landscape from cityscape. It is all part of the same constituency. São Paulo's landscape is realized in the infinite repetition of ordinary elements, whether we look at it today or before the city was settled. It is not constituted by focal points or iconic elements; it's about the scale of ordinariness. Few exceptions are Copan or Paulista Avenue or Estaiada Bridge, a cumbersome road infrastructure.

When we look at São Paulo's landscape, we should also look below the concrete crust to find the hidden geography of rivers, soil and topography. The site has to be approached simultaneously from above and from underneath, as a metaphor but also as an intervention act. This is an ethical concern as well as a question on how these suffocated natural assets can contribute to and inspire our designs.

The intervention in such a large and central area is an opportunity to challenge the usual consolidated standards and propose new arrangements that can impact how we think the metropolis as a whole. Parque Dom Pedro II summarizes how São Paulo has historically related to its landscape, its waters and its public spaces along its development. The studio will take this critical and unique area to raise new hypotheses, by exploring the relationships between architecture, infrastructure, landscape and ecology. It will look at Brazilian and international case studies and investigate the Escola Paulista to imagine how it's principles can be reframed - shifting from modern and monofunctional to green and hybrid infrastructures - to inspire urban architectures that combine resilient ways of thinking the built environment with bold strategies towards the right to the city.

The proposals are not expected to resolve all the complexity of Parque Dom Pedro II. Instead, they are intended identify particular conditions and focus on them to propose new relations for the site: spatial, infrastructural, social. Designs can range from the scale of a small building to a network of interventions to a large urban piece.

# STEPS

## Part 1 - Context investigation

The first part of the studio is dedicated to investigating the context in its multiple facets and scales. It will include lectures, readings and assigned tasks. Students will work on groups on the following topics:

1. Brazil and São Paulo context;
2. Parque Dom Pedro II and surroundings;
3. International case studies on green infrastructure, sustainable technologies and public space;
4. Escola Paulista graphic analysis.

## Part 2 - General Hypotheses

Students will be asked to establish general hypotheses for Parque Dom Pedro II. They should consider both the metropolitan and local scales through clear and synthetic proposals. The hypotheses will be inspired the graphic analysis of Escola Paulista and presented in the mid-review.

## Part 3 - Field Trip (Kinne)

The field research is where the hypotheses will be tested and adjusted. It includes a dense program of site visits, conversations, and small workshop/event in collaboration with Escola da Cidade.

## Part 4 - Urban Architectures Design

The last part of the studio is dedicated to turn the hypotheses into urban architectures. As mentioned above, designs can range from the scale of a small building to a network of interventions to a large urban piece.

## Studio Documentation

The studio documentation will be done collectively along the process and condensed into a publication to be displayed at the End of the Year Show and other possible contexts such as the 2019 São Paulo Architecture Biennial. It will include the designs as well as articles, interviews, etc. by students and external collaborators.

# SCHEDULE

| | **Part 1 / Context** |
|---|---|
| Jan, 24 thu | Studio overview<br>Intro to São Paulo and Brazil<br>Assignment Escola Paulista |
| Jan, 28 mon | Personal projects presentation (Pedro, Khoi, students)<br>Desk crit |
| Jan, 31 thu | **Pin-Up Session 1**<br>**Escola Paulista** |
| Feb, 01 fri<br>3pm | Graphics Projects |
| Feb, 04 mon | Master Plan Parque Dom Pedro II presentation<br>Desk crit |
| Feb, 07 thu | **Pin-Up Session 2**<br>**Green Infrastructure Case Studies** |
| Feb, 08 fri<br>3pm | Graphics Projects |
| | **Part 2 / Hypothesis** |
| Feb, 11 mon | Desk crit |
| Feb, 14 thu | Desk crit |
| Feb, 15 fri<br>3pm | Studio Exchange |
| Feb, 18 mon | Desk crit |
| Feb, 21 thu | **Pin-Up Session 3**<br>**Hypothesis** |
| Feb, 22 fri<br>1pm | Climate Change at the Building Scale 1 |
| Feb, 14 thu<br>2pm | **Mid-Review** |
| Mar, 04 mon | Desk crit / review feedback<br>Prep for Kinne |
| Mar, 07 thu | Desk crit<br>Prep for Kinne |
| | **Part 3 / Field Trip (Kinne)** |
| Mar, 11 mon | Site visit<br>Event |
| Mar, 12 tue | Site visit<br>Event |
| Jan, 13 wed | Site visit<br>Event |

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| Mar, 14 | thu | Site visit<br>Escola da Cidade colab. |
| Mar, 15 | fri | Site visit<br>Escola da Cidade colab. |

## Part 4 / Urban Architectures

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| Mar, 25 | mon | Desk crit |
| Mar, 28 | thu | Desk crit |
| Mar, 29 | fri<br>9:30am | Constructing Practice Symposium |
| Apr, 01 | mon | Desk crit |
| Apr, 04 | thu | **Pin-Up Session 4**<br>**Urban Architectures** |
| Apr, 05 | fri<br>1pm | Climate Change at the Building Scale 2 |
| Apr, 08 | mon | Desk crit |
| Apr, 11 | thu | Desk crit |
| Apr, 12 | fri<br>3pm | Faculty Project Talks and Technical Consultant Session |
| Apr, 15 | mon | **Pin-Up Session 5**<br>**Urban Architectures** |
| Apr, 18 | thu | Desk crit |
| Apr, 19 | fri<br>3pm | Supercrit |
| Apr, 22 | mon | Desk crit |
| Apr, 24 | wed | Last day of classes |
| May, 02 | thu<br>9am | **Final Review** |
| TBC | | Review Feedback |
| May, 10 | fri | Last day work due |
| May, 18 | sat | End of the Year Show |