

UCL Bartlett MARCH URBAN DESIGN - UD2



# RC18

## RELATIONAL URBANISM

Enriqueta Llabres, Eduardo Rico  
[Relational Urbanism]

Zachary Fluker

## RELATIONAL URBANISM

Relational Urbanism RC18 explores how digital design techniques influence the ways in which we think and design conditions of contemporary urban phenomenon. Moving away from a limited focus on density and centrality, the cluster wants to engage with definitions of the *urban* that encompass the various disperse territorial systems that support conditions of agglomeration and growth. The engagement with a systemic “hinterland” of resource and supply around global city-regions shall bring, as a result, unexpected geographies and new forms of understanding territory, city and landscape.

## RETOOLING THE GEOGRAPHIES OF ALBERTA TAR SAND EXTRACTION

The cluster will focus mainly on how modern infrastructure networks and fast landscape transformations resulting from resource extractions can be re purposed to form unexpected radical agendas that work critically within a renewed praxis of morphological urbanism.

Tar sands or Oil sands are unconventional sources of bitumen, captured in a mixture of oil, clay, sand and water. While deposits of this type of oil are distributed around the globe, a substantial proportion of world sources are located in Canada, with the Athabasca River Basin being the most prominent of all. With contemporary extraction techniques, the sheer scale of Canadian tar sands deposits would make this country only second to Saudi Arabia in terms of future oil world supply.

- KEY AUTHORS: Chatelt, Barth

However the commercially viable extraction of these sands relies in open cast mining techniques, which turn existing areas into a series of eerie landscapes of excavated pits, cleaning reservoirs and dump piles in an regional scale not seen since the radical days of the industrial revolution. Not surprisingly, a mounting opposition from environmental groups has begun to form around these forms of resource extraction criticizing both its methods and ultimate aims. The social tension between groups in favor of tar sand mining and those against it have all the more direct translation into space and landscape, with nature and agriculture being opposed to the “scar” left by the operation.

How can we use design to position ourselves in the debate emerging out of the conflicts emerging from this looming territorial transformation?

The cluster seeks to systemically engage with the tension that the economies of tar sands may bring to the region. The dispersed network of mid to small towns in Alberta is set to receive a flood of investment and temporary population which tends to “follow” the extraction processes as it machines its way through the landscape. Eschewing pastoral reading of agriculture, parochial view of historical density or heroic discourses on monumental civil works, we aim to engage spatially, aesthetically and systemically with physical formations linked to mining industry as well as the dispersed network of scattered resistance to its advance. The ultimate aim is to put at the forefront of the urban discourse a series of spaces which have been traditionally left outside of the definition of our metropolis and treated as a malaise which is either avoided or judiciously remediated.

In this course, the students will firstly familiarize with a synthetic approach to time and space in order to engage with a disciplinary research question that will help them to underpin their own Relational Urban Model. This will start as an incipient framework of spatial preferences, fault lines and landscape axis that shall form a primordial idea of territorial struggle and partial control. The Relational Urban Model will be a central part of the engagement with weak urbanization, since it is, perhaps, the act of relinquishing spatial command and yet engaging in its spatial exploration, the approach that these territories are demanding from us.

The generation of the Relational Urban Model fits within a wider framework of a prototypical design research which shall ultimately look at the material dynamics between the scar and the scatter from a distinguished relational perspective. To do so, the students will familiarize with concepts such as Relational Capital and look at ways through which material surplus potentially retrofits one another, pursuing the artificial and unexpected and moving towards a relational approach to materialism. Accommodating both material and physical constraints and discarding any trace of self-referentiality is a way of moving the project to a continuous state of material immanence: networks that are simultaneously infrastructure and sprawl, control and occurrence, scar and flesh.

The aim of this seminar is to introduce the concepts and approach underpinning the main environmental policy instruments with the purpose of looking for ways these can be nested into urban design proposals. The use of Relational Urban Models enable environmental instruments such as market based instruments or command and control to play a proactive role in the generation of a specific spatial agenda. The purpose is to help the students to develop their own critical position with regards to modes of control in urban design which shall influence on the focus given to their Relational Urban Model

- **FORMAT:** The seminar will start with a short introduction by the design tutor and follow by group discussion
- **KEY WORDS:** Market based instrument, Command and Control, Manhattan Model, 22@
- **KEY AUTHORS:** Perkins

#### Cluster Seminar 4: Urban Documentation

The aim of this seminar is to discuss the relationship between urban design and urban documentation, to what extent urban documentation poses limitations to achieve not only a particular idea of the city but also its spatial qualities. The purpose is to help the students to develop their own critical position with regards to the use of alternative modes of documentation for urban design which shall help them in the development of the thesis conclusion

- **FORMAT:** The seminar will start with a short introduction by the design tutor and follow by group discussion
- **KEY WORDS:** Plannign policy

idea of a process based urbanism, looking at the context and debate that each position has historically presented. The purpose is to help the students to develop their own critical position with regards to this streamline, which shall influence on the focus given to their Relational Urban Model.

- **FORMAT:** The seminar will start with a short introduction by the design tutor and follow by case studies presented by the students.
- **KEY WORDS:** Metabolic Urbanism, Ecologic City, Utopian of the process
- **KEY AUTHORS:** Cerda, Wright, Swyngedow, Shane.

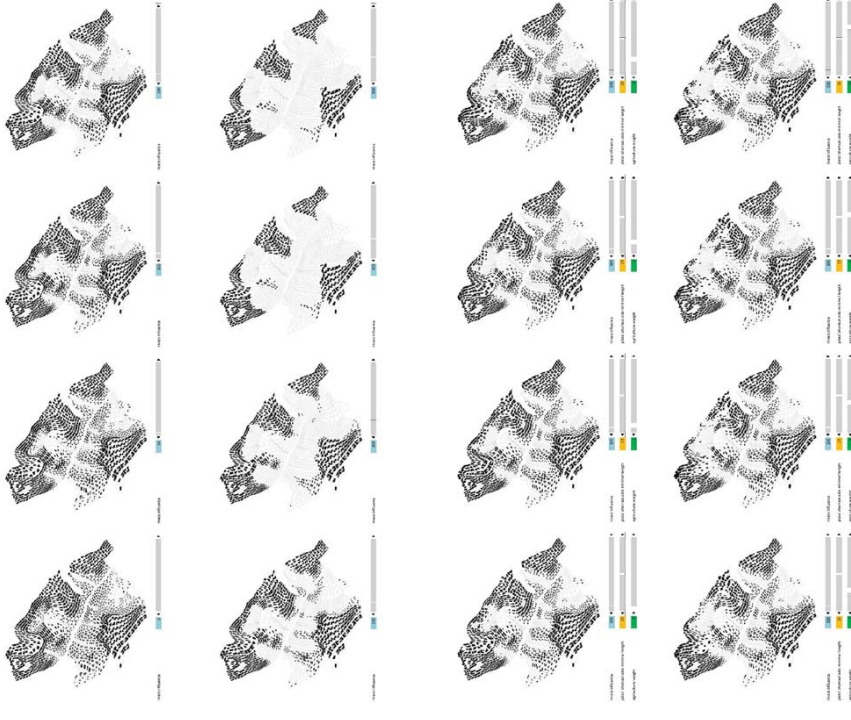
#### Cluster Seminar 2: Control (Week 2)

The aim of this seminar is to discuss how different urban design proposals imply a different mode of control of the territory, in which ways different modes of control influence on the spatial quality of the territory, the scale of the interventions and the capacity of different actors to influence on it. The purpose is to help the students to develop their own critical position with regards to modes of control in urban design which shall influence on the focus given to their Relational Urban Model

- **FORMAT:** The seminar will start with a short introduction by the design tutor and follow by case studies presented by the students.
- **KEY WORDS:** Control, Tensegrity,
- **KEY AUTHORS:** Chatelet, Shane

#### Cluster Seminar 3: Urban Design and

Environmental Policy instruments



## COURSE STRUCTURE

### FIRST TERM: DISCIPLINARY QUESTION/BASIS OF RELATIONAL MODEL (Individual Work)

The work in the first term will be geared towards the generation of an incipient **Relational Urban Model**. The students will be familiarized with concepts linked to different modalities of time and space in order to engage with a disciplinary urban design question based on the following question:

#### How a synthetic thinking of time and space affects computational urban design techniques?

The students will choose one of the main disciplinary techniques introduced by the transversal workshops and construct its own specific design question tailored to it. This question will guide the experiment to produce abstract models of time and space using attractors and applying different modes of cybernetic definitions such as oscillation or homeostasis. This will lead to an incipient Relational Urban Model which initially is not linked to a specific context nor a specific tectonic but focus on the generation of abstract spatial patterns guided by the research question and derived from the concepts discussed during the cluster seminars.

ideas developed during this period towards new forms of territorialisation?

- **FORMAT:** The seminar will start with a project presentation by the design tutor, follow with case studies presented by the students.
- **KEY WORDS:** Periphery, Territory, Production systems, Waste, Infrastructure, Space of flows
- **KEY AUTHORS:** Scott Lloyd, Allen, Ballard, Perez Gomez

### Cluster Seminar 4: Simulation (Week 6)

Simulation constitutes a critical design instrument when facing multi-scale and multi-physical problems. The intuitive capacity of the designer to test design decisions makes simulation building a critical part of this methodology. The aim of this seminar is to support the Cluster Workshop III: Trans-modeling introducing different approaches and key aspects when designing simulation building projects.

- **FORMAT:** The seminar will start with a project presentation by the design tutor and follow with case studies presented by the students.
- **KEY WORDS:** Simulation building, Agent based simulation, Form and Formation
- **KEY AUTHORS:** Beaulieu et al., Kahn.

## THIRD TERM: ACTUALISATION

### Cluster Seminar 1: Towards a utopia of the process (Week 1)

The aim of the seminar is to review the different disciplinary perspectives that have engaged with the

- **KEY WORDS:** Points, fields, lines, Diagrams, Metaeder and topology
- **KEY AUTHORS:** Allen, Vidler and Frei Otto.

#### Cluster Seminar 2: Agri-Urban Terrains (Week 3)

Parallel to the urbanisation process that has dominated the world in the last 30 years, large territories have emerged dedicated to the provision of material and energy as well as the assimilation of waste and surplus derived from large scale urban agglomerations. The aim of this seminar is to discuss the future role of these territories, its main design challenges and specific qualities that would help designers to bring them back to the cultural core of the city.

- **FORMAT:** The seminar will start with a project presentation by the design tutor, follow with the discussion of the main project location identified by the students.
- **KEY WORDS:** Periphery, Territory, Production systems, Waste
- **KEY AUTHORS:** Alberto Perez Gomez, Luis Callejas, Relational Urbanism

#### Cluster Seminar 3: Infrastructural Urbanism (Week 5)

Hype on the benefits of infrastructure investment during the 90s led to a series of landscape urbanism designers and theorist to focus on the role and aesthetics of infrastructural projects for the city. This seminar will review its main propositions and theoretical underpinnings with the purpose of discussing the following question: How a relational approach to material dynamics can bring the main

#### **DELIVERABLE I**

- Individual Work
  - 500 words explaining the research question
- Collective Work: Cluster Group
  - Booklet: Structure and Introduction

#### **DELIVERABLE II**

- Individual Work:
  - The incipient Relational Urban Model (Digital Format and presented in the pin-up)
  - Booklet chapter and CD
- Collective Work: Cluster Group
  - Booklet: Introduction, student's chapters and Conclusion.



## SECOND TERM: PROXY MODELLING AND RELATIONS

On the second term the students will engage with forms of material organisation based on the idea of **Proxy modelling and Relations**. This exercise will be underpinned by the two Proxy-Modelling workshops plus one of the transversal workshops chosen by the students. The use of Physical models as proxy for the understanding and abstraction of territorial phenomena will be ultimately the focus of a design intervention. This will then be **nested** using the time-based models developed during the first term. The resulting nested material will be deployed on the site in a first attempt to engage with the specific site conditions, putting the students in a good position for the development of the Relational Urban Model on the third term.

### DELIVERABLE I

- Collective Work: Cluster Group
  - An initial identification of projects location associated with a specific topic.

### DELIVERABLE II

- Groups of Two:
  - Proxy Modelling and Relations Research
    - Material process around infrastructure

### DELIVERABLE III

- Individual Work:
  - Nested Material model deployed on the site.

supporting the Cluster Workshop I: Script Time. The first session will have a conceptual focus linked to physics and mathematics while the second session will introduce the work of artists and designers that have been influenced by this line of thought.

- **FIRST SESSION FORMAT:** The seminar will start with a short introduction by the design tutor, follow with a clarification of concepts in the form of discussion and finish with the mathematical and graphic explanation of these concepts
- **SECOND SESSION FORMAT:** Design Tutor Lecture and case studies presented by the students.
- **KEY WORDS:** Feedback, oscillation, duration and multiplicity
- **KEY AUTHORS:** Bergson, Whitehead, Escher

## SECOND TERM: Proxy Modelling and Relations

### Cluster Seminar 1: Proxy-Modelling I – Systemic Territorialisation (Week 1)

Systemic Territorialisation aims to introduce past outstanding design work focused on systemic forms of occupying the territory based on spatial and geometric logics. This seminar will support the Cluster Workshop II: Proxy-modelling helping the students with the development of systemic design instruments as a form of territorialisation.

- **FORMAT:** The seminar will start with a short introduction by the design tutor, follow with a clarification of concepts in the form of discussion and finish with the presentation of case studies and projects.



## SEMINARS AND THEORY SESSIONS

### FIRST TERM – Disciplinary Question/Basis of Relational Urban Model

Cluster Seminar 1: Relational Urbanism: Territorialism. Concepts and approach (Week 2)

This first seminar will introduce Relational Urbanism position and design agenda within the main disciplinary perspectives in urban design. It will follow with the presentation of existing urban models which success resides on a relational strategy but the design and cultural aspect of the project is set aside, losing its full potential that would derive from nesting the two.

- **FORMAT:** The seminar will start with a short introduction by the design tutor, follow with a clarification of concepts in the form of discussion and finish with the case studies presented by the tutor.
- **KEY WORDS:** Relational Space, Relational Capital, Territory, Cities without ground, 22@.
- **KEY AUTHORS:** Capello, Whitehead, Elden, Picon

Cluster Seminar 2: Bergsonian Time: the concept of multiplicity and duration. (Week 4 and 6)

The Bergsonian Time seminar will look at the work of philosophers and thinkers from early XXC that provided a subjective and qualitative approach to time and space, constituting an alternative to the linear and infinitesimal approach that has dominated the scientific arena since the mid XIXC. The cluster seminar will be split in two sessions

### THIRD TERM: ACTUALISATION (Individual Work)

On the third term the experiments derived from the **proxy models** will be tested with a more sophisticated **Relational Urban Model**. This exercise implies on the one hand dealing with the complexity of incorporating variables and constraints that come from different scales: from the micro to the territorial. And other hand reflecting upon the Relational Urban Model as a mode of documentation that allows to address issues such as process, control and development policies. The students will have to address this multi-dimensional character of the Relational Urban Model and form speculations as to how particular forms of using the territory, agrarian systems and diverse forms of spatial appropriation can be linked to specific political and relational positions. In that way, the Relational Urban Model will start to address site specific conditions incorporating natural variables and unexpected material use that are tweaked to form new territories ready to be re-appropriated for alternative uses.

#### DELIVERABLE I

- Individual Work
  - Relational Urban Model approach and structure: including control, processes and policies.

#### DELIVERABLE II

- Individual Work
  - Relational Urban Model approach and structure: including control, processes and policies.

