



City of Bogotá, Colombia

TERRITORIAL STITCH: BOGOTÁ

designing public spaces and urban typologies based on infrastructures of mobility and water

Subject: 4.154

Units: 0-10-11 G

Schedule: Tue, Thu: 1-6pm

Prerequisites: 4.153

Instructors:

Prof. Alexander D'Hooghe; adhooghe@mit.edu

Prof. Oscar Grauer; oscargrauer@hotmail.com

TA: Laura Williams; llw1@mit.edu

This design research studio is an international collaboration between MIT Department of Architecture and two universities in Bogotá, Colombia: The Universidad de Los Andes and the Universidad de la Salle.

The objective of this course is to re-conceptualize the relationship between water and mobility infrastructures in urban environments as means to reshape urban development patterns. This objective will be undertaken first by studying the logics of water and development at a territorial scale, and second, by focusing on the resultant opportunities to achieve a more balanced, equitable, eco-friendly, and prosperity-inducing development pattern, exemplified by key design projects. A deeper understanding of the relation between the supply, distribution, and recycling of water, and infrastructures fueling urban growth will lead to a redefinition of urban infrastructure layouts. The studio aims to redesign how to make the best use of existing bodies of water, maintain and replenish those in need, and envision ecologically friendly methods to treat used water.

Designing and managing access to water is a key feature of our investigation and therefore the type, design, and layout of systems of infrastructure and services become a key component of this research. Finally, in order to develop economic vitality and social interaction in Bogotá, flows of goods will be investigated in relationship to water and people. This improved approach to designing based on flows of water, people and goods can harmoniously reshape urban form within its territory and contribute to diminishing the gap between social strata, particularly in cities of Developing Countries.

During the semester students will research and design projects that act as fragments of sustainable growth that also maintain and enhance local productivity. By focusing on infrastructure and therefore public space we will study three basic scenarios: (i) reinforcing urban development within existing towns; (ii) exploring innovative, site-specific, and culturally sensitive urban patterns in primarily rural land; and (iii) examining development patterns alongside existing and proposed infrastructure lines as urban connections to the city of Bogotá, Colombia.

This studio will use architecture as a means to address systemic urban challenges with realistic, concrete buildable fragments. The projects will define proposals for groupings of architectural and or urban typologies (buildings, infrastructures, landscape armatures) that are imbued with intelligence about the larger systems (water, transportation, economy, etc.) that they help structure and define.

The selected site is located on a side valley of the Sabana of Bogotá along the River Chicú, one of many tributaries of the River Bogotá. This valley is under real-estate development pressure, therefore new suburban-like expansions are encroaching into centuries' old productive agricultural land.

NOTE: Class size is limited 10 students. MIT faculty and students will travel to Bogotá, Colombia from **Saturday the 19th of March through Sunday the 27th of March 2016 (required)** during the Spring Break on a workshop exploring the area of study. Work will continue during the Spring 2016 semester.

Studio Goals

This is a studio that will use architecture as a means to address systemic urban challenges with realistic, concrete buildable fragments. The projects will define proposals for groupings of architectural objects (buildings, infrastructures) that are imbued with intelligence about the larger systems (transportation, water, economy) that they help structure and define. The studio will focus on a side valley of the Sabana along the River Chicú, one of many tributaries of the River Bogotá. This valley is under real-estate development pressure, therefore new suburban-like expansions are encroaching into centuries' old productive agricultural land. The objective is to design examples of that demonstrate fragments of sustainable growth while maintaining and enhancing local productivity. By aiming on infrastructure and therefore public space we will study three basic scenarios: (i) reinforcing urban development within existing towns; (ii) explore innovative and locally-fitting urban patterns in mostly rural land; and (iii) examine development patterns along existing and proposed infrastructures as urban connectors with the city of Bogotá, Colombia. The course intends to:

- Envision solutions capable of integrating rural and urban, existing and proposed, formal and informal components through innovative interventions in the public realm. This studio will offer a chance to explore how the design of infrastructure, public spaces, and urban typologies can address challenging environmental and socioeconomic problems in order to minimize inequalities and foster interaction between conflicting scenarios. Students will experiment with how to connect separated and disenfranchised communities by planning and designing systems for public spaces, landscape armatures, and urban and architectural components that can provide a better balance between development, nature, and infrastructure. In particular, the studio will focus on the design qualities that urban public spaces should have in order to support neighborhood cohesion, social interaction, environmental mitigation, and economic vitality.
- Explore alternative design approaches that incorporate new infrastructural technologies and cultural dispositions in the decision making processes and design solutions.
- Develop criteria and design solutions and communication skills that make the proposals relevant for decision makers, the community, institutions, and other stakeholders.
- Develop a specific proposal for a site or group of sites that acts as pilot project to demonstrate how an integrated approach to water and infrastructure/public space may yield opportunities for buildable projects, and provide a better balance between development, nature, and infrastructure.
- Provide an analysis in terms of contemporary urbanism, including urban agriculture, ecosystems, infrastructures, energy efficiency, and multi-functional urban frameworks to support unplanned infill, new centralities, mixed-use/income/dwelling types, etc.
- Engage in strategic thinking, explore design issues related to the transformation of environmentally, socially, and economically challenged urban scenarios of developing countries, where a high percentage of the population lives in informal settlements.

- Consider the visions of different urban actors (politicians, institutions, the community, and the private sector) with cutting-edge strategic visions and design criteria for sustainable development.
- Provide the city with innovative ideas so it can produce a strategic plan. The vision will encompass a water management strategy plan—as a result of analyzing territory, both formal and the informal settlements, and under the premise that only by addressing all forms of urbanization as interdependent components can the territory and the city become a healthy, competitive, socially stable, and amicable place to live.

Class Description

The studio addresses a range of practical and analytical approaches to designing the physical and social interactions between territory and rational occupation of that territory. The course concentrates on developing the knowledge and skills to make students capable of analyzing and planning in circumstances in which two conditions collide, in this case urban expansion and agricultural production. Finally, the course aims to develop projects, products, and strategies that address issues of infrastructure and public space through design.

Format

This is a studio. Students and instructor(s) will meet every Tuesday and Thursday Afternoon 1-6pm. Short informal talks will introduce concepts, analytical techniques, and site planning models. In addition, a number of invited guests will give short lectures on selected topics throughout the semester.

Class Objectives

Pedagogically, the course aims to develop students' skills and capabilities in order to:

- Carry out fieldwork including observation, information gathering, and interviews;
- Work in multi-disciplinary teams;
- Understand the nuances of a non-familiar urban context;
- Identify challenges, opportunities and possible interventions;
- Assess the feasibility of the proposals based on social equity and sustainability concepts;
- Develop specific recommendations for the City of Bogotá to confront challenges related to social equity, design, and sustainable development in the selected case study;
- Get acquainted with working methods that allow “reading the site”, developing criteria, designing solutions, and producing general recommendations that can be applied to the solution of similar urban conditions in developing cities.
- Understand the scalar relation between territorial analysis and understanding, and concrete architectural fragment.
- Develop specific architectural strategies that are strategic and significant on a broader scale beyond the footprint of the designed object.

Grading and Evaluation

Students are graded on the basis of the quality of their final design work (60%); active participation, commitment, team work, quality of presentation and submitting exercises on time (20%). Demonstrations of a continuous search to improve one's argumentation, thinking, drawings, and striving for improvement will be credited (20%).

Stellar is MIT's web-based platform that contains all relevant information for the course, which can be downloaded. You need a Kerberos ID and an MIT web certificate installed on your computer for access.

Studio Trip

MIT faculty and students will travel to Bogotá, Colombia from Saturday the 19th of March through Sunday the 27th of March 2016. The field trip will allow students to: produce graphic and written documentation through the use of photography and video recordings, as well as notes taken on site; gather relevant information; revise preliminary design vision for the selected site/s; enjoy lectures and conversations with highly qualified faculty, professionals, and public officials; and meet with community representatives. All activities will be carried out in close contact with faculty and graduate students of the schools of Architecture of two local universities: Universidad de Los Andes and Universidad La Salle (advanced undergraduate Urban Planning students). MIT, UniAndes, and La Salle students will team-up during our visit to Bogotá and they will work in close cooperation with planning authorities of city government of Bogotá.

Upon returning to Cambridge, MIT faculty and students will continue working throughout the Spring Term with support from Colombia's universities faculty and students. Participants are expected to:

1. Process and organize information derived from the site visit, coupled with new findings;
2. Develop appropriate representation techniques to reveal the nuances identified on site;
3. Revise the criteria and preliminary design proposals based on the findings during the fieldtrip;
4. Research the "state of the art" in urban infrastructural technologies;
5. Develop new criteria and design proposals;
6. Deliver a set conclusions and recommendations; and
7. Produce a handbook/dossier of the workshop.



The Site

Bogotá was founded in the mid-sixteenth century. Its' urban plan is based on the Spanish 'Law of the Indies' and is located on a plateau (Sabana) about 2,600 meters above sea level. The interdependence between Bogotá and the Sabana dates from the early twentieth century and has been a well-defined and sustainable interaction between city and countryside. The Sabana, a historic lake, still has many wetlands (humedales) which spot the landscape as

underground water emerges on the surface. Through history Bogotá expanded, generally northwards along the edge of the Sabana, and outwards in a 'ribbon development' form.

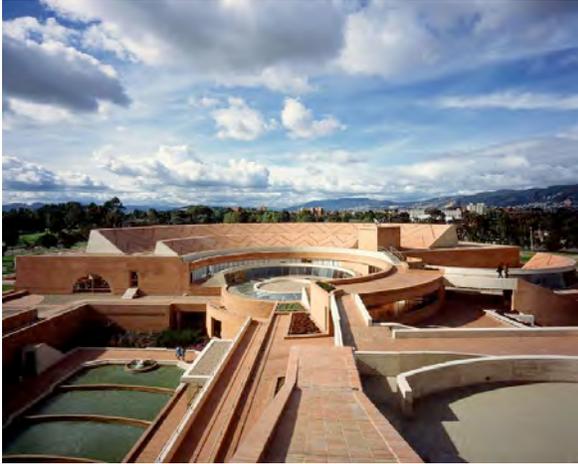
At present, Bogotá and its territory has a population of some eight million inhabitants, with a growth rate over the past ten years or so of around 200,000 people per year. This growth is due in large part to the success of the recent strategies of city revitalization and security, which have drawn new residents from other parts of the country.

This revitalization of Bogotá has attracted migrants at an unprecedented scale in recent history. In turn, this trend is not only altering a relatively balanced urban population in cities across, but it is also quickly transforming rural land into urban land at fringe of the Capital City and its surrounding towns, most of which are of Spanish-colonial origin and have agricultural-based economies. There is a need to respond to real-estate markets for a variety of income groups and build new infrastructure and services, however, the results of urban development will differ based on how this development is designed, managed, and built. The case study of Bogotá can provide a deep understanding of how newly built infrastructure, housing, employment opportunities and services can foster or deter well-structured urban development, especially in relation to encroachment of agricultural landscapes.

Most of Bogotá's inhabitants live in the special District (in one Municipality), which is bounded by the Andes mountain range and the Bogotá river. There is virtually no vacant land within city limits, thus The Federal, Regional Government (Gobernación del Departamento de Cundinamarca), and the Local Government of this capital city, expect that close to one million additional inhabitants will have to be accommodated across the river in the neighboring agriculturally productive Sabana over the next 20 years. Communities closest to Bogotá are already experiencing the changes to come. Some have become dormitory communities, with few jobs or services; some are receiving metropolitan uses that require vast tracks of land (ie campuses, cemeteries or shopping malls); and others are responding to the part-time residential-leisure markets for the middle and upper-middle classes. Without a larger vision, this unplanned growth has resulted, for the most part, in the erosion of the agricultural landscape, the alteration of sensitive water management systems, and in unattractive and inefficient patterns of urban development.

In terms of the residential component, this development has occurred either in the form of enclaves or gated communities, or as informal developments (organized squatters), with no provision of open spaces or services. Each of these trends ignores the unique environmental qualities of the Sabana and will not contribute to making these communities sustainable or competitive in the near future, despite their strategic location.

Despite recent development, the urban population remains highly stratified economically, with around 10% of residents in the highest economic bracket and some 45% in the lowest. This stratification is also registered geographically between the richer north and the poorer south, and includes substantial informal development. Administratively, the city is divided into 19 districts, each with a modicum of 'home-rule' power and, in many places, certainly a sense of territorial control.



Virgilio Barco Library: one of many new educational and recreational.



Transmilenio: Bogotá's new mass transit system Facilities

The adjacent Sabana – the other side of the city-hinterland relationship alluded to earlier – is, for the most part, a highly fertile agricultural plain running roughly south to north, shaped on its edges by the coastal ranges, to the west, and the high Cordillera Occidental, to the east, and through which runs the Río Bogotá with several tributaries coming from the mountain range. It is the veritable ‘bread basket’ of Colombia and especially Bogotá, with a broad array of agricultural production, ranging from dairy products to fresh vegetables and flowers. It also supports some tourism and the second homes of many city dwellers. In fact, its productivity has effectively made Colombia the largest producer of flowers in the world. Administratively, the Sabana is subdivided into numerous municipalities – some 116 in all – and is dotted by numerous small and larger communities.

As mentioned above, this studio will focus on a side valley of the Sabana along the River Chicú, one of many tributaries of the River Bogotá.



New Experiments in Public Housing





Urban Development Encroachment on agricultural land



Valley of Rio Chicú



Restoration of Juan Amarillo humedal in Bogotá



Town of Tabio

Course Scheule

Part I + II: City-Wide Analysis + Site Opportunity Definitions

Briefing and Reconnaissance: Description of the project and site. Task assignments.

Documentation and Analysis

- People’s use of the selected site and surroundings
- Material and design
- Flows of people and goods
- Flows of infrastructure services and information

W1	Thursday 2/4	Course Introduction Thematic city-wide analysis in groups
W2	Tuesday 2/9	Class Presentation: Marcel Smets “Contemporary Infrastructure Design” (1:00-3:00PM) Desk Critique
	Thursday 2/11	INTERNAL PIN-UP Students present Draft analysis Select Zoom-in Locations for site projects. Start ‘Opportunity Analysis’ on 1-3 sites
W3	Tuesday 2/16 Thursday 2/18	NO CLASS Class Presentation: Oscar Grauer “History and Culture in Latin America, Part 1” (1:00-2:00PM) Desk Critique
W4	Tuesday 2/23	Class Presentation: Oscar Grauer “History and Culture in Latin America, Part 2” (1:00-2:00PM) Desk Critique
	Thursday 2/25	Desk critique (OG)
W5	Tuesday 3/1	FIRST PIN-UP PRESENTATION: Area Analysis, Site selections, Opportunities

Part III: Development of Design: Object Grouping

	Thursday 3/3	Desk critique
W6	Tuesday 3/8	Class Presentation: Alejandro Echeverri “The Case of Medellin, Colombia” (1:00-3:00PM) Desk Critique
	Thursday 3/10	Desk critique (OG)
W7	Tuesday 3/15	Class Presentation: David Gouverneur “On the Urban Fringe” (1:00-3:00PM) Desk Critique
	Thursday 3/17	PINUP OF SELECTED DESIGN PROPOSAL

W8 Spring Break Trip to Bogota-Workshop

Day 1 (March 19th)	Saturday	MIT students Arrive in Bogotá
Day 2 (March 20th) 8:00 AM 8:30 AM- 6:00 PM	Sunday Welcoming Meeting Site Visit and Local Authorities and Community meetings	First day of work Universidad de la Salle
Day 3 (March 21st) 8:00 AM- 6:00 PM	Monday Western Bogota Reconnaissance (Juan Amarillo wetland and Suba -Bikes)	
Day 4 (March 22nd) 8:00 AM – 12:00 PM 12:00 PM- 1:45 PM 1:45 PM – 2:15 PM 2:15 PM – 3:15 PM 3:15 PM – 3:30 PM 3:30 PM – 5:30 PM	Tuesday Visit to flower production greenhouses, agriculture, and Industrial areas Lunch Lecture 1 Lecture 2 Coffee Break Roundtable discussion with guests	 Universidad de la Salle
Day 5 (March 23rd) 8:30 AM – 1:45 PM 1:45 PM – 2:45 PM 2:45 PM – 3:00 PM 3:00 PM – 3:45 PM 3:45 PM – 4:00 PM 4:00 PM – 5:30 PM 5:30 PM – 6:00 PM	Wednesday Visit to Northeastern Areas (Cota and Chia) Lunch Lecture: Risk and Hope in Urban Design, by Alexander D’Hooghe Lecture: Bogota 2006 -, by Oscar Grauer Coffee Break Roundtable Discussion Closing Remarks/Workshop Introduction	 Universidad de la Salle
Day 6 (March 24th) 8:30 AM – 12:00 PM 1:00 PM – 6:00 PM	Thursday Workshop/Charrette Workshop/Charrette	 Universidad de la Salle
Day 7 (March 25th) 8:00 – 12:00 PM 1:00 – 2:00 PM 2:00 - 6:00 PM	Friday Workshop/Charrette Lunch Student presentations	 Universidad de la Salle
Day 8 (March 26th) 9:00 – 12:00 PM 1:00 – 2:00 PM 2:00 - 6:00 PM 8:00 – 10:00 PM	Saturday Visit to Zipaquirá or to Downtown Bogotá (chocolate and cookies) Lunch Free time Celebration	
Day 9 (March 27th)	Sunday Return to Cambridge, MA USA	

W9	Tuesday 3/29	Class Presentation: Alexander D’Hooghe “Contemporary Urban Design”(1:00-3:00PM)
	Thursday 3/31	Bogotá Trip Debrief + Desk Critique Desk Critique
W10	Tuesday 4/5	Desk Critique
	Thursday 4/7	MID-TERM PRESENTATION

Part IV: Detailing a specific object: a space, building or infrastructure

W11	Tuesday 4/12	Desk Critique
	Thursday 4/14	Desk Critique
W12	Tuesday 4/19	NO CLASS
	Thursday 4/21	Desk Critique (OG)
W13	Tuesday 4/26	Desk critique
	Thursday 4/28	PENULTIMATE DESIGN PINUP
W 14	Tuesday 5/3	Desk critique
	Thursday 5/5	OPTIONAL SESSION
W 15	Tuesday 5/10	OPTIONAL SESSION
	Thursday 5/12	FINAL PRESENTATION

Final presentation and documentation: refined proposals will be presented and put in book format for publication along with the rest of the class.

MIT Notes

Disabilities. If you have a documented disability, or any other problem you think may affect your ability to perform in class, please see the instructor early in the semester so that arrangements may be made to accommodate you.

Academic Integrity. Plagiarism and cheating are not acceptable. Never (1) turn in an assignment that you did not write yourself, (2) turn in an assignment for this class that you previously turned in for another class, or (3) cheat on an exam. If you do so, it may result in a failing grade for the class, and possibly even suspension. Please see the instructor if you have any questions about what constitutes plagiarism.

Readings

Part I + II: City-Wide Analysis + Site Opportunity Definitions

Echeverri, Alejandro, and Francesco Orsini. 2011. "Informalidad y Urbanismo Social En Medellín." Cátedra UNESCO De Sostenibilidad De La UPC 12: 11–24.

Ferro, José Salazar. "Bogotá's Recovery Process." *Megacities* (2011): 311-344.

Leguía, Mariana. "Latin America at the Crossroads." *Architectural Design* 81, no. 3 (2011): 8-15.

Hebbert, Michael & Sonne, Wolfgang. *History Builds the Town: On uses of history in the Twentieth-century City Planning* in Monclus, Javier and Manuel Guardia ed., *Culture, Urbanism and Planning* (2006) pp.3-19

Gutman, Margarita. *The Power of Anticipation: Itinerant Images of Metropolitan Futures Buenos Aires 1900-1920* in Monclus, Javier and Manuel Guardia ed., *Culture, Urbanism and Planning* (2006) pp.85-112

Recommended:

Fessler, Lilian and Berenstein, Paola. *Contemporary Urban Spectacularization* in Monclus, Javier and Manuel Guardia ed., *Culture, Urbanism and Planning* (2006) pp. 241-253.

THURSDAY, FEBRUARY 18

History and Culture in Latin America, Part 1: Spanish Colonial America and Republican Period, Oscar Grauer

Readings:

Nuttall, Zelia. Translator. *Royal ordinances concerning the laying out of new towns.* (1922)

Fuentes, Carlos. *The Buried Mirror.* pp 8- 355

Almandoz, Arturo Ed., *Planning Latin America's Capital Cities 1850-1950* (2002) pp. 1-44 and 271-275

University of Miami School of Architecture. *The New City, Foundations.* (Fall 1991) pp. 34-67

Recommended:

University of Miami School of Architecture. *The New City. Foundations.* (Fall 1991)

The Laws of the Indies. The Spanish American Grid Plan: The Urban Bureaucratic Form by Graziano Gasparini. PP 7-17

Engels, Frederick, *The Condition of the Working Class in England* (first published in German, 1845) pp 1-75 and 276-298

TUESDAY, FEBRUARY 23

History and Culture in Latin America Part 2: Latin American Modernism, Oscar Grauer

Readings:

Le Corbusier. *The Athens Charter* (1973) pp. 39-105

Krier, Leon. *Architecture, Choice or Fate.* Chapter III, pp. 57-83. Skim Chapter V, pp. 121-170

Recommended:

+ Niemeyer, Oscar. *The Curves of Time. The Memoirs of Oscar Niemeyer.* (In particular pp.162-176)

+ Fraser, Valerie. *Building the New World.* (2000) (In particular on Mexico, Venezuela, and Brazil)

TUESDAY, MARCH 8

The Case of Medellin, Colombia, Alejandro Echeverri

Readings:

Brand, Peter, and Julio Davila. "Aerial cable-car systems for public transport in low-income urban areas: lessons from Medellin, Colombia."

Gouverneur D. & Grauer O. *To Ignore or Integrate?* Harvard Design Magazine. (Summer 1999) pp. 47-49

Gouverneur D. & Grauer O. *Urban Connectors*. Harvard Design Magazine. (Spring-Summer 2008) pp. 24-30

Gouverneur, David, *Planning and Design for Future Informal Settlements*. (2015) Pp. 1-110

Peñalosa, Enrique. *Politics, Power, Cities*. Pp.307-319 in *The Endless City* (2007).

Neuwirth, Robert. *Shadow Cities*. (2006) pp. xi-xiv, 1-65, 241-315

De Soto, Hernando. *The Other Path*. (1990) pp. xi-xx, 3-127, 231-261

TUESDAY, MARCH 15

On the Urban Fringe, David Gouverneur

Readings:

Rowe, Peter. *Making a Middle Landscape*. Part 1, pp. 1-60

+ Bell, Bryan. *Good Deeds, Good Design: Community Service through Architecture*. Princeton Architectural Press, 2003

Stan Allen, "Infrastructural Urbanism." *Points + Lines: Diagrams and Projects for the City*. New York: Princeton Architectural Press. 1999. 46-57.

Pierre Belanger, "Landscape as Infrastructure," in *Landscape Journal* 28:1-09. 80-95.

Mohsen Mostafavi, "Structure as Space, Space as Structure," in Mohsen Mostafavi, ed. *Structure as Space: Engineering and Architecture in the Works of Jürg Conzett and His Partners*. London: AA Publications. 2006. 8-17.

+ Mohsen Mostafavi and Ciro Najle, eds. *Landscape Urbanism: A Manual for the Machinic Landscape*. London: Architectural Association. 2003.

Chris Reed, "Public Works Practice." in Charles Waldheim, ed. *Landscape Urbanism: A Reference Manifesto*. New York: Princeton Architectural Press. 2006

Recommended:

+ Balmond, Cecil with Smith, Jannuzi. *informal*. (Munich: Prestel. 2002.)

+ Corner, James (ed). *Recovering Landscapes: Essays on Contemporary Landscape Architecture*. (New York: Princeton Architectural Press, 1999)

+ Forman and Gordon, *Landscape Ecology* (New York: Wiley, 1986)

+ McHarg, Ian L.. *Design with Nature*. (Garden City, New York: Natural History Press, 1971)

TUESDAY, MARCH 29

Contemporary Urban Design, Alexander D'Hooghe

Readings: First section of Background Readings

Background Readings

+ Brenner, Neil (ed.). 'Implosions / Explosions. Towards a study of Planetary Urbanization.' (Berlin: Jovis, 2014): Introduction, and Chapter 1: 'the urbanization question'.

Alexander D'Hooghe, "The Objectification of Infrastructure: Elements of a Different Space and Aesthetic for Suburban America," In Andres Sevtsuk (ed.), *Projections 10: Designing for Growth and Change* (2011)

Marcel Smets, "Grid, Casco, Clearing, Montage," *Topos* 38 (March 2002):88–101; "Contemporary Landscape of European Infrastructures," *Lotus* 110 (September 2001): 116-143.

"Monument or Armageddon", and "Learning from Late Modernism". Alexander D'Hooghe, Ole Bouman, Timothy R. Campos, Neeraj Bhatia, et al. (eds.), Volume 9:

Crisis? What Crisis?_Archis+ AMO+ C-Lab+MIT, November 2006 (Amsterdam, NL; G Meckenheim: Idea Books, 2006).

+ Emanuel Christ (Author), Stefano Munarin (Author), Ivan Nio (Author), Maria Chiara Tosi (Author), Alex Wall (Author), Geert Bekaert (Author), Xaveer De Geyter (Editor). *After-Sprawl: Research On The Contemporary City*. (Rotterdam: NAI Publishers, and Antwerp: deSingel, 2002)

Kenneth Frampton, "Prospects for a Critical Regionalism," *Perspecta* 20 (1983): 147–162.

Manuel de Sola-Morales, "The Periphery," *Urbanismo Revista* 9–10 (1992): Full issue; read also pp. 4–5.

Nuttall, Zelia. Translator. *Royal ordinances concerning the laying out of new towns*. (1922)

+ Almandoz, Arturo Ed., *Planning Latin America's Capital Cities 1850-1950*. Routledge, (2002)

+ University of Miami School of Architecture. *The New City, Foundations*. (Fall 1991)

+ Engels, Frederick, *The Condition of the Working Class in England* (first published in German, 1845) pp 1-75 and 276-298

+ Fuentes, Carlos. *The Buried Mirror*. Mariner Books, 1992 (it is highly recommended to be acquired)

+ Niemeyer, Oscar. *The Curves of Time. The Memoirs of Oscar Niemeyer*. Phaydon, (2000)

++ Harvard Design Magazine. (Summer 1999)

++ Harvard Design Magazine. (Spring-Summer 2008)

+ Neuwirth, Robert. *Shadow Cities*. Routledge (2006)

De Soto, Hernando. *The Other Path*. (1990)

Davis, Mike. *Planet of Slums*. (2006)

Torre, Susana. *Claiming the Public Space: The Mothers of Plaza de Mayo* in *The Sex of Architecture* ed. Diana Agrest, Patricia Conway, Leslie Kanes Weisman (1996)

The Endless City (2007)

Universidad Metropolitana. *The Rehabilitation of the Litoral Central, Venezuela*. Oscar Todtmann Editores, Caracas, 2001.

Mehrotra, Rahul. *One Space Two Worlds: an investigation of the urban structures of Bombay*. Harvard Design Magazine. (Winter-Spring 1997)

Fraser, Valerie. *Building the New World*. (2000)

Monclus, Javier and Manuel Guardia ed., *Culture, Urbanism and Planning* (2006)

Hernandez, Felipe, Kellett, Peter and K.Allen, Lea ed. *Rethinking the Informal City*. (2010)

Krier, Leon. *Architecture, Choice or Fate*. (1998)

Universidad de los Andes / Pontificia Universidad Javeriana. *LC BOG: Le Corbusier en Bogotá, 1947-1951*. (2010)

Gouverneur, David, *Planning and Design for Future Informal Settlements*. (2015)

All Required Readings are available on Stellar Course Site 4.154 Architecture Option Studio: Bogotá

(+) Indicates reading is on course reserve at Rotch Library

(++) Indicates reading is in limited access Journal Archives at Rotch Library