University of Waterloo

Spring 2019

ARCH 520 | **Urban Forms and Ecologies. Towards an Urban Common**

Wednesdays 2-5 pm | Room 2046

Roberto Damiani, Ph.D. | Roberto.Damiani@daniels.utoronto.ca

Course description

With the end of the welfare state and rise of the service economy, the global city and its territorial networks became an active platform for neo-capitalist forms of accumulation and exploitation supported by neoliberal urban policies. After almost thirty years of urban euphoria, it is only recently that intellectuals, politicians, architects, and urbanists have begun to talk about the current urban crisis in terms of inequality and segregation, housing affordability, land consumption, and environmental emergency. Recognizing urbanism's inability to guide the industrial city, in his 1963 book *The Origin of Modern Town Planning* Leonardo Benevolo acknowledged its corrective and remedial nature. What has changed since then? In the wake of the current urban crisis, can urbanism be taken more seriously as a long-term strategy? Placed at the intersection of architecture, urban design, landscape urbanism, and urban governance, this course presents the ecological discourse in relation to the emerging issues affecting large urbanized areas around the globe and the design theories and practices put in place to remediate increasing urban inequality and environmental devastation. Against the recent abuse of ecology as a metaphor and its techno-scientific vision, the course will discuss contemporary ecological theories and practices of restorative design to research complex urban ecosystems where natural, physical, and built environment are interrelated Along with the ecological discourse, the recent arguments on the urban land as commons will be part of the discussion too.

Course Structure and Objectives

The course is structured around three main activities: lectures by the instructor, student presentations, and a term research project. All students will be expected to come prepared to the class and participate actively in the weekly discussions. Each week, students organized in two teams—"the canonical" and "the ecological"— will present and discuss assigned readings. Throughout the term, each student will select and investigate a specific theme and map its physical forms. At the end of the course students will be able to discuss the evolution of urban theories in relation to the ecological discourse, understand contemporary cities as complex ecological systems, analyze and identify ecological issues in contemporary urban forms, use specific mapping techniques—such as HERCULES and PRIZM—for the analysis of biological, social, and physical components of urban environments, relate ecological design goals to aesthetic and experiential ones, and elaborate on the urban commons as a collective mode of urban governance.

Course Assignments

Through the two lenses of ecology and the urban commons, students will look closer into the interrelationship between natural and artificial systems. Taking the class readings, case studies, and discussion as a starting point, students will be asked to focus on a specific theme and represent its physical articulation as an "ecosystem" in the Greater Golden Horseshoe. For their assignment, students can choose between two formats: a traditional paper or a series of maps and diagrams. As for the traditional paper, students will be asked to select one subject —it can be an urban theory, an urban model, a built or an unbuilt project— from the ones discussed in class and analyze its influence on urbanism. As for the map and diagrams, the research topic should be investigated in the Region of Waterloo seen in relation to other networks in the GTAH with a specific focus on the following spatial conditions: urban enclaves (e.g., low-income / high-income neighbourhoods), natural or artificial urban corridors and barriers (e.g., commercial corridors, highways, railway, ravines, subway), natural or artificial borders (lakes, the Green Belt, Canada-US border), and mono-functional areas (e.g., employment areas, strip malls, university campuses, the "yellow belt"). All together, the papers will inform a visual atlas of the fast-changing region around Lake Ontario.

Assignments Schedule and Submissions

Defining Emerging Ecologies: The Map, the Pattern, and the Elements

A) Interactive Maps and Diagrams Format

Ass 1) Research topic and selected area presentation: (3oo-word description, regional maps, and diagrams).
Through the first assignment, students will explore and visualize one selected topic, its relationship to global and local networks, and its spatial distribution in the GTAH.

Ass 2) Spatial patterns: 300-word description min. per map or diagram, maps and diagrams.
Having in mind the selected topic in Ass 1, for the second assignment, students will be asked to look closer into the spatial configuration of an urban patch or system.

Final) Typological studies of conditions of adjacency: 3oo-word description min., diagrams.
Revision and submission of previous assignments.
For the final assignment, students will contrast and compare different condition of adjacency between natural and artificial environments within the selected patch/system. The final submission includes the three revised assignments.

In parallel to the main course assignment, students will be asked to develop a bibliography on the selected research topic.

B) Paper Format

Assignment 1 | Research Topic and Case Study Presentation: (500-word description with illustrations).

Assignment 2 | In-progress paper presentation: 750-word min. text with illustrations.

Assignment 3 | Final Paper: 1500-word min text with illustrations.

Class Schedule	Topic	Format
1 May 8	Defining Ecology and Urban Theories	Intro lecture
2 May 15	Ecology and Urban Decentralization	Readings discussion and lecture.
3 May 22	**Assignment 1**	**Presentation.**
4 May 29	Ecology and Urban Heterogeneity	Readings discussion and lecture.
5 June 5	Suburban Ecologies | Guest seminar with Michael Piper (date may change).	
6 June 12	Mapping and Representing Urban Ecologies	Readings discussion and lecture.
7 June 19	**Assignment 2**	**Presentation.**
8 June 26	Ecology and Urban Inclusivity	Readings discussion and lecture.
9 July 3	Ethnoburbs | Guest seminar with Erica Kim (U of T) and Noheir Elgendy (Ryerson).	
10 July 10	Ecology, Mobility, and Productivity	Readings discussion and lecture.
11 July 17	Ecology and Urban Governance	Readings discussion and lecture.
12 July 24	**Final Presentations**	

Evaluation:

The final grade will be based on three assignments: a research proposal, a mid-term presentation, and a final paper/dossier. Class participation (attendance and engagement) will be also part of the final grade.
The breakdown is as follows:

Ass 1| The Map	20%	Ass | 3 Conditions of Adjacency/ Final submission	35%
Ass 2| Spatial patterns	20%	Class participation	25%

Readings

The class readings are divided in two categories the "canonical" and the "ecological." Under the canonical category are grouped arguments and positions that gave an important contribution to contemporary urbanism, yet they do not carry an ecological or environmental vision. In the ecological section, students will find readings that play a key role in shaping the ecological discourse. Despite the profound differences, the two groups of readings should be seen as complementary. Each week, students working in-pair will present two readings from each category.

Intro class: Defining Ecology and Urban Theories

The intro class introduces analogies and differences between contemporary theories on the city, urbanism and ecology through the analysis of their intellectual frameworks and operative agendas. The readings for this class can be completed over the term.

Canonical

Lefebvre H., "From the City to Urban Society" in Lefebvre H., "The Urban Revolution" (Minneapolis: University of Minnesota Press, 2003): 1-23.

Sassen S., "The Global City: Introducing a Concept," in *Journal of World Affairs* No.2 (Spring 2005): 27-43.

Sassen S. et al., "Defining Megacities" in Bujis S. et al. (eds.), *Megacities. Exploring a Sustainable Future* (Rotterdam: 010, 2010): 77-82.

Ecological

Berger A., "Landscape, Urbanization, and Waste" in *Drosscape. Wasting Land in Urban America* (New York: Princeton Architectural Press 2006): 18-25.

Banham R., "In the Rear-view Mirror" and "An Ecology For Architecture" in Banham R., *Los Angeles. The Architecture of Four Ecologies* (Berkeley, Los Angeles, London: University of California Press, 2000): 3-16, 217-226.

Corboz A., "The land as palimpsest" in *Diogenes* n.31 1983, 12-34.

Forman R., "Urban Ecology Concept" in Forman R., *Urban Ecology. Sciences of City* (Cambridge: Cambridge University Press, 2014): 2-9.

Mostafavi M., "Ecological Urbanism" in Mostafavi M., Doherty G., *Ecological Urbanism* (Zurich: Lars Muller, 2016)

Suggested

For an extended reading on Saskia Sassen's arguments on the global city see Sassen S., *The Global City* (Princeton, Oxford: Princeton University Press, 2001). Also, Sassen S., "Geographies and Counter Geographies of Globalization" in Davidson C. C., *Anymore* (New York: Anyone Corporations, 2000): 110-119.

2 | Ecology and Urban Decentralization

The second class presents an overview of the concepts of global city and megacity, and a comparison between three different regional models: polycentric systems, networks, and urban patches.

Canonical

P.V. Aureli, "Toward the Archipelago. Defining the Political and the Formal in Architecture" in *Log* 11 (New York: Anyone Corporation, 2008).

Garreau J., "The Search for the Future inside Ourselves" in *Edge City. Life on the New Frontier* (Toronto, London: Anchor Books 1991): 3-15.

Koolhaas R., "The City of Exacerbated Difference" in Chung C.J., Inaba J., S.T.Leong, *Great Leap Forward* (London: Taschen, 2002): 27-30.

Rowe P., "From Suburb to Urban Metropolis" in Rowe P. *Making a Middle Landscape* (London, Cambridge Mass: The MIT Press, 1991): 28-33.

Schrijver L., The Archipelago City: Piercing together Collectivities" in *OASE* n. 71 (Rotterdam, 2006): 18-36.

Trummer P., "The City as an Object: Thoughts on the Form of the City" in *Log* n. 27 (2013): 51-9.

Ecological

Allen S., "From Object to Field" in *Architectural Design* vol.67 (London: John Wiley & Sons, 1997): 24-31.

Diener R. at al., "Introduction" and "Network, Border, Differences: Toward a Theory of the Urban" in Diener R. et al., *Switzerland: an Urban Portrait* (Basel: Birkhäuser, 2006): 16-18, 164-173.

Forman R., "Foundations" in *Land Mosaics: the Ecology of Landscapes and Regions* (Cambridge: Cambridge University Press, 1995): 3-38.

Varnelis K., "Networked Ecologies" in Varnelis K. (ed.), *The Infrastructural City: Networked Ecologies in Los Angeles* (Barcelona: Actar, 2009): 4-17.

Viganò P., "Urbanism and Ecological Rationality" in McGrath B., Pickett S.T.A., Cadenasso M.L., *Resilience in Urban Design* (Berlin: Springer, 2013): 407-426.

Waldheim C., "Landscape as Urbanism" in C. Waldheim ed., *The Landscape Urbanism Reader* (New York: Princeton Architectural Press, 2006): 35-53.

Suggested

Boeri S., Lanzani A., "The Horizons of the Dispersed City" in *Casabella* 588 (Milan: Elemond, 1992): 62-63.

Damiani R., http://www.zeroundicipiu.it/2017/06/15/regions-of-adjacencies-ten-points-on-understanding-and-designing-contemporary-urban-conditions/.

Koolhaas R., "Atlanta" in *S, M, L, XL* (New York: The Monacelli Press, 1995).

Marot S., "The Genesis of a Hopeful Monster" in Hertweck F., Marot S., *The City in the City: Berlin as Green Archipelago* (Zurich: Lars Müller Publishers, 2013): 25-43.

Viganò P., "The Elementary City" in McGrath B., *Urban Design Ecologies* (London: Wiley, 2012): 282-299.

3 | Ecology and Urban Heterogeneity

Through the lenses of urban density and heterogeneity, the class presents and discusses urban patterns as resilient ecosystems.

Canonical

Baird G., "Theory: Vacant Lots in Toronto" in Baird G., Writings on Architecture and the City (London: Artifice Books on Architecture, 2015): 106-123.

Gregotti V., "Modification" in *Casabella* n.498-499 (Milan: Electa, 1984): 2-7.

Koolhaas R., "Contextualism, Rationalism, Structuralism" in *SMLXL* (New York: The Monacelli Press, 1995): 283-287.

Samuels I., Panerai P., "An Anglo-American Postscript" in Panerai P. et al., *Urban Forms. The Death and Life of the Urban Block* (Oxford: Architectural Press, 2004): 160-201.

Sommer R., "Beyond Centers, Fabrics, and Cultures of Congestion: Urban Design as a Metropolitan Enterprise" in Krieger A., Sauders S. W. (eds.), *Urban Design* (op. cit.): 135-151.

Whiting S., "Super" in Log, No. 16 9Spring/Summer 2019): 19-26.

Ecological

Alexander C. et al., "A Pattern Language" in Alexander C. et al., A Pattern Language (New York: Oxford University Press, 1977):IX-XXXIV.

A+T Research Group, "What is Density and what is Speculation?" and "How to Disrupt the Sprawl Lifestyle" in A+T Research Group, Why Density? (Vitoria-Gasteiz: a+t architecture publishers, 2015): 10—23, 246.

de Solà-Morales I., "Terrain Vague" in Quaderns d'Arquitectura y Urbanisme 212 (Barcelona, 1996).

Cadenasso M.L. et al.,"Ecological Heterogeneity in Urban Ecosystems" in Pickett S.T.A. et al. (eds.), *Resilience in Ecology and Urban Design* (Berlin: Springer, 2013): 107-127.

Massoud F., "Coding the Third Condition", http://www.thirdcondition.com/timeline.html, last accessed April 30, 2019.

Oswalt P., "Introduction" in Oswalt P. (ed.), in *Shrinking Cities* (Hatje Cantz, 2005): 12-17.

4| Suburban Ecologies (Guest seminar with Michael Piper, U of T).

The readings for this class will be provided during the term.

5 | Mapping and Representing Ecologies

After the 1980s, the new urban boom pushed architects and urbanists to look for new methods of representation and mapping. If on one side, new digital technologies such as GIS and GPS provided new tools to describe and map in real time the different networks and flows informing the urban, on the other side, the ubiquity of technology is raising issues of surveillance and privacy. The class is an introduction to new techniques of mapping and representing contemporary urban phenomena and their impact on the perception and design of our cities.

Canonical

de-Sola Morales I., "The Culture of Description" in *Perspecta,* Vol. 25 (1989), 16-25.

Scott Brow D., "On Formal Analysis as Design Research" in Scott Brown D., *Having Words* (London: 2009): 69-78.

Vidler A., "Photourbanism: Planning the City from Above and Below" in Vidler A., *The Scenes of the Street and Other Essays* (New York: The Monacelli Press, 2011): 317-328.

"Understanding Urban Narratives: What Cannot be Measured"—interview With Cassim Shepard, http://www.monu-magazine.com/interviews.htm, last accessed May 1, 2019.

Ecological

Corner J., "The Agency of Mapping: Speculation, Critique, and Invention" in Cosgrove D. ed., *Mappings* (London: Reaktion Books, 1999): 213-252.

De Monchaux N., "The Map and the Territory" in De Monchaux N., *Local Code* (New York: Princeton Architectural Press, 2016): 155-177.

Kurgan L., "Mapping Considered as a Matter of Theory and Practice," in *Close Up from a Distance: Mapping, Technology, and Politics* (New York: Zone Books, 2014): 9-18.

Mostafavi M., "Projecting the Landscape Imaginary" in Desimini J., Waldheim C., *Cartographic Grounds* (New York: Princeton Architectural Press, 2016): 8-22.

Thün G. et al., "Networks and Sheds-Regional Cartographies" in Thün G. et al., *Infra Eco Logi Urbanism* (Zurich: Park Books: 2015): 28-89.

Suggested

Corner J. et al., "Introduction" in Corner J., MacLean S. Alex, *Taking Measures. Across the American Landscape* (New Haven, London: Yale University Press, 1996): 15-19;

Mattern S., "A Maps that Tracks Everything," https://www.theatlantic.com/technology/archive/2018/11/can-blockchain-maps-replace-gps/576985/, last accessed April 30, 2019.

6| Ecology, Mobility, and Productivity

T*he class presents the impact of large-scale infrastructural and logistic networks, and discusses the opportunities of thinking their design in relation to larger natural and artificial systems.*

Canonical

D'Hooghe A., "The Objectification of Infrastructure: Elements of a Different Space and Aesthetic for Suburban America" in *Infrastructure as architecture* (Berlin: Jovis, 2010): 85-93.

Le Cavalier J., "Logistics" in Le Cavalier J., *The Role of Logistics* (Minneapolis: Minnesota Press, 2016): 31-62.

Ecological

Belanger P. "Redefining Infrastructure" in Mostafavi M. and Doherty G. (eds.), *Ecological Urbanism* (Zurich: Lars Muller Publishers, 2010).

Forman R., “Green Corridors and Networks” in Forman R., *Urban Ecology. Sciences of City* (Cambridge: Cambridge University Press, 2014): 362-369.
Haynes E. K., “Infrastructure : The Glue of Megacities” in Bujis S. et al. (eds.), *Megacities. Exploring a Sustainable Future* (Rotterdam: 010, 2010): 93-100.
Smets M., “Shaping Mobility Through Infrastructure” in Smets, M., Shannon K., *The New Infrastructural Landscape* (Nai Pubishers: Rotterdam, 2011): 14-21.

7| “Ethnoburbs” | Guest seminar with Erica Kim (U of T) and Noheir Elgendy (Ryerson).
The readings for this class will be provided during the term.

8 | Ecology and Urban Inclusivity.
Neoliberal urban policies played an important role in turning the city into a contested space that produces social inequality and segregation. The class discusses the concept of “right to the city” in terms of housing, urban property theory, and relative patterns of land tenures that facilitate urban heterogeneity and cultural representation.

Lefebvre H., “The Right to the City” in *Architecture Culture 1943-1968* (New York: Rizzoli, 1993): 427-436.
Baird G., “Thoughts on “Agency”, “Utopia” and “Property” in Contemporary Architectural and Urban Theory “ in Baird G., *Writings on Architecture and the City* (London: Artifice books on Architecture): 146-155.
Harvey D., “The New Urbanism and the communitarian trap in Urban Design Magazine n.1 1997,1-3.
Hulchansky D. J., *The Three Cities within Toronto* (Cities Centre Press: Toronto, 2007).
Sanders D., “The First Great Migration: How the West Arrived” and “Arriving in Style”, in Sanders D., *Arrival City* (Toronto: Vintage Canada, 2011): 156-160, 311-324.
Sherman R., “The Ecology of Property” in Sherman R., *L.A. Under the Influence* (Minneapolis, London : University of Minnesota Press, 2010): 103-125.

9 | Ecology and the Urban Commons
Building on the recent studies on the commons, in particular on Elinor Ostrom’s arguments on common-pool resources, the session presents the commons as a form of urban governance and environmental management complementary to the state and the market.

Borch C., Kornberger M., “Urban Commons” in Borch C., Kornberger M. (eds.), *Urban Commons. Rethinking the City* (New York: Routledge, 2015): 1-22.
Harvey D., “The Creation of the Urban Commons” in Harvey D., *Rebel Cities* (New York: Verso, 2012): 68-88.
Ostrom E. at al. (eds.), “Common-Pool Resources and Commons Institutions” in Ostrom E. at al. (eds.), *Protecting the Commons* (Washington: Island Press): 1-15.
Löw M., “Managing the Urban Commons” in Borch C., Kornberger M. (eds.), *Urban Commons. Rethinking the City* (New York: Routledge, 2015): 109-126.

Thün G. et al., "Conduit Urbanism: Structuring the Common" in Thün G. et al., *Infra Eco Logi Urbanism*. (Zurich: Park Books: 2015): 117-123.

Extra resources

Magazines such as *MONU*, and *Volume*, can be very good resources for being up to date with the current discussion on urbanism. Public or private institutions such as Canadian Urban, the Neptis Foundation, and the Martin Prosperity Institute offer free-access to urban studies on Toronto and southern Ontario. As for other academic studies, the Studio Basel at the ETH in Zurich produces interesting reports on specific global cities.

Academic integrity, grievance, discipline, appeals and note for students with disabilities:

[The following statements MUST be included in all course outlines and/or websites.]

Academic integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check the Office of Academic Integrity for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check the Office of Academic Integrity for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline. For typical penalties, check Guidelines for the Assessment of Penalties.

Appeals: A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals.

Note for students with disabilities: AccessAbility Services, located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.