

## Climate Change and Global Cities

Syllabus, Spring 2017

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\*Syllabus is subject to change and may be updated throughout the semester

### Course Description

Climate change and urbanization are perhaps the two most powerful forces reshaping life on earth in the 21st century. Here in the United States, those forces have contributed profoundly to the gaping, dangerous divide the recent election revealed between cities and the countryside, rich and poor, diversity and isolationism. Worldwide, climate change has contributed to an age of unprecedented migration, the consequence of political, economic and environmental forces that have displaced some 65 million people, more than at any time in recent history. These people are among the many factors driving the rapid growth of cities. A healthy planet demands healthy, prosperous cities, which protect their residents and provide them with opportunities while planning for the effects of climate change. These goals are not easily reconciled, and that is the focus of this seminar – to unpack the different ways in which climate change impacts different cities around the world and come up with ways, ultimately, to make a case for action. What afflicts Mexico City is not the same as what afflicts Guangzhou. Rotterdam may have lessons to teach but so do Los Angeles and New York. There's a lot of talk these days about what mayors can do and how cities know best, but cities aren't islands and nature pays no heed to political borders. This means we need to look at cities from varied perspectives, question what have become standard "solutions," think of plans that address not only climate resilience but also social and economic resilience, because in the end they need each other, or else there can be chaos.

I approach this as a journalist and critic and want students to learn how to think through the climate problems facing cities as a journalist and critic might. In whose interests are changes made, or not? How do you begin to separate out foreground issues from background ones? Students should come away with a sense of how to tell the story that they believe will make case for action.

This means considering issues in various cities from a range of perspectives -- technological, cultural, economic, through the eyes of politicians, community leaders, historians as well as planners and architects. We will meet with a range of guests who will present different approaches. We will adopt roles to play out certain scenarios. We will then break into teams and present semester-ending projects that should be critical arguments for specific climate adaptation strategies in specific cities.

### Grading

Weekly Reading Responses & Participation: 50%

Group Project: 50%

Participation in weekly discussions will be essential to the success of this course; your grade is weighted accordingly, with half of your grade dependent on thoughtful and consistent participation. This portion of your

grade will come from weekly response papers and class discussions, including leading portions of the class discussion on assigned texts or subjects. The other half of your grade will be based on a semester-long group project, described below.

## Assignments

### *Response Papers*

Each week, you are asked to submit a brief (1 page) paper in response to the readings. The response papers are intended both to ensure that students come to class prepared, and to give the teaching team a chance to tailor lectures and discussions to the questions raised and gaps in knowledge that become evident through responses. Please submit papers using your DropBox on Courseworks. Papers will not be graded individually, but you will receive feedback on them.

### *Group Project*

A group project, which will include a paper of approximately 20 pages due May 5, as well as a final presentation to be held the same date, will make the case for climate action related to the same problem in two contrasting cities. We will talk more in class about problems you may wish to focus on as well as about how to choose two contrasting cities. The most obvious contrast that you may wish to choose is a city in a low-income country vs a city in a high-income country; you could then look at, say, addressing the increasing frequency of storm surges in the two contrasting cities. You could also, though, choose a different kind of contrast between two cities: a city in a democratic country vs one in an autocratic country, for example, may have different sets of considerations when dealing with questions of development in floodplains. Cities in countries with a long history of dealing with extreme heat may address an increased frequency of heat waves very differently than cities without such a history. We will begin forming groups and choosing the problems you'll focus on, as well as the two cities, early in the semester. In the latter part of the semester, you'll work with your group to develop a compelling case for each of your cities to take action with regard to your selected problem, and you will be graded on how effectively you make that case.

## Course Outline

We begin the course with an overview of the climate change-related challenges facing cities. We then spend several weeks diving deeper into New York's approach to climate change adaptation, making use of the world class designers and policy-makers who have worked on the problem here. We then take two sessions to focus on how various stakeholders may reach (or not reach) agreement on climate change-related challenges and on what types of communication strategies are most effective for encouraging action. We then zoom out and survey three global cities and how each has dealt with a climate change issue. During the semester we will set one class session aside as a work session, where the teaching team will be available for questions and input on final projects, and we will end the course with an extended session in which all groups will present their final projects.

*Week 1: Climate Change & Global Cities: Background*

1/20/2017

We begin with a discussion of climate change and the challenges it presents to cities. The two books assigned are great reads and you are encouraged to read both in their entirety.

### Readings:

1. Kolbert, Elizabeth. 2011. *Field notes from a catastrophe: Man, Nature, and Climate Change*. Bloomsbury Publishing.
2. Parenti, Christian. 2011. *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Nation Books.
3. Kimmelman, Michael. 2017. "The Lights are on in Detroit." *The New York Times*. <https://www.nytimes.com/2017/01/10/arts/the-lights-are-on-in-detroit.html> (Links to an external site.)Links to an external site. (January 10 2017).

Week 2:

1/27/2017

Visitor: Kai-Uwe Bergmann of Bjarke Ingels Group

We will dive into the problem that climate change presents to cities' infrastructure with a presentation from Kai-Uwe Bergmann, the leader of the Bjarke Ingels Group's "Big U" project, which won the Rebuild By Design competition launched by the US Department of Housing and Urban Development (and partners). Readings in preparation for this discussion should familiarize you with the competition and the BIG project; they also provide additional examples of efforts to deal with coastal flooding and storm surges, and explore the question of how to build support for such efforts.

Readings:

1. Rebuild By Design website: <http://www.rebuildbydesign.org/> (Links to an external site.)Links to an external site. (look closely at the sections on the design competition and the BIG U project, but also take a look at the report featured under "Research and Policy" about lessons learned from the competition)
2. \*links on Dryline: <http://ny.curbed.com/2015/3/10/9982658/see-the-10-mile-dryline-that-could-protect-nycs-waterfront> (Links to an external site.)Links to an external site. <https://www.theguardian.com/cities/2015/mar/09/bjarke-ingels-new-york-dryline-park-flood-hurricane-sandy>
3. Hurricane Sandy Rebuilding Strategy (HUD Report-- pdf on canvas site)
4. Kimmelman, Michael. 2013. "Going With the Flow." *The New York Times*. <http://www.nytimes.com/2013/02/17/arts/design/flood-control-in-the-netherlands-now-allows-sea-water-in.html> (Links to an external site.)Links to an external site. (February 13, 2013).
5. Klinenberg, Eric. "Adaptation." *The New Yorker*.<sup>[1]</sup><http://www.newyorker.com/magazine/2013/01/07/adaptation-2> (Links to an external site.)Links to an external site. (December 19, 2016).<sup>[1]</sup><sup>[1]</sup>
6. Klinenberg, Eric. 2015. "Is New York Ready for Another Sandy?" *The New Yorker*. [newyorker.com/news/news-desk/is-new-york-ready-for-another-sandy](http://www.newyorker.com/news/news-desk/is-new-york-ready-for-another-sandy) (Links to an external site.)Links to an external site. (October 27, 2015).

Week 3: A Tour of Three Cities: New Orleans, Miami, Chicago

2/3/2017

This week we tour three US cities and the climate change-related problems they are facing: on sea level rise in Miami, storm surge in New Orleans, and heat waves in Chicago.

Readings:

1. Layzer, Judith A. 2016. "Hurricane Katrina hits New Orleans : disaster, restoration, and resilience." In *The Environmental Case : Translating Values into Policy*. Thousand Oaks, California : CQ Press.

2. Kolbert, Elizabeth. 2015. "The Siege of Miami." *The New Yorker*: December 21 & 28 Issue. Available at <http://www.newyorker.com/magazine/2015/12/21/the-siege-of-miami> (Links to an external site.)Links to an external site.
3. Eric Klinenberg. 2002. *Heat Wave: A Social Autopsy of Disaster in Chicago*. Chicago: University of Chicago Press. [The whole book is great, but at a minimum read the introduction]
4. Ignatieff, Michael. 2005. "The Broken Contract." NY Times Magazine. <http://www.nytimes.com/2005/09/25/magazine/the-broken-contract.html> (Links to an external site.)Links to an external site. (25 September 2005)

Week 4: New York's Climate Change Planning

2/10/2017

\*Visitor: Adam Freed, Bloomberg Associates and former Deputy Director of the Mayor's Office of Long-Term Planning and Sustainability

Readings this week look at New York's approach to climate change planning under Michael Bloomberg. Adam Freed was one of the leaders of these efforts and will be on hand to discuss them—we have asked him in particular to address how the Bloomberg Administration married the goals of climate change mitigation with those of climate change adaptation.

Readings:

1. Bloomberg, Michael et al. 2010. "Climate Change Adaptation in New York City: Building a Risk Management Response: New York City Panel on Climate Change 2010 Report." Available at <http://onlinelibrary.wiley.com/doi/10.1111/j.1749-6632.2009.05415.x/full> (Links to an external site.)Links to an external site.
2. Bloomberg, Michael et al. 2013. "A Stronger More Resilient New York." Available at <http://www.nyc.gov/html/sirr/html/report/report.shtml> (Links to an external site.)Links to an external site.
3. Bagley, Katherine, and Maria Gallucci. 2013. *Bloomberg's Hidden Legacy*. InsideClimate News. Available as an e-book or in five parts at <https://insideclimatenews.org/topic/bloombergs-hidden-legacy> (Links to an external site.)Links to an external site.

Week 5: New York

2/17/2017

\*Visitor: Guy Nordenson

Guy Nordenson will help us further think through the design challenges that climate change poses to coastal cities. Steinberg's *Gotham Unbound* provides important ecological context for New York's current circumstances, and Seabrook's "The Beach Builders" shows some of the political and practical difficulties of major engineering projects. [*readings may change for this week, stay tuned*]

Readings:

1. Seabrook, John. 2013. "The Beach Builders." *The New Yorker*. <http://www.newyorker.com/magazine/2013/07/22/the-beach-builders> (Links to an external site.)Links to an external site.(July 22, 2013).
2. PDF Readings from Guy Nordenson, posted in Files section of Canvas site

Week 6: NO CLASS

2/24/2017

Class is extended to 4/28 for year-end projects to make up for this meeting; we may also schedule a field trip to a local site.

Readings: Steinberg, Theodore. 2014. *Gotham Unbound : The Ecological History of Greater New York*. New York, NY: Simon & Schuster. \*Concentrate on introduction and second half. Book will be discussed during Henk Ovink session but take advantage of the week without class to read this.

Week 7: Climate Change Communication

3/3/2017

\*Visitor: Seth Solomonow

We spend this week discussing how to effectively communicate about climate change challenges and proposed solutions.

Readings:

1. Chapter 1 of George Lakoff's "Don't Think of an Elephant;" it's titled 'How to Take Back Public Discourse.'
2. One of the major pieces written about the NYC bike backlash: <http://nymag.com/news/features/bike-wars-2011-3/index1.html> (Links to an external site.)Links to an external site.
3. A chapter from Janette and Seth's response to the bike lane controversies: <http://nymag.com/daily/intelligencer/2016/03/bike-wars-are-over-and-the-bikes-won.html> (Links to an external site.)Links to an external site.
4. This piece of media self-reflection: <http://nymag.com/daily/intelligencer/2016/07/case-against-media.html> (Links to an external site.)Links to an external site.
5. [optional] Crow, Deserai A., and Maxwell T. Boykoff, eds. 2014. *Culture, Politics and Climate Change: How Information Shapes Our Common Future*. Milton Park, Abingdon, Oxon; New York, NY: Routledge.
  1. Climate science, populism, and the democracy of rejection / Mark B. Brown<sup>[1]</sup><sub>[SEP]</sub>
  2. Making climate-science communication evidence-based: all the way down / Dan M. Kahan

Week 8: The Federal Role in Climate Change Adaptation Planning

3/10/2017

\*Visitor: Shaun Donovan

Readings TBD

NO CLASS—SPRING BREAK

3/17/2017

Week 9: Climate Change Negotiation Role Play

3/24/2017

This week is devoted to role-playing scenarios to explore the multiple stakeholder perspectives that come into play when developing climate change policies.

Readings:

1. Background material for individually assigned roles (to be distributed the previous week)

\*Assignment Due: Updates on Group Projects

Week 10: Rotterdam

3/31/2017

Visitor: Henk Ovink

Readings:

1. Kimmelman, Michael. Unpublished Rotterdam Piece.
2. Shorto, Russel. 2014. "How to Think Like the Dutch in a Post-Sandy World." *New York Times Magazine*. (April 9, 2014). <https://www.nytimes.com/2014/04/13/magazine/how-to-think-like-the-dutch-in-a-post-sandy-world.html> (Links to an external site.)Links to an external site.
3. Metz, Tracy, and Maartje van den Heuvel, eds. 2012. *Sweet & Salt: Water and the Dutch*. Rotterdam : New York: nai010 publishers.

Week 11: Mexico City

4/7/2017

Readings:

1. Kimmelman, Michael. Unpublished Mexico City Piece.
2. Graizbord, Boris. "Planning for Adaptation in a megacity: a Case Study of the Mexico City metropolitan Area." pp158-176. In Martine, George and Daniel Schensul (eds.) 2013. *The Demography of Adaptation to Climate Change*. New York, London and Mexico City: UNFPA, IIED and El Colegio de México. <https://www.unfpa.org/sites/default/files/pub-pdf/The%20Demography%20of%20Adaptation%20to%20Climate%20Change.pdf> (Links to an external site.)Links to an external site.

Week 12: Shenzhen, Guangzhou, and the Pearl River Delta

4/14/2017

Readings:

1. Kimmelman, Michael. Unpublished Guangzhou Piece.
2. Yang, Liang, Jürgen Scheffran, Huapeng Qin, and Qinglong You. 2015. "Climate Related Flood Risks and Urban Responses in the Pearl River Delta, China." *Regional Environmental Change* 15(2): 379–91.
3. Chan, Faith Ka Shun et al. 2013. "Towards Sustainable Flood Risk Management in the Chinese Coastal Megacities. a Case Study of Practice in the Pearl River Delta." *Irrigation & Drainage* 62(4): 501–9.

Week 13: Work Session for Final Projects

4/21/2017

No Class 4/28

Final Presentations to be held 5/5