

SUMA K5530 The Urbanization Paradox: Crisis and Opportunity for Global Sustainability

Summer Session X: Tuesday from 6:10 to 8:00pm

3 Credits

Instructor: Steven Caputo Jr, sac2130@columbia.edu

Office Hours: Office hours will take place 1 hour before and 1 hour after class sessions.

Response Policy: Instructor will respond to emails from Monday to Friday within 24 hours, and 48 hours on weekends

Course Overview

The world is witnessing one of the most dramatic environmental and demographic transformations of all time. At the start of the twentieth Century, only 15% of people lived within densely built environments, while most others inhabited agrarian or natural landscapes. Today, 55% of the global population is urbanized and by 2050 that number will reach 75%, for a total of six billion urban dwellers. Cities now produce more than 80 percent of global GDP, consume two-thirds of all energy, and generate 70 percent of greenhouse gas emissions. More than half of all people live in coastal areas, many of which are urbanized and exposed to climate risks. It's an understatement to say that global sustainability will succeed or fail in cities.

The goal of this course is to confront what has been called “the paradox of urbanization.” On the one hand, the surging growth of urban areas is devouring land and natural resources, destroying biodiversity, and exposing billions of people to hazardous and impoverished conditions. On the other hand, researchers, policy makers and NGOs have reached a consensus that cities should be the nexus of sustainable living. Urban dwellers live more efficiently, have wider access to resources—economic, health, educational, cultural, and social—and drive innovation. So can the urbanization paradox be resolved sustainably?

The course will employ a range of interpretive and analytical frameworks to address this question. Through lectures, in-class discussions, extensive reading, and the preparation of a semester long case study, students will develop a nuanced understanding of the causes, impacts, and opportunities of global urbanization. Particular focus will be given to the emerging “science of urbanization” and to multi-disciplinary research and field work, as well as associated critiques. Students will have the opportunity to conduct in-depth analysis of a city of their choice and gain high-level exposure to numerous others. By the end of the course, students will acquire the vocabulary and intellectual skills to participate effectively in the discourse of urbanization. They will also, hopefully, come away with a sober sense of optimism for a sustainable urban future.

This course satisfies the M.S. in Sustainability Management curriculum area requirements in Area 3: Physical Dimensions and Area 4: Public Policy.

PART I. INTRODUCTION TO URBANIZATION

- Course overview
- History and theory of cities
- “Urbanization Science”

PART II. CRITICAL ISSUES

- Place and mobility
- Displacement and inequality
- Health, environment & resource availability
- Climate Change

PART III: CASE STUDIES

- South and Central American Cities
- Asian cities
- Sub-Saharan African and Greater Middle Eastern cities

PART IV. RESOLVING THE URBANIZATION PARADOX

- Innovation, agency, and access
- Policy, governance, and global partnerships

Learning Objectives

By the end of this course students will be able to:

- Discuss and analyze the primary drivers and impacts of rapid urbanization
- Apply rigorous diagnostic skills and comparative frameworks to evaluate cities for political, economic, social, demographic, historical, physical / morphological, and functional conditions
- Confidently analyze and discuss research from a variety of disciplines and be able to describe short comings and gaps
- Critically assess policies, programs, and proposals that are aimed at promoting urban sustainability
- Demonstrate proficiency in the discourse of urbanization and effectively partake in relevant work experiences

Readings

A textbook will not be required for this course. All readings are listed in the Course Schedule section of this syllabus and will be posted to Canvas or available online. “Required” readings are to be read BEFORE coming to class. “Supplemental” readings will also be provided throughout the class. While they are not required, they will provide additional information that will enhance your knowledge of the course subject matter

Resources

Columbia University Library

Columbia’s extensive library system ranks in the top five academic libraries in the nation, with many of its services and resources available online: <http://library.columbia.edu/>.

SPS Academic Resources

The Office of Student Life and Alumni Relations (SLAR) provides students with academic counseling and support services such as online tutoring and career coaching: <http://sps.columbia.edu/student-life-and-alumni-relations/academic-resources>.

Course Requirements (Assignments)

Annotated Bibliography (15%): Students will select a city to conduct an in-depth case study on and complete an annotated bibliography with at least 10 sources that they will use as part of their research. Cities should be selected from one of the following regions unless otherwise approved by the instructor: South and Central America; East, South, and Southeast Asia; Sub-Saharan African and the Greater Middle East.

Case Study Proposal (20%): Students will submit a two-page proposal that describes the objective / key questions of their case study, highlights key issues, outlines the research and analysis that they will conduct for their final case study, and describes what/how they will present to their fellow students.

Case Study Presentation (15%): Students will present their case study proposal and selected city in a 10-minute slide presentation followed by a 10-minute Q&A. Grade will be based on the clarity and brevity of the presentation, command of key issues, specificity and strength of the case study objective, and responses to student questions.

Final Case Study (40%): Students will submit an 8 to 10-page paper (with additional appendix materials as necessary) that provides a brief about their City, describes the objective of their case study and research / analysis undertaken, and articulates findings. Grading will be based on clarity, brevity, criticality, and strength of findings.

Class Participation (10%): All students are expected to contribute to the classroom discussion throughout the course, including the in-class presentations and discussions with guest speakers. While classes will generally feature lectures on the specified topics each week, active discussion is encouraged to bring in students’ experiences, knowledge, and critical perspectives on the issues addressed in the course.

Evaluation/Grading

Component	Points	Evaluation criteria
Class Participation	10 Points	Each student will be evaluated for the frequency and quality of her/his contributions to class discussions. Students are expected to attend all sessions unless approved by instructor.

Annotated Bibliography	10 Points	Points will be awarded as follows: 3 points for completing the assignment with the required number of sources and annotations; up to 3 points for the range and depth of the selected sources; up to 4 points for the clarity and thoughtfulness of the annotations.
Case Study Proposal	15 Points	Points will be awarded as follows: 5 points for completing the case study proposal on time; up to 5 points for describing the objective and relevance of the case study; up to 5 points for describing the research plan and possible range of findings.
Case Study Presentation	15 Points	Points will be awarded as follows: 5 points for completing the presentation; up to 5 points for the quality and organization of the presentation visuals; up to 5 points for the brevity, clarity and persuasiveness of the spoken presentation.
Final Case Study	50 Points	Points will be awarded as follows: 20 points for completing the case study on time; up to 20 points for the quality of the analysis and for utilizing key concepts from the course; up to 20 points for the clarity and persuasiveness of the findings and recommendations.
TOTAL	100 Points	The following clarifies how points awarded to individual assignments translate into letter grades for the course: A+ is for extraordinary work (>96 points); A= 93-95 points; A-=90-92 points; B+=87-89, B= 84-86, B-=80-83, C+=77-79, C=74-76, C=70-73, D=66-69, F= <65

Course Policies

Attendance and Participation

On-time attendance at each class meeting is expected. Partial attendance, i.e. lateness or early departure, if not excused in advance, will negatively impact the class participation portion of the course grade. You are expected to do all assigned readings, attend all class sessions, and engage with others in online discussions. If you need to miss a class for any reason, please discuss the absence with me in advance.

Late work

Late work will be accepted with a 15% reduction unless otherwise approved by the instructor prior to the due date.

Citation & Submission

All written assignments must use MLA format, cite sources, and be submitted to the course website (not via email).

Course Schedule/Course Calendar

Date	Topics and Activities	Readings	Assignments
5/24	Part I: Introduction to Urbanization: Course Overview	<p><i>Required Readings:</i></p> <ul style="list-style-type: none"> K. Seto, R. Sanchez-Rodriguez and M. Fragkias. The New Geography of Contemporary Urbanization and the Environment. The Annual Review of Environment and Resources. Volume 35, 2010, pages 167–94. Yanarella, Ernest J. and Levine, Richard S. “The Sustainable Cities Manifesto.” Anthem Environmental Studies: The City as Fulcrum of Global Sustainability. New York: Anthem Press, 2011. Muggah, Robert. “A Manifesto for the Fragile City.” Journal of International Affairs, Volume 68, Number 2. Spring/Summer 2015. New York: The Columbia University School of International and Public Affairs, 2015. L. Bettencourt and G. West, A Unified Theory of Urban Living, Nature 467 (2010): 912–913; Ola Söderström, Till Paasche & Francisco Klauser (2014) Smart cities as 	

		<p>corporate storytelling, City: analysis of urban trends, culture, theory, policy, action, 18:3, 307-320, DOI: 10.1080/13604813.2014.906716</p> <p><i>Recommended Readings:</i></p> <ul style="list-style-type: none"> • Seven Radelet. "Prosperity Rising: The Success of Global Development—and How to Keep it Going." Foreign Affairs, Volume 95, Number 1. January-February 2016. New York, Council on Foreign Relations, 2016. • United Nations, "The Millennium Development Goals Report 2015". 2015 • http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf • Siemens and The Economist Intelligence Unit, "The Green City Index: A summary of the Green City Index research series," Siemens, 2012. http://www.siemens.com/entry/cc/features/greencityindex_international/all/en/pdf/gci_report_summary.pdf • AT Kearney, AT Kearney Global Cities 2015: The Race Accelerates. United Kingdom: AT Kearney Limited, 2015 • Available at: https://www.atkearney.com/documents/10192/5911137/Global+Cities+201+-+The+Race+Accelerates.pdf/7b239156-86ac-4bc6-8f30-048925997ac4 	
5/31	Part I: Introduction to Urbanization: Histories and Theories of Cities	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • Louis Wirth, "Urbanism as a way of life."1938. In The City Reader. Third Edition. New York: Routledge, 1996. • L. Mumford. "What is a City?" Architectural Record 82 (1937). Pages 91-95. In The City Reader. New York: Routledge, 1996. • Peter J. Marcotullio and William Solecki, "What Is a City? An Essential Definition for Sustainability." In Urbanization and Sustainability: Linking Urban Ecology, Environmental Justice and Global Environmental Change by Michail Fragkias and Christopher G. Boone. • Elmqvist, et al., "History of Urbanization and the Missing Ecology." T. Elmqvist, et al. Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities. A Global Assessment. Dordrecht : Springer, 2013. • H. Saalman. Medieval Cities. Planning and Cities Series. New York: George Braziller, 1968. Pages 11 to 45. • Hall, Peter. Cities of Tomorrow: An Intellectual History of Urban Planning and Design Since 1880. Fourth Edition. Malden, Massachusetts, Wiley Blackwell, 2014. Pages 13 to 48 (The City of Dreadful Night. Reactions to the Nineteenth Century Slum City: London, Paris, Berlin, New York 1880 to 1900). • Childe, V. G. (1950). The urban revolution. Town Planning Review, 21 (1), 3–17. • McHarg, Ian L. Design with Nature. Garden City, New York: Doubleday/Natural History Press. 1971. "The Plight," pages 19-29 • Spirm, Anne Whiston. The Granite Garden: Urban Nature and Human Design. New York: Basic Books, 1984. Pages 3 to 37. • David Owen, "Green Manhattan." The New Yorker. October 18, 2004. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • Marzluff, John M. "Urbanization," in Marzluff, John M., Shulenberger, Eric, and Endlicher, Wilfried, eds. Urban Ecology: An International Perspective on the Interaction Between Humans and Nature. Boston, MA, USA: Springer, 2008. ProQuest ebrary. Web. 26 January 2016. • Benevolo, Leonardo. The Origins of Modern Town Planning. Translated by Judith Landry. Cambridge, Massachusetts: The M.I.T. Press, 1971. Pages xi to 38; 85 to 147. • Benevolo, Leonardo. The European City. Translated by Carl Ipsen. Cambridge, Massachusetts: Blackwell, 1993. 	

6/7	Part I: Introduction to Urbanization: Urbanization Science	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • W. Solecki, K. Seto, and P. Marcotullio. "It's Time for an Urbanization Science." <i>Environment: Science and Polity for Sustainable Development</i>. Volume 55, Issue 1, 2013. Available at: http://tinyurl.com/mx6j3w8 • Wu, J. 2014. <i>Urban Ecology and Sustainability: The State of the Science and Future Directions</i>. <i>Landscape and Urban Planning</i> 125: 209-221. • Pickett, S., et al. <i>Urban Ecological Systems: Scientific Foundations and a Decade of Progress</i>. <i>Journal of Environmental Management</i>. 92, 2011. • Sanchez-Rodriguez, R., Seto, K.C., Simon, D., Solecki, W., Kraas, F., and Laumann, G., <i>Urbanization and Global Environmental Change Science Plan, International Human Dimensions Programme on Global Environmental Change (IHDP) Report No. 15</i>. Bonn, Germany, 2005. http://ccsl.iccip.net/urbanizationscienceplan.pdf • Batty, The Size, Scale, and Shape of Cities, <i>Science</i> 319 (2008): 769–771; In Forman, Richard T.T. <i>Urban Regions: Ecology and Planning Beyond the City</i>. <i>Cambridge Studies in Landscape Ecology</i>. New York: Cambridge University Press, 2008. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • Grimm, N. B., Grove, J. M., Pickett, S. T. A., & Redman, C. L. (2000). Integrated approaches to long-term studies of urban ecological systems. <i>BioScience</i>, 50 (7), 571–584. • Elizabeth A. Wentz, William L. Stefanov, Maik Netzband, Matthias S. Möller, and Anthony J. Brazel. <i>The Urban Environmental Monitoring/100 Cities Project: Legacy of the First Phase and Next Steps</i>. Chapter 9 in P. Gamba and M. Herold, <i>Global Mapping of Human Settlement: Experiences, Datasets, and Prospects</i>. Boca Raton, Florida: CRC Press, 2009. • K. Seto, M. Fragkias, et al., A Meta-Analysis of Global Urban Land Expansion, <i>PLOS One</i> 6, no. 8 (2011). • Rashid, T., Weeks, J.R., Stowe, D., and Fugate, D., Measuring temporal compositions of urban morphology through spectral mixture analysis: Toward a soft approach to change analysis in crowded cities, <i>International Journal of Remote Sensing</i>, 26, 699–718, 2005. • Martin Herold, "Some Recommendations for Global Efforts in Urban Monitoring and Assessments from Remote Sensing." In Martin Herold P. Longley, <i>Global Mapping Of Human Settlement: Experiences, Datasets, and Prospects</i>. <i>Photogrammetric record</i> 25, no. 130, June 2010. 	
6/14	Part II: Critical Issues: Land Use and Mobility	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • Jackson, Kenneth T. <i>Crabgrass Frontier: The Suburbanization of the United States</i>. New York: Oxford University Press, 1985. Pages 12-44 (Suburbs as Slums; The Transportation Revolution). 45-72 (Home, Sweet Home: The House and the Yard) • Hilda Blanco. "Range of Contemporary Urban Patterns and Processes." In Karen C. Seto and Anette Reenberg, <i>Rethinking Global Land Use in an Urban Era</i>. Cambridge: MIT Press, 2014. • Peter, J. Marcotullio, P. J., de Sherbinin, A., & Baptista, S. (2012). Urbanization, poverty and ecosystem degradation. In F. DeClerck, J. C. Ingram, & C. Rumbaitis del Rio (Eds.), <i>Integrating ecology into poverty alleviation and international development efforts: A practical guide</i> (pp. 101–124). New York: Springer. • Bradford S. Gentry, <i>Changes in Land-Use Governance in an Urban Era</i>. In Karen C. Seto and Anette Reenberg, <i>Rethinking Global Land Use in an Urban Era</i>. Cambridge: MIT Press, 2014. • Handy, Susan. "Smart Growth and the Transportation-Land Use Connection: What does the Research Tell Us?" <i>International Regional Science Review</i> 28(2) pp. 146-267. <p><i>Recommended Readings</i></p>	Assignment 1 due: City Selection and Annotated Bibliography

		<ul style="list-style-type: none"> • Peter J. Marcotullio, “Globalization, Economic Flows, and Land-Use Transitions.” In Karen C. Seto and Anette Reenberg, Rethinking Global Land Use in an Urban Era. Cambridge: MIT Press, 2014. • John Kain, “The Urban Transportation Prolem: A Reexamination and Update” in Essays in Transportation Economics and Policy. J. Gomez-Ibanez, W. Tye and C. Winston, eds. Brookings. Pp 359-402 • Don Pickrell, Don. “Transportation and Land Use” in Essays in Transportation Economics and Policy. J. Gomez-Ibanez, W. Tye and C. Winston, eds. Brookings. Pp 403-435 • David Banister. “The Sustainable Mobility Paradigm.” Transport Policy. 15 (2008) pages 73-80. Elsevier. • Jeffrey R. Kenworthy. “The Eco-City: Ten Key Transport and Planning Dimensions for Sustainable City Development.” Environment & Urbanization. Volume 18(1) pages 67-85. Perth, Western Australia: International Institute for Sustainability and Technology Policy, 2006. 	
6/21	Part II: Critical Issues: Displacement and Inequality	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • Parnell, S., Simon, D., and Vogel, C., Global environmental change: Conceptualizing the growing challenge for cities in poor countries, Area, 39, 357–369, 2007. • Davis, Mike. Planet of Slums. Brooklyn, New York: Verso, 2006. Pages 11 to 50. • “Immigration and the Global City Hypothesis: Towards and Alternative Research Agenda.” International Journal of Urban and Regional Research. In The Global Cities Reader. Edited by Neil Brenner and Roger Keil. New York: Routledge, 2006. • Marc Angélil and Cary Sires. The Paris Banlieue: Peripheries of Inequity. In The Future of the City. Journal of International Affairs, Volume 65, Number 2. Spring/Summer 2012. New York: The Columbia University School of International and Public Affairs, 2012. • Beehner, L. (2015). Are Syria’s Do-It-Yourself Refugees Outliers or Examples of a New Norm?” Journal Of International Affairs, 68(2), 157-175. New York: The Columbia University School of International and Public Affairs, 2015. • Raj Chetty, Nathaniel Hendren and Lawrence Katz. “The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment.” American Economic Review, forthcoming • Tepperman, Jonathan. “Brazil’s Antipoverty Breakthrough: The Surprising Success of Bolsa Familia.” Foreign Affairs, Volume 95, Number 1. January-February 2016. New York, Council on Foreign Relations, 2016. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • Plato’s Republic. Book 4. http://classics.mit.edu/Plato/republic.5.iv.html Selected sections. • Durkheim, E. (1984) [orig. 1893]. The division of labor in society . New York: (Translated by W.D. Halls) Free Press. • Jacobs, J. (1969). The economy of cities . New York: Vintage Books. • Harvey Molotch, “The City as Growth Machine: Toward a Political Economy of Place.” • http://www.soc.iastate.edu/sapp/soc506GrowthMachine.pdf • Michael Porter, “The Competitive Advantage of the Inner City.” Harvard Business Review. May-June 1995. https://hbr.org/1995/05/the-competitive-advantage-of-the-inner-city • Norton Long, “The City as Reservation.” Public Interest 25 (Fall 1971) • George Sternlieb, “The City as Sandbox.” Public Interest 25 (Fall 1971) 	
6/28	Part II: Critical Issues: Health, environment, and resource availability	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • Matthew Gandy. Concrete and Clay: Reworking Nature in New York City. Cambridge, Massachusetts: The MIT Press, 2002. 1 to 18 (Introduction); 19 to 51 (Water, Space and Power). 115 to 152 (Technological Modernism and the Urban Parkway). 187 to 227 (Rustbelt Ecology). • Robert I. McDonald, et al, “Water on an urban planet: Urbanization and the 	Assignment 2 due: Case Study Proposals

		<p>reach of urban water infrastructure,” Global Environmental Change, July 2014. http://ac.elscdn.com/S0959378014000880/1-s2.0-S0959378014000880-main.pdf?_tid=9ebf062c-345f-11e4-aaff-00000aab0f6c&acdnat=1409854781_544ad4ba858994a3a857f0424dc571be</p> <ul style="list-style-type: none"> • Michal Krzyzanowski, et al. “Air Pollution in the Mega-cities.” Global Environmental Health and Sustainability. Current Environmental Health Reports. Volume 1, Issue 3. September 2014. • Wackernagel, M., et al. “The Ecological Footprint of Cities and Regions: Comparing Resource Availability with Resource Demand.” In Environment and Urbanization, Volume 18 No 103 April 2006. • Robert Bullard. “People-of-Color Environmentalism” from Dumping in Dixie: Race, Class and Environmental Quality (1990). In The Sustainable Urban Development Reader. Edited by Stephen M. Wheeler and Timothy Beatley. New York: Routledge, 2014. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • Janice E Perlman with Moll)’Meara Sheehan. “Fighting Poverty and Environmental Injustice in Cities.” State of the World 2007: Our Urban Future. • Sutton, P. C., Anderson, S. J., Elvidge, C. D., Tuttle, B. T., & Ghosh, T. (2009). Paving the planet: • Impervious surface as a proxy of human ecological footprint. Progress in Physical Geography, • 33 (4), 510–527. • Angel Hsu and Alisa Zomer, Monitoring Global Air Pollution - Interactive Data Visualization. Scientific American. May 6, 2015. Available at http://www.scientificamerican.com/article/monitoring-global-air-pollution-interactive/ • Kheirbek, Iyad, Jay Haney, Sharon Douglas, Kazuhiko Ito, Steven Caputo, Jr., and Thomas Matte, “The Public Health Benefits of Reducing Fine Particulate Matter through Conversion to Cleaner Heating Fuels in New York City.” Environmental Science and Technology. Volume 48, Issue 23. December 2014. • McHarg, Ian L. Design with Nature. Garden City, New York: Doubleday/Natural History Press. 1971. Pages 95 to 101; 127-61; 175-85 	
7/5	Part II: Critical Issues: Climate Change	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • The World Bank. Cities and Climate Change: An Urgent Agenda. Volume 10. Washington DC: The World Bank, 2010. • Cynthia Rosenzweig, et al. Climate Change and Cities: First Assessment Report of the Urban Climate Change Research Network. New York: Cambridge University Press, 2011. • Small, C., and Nicholls, R.J., A global analysis of human settlement in coastal zones, Journal of Coastal Research, 19, 584–599, 2003. Song, Y., and Ding, C., eds., Urbanization in China • Economics of Climate Adaptation Working Group, “Shaping Climate-Resilient Development: A Framework for Decision-Making.” 2009 (pages 1-33). Available at http://mckinseysociety.com/downloads/reports/Economic-Development/ECA%20%20%20Shaping%20Climate%20Resilient%20Development%20%20%20Report%20Only.pdf • Pelling, Mark et al. “Cities as Sites for Disaster.” Chapter 2 in The Vulnerability of Cities: Natural Disasters and Social Resilience. VA: Earthscan Publications, 2003. Pages 19 to 41. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • CDP and C40 Cities. Healthier, Wealthier Cities: How Climate Change Action is Giving Us Healthier Wealthier Cities. London: CDP, 2013. • Adam Millard-Ball. Do city climate plans reduce emissions? Journal of Urban Economics 71 (2012) 289–311. • S. Kreft, D. Eckstein, L. Junghans, C. Kerestan and U. Hagen, “Global Climate Risk Index 2015: Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2013 and 1994 to 2013.” German Watch Institute, 2013. Available at https://germanwatch.org/en/download/10333.pdf 	

		<ul style="list-style-type: none"> Hannes Taubenböck, Achim Roth, and Stefan Dech. Megacities: Hints for Risk Management Using EO Data. Chapter 10 in P. Gamba and M. Herold, Global Mapping of Human Settlement: Experiences, Datasets, and Prospects. Boca Raton, Florida: CRC Press, 2009. City of New York, “A Stronger, More Resilient New York,” City of New York, 2013 (Climate Analysis Chapter, pages 33-36 only). Available at http://s-media.nyc.gov/agencies/sirr/SIRR_singles_Lo_res.pdf 	
7/12	Part III Case Studies: South and Central American Cities	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> Maureen Hays-Mitchell and Brian J. Godfrey, “Cities of South America.” Chapter 4 in Cities of the World: World Regional Urban Development. Fifth Edition. Edited by Stanley D. Brunn, Maureen Hays-Mitchell, and Donald J. Zeigler. New York: Rowman & Littlefield Publishers, 2012. Young. “Urbanization, environmental justice, and social-environmental vulnerability in Brazil.” {presents four case studies of Brazilian metropolitan areas – Curitiba, Baixada Santista, São Paulo, and Rio de Janeiro – on the bidirectional interactions of urbanization and global environmental change, incorporating frameworks of urban ecology and environmental justice.} Alves and Ojima “Environmental inequality in São Paulo City.” {An analysis of differential exposure of social groups to situations of environmental risk aim to operationalize the concept of environmental inequality, measuring the association between disadvantaged socioeconomic conditions and greater exposure to environmental risks through the use of geoprocessing methodologies} <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> Aguilar, A., and Ward, P., Globalization, regional development, and megacity expansion in Latin America: Analyzing Mexico City’s peri-urban hinterland, Cities, 20, 3–21, 2003. “Singapore in Central America? An Interview with Octavio Sánchez Barrientos.” In <i>The Future of the City</i>. Journal of International Affairs, Volume 65, Number 2. Spring/Summer 2012. New York: The Columbia University School of International and Public Affairs, 2012. “Urban Planning in Curitiba” Scientific American (1996). In The Sustainable Urban Development Reader. Edited by Stephen M. Wheeler and Timothy Beatley. New York: Routledge, 2014. 	
7/19	Part III Case Studies: Asian Cities	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> James Tyner and Arnisson Andre Ortega. “Cities of Southeast Asia.” Chapter 10 in Cities of the World: World Regional Urban Development. Fifth Edition. Edited by Stanley D. Brunn, Maureen Hays-Mitchell, and Donald J. Zeigler. New York: Rowman & Littlefield Publishers, 2012. Lu, Ding. The Great Urbanization of China. Chapter 1. Singapore, SGP: World Scientific Publishing Co, 2012. Song, Y., and Ding, C., eds., Urbanization in China: Critical Issues in an Era of Rapid Growth, Lincoln Institute of Land Policy, 2007. Daniel Brook, A History of Future Cities. Chapter 3 (Urbus Prima in Indis, Bombay 1857-1896); Chapter 6 (The City Under Progresses’ Feet, Bombay 1896-1947) and Chapter 10 (Slumdogs and Millionaires, Bombay and Mumbai 1991 to Present). New York: W.W. Norton & Company, 2013. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> Fahe Chai, et al, “Spatial and temporal variation of particulate matter and gaseous pollutants in 26 cities in China.” Journal of Environmental Sciences. Volume 26, Issue 1, January 2014. Available at http://ac.els-cdn.com/S1001074213603836/1-s2.0-S1001074213603836-main.pdf?_tid=047f2a9c-56ff-11e5-b791-00000aacb361&acdnat=1441809079_7aff17ab2a27cccca668336423ed6186 Seto, K.C., and Fragkias, M., Quantifying spatiotemporal patterns of urban land-use change in four cities of China with time series landscape metrics, 	

		<p>Landscape Ecology, 20, 871–888, 2005.</p> <ul style="list-style-type: none"> • Fang, Huang, and Seto Chap. 11, Climate change, urban flood vulnerability and responsibility in Taipei. • Xuefei Ren. "Green" as Spectacle in China. In <u>The Future of the City</u>. Journal of International Affairs, Volume 65, Number 2. Spring/Summer 2012. New York: The Columbia University School of International and Public Affairs, 2012. 	
7/26	Part III Case Studies: Sub-Saharan African and Greater Middle Eastern Cities	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • Donald J. Zeigler, Dona J. Stewart, and Amal K. Ali, "Cities of the Greater Middle East., Chapter 7 in <u>Cities of the World: World Regional Urban Development</u>. Fifth Edition. Edited by Stanley D. Brunn, Maureen Hays-Mitchell, and Donald J. Zeigler. New York: Rowman & Littlefield Publishers, 2012. • Francis Owusu and Angela Gray Subulwa. "Cities of Sub-Saharan Africa." Chapter 8 in <u>Cities of the World: World Regional Urban Development</u>. Fifth Edition. Edited by Stanley D. Brunn, Maureen Hays-Mitchell, and Donald J. Zeigler. New York: Rowman & Littlefield Publishers, 2012. • Nada Tarbush. Cairo 2050: Urban Dream or Modernist Delusion? In <u>The Future of the City</u>. Journal of International Affairs, Volume 65, Number 2. Spring/Summer 2012. New York: The Columbia University School of International and Public Affairs, 2012. 	
8/2	Part IV: Resolving the Urbanization Paradox: Innovation, Agency and Access	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • United Nations, Science, Technology and Innovation for Sustainable Urbanization. 2014. • United Nations Conference on Trade and Development. Sassen, Saskia. "Urban Capabilities: An Essay on Our Challenges and Differences. Journal of International Affairs 65.2 (Spring/Summer 2012): 85-XVI. • Yves Cabannes, "Children and Young People Build Participatory Democracy in Latin American Cities." <u>Environment and Urbanization</u>, Spring 2006. 195-218. • Peter Plastrik and Julia Parzen, "Toward a Sustainable City: The State of Innovation in Urban Sustainability." USDN, 2013. • C40 Cities and ARUP. <u>Climate Action in Megacities: C40 Cities Baseline and Opportunities</u>. June 2011. • Charles Dearing, "Technology Will Lead to De-Urbanization." www.Bigthink.com, 2009. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • Paola Pucci, Fabio Manfredini and Paolo Tagliolato. <u>A New Map of the Milan Urban Region</u> • Through Mobile Phone Data. In A. Contin et al. (eds.), <u>Innovative Technologies in Urban Mapping</u>, Sxi 10, DOI: 10.1007/978-3-319-03798-1_8, Switzerland: Springer International Publishing, 2014 • K. C. Seto, A. Reenberg, et al., <u>Urban Land Teleconnections and Sustainability</u>. <u>Proceeding of the National Academy of Sciences of the United States of America</u> 109, no. 18 (2012), available at www.pnas.org/cgi/doi/10.1073/pnas.1117622109 	Final assignment due: Case Study Papers
8/9	Part IV: Resolving the Urbanization Paradox: Governance, policy, and partnerships	<p><i>Required Readings</i></p> <ul style="list-style-type: none"> • Ester R. Fuchs, <u>Governing the Twenty-First-Century City</u>. In <u>The Future of the City</u>. Journal of International Affairs, Volume 65, Number 2. Spring/Summer 2012. New York: The Columbia University School of International and Public Affairs, 2012. • Paul Kantor, et al. "Governance and Globalism: Political Responses of Four World City-Regions," Chapter 10 in <u>our Global City-Regions: A Profile</u>. Chapter 1 in <u>Struggling Giants: City Region Governance in London</u>, New 	

		<p>York, Paris and Tokyo. Minneapolis, MN: University of Minnesota Press, 2012. Pages 241 to 278.</p> <ul style="list-style-type: none"> • Yanarella, Ernest J. and Levine, Richard S. "Taking the Road Less Traveled." Anthem Environmental Studies: The City as Fulcrum of Global Sustainability. New York: Anthem Press, 2011. • Adam Freed, "Acting Locally, Sharing Globally: The Positive Ripple Effect of Cities." In Urban Futures: An Atlantic Perspective. Washington DC: The German Marshall Fund, 2013. <p><i>Recommended Readings</i></p> <ul style="list-style-type: none"> • Sassen, S. (1991). The global city: New York, London, Tokyo . Princeton: Princeton University Press. • Michael Peter Smith. "The Global Cities Discourse: A Return to the Master Narrative?" Transnational Urbanism 2001. In The Global Cities Reader. Edited by Neil Brenner and Roger Keil. New York: Routledge, 2006. • Paul E. Peterson, "City Limits." Chicago: University of Chicago Press, 1981. • Robert A. Dahl: Who Governs: Democracy and Power in an American City. New Haven: Yale University Press, 1961. • Paul Kantor, et al. "Four Global City-Regions: A Profile." Chapter 1 in Struggling Giants: City Region Governance in London, New York, Paris and Tokyo. Minneapolis, MN: University of Minnesota Press, 2012. Pages 19 to 54 	
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School Policies

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