

**Lincoln Institute for Land Policy
Curriculum Innovation Award Application**

Lily Baum Pollans

Hunter College Department of Urban Policy and Planning

COURSE INFORMATION

Title: Environmental Justice

Topics and subtopics:

I. Theoretical foundations:

The urban environment as a social justice issue
Defining environmental justice
Researching environmental justice
Policy and legal frameworks
Environmental justice in political discourse

II. Planning for Environmental Justice: issues and strategies

EJ in planning: How urban plans promote environmental justice, or not
Climate planning, climate activism, and environmental justice
Tracing EJ across scales: the case of solid waste
Locating and practicing EJ activism
Environmental Gentrification
Food Justice

Learning goals:

Students will come away from this class with the following:

1. Awareness of the structural forces that create and reproduce environmental injustice
2. An understanding of the complex and multiple forms of environmental injustice
3. Knowledge of the history and current forms of environmental justice movements
4. The ability to critically assess policies and developments in terms of environmental justice impacts
5. New social-emotional competencies for planning within complex settings

Primary audience: Masters students in urban policy and planning

Prerequisite knowledge: None. The course is designed for students who have a strong interest in planning, policy, and social justice, but requires no specialized prior knowledge and experience. In fact, class discussions and activities are designed to engage a broad array of experiences, types of expertise, learning styles, and backgrounds in a common exploration. In this way, the structure of the class enacts some key tenets of environmental justice practice: inclusion, collaboration, and collective knowledge-building.

Brief summary of learning objectives, materials, instructional methods, and assessments (up to 750 words):

The term environmental injustice describes the ways that the benefits and costs of development are unevenly distributed, both in space and across social hierarchies. In the U.S. context, the legacy of environmental injustice stretches from the displacement and dispossession of the continent's original inhabitants to the continued, unevenly distributed, toxic legacies of industry and waste disposal. Climate change threatens cities that are already characterized by uneven development and unequal vulnerability. In this context, it is crucial that future planners and urban policy makers

understand the structural production of environmental injustice so that they can identify and participate in the creation of meaningful pathways for fostering environmentally just cities. This is the learning objectives of this course (the objectives can be seen—broken down into component parts—above).

To meet these learning objectives, the course takes an innovative approach based on four interrelated and mutually supportive components: a wide range of visual, audio, and written material, seminar-style discussions, experiential learning, and a creative semester-long assignment. The true innovation in this course is in the unique set materials it draws upon, the emphasis on alternative narratives and communication styles, and the opportunity for students to practice politically-engaged research.

The first component of the course is a diverse set of materials. The curriculum includes academic writing, popular press, podcasts, documentary film, and visitors—a variety designed to open the material to the range of learning styles and prior experience among students. In addition to written and recorded materials, guest speakers—like urban farmers, or youth activists—contribute novel skills and knowledge to the classroom, exposing students to new ways of approaching problems, and filling in gaps in more traditional planning and urban policy education. The materials and speakers create the foundation for exploring the many topics included the curriculum, and also support the experiential learning and project-based course components. The inputs also showcase many different voices, which helps learners to become familiar and comfortable with narrative styles that depart from typical scientific or academic writing. This on its own is a crucial skill in environmental justice.

Experiential learning forms the second component of the course. The experience is embedded in the students' final projects, in which we attend both to the knowledge they gain and the experience of gaining it. Experiential learning is also featured in the Earth Day activism exercise. One class session is devoted to participation in an Earth Day activity. Students then debrief their experience in a subsequent session. The debrief unpacks the ways that justice is incorporated—or not—into the actions they participated in, and *how it felt* to be a participant. The activity thus serves two learning goals: it allows us to examine how social justice is often excluded from traditional environmental activism (course learning objective 1) and it develops students' emotional literacy when it comes to participating in group actions, and coping with sometimes difficult issues that they are likely to encounter in professional practice (course learning objective 5).

The third course component is a creative assignment. Each student conducts a semester-long project, of their own design. The only hard requirement is that each student is asked to identify the “project of their project” – an articulation of their personal political agenda for their work. This component deviates from more typical assignments in planning and policy settings, which might be normative, but tend to emphasize “objective” analysis. This slight shift in methodological practice—explicitly inserting one's own values into a research project—violates traditions of rationality and positivism in planning research. But, environmental injustice has usually been the outcome of particular forms of “rational” decision-making. Therefore, asking students to claim a political stance can (and has in practice) sharpen their questions and deepen their engagement with their research and the topics of the course.

Student projects have, among other things, tracked the dynamics of informal recycling in New York City; investigated the environmental conditions inside prisons; and traced development proposals in

low income, coastal neighborhoods. The deliverables from these projects have included podcasts, policy analyses, traditional research papers, and photo essays. The ‘projects’ of the projects have ranged from questioning the use of public land for private enterprise to challenging public decision-making processes to creating opportunities for students’ family members to learn about their own neighborhoods. The assignment allows students to integrate the course themes with their own observations, to develop knowledge and communication skills that reflect their interests, and to extend beyond traditional skills emphasized in planning programs.

Assessment happens in many ways in this class. I evaluate student’s final projects, but the independent project is structured to have multiple check-in points over the semester, which allows us—students and instructor—to collaboratively evaluate how each student’s thinking matures from the beginning to the end of the semester. These check-ins include an initial proposal and a peer-workshop (more on this below), as well as informal meetings outside of classtime. These periodic check-ins ensure that students don’t get lost due to the open and unstructured nature of the project. It keeps the struggles “productive.” I have also developed several pathways for students to assess their own learning. Each week, students submit reading responses, in which I encourage them to honestly critique the material, and to share what they feel they are learning (or not). And, the students also include a reflection, as part of their final project, in which they ruminate on how project shaped and supported their own learning (or not).

Statement of how course fits into a broader program of study (up to 500 words):

This class is an elective course open to students in the accredited masters of urban planning program at Hunter College. It is also open to students in the Master of Urban Leadership program. The environmental justice class is part of a suite of courses on environmental issues that forms the environmental planning concentration for the planning program. Other courses in the environmental specialty include urban sustainability, environmental impact review, sustainable transportation, and urban climate change adaptation. The overall planning and policy curricula at my institution are oriented around themes of equity and social justice. But the environmental courses tend to be technical in nature. Environmental justice, therefore, is a critical component in the environmental planning curriculum because it explicitly connects questions of social justice and equity to urban environmental threats.

In addition to the conceptual content, the course adds the following to the planning and policy curricula: it contributes novel learning methods; it offers an opportunity to practice alternative communication skills and creative expression and to recognize different forms of narrative and expertise; it supports the students’ exploration of the affective dimensions of planning and policy-making within in difficult contexts, or in the face of trauma and loss. All four components of the course are designed for these pedagogical aims, as described above.

Given the rapidity of change in many urban environments, and the increasing likelihood of devastating storms or other climate-related disasters, future planners and policy-makers need more than technical skills—they potentially need to know how the manage their own grief; how to engage people in difficult decisions; how to work in messy and fractured environments, with imperfect information; and how to anticipate how technical solutions may exacerbate conditions of disenfranchisement or vulnerability. In addition to providing students with critical knowledge and skills related to assessing environmental justice outcomes in urban settings, this class takes very seriously the responsibility to cultivate these other competencies to prepare students for new challenges that most of us practicing now have not yet had to face.

Explanation of your innovative approach and how it removes barriers to learning and how the goals and topics of the course are aligned with the Institute’s key issues (up to 750 words)

To ensure that the course content is accessible, engaging, and effective for the wide range of backgrounds, experience, and learning styles in the classroom, I have integrated cutting edge pedagogy from climate change and social justice education, as well as best practices from my own discipline of planning.

Each of the four course components described above have been designed to maximize engagement and reduce barriers to learning. For instance, I open each seminar session with a list of key ideas, concepts, and themes. These themes are listed on the board at the beginning of class as a visual cue. Highlighting the key themes helps participants to prioritize information and stay focused on key ideas through a broad-ranging seminar discussion. I also require written reading responses prior to each class, which helps students who process through writing, rather than speaking, to maintain close engagement with the material.

I work with each student individually to set up clear learning goals for their independent research project. Their goals manifest in the form of a research question, but also through the development of the ‘project’ of their project. These techniques—the listed themes and focused projects—ensure that students have a clear idea of what they should be learning and understanding, even when engaging with many complex ideas simultaneously.

Within the structure of the course, the students have broad autonomy to define their approach to the material. For instance, I ask that students contribute their own discussion questions in their weekly reading responses. I incorporate their questions into my discussion plan. This means that each week we cover both the themes and ideas that I believe to be the most important while simultaneously engaging with the ideas and questions that are most important to the students.

The final project is also flexible (though supported through a series of structured check-ins), allowing students not only to select their own questions, but also to design deliverables in almost any format. Several modes of professional communication are prioritized in other parts of the curriculum—professional memos, policy analysis, site analysis, etc.—but this course encourages students to communicate via modes that feel the most natural to them, or through which they feel they can showcase their findings or arguments most effectively. This is unusual in a professional planning curriculum, and has proven productive in terms of learning outcomes for students.

As noted in the student evaluation above, the course is different from what many students expect. Having to define a political agenda for their research, for instance, challenges many of the students who are accustomed to more positivist modes of research. At the start of the semester, for example, many students articulated their ‘projects’ in the form of “I want to learn...”. Over the course of the semester, with many conversations with peers and the instructor, students were able to articulate more sophisticated agendas. One student’s project became:

While the goal of my paper is to look for ways that the city and the independent bottle collectors can coexist so that both parties’ interests are met, the “project” of my project, more broadly, is to underscore how groups that are excluded by private markets and traditional institutions devise informal economies out of industriousness and pure necessity. I also intend to shed light on the fact that in some cases, these informal economies are more efficient than the existing mainstream alternatives. I believe there is a way for public institutions to nurture these ideas instead of thwarting them.

In other words, students showed learning through their increasingly sophisticated research agendas. Pushing the student to engage more politically was a “productive struggle;” it gave them a new way of understanding and engaging with the material, and resulted in excellent work.

Topically, this course aligns directly with three of the Institute’s issues: (1) climate-resilient communities and regions; (5) reduced poverty and spatial inequality; and (6) sustainable land and water management. Over the course of the semester, we engage with material specifically about climate change and resilience during sessions environmental justice theory and history, environmental planning, and climate justice. Reduced poverty and spatial inequality is a theme explored in almost every session, as we first explore the spatial patterns of environmental injustice, and then review various potential local-scale solutions. And finally, sustainable land use and water management is explicitly addressed in sessions on environmental plans and urban farming, but also features in sessions about conversations about climate planning and environmental gentrification.

As an environmental justice course, this class may fall slightly outside of the material and topics usually supported by the Lincoln Institute for Land Policy. But this is exactly the point: future professionals working in land use, land development, and planning need new competencies and new approaches to works towards solutions towards perennial problems that will only become more pronounced as climate change advances. This course is designed to nurture exactly those competencies that help to round out the crucial skillsets taught within the traditional planning

Academic year(s) in which it was offered: 2018-2019 and 2019-2020

COURSE DELIVERABLES

I. SYLLABUS

**URBG 787.71 Environmental Justice
Spring 2020**

Instructor: Lily Baum Pollans

**Class sessions: Mondays 7:35-9:25
Office Hours: Thursdays 1-3, or by appointment**

Course Overview

Our main task in this course is to understand why the environment is a social justice issue. We will examine capitalism's dependence on exploitation of natural and human resources for infinite growth and the various ways that policy supports this demand at multiple scales, by protecting exploiters and exporting pollution. We will explore how racism infuses policy decisions to ensure that particular populations bear the highest costs of economic "productivity" while reaping the fewest rewards.

We will also look at how people all over the world, and right here in New York City, are mobilizing to change business-as-usual. We will look at how political discourse is changing, how youth movements are organizing and influencing politics, and how activists in NYC are taking charge of the land to create new space and redistribute power. And, we will challenge ourselves to learn and know in radically new ways, as a means of opening up the possibility of brand new stories about the urban-natural world.

Learning Objectives

Students should come away from this class with the following

- Awareness of the structural forces of environmental injustice that are baked into the global political economy
- An understanding of the complex and multiple forms of environmental injustice
- Knowledge of the history and current forms of environmental justice movements
- The ability to critically assess policies and developments in terms of environmental justice impacts
- New social-emotional competencies for planning within complex settings

Course Components

Sessions: This course is structured as a seminar based on active discussion and collaborative learning. Occasionally, I will give brief lectures, or organize small group exercises. We will work to create a safe space for sharing and exploring a difficult subject in the classroom. Occasional guests will join us to help broaden our perspectives.

Readings & other materials: Course materials provide lenses through which to observe, reflect, analyze and discuss the core issues in the class; they provide a theoretical basis for understanding environmental racism and injustice; detailed cases; and insights into the approaches for fostering environmental justice. Students are expected to complete readings prior to each session and reference them in class discussions and assignments. Required readings and other materials will be made available through the Blackboard site.

Assignments: There are two assignments in this course: reaction papers and an independent project. Because participation is essential to the success of a seminar, it is also weighted heavily in the final grade.

Weekly Reading Responses (30%):

The night before each class for which there are assigned readings (i.e. Sunday night), students will submit brief (300-500 words) reading responses via Blackboard. The responses should focus on questions, ideas, concerns, or reactions to the readings. Each response should also contain 1-3 discussion questions. I will gather discussion questions from responses before each class, and use them as appropriate to supplement class discussion.

Independent Project: Understanding Environmental Justice (50%):

Students will structure their own independent projects for this class. The first stage of the assignment asks students to:

- (1) develop a research question;
- (2) establish the “‘project’ of their project,” (i.e.: political agenda) and;
- (3) propose a final product that effectively communicates the research

Some possibilities are: a research project about a relevant topic; reflective participation in an ongoing EJ movement or local organization; or, investigation of a space / project / development that you feel represents an environmental injustice in New York City. Where possible, students will be expected to interview activists and even participate in actions. If this is not possible, students will be expected to conduct rigorous primary source research, including site visits, observation, interviews, and review of primary documents.

As students develop questions, they should work on articulating a “project” of their project, in other words, a political agenda. Beyond your own learning, what do you hope your investigation could contribute to the creation of a more environmentally just world?

The final products can be in the form of your choice. Some viable options include (but are not limited to): a narrative non-fiction in the form of a long-form blog post (think a long City Lab investigation), a podcast, a research poster, a research essay, or a photo essay. Students must also prepare in-class presentation of their work. The format of these presentations is also flexible, depending on the nature of the project. These products should describe your experiences and research findings, positioned in the broader field of environmental justice, and draw lessons for urban policy-makers and planners.

Team projects are permitted.

Participation (20%)

The success of this course depends on your participation. If you expect to have information pre-packaged and delivered in tidy bundles, you will be disappointed. Environmental justice is a messy and complicated subject, and we will navigate it together by exploring material, sharing perspectives, and challenging each other. Active participation is expected from each and every person in the room, and should draw both on your personal experience and the readings. The grade assessment

for participation will be based upon attendance and active and productive engagement in class discussions; completion of assigned readings; ability to work collaboratively with fellow students; and individual effort. Participation is about quality in addition to quantity; I expect thoughtful and engaged contributions even if you don't speak up frequently.

Grading

An "A" represents truly outstanding work that exemplifies thorough analysis, superior insight, and crystal clear presentation. A "B" signifies competent work that accomplishes the task at hand well, through considerable thought, reasonable analysis, and an organized presentation. A "C" represents adequate work that meets basic requirements but demonstrates no distinction in terms of analytical insight or organization. A "D" is characterized by poorly or partially completed work that reflects a lack of initiative, inconsistent analysis, and/or erratic presentation. I grade each assignment on its own merits; it is entirely possible for everyone in the class to receive an A.

Course Policies

Attendance:

Students are expected to attend every class meeting. If you are consistently late or absent without prior notice, it will affect your participation grade.

Deadlines:

If students are unable to meet assigned deadlines, they should make arrangements with me in advance. Late work will be penalized. Each day late without prior arrangement will result in a lower grade (an A to an A- for one day, for instance).

University Policies:

Academic Honesty: Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures. I may conduct internet searches or use plagiarism detection services such as Turnitin.com to assess your work.

ADA Statement: In compliance with the ADA and with Section 504 of the Rehabilitation Act, Hunter is committed to ensuring educational access and accommodations for all its registered students. Hunter College's students with disabilities and medical conditions are encouraged to register with the Office of AccessABILITY for assistance and accommodation. For information and appointments contact the Office of AccessABILITY located in Room E1214B, or call 212-772-4857, or e-mail AccessABILITY@hunter.cuny.edu.

Hunter College Policy on Sexual Misconduct: "In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).
- b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link:

<http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>?

Calendar

Date	Session	Title	Deadline
January 27	1	Introduction: Framing the Environment as Social Justice	
February 3	2	Environmental injustice as a problem of modernity	Research project introduced
February 10	3	What does environmental justice look like, and how can we get there?	
February 17		No Class: President's Day	
February 24	4	Ways of knowing: techniques and methods for researching environmental injustice	Research/project proposals due <i>Guest to discuss big data and tech in EJ research</i>
March 2	5	Legal and Policy Frameworks for EJ	
March 9	6	EJ, the Green New Deal, and contemporary political discourse	
March 16	7	Integrating EJ and urban planning: how justice values are integrated (or not) into urban environmental planning	
March 23	8	<i>Research Methods Discussion & Small Group Workshops</i>	Students will share brief synopsis of work to date and troubleshoot projects with peers
March 30	9	Follow the money, follow the trash: tracing EJ through space at multiple scales	
April 6	10	Youth Movements and Climate change	<i>Guest: Sunrise Movement</i>
April 13		SPRING BREAK	
April 20	11	No class meeting; Participate in an Earth Day event	
April 27	12	Environmental and economic justice	<i>Debrief earth day activism and discuss themes of economic & environmental justice</i>
May 4	13	Movements in Action: Connecting Land, Space, and Food to Cultivate Environmental Justice	<i>Guests: NYC urban farming movements</i>
May 11	14	Final Presentations	Final Papers Due
May 28	Exam Session	Final Presentations	

Class Sessions and Readings

Module 1: Theoretical framings

1. Introduction: framing the environment as social justice

- Hardin, Garret. 1968. "The Tragedy of the Commons." *Science* v. 162, iss. 3859: <https://science.sciencemag.org/content/162/3859/1243>
- Mildenerger, Matto. 2019. "The Tragedy of the Tragedy of the Commons." *Scientific American*: <https://blogs.scientificamerican.com/voices/the-tragedy-of-the-tragedy-of-the-commons/>

2. Environmental injustice as a problem of modernity

- Bullard, Robert. 1990. Excerpts from *Dumping in Dixie*. (New York: Taylor and Francis).
- Nixon, Rob. 2011. *Slow Violence and the Environmentalism of the Poor*. Cambridge: Harvard University Press. Read Introduction, pp. 1-44.
- LaDuke, Winona. 2015 [1999]. *All Our Relations: Native Struggles for Land and Life*. (Chicago: Haymarket Books). Read Introduction and Ch. 6: White Earth, pp. 1-6; 114-138.
- Liboiron, Max. 2019. "Pollution is Colonialism," *Discard Studies*: <https://discardstudies.com/2017/09/01/pollution-is-colonialism/>

Keyed to learning objectives 1, 2, and 4

3. What does environmental justice look like, and how can we get there?

- Dorceta Taylor. 1997. "American Environmentalism: The Role of Race, Class and Gender in Shaping Activism 1820-1995," *Race, Gender, and Class*, 5(1): 16-62.
- Bullard, Mohai, Saha, and Wright. 2007. *Toxic Wastes and Race at 20*. Read Introduction and skim Chapters 1-4 (up to page 67).
- Been, Vicki. 1992. "What's Fairness Got to Do with It? Environmental Justice and the Siting of Locally Undesirable Land Uses," *Cornell Law Review* (78). Read Introduction and Part III, pp. 1-7 and 17-45.
- Penniman, Leah. 2018. *Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land*. (White River Junction: Chelsea Green Publishing). Read Introduction: Black Land Matters, pp. 1-10, and Chapter 14: Healing from Trauma, pp. 263-280.
- "Principles of Environmental Justice." The First National People of Color Environmental Summit.

Keyed to learning objectives 1-5

4. Ways of Knowing: techniques and methods for researching environmental justice

Special Guest: Anthony Vanky, Asst Prof. GSAPP, Columbia University

- Allen, Barbara. 2003. *Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor*. Read excerpts, TBA
- Ritterbusch, Amy. 2019. "Empathy at Knifepoint: The Dangers of Research and Lite Pedagogies for Social Justice Movements," *Antipode*, 51(4): 1296-1317.

- Gabrielson, Teena and Katelyn Parady. 2010. "Corporeal Citizenship: Rethinking Green Citizenship through the Body," *Environmental Politics*, 19(3): 374-391.
- Barret, M.J., et al. 2017. "Shifting relations with the more-than-human: six threshold concepts for transformative sustainability learning," *Environmental Education Research* 23(1): 131-143.

Keyed to learning objectives 3 & 5

5. Policy and Legal Frameworks for Environmental Justice in the US and around the World

- Executive Order 12898. 1994. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 11 February.
- US EPA. "Tools to Support Environmental Justice," <https://www.epa.gov/healthresearch/tools-support-environmental-justice>
- Pulido, Laura. 2016. "Geographies of race and ethnicity II: Environmental racism, racial capitalism and state-sanctioned violence," *Progress in Human Geography*, pp. 1-10.
- Burns, Kyle. 2016. "Constitutions and the Environment: Comparative Approaches to Environmental Protection and the Struggle to Translate Rights into Enforcement," *Vermont Journal of Environmental Law*, November 12.
- Milman, Oliver. 2017. "A Civil Rights 'Emergency': Justice, Clean Air, and Water in the Age of Trump," *The Guardian*, November 20. <https://www.theguardian.com/us-news/2017/nov/20/environmental-justice-in-the-age-of-trump>
- D'Angelo, Chris. 2020. "EPA's Superfund Program is in Shambles," *Huffington Post*, January 8

Keyed to learning objectives 3 & 4

6. EJ, the Green New Deal, and contemporary political discourse

- The Green New Deal resolution: <https://www.congress.gov/116/bills/hres109/BILLS-116hres109ih.pdf>
- Klein, Naomi. 2019. "Introduction: 'We are the Wildfire;'" "Capitalism vs. the Climate;" and "Capitalism Killed Climate Momentum, Not 'Human Nature;'" from *On Fire: The (Burning) Case for a Green New Deal*. (New York: Simon and Schuster), pp. 1-53, 70-104, and 243-252.
- Heglar, Mary Annaïse. 2019. "The Fight for Climate Justice Needs a New Narrative," *inverse.com*, August 20: <https://www.inverse.com/article/58632-mary-annaise-heglar>
- Heglar, Mary Annaïse and Amy Westervelt. 2019. Hot Take, Episode 4: <https://www.stitcher.com/podcast/range/hot-take-4>
- Additional materials, TBA (depending on the state of the democratic primary)

Keyed to learning objectives 3 & 4

Module 2: Planning for Environmental Justice: issues and strategies

7. *Integrating EJ and urban planning: how justice values are integrated (or not) into urban environmental planning*

- Pearsall, Hamill and Joseph Pierce. 2010. "Urban sustainability and environmental justice: evaluating the linkages in public planning/policy discourse," *Local Environment*, 15(6). Pp 569-580.
- Shi, Linda, et al. 2016. "Roadmap towards justice in urban climate adaptation research," *Nature Climate Change*, Vol. 6. Pp. 131-137.
- Lobo, Michele. 2019. "Affective Ecologies: Braiding Urban Worlds in Darwin, Australia," *Geoforum* 106: 393-401.
- Javorsky, Nicole. 2019. "Which Cities Have Concrete Strategies for Environmental Justice?" *CityLab*, May 7: <https://www.citylab.com/equity/2019/05/environmental-justice-racism-zoning-land-use-baltimore-nyc/588793/>
- OneNYC 2050 Plan (<https://onenyc.cityofnewyork.us/>); students will select one section to read in detail and skim the rest.

Keyed to learning objective 4 & 5

8. *Small Group Workshops*

No assigned readings for this session. We will continue the discussion about research methods from Session 4 and you will workshop your research question & project plan with a small group of peers.

9. *Follow the money, follow the trash: pollution export across multiple scales*

- Kelley-Raif, Kaitlin and Steve Wing. 2016. "Urban-rural exploitation: An underappreciated dimension of environmental injustice," *Journal of Rural Studies*, 47(Part A): 350-358.
- Clapp, Jennifer. 2010. *Toxic Exports* (Ithaca: Cornell University Press). Read Chapter 1, 5, and 6. Pp. 1-20, and 104-150.
- "Exporting Harm." 2013. Basel Action Network. Watch here: <https://www.youtube.com/watch?v=yDSWGV3jGek>
- Cole, Matthew. 2004. "Trade, the pollution haven hypothesis and the environmental Kuznets curve: examining the linkages" *Ecological Economics*, 48(1): 71-81
- Galka, Max. 2016. "What does NYC do with its trash?" *The Guardian*. October 16: <https://www.theguardian.com/cities/2016/oct/27/new-york-rubbish-all-that-trash-city-waste-in-numbers?fbclid=IwAR0djo27QxR1Me8pzUna97aHIqCqzGHDKT8Az-Dq5i8IGpBjY-b5Sg4vY>

Keyed to learning objectives 1, 2, and 4

10. *Climate Change and Youth Movements*

Special guest, Stephen Faillace, Sunrise Movement, DSA Ecosocialist and Hunter Alum

- City of Providence’s Climate Justice Plan:
<http://www.providenceri.gov/sustainability/climate-justice-action-plan-providence/>
- WEACT’s People’s Climate Teach-in video:
<https://www.weact.org/whatwedo/areasofwork/climate/>
- Sunrise Movement website: <https://www.sunrisemovement.org/about>

Keyed to learning objectives 4 & 5

11. *Earth Day – Be an Activist*

There will be no class meeting on April 20. Instead, students will find and participate in an event connected with earth day, which will be observed on April 22, 2020. Students should participate fully in their chosen event or action, with an eye towards observing to what extent themes of social inequality and justice are integrated into the event.

Keyed to learning objectives 4 & 5

12. *Environment, Gentrification, and Economic Justice*

We will use the first half of class to debrief the experience of our earth day activism; the second half will be used to discuss the connections between environmental and economic justice in urban settings.

- Gould, Kenneth, and Tammy Lewis. 2017. *Green Gentrification: Urban Sustainability and the Struggle for Environmental Justice* (New York: Routledge). Read Chapters 2 and 5, pp. 23-41 and 85-114.
- Garcia-Lamarca, Melissa. 2017. Review of *Green Gentrification* in *Local Environment*, 22(2): 1563-1565.
- Checker, Melissa. 2011. “Wiped Out by the “Greenwave”: Environmental Gentrification and the Paradoxical Politics of Urban Sustainability,” *City and Society*, 23(2): 210-229.
- Student-generated cases from the NYC region.

Keyed to learning objectives 1-4

13. *Connecting Land, Space, and Food to Cultivate Environmental Justice*

Special Guests: Maria Martins, Bronx-based urban farmer

- Penniman, Leah. 2018. *Farming While Black: Soul Fire Farm’s Practical Guide to Liberation on the Land*. (White River Junction: Chelsea Green Publishing). Read Chapters 11, 15 and 16.
- Wekerle, Gerda and Michael Classens. 2015. “Food Production and the City: (Re)Negotiating Land, Food, and Property Rights,” *Local Environment* 20(10): 1175-1193
- Waxman, Elaine and Megan Thompson. 2016. “Poor Nutrition Leaves Kids Vulnerable to Lead Poisoning—and Not Just in Flint,” *Urban Wire*, The Urban Institute. April 7.

Keyed to learning objectives 3 & 5

14 & 15. *Student Presentations*

**II. Detailed Module 1.
Typical Seminar Session
(Discussion plan from session 2)**

EJ discussion plan
February 3 2020

Session 2: Environmental Injustice as a Problem of Modernity?

Readings:

Robert Bullard
Rob Nixon
Winona LaDuke
Max Libroiron

Key concepts: (written on the board at the beginning of class; if there are any we haven't addressed in discussion by the end of class, return and define/discuss at the end). (NOTE: these will be discussed over several sessions, so it's ok if not all are fully defined/discussed in this session)

- *Growth machine*
- *Slow violence*
- *Dispossession / Accumulation by dispossession*
- *"violent geographies of fast capitalism"*
- *Displacement in place*
- *Environment-development dialectic*
- *Treadmill of production*
- *Uneven development*
- *Co-constitution / co production of nature and human societies*

Session keyed to Learning Objective 1, 2, and 4 from the syllabus:

1. Awareness of the structural forces of environmental injustice that are baked into the global political economy
2. An understanding of the complex and multiple forms of environmental injustice
4. The ability to critically assess policies and developments in terms of environmental justice impacts

I. Intro:

Today's readings / discussion to provide a set of voices and ideas that are different from dominant narratives of history and development.

Before we dig into the material for today, I want to just loosely set up what those dominant narratives look like so that we can really unpack why and how the readings for today represent something different.

Dominant narratives exercise:

ASK CLASS: how many of you went to high school in US? Took a US history course? What do you remember from that class?

Brainstorm ideas / themes from typical US history classes. The following are likely to come up. Discuss each as they come up, using the following questions: what kinds of activities are justified by these ideologies? Who do they include? Who do they exclude?

- American exceptionalism
- Christopher Columbus = a hero
- Early settlers as religious refugees seeking freedom
- Manifest destiny

Then show the John Gast's *American Progress*; discuss how the themes discussed are displayed in the painting.

Make particular note about the representation of the continent's indigenous inhabitants.

II. Transition / brief framing lecture:

These things that we learn in high school promote of particular ideologies; this includes a particular view of nature, and who and what are part of nature vs part of civilization. These narratives / ideologies are part of the justification for the ways we, as a society exploit nature and certain groups of people to generate wealth, grow the economy.

One key element of these themes for our discussion today is that NO SOCIETY EXISTS OUTSIDE OF NATURE

Every single society has a particular co-constituted relation with its environment

Examples:

William Cronon & changes in the land.

When puritans landed they experienced a landscape shaped by 10,000 years of human habitation and engagement. But their particular ideologies showed them instead a "pristine continent" and "underutilized resources"

As David Harvey has written:

"...what separates Pakistan from the US west is not so much differences in something called 'natural environmental conditions' (important though these may be) but the historical geography of struggles over the social process (incorporating all of its moments) through which environments have been transformed. This implies that we cannot somehow abandon... the way the immense existing ecosystemic structures of, say, contemporary capitalism in order to 'get back close to nature.' Such constructed ecosystems are a reworked form of 'second nature' that cannot be allowed to deteriorate or collapse without courting ecological disaster not only for the social order that produced it, but for all species and forms that have become dependent on it." (Harvey, *Justice Nature and the Geography of Difference*, p186)

This is to say: nature and civilization are not separate categories: so-called “civilization” and the various ideologies of its many different instantiations are ALL products of a relationship with a particular environment. This distinction may largely be a product of the enlightenment – shift from spiritual and supernatural understandings of the world, to the birth of modern observational science; a belief in the rationality of the human male mind; and a sense that nature existed to be categorized, understood, and controlled by humans. The societies produced by this shift, including societies created and shaped under capitalism, reproduce this assumption.

Bit of a thought experiment: if we generally agree that nature and humans are separate, where do we draw the line? Think about your own body, your own spaces, your own life...where does “nature” end and “you” begin?

Allow class to discuss this briefly.

Bottom line for us:

Surrounding ecologies shape civilization & ideology; and in turn, human activities produced in those societies shaped their environments.

NOTE re the Anthropocene: there are actually many ecologies and species that *only* exist because of human activity / preference / intervention

Why is it crucial to understand this in relation to our objectives for today's objectives?

Can't really understand environmental injustice if you think that nature and humans are categorically separate. If we understand nature and human as categorically separate, nature is always commodifiable; it is always a *resource* which can be either exploited or protected and which one is a choice *we* get to make.

Also, this view becomes problematic when we start to see that not all people are actually considered human in our system. Many indigenous populations, for example: more nature than human. So categorized as exploitable, expendable, alongside other species and ecosystems.

Transition: turn to readings to expand on the ideas we've already brought up. Start with Bullard, who gives us some key interpretive frames.

III. Discussion of Robert Bullard's chapter:

Bullard's Bio: Black sociologist and environmental activist, born and raised in Elba, Alabama. PhD from Iowa state and then moved to Texas; started the research that eventually led to the book *Dumping in Dixie* when his then girlfriend (and eventually, wife) asked him to look into the siting of a hazardous waste facility in a black community in Texas in the late 1970s. This research revealed the distinct patterns of hazardous waste facility siting that he outlines in the book, and positioned Bullard as a central figure in the EJ movement.

Focus on American South, particularly in terms of economic development after the civil rights movement.

Question for class: Why does he focus on the south?

Ask class to name and describe a few of the key themes and theoretical observations from Bullard's chapter. Make sure the following points get discussed:

Positions analysis within a couple of theoretical frameworks:

- Growth machine – in that local governments were always willing to prioritize tax base improvement & potential job development over so-called “use value” or neighborhood interests that were not necessarily quantifiable in terms of dollars (quality of life, community, for example)
- Environment-development dialectic – the idea that jobs & environment are explicitly framed in zero sum terms, designed to threaten workers or unemployed people. This has been a VERY effective tactic, although there is little, if any, evidence to support it.
- Uneven development-- in context of the south:
 - South growing over all, but actual growth concentrated in a few specific areas
 - Areas with larger pools of unemployed white labor; systematically avoided areas with low-skill black labor pools (rural areas and urban ghettos)

Submitted Student question: In *Dumping in Dixie*, Bullard writes: “Discrimination...involves a ‘process of defending one group’s privilege gained at the expense of another.’” Using this definition, what are some examples of discrimination? Are there forms of such discrimination that we might not usually associate with stereotypical biases and/or exclusionary practices?

Relationship of Black Americans to environmental movement – not a core issue for most people, at least in terms of electing political representatives. More likely to select people whose platforms focused on more immediate / survival needs: housing, jobs. Industrial policy exploited the urgency of these issues by targeting poor black areas for polluting industries, and then threatening to remove jobs if anyone complained about the environmental / public health impacts.

How did Black Americans eventually come to the environmental movement?
Through the civil rights movement!

Warren county example – a key moment for sparking the EJ movement. Even though it wasn't successful.

Conclude with discussion about methods / narrative style:

What kind of data does Bullard use? What is his language/approach like? Who is his audience?

- Conclude with note about quantitative data; academic, formal language.
- Translating and experience of oppression / injustice to a policy and academic audience not yet primed to see or understand the pattern

Transition to Rob Nixon & slow violence

Nixon's Bio: Rob Nixon is a white south African (of English descent); he began his academic and activist life as an anti-apartheid activist. He is now a professor of English at Princeton who specializes in environmental injustice and the environmental humanities. He has, among many other awards, won a MacArthur genius grant.

What is slow violence?

What is “slow violence” : a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all... We need, I believe, to engage a different kind of violence, a violence that is neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales. In so doing, we also need to engage the representational, narrative, and strategic challenges posed by the relative invisibility of slow violence.” (2)

“the slow dyings”

“Advocating invading countries with mass forms of slow-motion toxicity, however, requires rethinking our accepted assumptions of violence to include slow violence. Such a rethinking requires that we complicate conventional assumptions about violence as a highly visible act that is newsworthy because it is event focused, time bound, and body bound. We need to account for how the temporal dispersion of slow violence affects the way we perceive and respond to a variety of social afflictions—from domestic abuse to posttraumatic stress and, in particular, environmental calamities. A major challenge is representational: how to devise arresting stories, images, and symbols adequate to the pervasive but elusive violence of delayed effects.”

Ask class to discuss (based on submitted questions): IS this an important theoretical innovation? Why/why not? How does it relate to processes of environmental injustice?

Follow up with: Is climate change slow violence? How does thinking of it in this way change its relation to EJ?

Possible follow up topics, depending on how this conversation unfolds:

1. *Unpack issues of time / slowness:*

“catastrophes that overspill clear boundaries in time and space are marked above all by displacements—temporal, geographical, rhetorical, and technological displacements that simplify violence and underestimate, in advance and in retrospect, the human and environmental costs. Such displacements smooth the way for **amnesia**, as places are rendered irretrievable to those who once inhabited them, places that ordinarily pass unmourned in the corporate media” (7)---

→ violence of displacement; violence of forgetting. How does the act of cultural forgetting / ignoring fit into our understanding of environmental injustice?

Marshall island example

“If, as Said notes, struggles over geography are never reducible to armed struggle but have a profound symbolic and narrative component as well, and if, as Michael Watts insists, we must attend

to the "violent geographies of fast capitalism," we need to supplement both these injunctions with a deeper understanding of the slow violence of delayed effects that structures so many of our most consequential forgettings.¹³ Violence, above all environmental violence, needs to be seen-and deeply considered- as a contest not only over space, or bodies, or labor, or resources, but also over time. We need to bear in mind Faulkner's dictum that "the past is never dead. It's not even past." His words resonate with particular force across landscapes permeated by slow violence, landscapes of temporal overspill that elude rhetorical cleanup operations with their sanitary beginnings and endings." (7)

"the past of slow violence is never past" (8)

"If, under neoliberalism, the gulf between enclaved rich and outcast poor has become ever more pronounced, ours is also an era of enclaved time wherein for many speed has become a self-justifying, propulsive ethic that renders "uneventful" violence (to those who live remote from its attritional lethality) a weak claimant on our time." (8)

"temporality of place" (18) – what could this mean in NYC? In your own neighborhoods?

Temporal scales / rhythmic syncing – syncing with news cycles / electoral cycles:

"Crucially, for my arguments about slow violence, the time frames of damage assessment and potential recovery are wildly out of sync. The deep-time thinking that celebrates natural healing is strategically disastrous if it provides political cover for reckless corporate short-termism." (22)

>> conclude with connection to planning:

- how do we, as planners, deal with time? Think about this through the lens of multiple, intersectional vulnerabilities
- how does this relate to conversations about what kinds of populations, identities need to be considered in the framework of environmental justice? *how do we account for the future generations?*
- Especially important for *planners*. Our whole mode of thinking / doing / being is future oriented. Responding to past and present with a different vision for what the world could be, what the future could look like.

2. *Role of military / state violence in the production of slow violence:*

Militarization – using spectacular violence / threats of violence to protect the unfolding of slow violence

--examples: military and police protection of foresters & fossil fuel extractors for examples. mobilizing state violence or just turning a blind eye to mercenary violence

- See this in the amazon – both mercenary and state militias to protect what is essentially illegal deforestation;
- See this in the American west (great fictionalized examples in the overstory)
- See this all over petro states – Nigeria, middle east, Canada (tar sands)

- Warren County example, from Bullard – policy sent to arrest protesters trying to block the dumping of highly toxic PCBs in their place. *Police action intervening on the side of the polluter – very common!*
- Robin Amer’s “the city” podcast – police intervened on the side of polluters in a black Chicago n’hood, and on behalf of the residents in a white n’hood, under almost identical situations

Conclude Nixon with explicit connection to planning, normativity in an urban setting:

QUESTION FOR US, AS URBAN PLANNERS & POLICY MAKERS (from Nixon, and submitted student questions):

“How can environmental activists and storytellers work to counter the potent political, corporate, and even scientific forces invested in immediate self-interest, procrastination, and dissembling?”

Add into discussion: Does this make you think about anything in particular with regards to your project? OR...the *project of your project*?

“In a world permeated by insidious, yet unseen or imperceptible violence, imaginative writing can help make the unapparent appear, making it accessible and tangible by humanizing drawn-out threats inaccessible to the immediate senses. Writing can challenge perceptual habits that downplay the damage slow violence inflicts and bring into imaginative focus apprehensions that elude sensory corroboration. The narrative imaginings of writer-activists may thus offer us a different kind of witnessing: of sights unseen.” (15)

Transition to Winona Laduke

Laduke's Bio: Born in LA to an Obijiwe father and a Jewish mother; grew up in Oregon and moved to the Anishinaabe reservation after attending college at Harvard; it took her some time to be accepted within the tribe; over time has become a super important advocate for the White Earth reservation and indigenous rights in general.

Open with general observations: what did students find most interesting about Laduke's chapters?

Make sure the following ideas are discussed, keyed to key themes on board:

Intrusions into indigenous land / lifeways continue to this day:

Direct:

- theft or illegal purchase of land: **DISPOSSESSION**
- regulations that prevent hunting / fishing / other subsistence activities
- "conservation" activities that expel native inhabitants or prevent their traditional uses of the land (nature conservancy example)

Indirect:

- pollution that makes land uninhabitable or food toxic (**DISPOSSESSION w/out displacement**)
 - eg PCB and mercury contamination that makes wall eye almost unconsumable
- other?

Student-submitted question: Question of compensation – what does it mean to compensate for a life / a way of life / a species / an entire people? How do we think about this as planners? How do we account for this in spaces that were taken many, many generations ago, and where there are very few, if any, original inhabitants left?

Other themes to follow up on, depending on where prior conversation leads:

Land always shaped by human-environment interactions (co-production of nature & society)

- native peoples always adapted land, managed land, intervened in ecosystems
- She quotes a tribal chairman: "Salmon were put here by the Creator, and it is our responsibility to harvest and protect the salmon so that the life cycle continues" (1).
 - Recognized mutual shaping/co-dependence of salmon and human populations
 - She also argues that "it is these relationships that industrialism seeks to disrupt." (2)—*How? How does this relate to Bullard's argument, or Nixon's?*
- "Wilderness" a romantic American myth, used to sustain racist/eugenicist/white supremacist environmentalism/conservationism
- Observation from David Harvey: indigenous / first peoples "resistances may not be based, as many in the west might suppose, upon some deep inner need to preserve a distinctive unalienated relation to nature or to keep intact valued symbols of ancestry and the like, but upon a much clearer recognition that ecological transformation imposed from the outside (as happened in Colonial New England) will destroy indigenous modes of production" (187)
 - Connect to student comments about "non-pragmatic" arguments for preserving things...

- Also to student comments about hackneyed or stereotypical depiction of indigenous life...
- *What if we apply this logic to coal mining in Appalachia? Where mining has become the way of life, and is now threatened—mostly by natural gas, but possibly other forces as well. Is this the same different from what Harvey and Laduke describe????*

If time: discuss Laduke's challenge to the idea of land being for sale; being ownable

- Go over property rights theory (slide)
 - Key to note that the main function of the state is to protect private property and that we consider it legit to mobilize state-sanctioned violence / police power in to that effect
- Do we have a way in this country of understanding, respecting land that is not for sale? Do we have commons? Is this something you believe can exist here?

Narrativity/voice:

Questions of narrative raised by Nixon evident in Laduke's writing. One explicit example:

"when the high winds hit the reservation, the press called it a 'natural disaster.' But when lumber companies similarly vanquish the trees, it is commonly called 'progress.'" —she highlights how ideologies inform narratives

- Is money being made and by whom?
- How else could we understand the difference between these two narratives?

Concluding discussion: How do we fit into Laduke's story?

- She refers colonists and their descendants as “predators,” “land eaters,” “tree eaters,” “destroyers,” and “culture eaters.” – How do you position yourself as a person among these labels? How about as a professional?
 - How responsible are we? And how do we make change? How do you feel about this?

Conclude with Liboiron, Pollution is colonialism

Bio: Liboiron is a young, Canadian academic, trained at NYU in Science and Technology Studies. Liboiron is a social and physical scientist; a founder of the *discardstudies* blog and currently runs a feminist, anti-colonial marine science research laboratory that specializes in grassroots environmental monitoring of plastic pollution

Review the four contentions from the reading.

Discussion:

- Where do you see them in each of the other readings?
- Where do you see them in current events in the US?

Concluding points:

From the point of view of environmental justice, dominant ideologies and the narratives they produce about history and development help us to see why we have permitted the exploitation of the environment and some groups of people, and why we continue to provide unequal protection.

These ideologies mask many forms of violence / annihilation / destruction; reinforce a narrow set of values; reproduce power relations / class relations that keep certain interests (colonist / capitalist / patriarchal) on top and others oppressed.

Today we explored other ways of understanding these narratives, and voices whose very existence challenges those dominant narratives.

Next week, we begin to look at what environmental justice might look like...different ways of defining it, and a small start at what it might take to get there

Slides prepared for Session 2

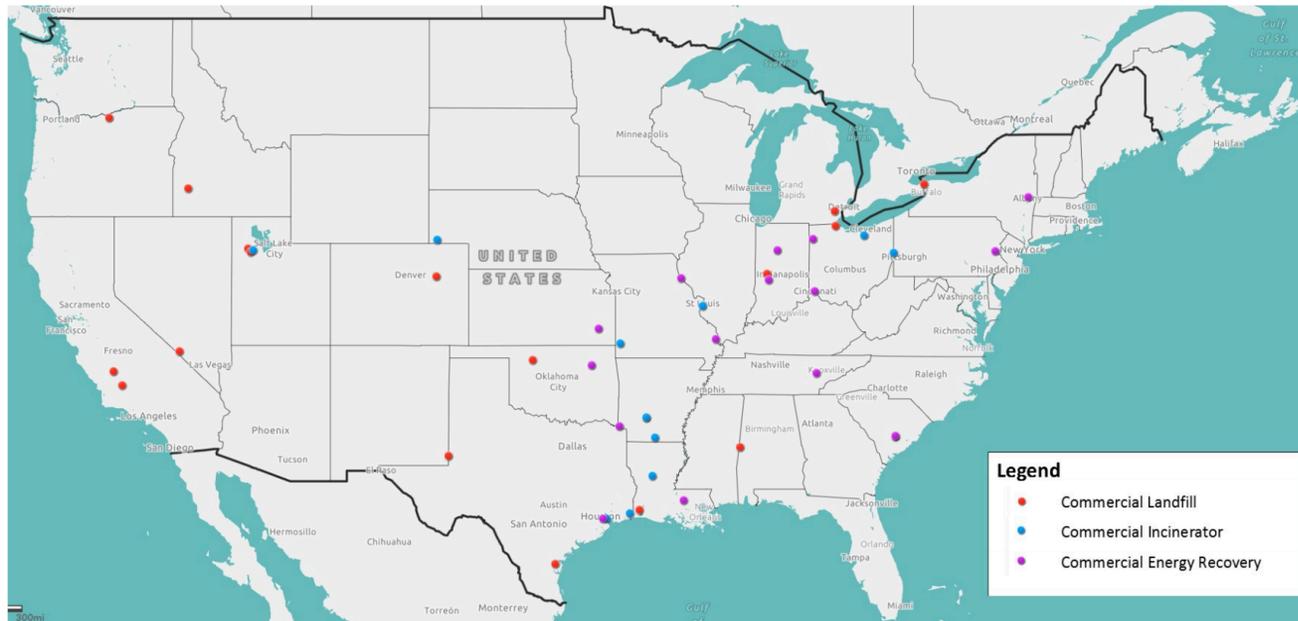
Environmental Justice

Spring 2019
Dispossession
and Slow
Violence





Exhibit 2
Commercial Hazardous Waste Energy Recovery, Incineration, and Landfill Facilities



From the US EPA Hazardous Waste Capacity Report, 2019

Quick Primer on Property Rights

Social construct: everyone has to agree

Many forms of property rights

- Usufruct rights
- Free and clear ownership
- “Bundle of sticks”

***The World Wants Air-Conditioning.
That Could Warm the World.***



Air-conditioners on a building in Fuzhou, China. A new report predicts that the number of air-conditioning units worldwide will rise from 1.6 billion today to 5.6 billion by midcentury. VCG via Getty Images

The New York Times

Climate Change Could Blow Up the Economy. Banks Aren't Ready.

Like other central banks, the E.C.B., which met on Thursday, is scrambling to prepare for what a report warns could be a coming economic upheaval.



Bush fires raging in New South Wales, Australia, on Thursday. Matthew Abbott for The New York Times

The New York Times

***Wind and Solar Power Advance,
but Carbon Refuses to Retreat***



The site in Bonn, Germany, where diplomats from around the world are gathering for a United Nations climate conference this week. Sean Gallup/Getty Images

Solar and wind are coming. And the power sector isn't ready.

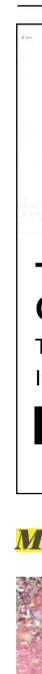
The rise in renewable energy will scramble the decision making of grid managers.

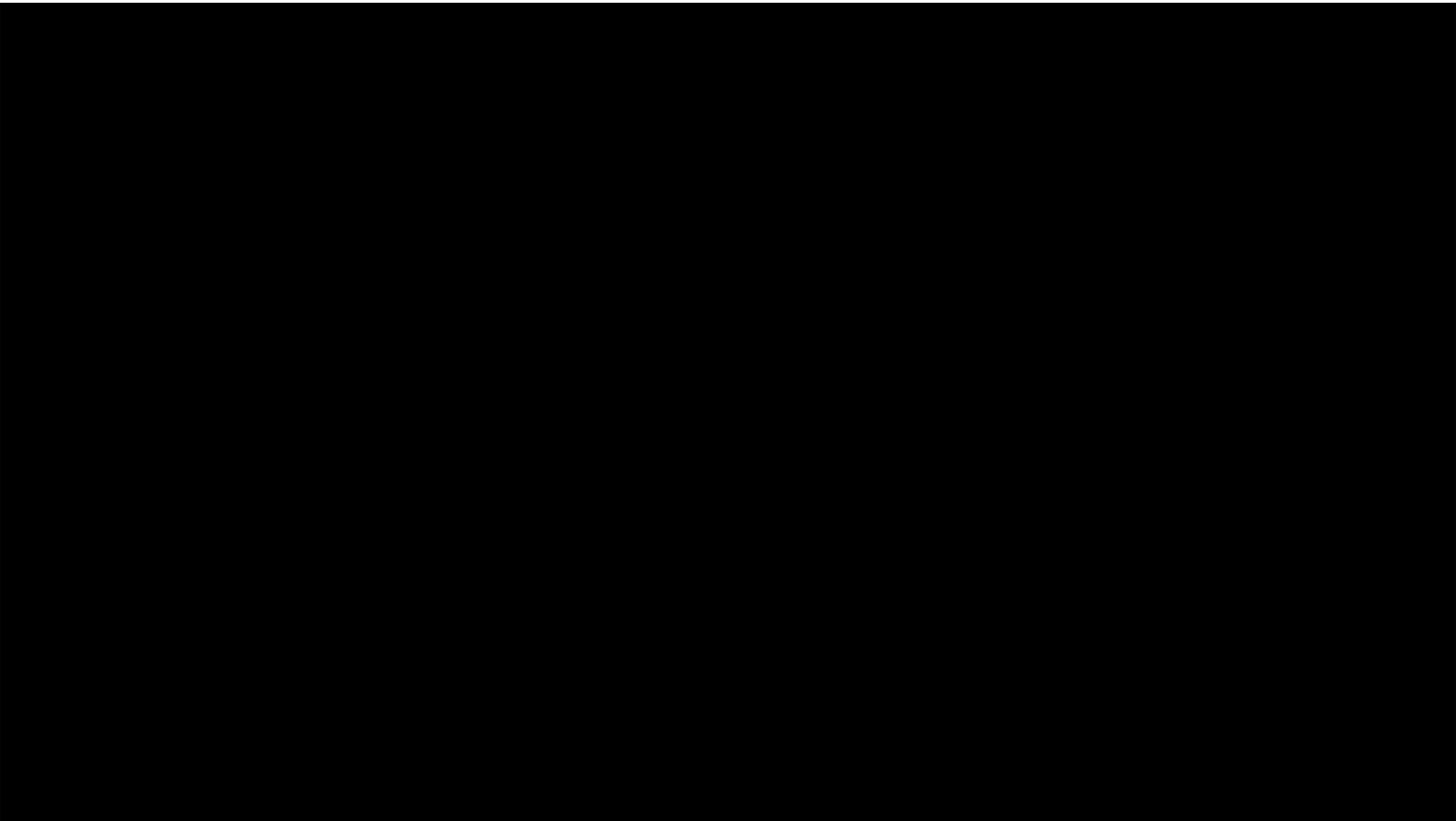
By David Roberts | @drvox | david@vox.com | Updated Jun 27, 2019, 1:31pm EDT

f   SHARE



Getty Images



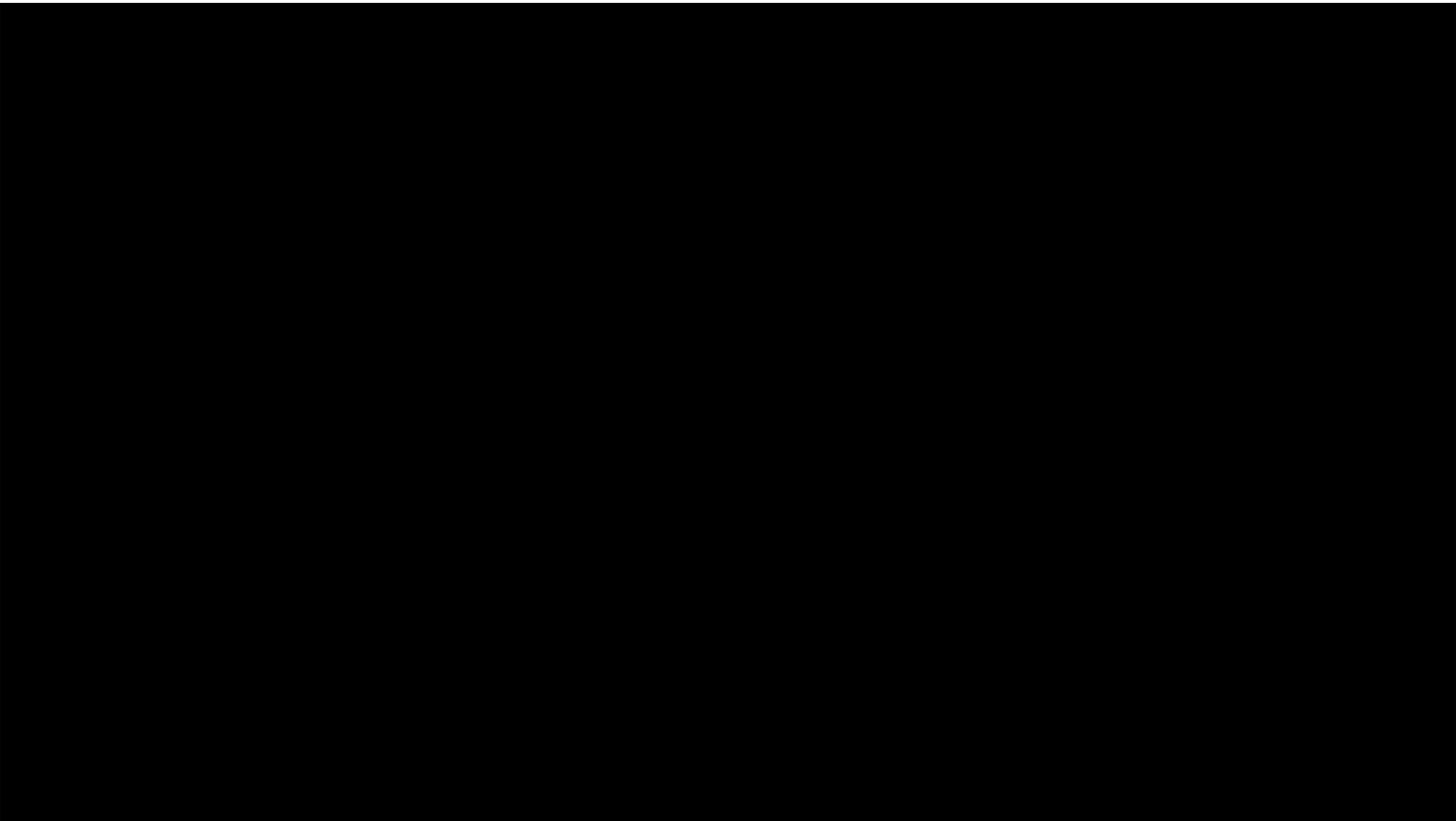


Project Proposal

- Length: 1 page
- Deadline: February 24, in class
- Include:
 - A brief description of your project
 - A research question, or small set of questions
 - What is the “project” of your project?
 - A description of the format of your final product.
- If you plan to do *participant observation*, then make sure to include:
 - The organization/movement you will be working with
 - The name and position of your contact in that organization
 - The kind of work they do and how it relates to EJ
 - Your role or what you will be observing for your project
 - A plan for how you will approach the role of participant observer
- If you are doing a research project, then make sure to include:
 - A description of the topic
 - A preliminary list of “data” sources, including:
 - direct observation
 - interviews with relevant actors
 - archival documents
 - popular press, documentaries
 - art, music, theater, poetry, fiction
 - scholarly writing/analysis
 - reports, government data, big data
 - other
 - A note about how you plan to approach your analysis

Project Proposal

- If you are doing something else:
 - A description of the topic
 - A description of your research design / methods
 - A preliminary list of source / things you will observe
 - A note about how you plan to conduct your analysis



**II. Detailed Module 2:
Peer Workshop Session**

EJ Independent Project Peer Workshop
March 18, 2019

In this session, students provide supervised peer-to-peer support for their independent projects. Students were pre-sorted into groups, around similar project themes. In 2019 those project themes included:

Complex site selection/ redevelopment

Observation of/ participation in an ongoing movement

The effects of extracting and burning fossil fuels

Defining and dealing with “Crime” in the landscape and environment

Reconciling development and open space “protection”

Each group should have no more than 4 students, to ensure that each person has ample opportunity to share and workshop their project.

Within small groups, each participant should share:

- A brief summary of their topic, including:
 - As succinct a statement of your research question as you can
 - The “project” of your project
- Your research methods—how are you going to gather and analyze data
- Roadblocks so far
- Any questions or things that are troubling you so far

- Each group should take a few minutes at the beginning to decide how to structure time. 1 hr and 20 minutes total; each person should get a least 15 to 20 minutes of focused discussion of their proposal.

- The instructor floats, spending a few minutes at a time with each group, ideally touching base with each student in the class for at least a couple of minutes.

After 1 hour and 20 minutes, reconvene with the larger group.

- Revisit the question of the ‘project’ of the project. Ask the groups to share some questions and suggestions that arose from their group discussions.
- Ask for examples of other challenges or questions that arose, and what solutions groups had come up with
