

## Climate Futures, Transitions and the Green New Deal

RISD/Brown Joint course  
Damian White/Timmons Roberts  
Fall, 2019

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Course meeting time: 4:15-7:15 pm Thursday, RISD College Building room 346 (this building is on 2 College Street - corner with Benefit St.)

**Course catalogue description:** This course seeks to build a reconstructive environmental sociology of the sustainable transition, incorporating debates from political ecology, critical design studies and energy/technology studies. It will debate the merits of green capitalist and post-capitalist, socio-centric and technocentric visions of the transition away from fossil fuels. We will use current discussions of the Green New Deal as a test case for thinking about how the promise and the pitfalls that pervade a post-carbon politics in the United States. Class will meet on the RISD campus. This seminar will allow for 20 Brown students to register through Brown, and 15 RISD students to register through RISD.

### Longer description:

It's hard not to be depressed at the current state of the environmental debate. Almost every day scientific reports are emerging telling us that climate change is devastatingly real, that society is deeply unsustainable, that we must act to decarbonize our economies as quickly as possible, that we need to protect our biodiversity and become careful stewards of land and sea. Yet, across the affluent world, there are now many forces seeking to unravel the environmental gains of the last forty years. *Climate Futures Transitions and the Green New Deal* is a course that starts from the proposition that the consensus position on the climate crisis, as summarized by the Intergovernmental Panel on Climate Change provides a robust scientific basis for thinking about the challenge of decarbonization. From here, the course attempts to provide a survey and evaluation of the social science of the post-carbon transition. Whilst the course will range widely across the post-disciplinary fields of transition studies, we will focus on appraising the strengths and weaknesses of the Green New Deal discussion in the United States.

The social science of the post-carbon transition is necessarily inter and cross-disciplinary. As such, students will be encouraged to draw from social science and broader scientific and policy literatures in energy studies, urban studies, climate science, political ecology, agro-food studies and beyond to grapple with the challenge of transition. This course will also seek to bridge social science literatures with emerging literatures in design studies focused on thinking about post-carbon futures. Whilst this is not a course in design, it does take seriously the proposition that the just transition understood as the Green New Deal or otherwise will have to be imagined and built, fabricated and realized, coded and created. Politicized processes of making, of prefiguring, that occur again and again and again are going to be constitutive features of the attempt to build survivable futures on a rapidly warming planet. We will debate the future of manufacturing, technological innovation, employment, urbanization, food cultivation in a carbon constrained world. The course will also consider how different visions of transition might contain and enact very different political and ethical assumptions.

## Requirements/Evaluation:

**Analysing transition:** 4 SEQ (Summary, Evaluation, Questions) reading papers, (10 percent each, total 40%). The class will be divided into two groups which will alternate days preparing two page SEQs on the reading. These are due 9am the day of class by the Edutopia and Canvas systems. All class members are responsible for signing on and reading each other's questions before the scheduled class. These discussion papers should discuss two readings, and please do not write about the very short readings. Give the posting and paper a descriptive title that captures your main point. All class members are responsible for signing on to Edutopia/Canvas and reading each other's papers before the scheduled class. Those students *not* writing a paper for that week are required to write at least two reaction questions/responses on the ideas of at least two of the student SEQ papers. SEQ papers should be kept to two pages single spaced if possible. Post reaction questions to Edutopia/Canvas by 1pm--two hours before class. See below for explanation.

SEQ papers should include 4 parts: 1. An introductory paragraph raising a paradox or central question about the topic of the readings, lay out a roadmap of your organization, and foreshadow what you conclude about the readings. This is crucial. [1 paragraph] 2. a very brief (concise) summary of the central points or arguments the author(s) present(s) [2-3 paragraphs]. 3. a brief assessment of the strengths and weaknesses of the authors' central argument [2-3 paragraphs]. Without being authorities, comment here on whether the author's evidence really supports what they set out to do and their conclusions. How does their viewpoint color the interpretations they make? Say why you agree or disagree with their project and conclusions. Here we encourage you to be contentious and take a risk by taking a strong stand that will get debate going in class. Finally, 4. Provide two discussion questions related to the readings. One should be a lingering question for you, and the other a question that will promote class discussion. We are looking for well-written SEQs which summarize and critique the readings directly, support their arguments, make clear their organization and logic, and when possible which draw in questions and issues raised in other readings and earlier in the course.

**Mobilizing Transition: The Policy Brief (20%)** During weeks 7 through 9, the seminars will be self organized by the students, who will be responsible for discussion of the subareas of readings and then write a 3-5 page policy brief rather than an SEQ. These will outline the Green New Deal proposal in that area, and elaborate some issues and critiques. For example: what policy proposal can you draw out from this literature to further a GND? How would you frame this? Who is going to be your opposition to this policy proposal – identify the opposition and find out some of their potential counter-arguments. How can you address these concerns or refute these claims? How could the policy be designed to ensure successful implementation?

**Imagining transition (20%)** Final group project: Developing a political/cultural imaginary. Teams of 2 students will develop multi-media descriptions/positionalities for climate futures and transitions. Each team needs to include both Brown and RISD students. Your task is to envision a future--a near or far future, apocalyptic or solutionist, and communicate it. In discussions with faculty, we'll nudge you to address a series of issues with your proposal:

- is it technically feasible?
- does it address social issues like the condition and employment of workers?
- is it politically feasible in the society(ies) where you believe it should be adopted?
- what cultural changes need to occur for it to take place?
- what sequence of events might need to occur for it to be instituted?

Examples of approaches that could be advanced include: ecological modernization/technological approaches, indigenous knowledge and futuring, libertarian futures proposed by think tanks like the Heritage Foundation, the American Enterprise Institute, or the Competitive Enterprise Institute, anarchist, feminist, or queer futures that address the ecological crisis.

**Reflecting on Transition:** (10%) Students will keep notes at the Symposium December 5<sup>th</sup> and submit a 2 page paper reviewing the key points they garnered and relating them to the issues and readings discussed over this semester.

**Participating (in Transition)** (10%) We do take attendance and since we have relatively few meetings any missed days will hurt badly. Being a reading course, to understand what we're talking about and to participate, **YOU MUST KEEP UP WITH THE READINGS AND COME PREPARED TO OUR MEETINGS.** We ask students questions on the readings and keep track of their level of preparedness. This includes being able to utilize the previous weeks' readings, so you must read even for the weeks you are not writing papers.

**Expectations for time budgeting:** Class time is required, 3 hours x 25 sessions = 75 hours; reading per week= 6 hours x 14 weeks = 84 hours; writing short SEQ papers 4 hours x 4 papers = 16 hours; group preparation for final projects, 20 hours. Total 195 hours estimated time should be budgeted for this class.

**Readings** for the class will all be available online on either the RISD or Brown system. We encourage printing out readings if you learn better that way, and please let us know if you wish to but have any barriers to doing so.

**Grades and Passing the Course:** To pass this course, students need to hand in all their work on the deadline dates, attend classes and contribute to class. Students will not pass this class if they have not met these course requirements. We aim to be as fair as we possibly can be to students in marking their work. However, please note we do not negotiate over grades.

RISD Marking Scheme:

94 – 100	A	80 – 83	B-	67 – 69	D+
90 – 93	A-	77 – 79	C+	60 – 66	D
87 – 89	B+	74 – 76	C	59 and below	F
84 – 86	B	70 – 73	C-		

Brown Marking Scheme:

90-100 A  
80-89 B  
70-79 C  
below 70 NC

**Teaching objectives:** We will help you understand course material, as well as address how the material applies to the social, political, and ethical problems we face in our everyday lives. To accomplish this, we will do our best to maintain an active learning environment, using lectures, readings, discussions, films, writing assignments, and peer-assisted learning.

**Special Needs:** If you have special learning needs that require our assistance and support, you must let us know at the outset so that you can maximize your engagement with this course. Please do! We want to help.

**Plagiarism** is using words and ideas that are not yours and presenting them as if they were your own, without proper attribution. We will discuss this issue in class and we will describe how to cite work properly. However, if you have any confusion on this matter, please consult us. If you are found guilty of plagiarism, you will receive a 0/F for the paper. You will have to submit an alternative paper which will

gain a maximum mark of 75. Your act of plagiarism also will be reported to the Dean. Further information is available at [plagiarism.com](http://plagiarism.com).

**No Web Surfing Policy:** This course will follow a no web surfing policy. The classroom is not a space for shopping, reading email, facebooking or other extraneous activity. If this request is difficult for you to comply with, we will ask you to find another seminar where you can do your shopping.

**Diversity and Democracy Statement:** It is our intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. We wish to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socio- economic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let us know so that we can make arrangements for you.

**Readings:** Nearly all readings will be online. One text is at the bookstore:

Hal Harvey, Robbie Orvis, Jeffrey Rissman. 2018. *Designing Climate Solutions: A Policy Guide for Low-Carbon*. Island Press.

Paul Hawken (Ed) 2017. *Drawdown*. Penguin Press. is optional, but we'll be discussing it and it's quite interesting.

## Climate Futures, Transitions and the Green New Deal

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### Calendar

#### Week 1: Sept. 5: Theorizing Post-Carbon Transitions:

The Green New Deal has very quickly become a defining discourse for thinking about low carbon futures in the US over the last year. It builds on decades of technical, scientific and political discussions about post-carbon transitions that have occurred across climate science, engineering, design, energy studies, policy studies and the environmental social sciences. In this class, we identify broad clusters of transition thinking that are attempting to shape the social science of post-carbon transitions. Dominant voices provoking debates about transition in mainstream policy-making circles have largely framed their discussion in terms of socio-technical transitions, green growth or natural/green capitalism, (conversations largely in debt to innovation/management/science and technology studies and theories of ecological modernization). In stark contrast, many growth skeptics (Malthusian and Marxist) or critical political theorists (feminist, socialist, post structuralist, indigenous and others) have suggested that managerial and technocratic approaches to the transition will achieve little if they refuse to grapple with the treadmills of production and consumption--the growth and accumulation imperative of global capitalism. How the Green New Deal might fit into and learn from this academic debate is a complicated and ongoing question we will struggle with for the rest of the course.

#### Read the following before class:

1. White, D.F. & Roberts, J.T. (2019) "Post Carbon Transition Futuring: For A Reconstructive Turn in the Environmental Social Sciences? *The Cambridge Handbook of Environmental Sociology*. Forthcoming. [https://www.academia.edu/38261622/Post\\_Carbon\\_Transition\\_Futuring\\_For\\_A\\_Reconstructive\\_Turn\\_in\\_the\\_Environmental\\_Social\\_Sciences](https://www.academia.edu/38261622/Post_Carbon_Transition_Futuring_For_A_Reconstructive_Turn_in_the_Environmental_Social_Sciences)
2. Alexandria Ocasio-Cortez, (February 12, 2019), [H.Res.109 - 116th Congress \(2019-2020\): Recognizing the duty of the Federal Government to create a Green New Deal](https://www.congress.gov/hres/109-116/H.RES.109-116)
3. Julian Brave Noisecat "An Insider's Guide to the Climate Debate," *Data for Progress*, <http://filesforprogress.org/memos/insiders-guide-climate-debate.pdf>
4. Kate Aronoff (December 5, 2018). "[With a Green New Deal, Here's What the World Could Look Like for the Next Generation](https://www.theintercept.com/2018/12/05/green-new-deal-world/)". *The Intercept*.

#### Optional Additional Resources:

If you want to look at how some thoughtful climate reformists critics on the Right of the political spectrum have engaged with the Green New Deal take a look at Jerry Taylor

<https://niskanencenter.org/blog/an-open-letter-to-green-new-dealers/> and Michael Liebreich <https://about.bnef.com/blog/liebreich-green-new-deal-trumpism-climate-characteristics/>.

For a centrist take on the Green New Deal from the Breakthrough Institute see

<https://thebreakthrough.org/issues/energy/the-green-new-deal-and-the-legacy-of-public-power>. For

Left/radical critics of the Green New Deal proposal see <https://communemag.com/between-the-devil-and-the-green-new-deal/>. A response from the Indigenous Environmental Network can be found here

<https://www.ienearth.org/talking-points-on-the-aoc-markey-green-new-deal-gnd-resolution/>For excellent

reviews of the whole debate see Thea Riofrancios <https://www.viewpointmag.com/2019/05/16/plan-mood-battlefield-reflections-on-the-green-new-deal/> and David Robert's <https://www.vox.com/energy-and-environment/2018/12/21/18144138/green-new-deal-alexandria-ocasio-cortez>

## **Week 2: Sept 12: Energy Focused Ecomodernism, Ecopragmatism & Deep Decarbonization of Energy**

In this class we attempt to come to grips with some of the more technical and empirical debates surrounding the sustainable energy transition. We presently produce 14% of global energy from low carbon sources--this needs to be 90-100% in the next 10-20 years. This energy transition must occur while we simultaneously meet the multiple pressing energy needs of a global population of 9-10 billion. The good news here is that the cost of renewables such as solar and wind are plummeting. However, in this class, we identify four questions that are now central to mainstream policy debates about the energy transition in the affluent world, notably: (i) How far can we get with energy efficiency, renewables, demand management and a smart grid? Can we get to a low/zero emissions scenario through wind/wave/solar/HEP/geothermal alone? (ii) Can renewables meet the needs for baseload demand and seasonal variation? and if not, do we need to keep nuclear and natural gas in the mix? (iv) Are we ultimately going to need new “breakthrough technologies” to get us to carbon zero?

**Group A** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. David Roberts “A beginner’s guide to the debate over 100% renewable energy: Is it the right target? Is it even possible?” <https://www.vox.com/energy-and-environment/2017/4/4/14942764/100-renewable-energy-debate> and David Roberts “Is 100% renewable energy realistic? Here’s what we know.” <https://www.vox.com/energy-and-environment/2017/4/7/15159034/100-renewable-energy-studies>
2. Hal Harvey et al (2018) *Designing Climate Solutions* pp 1-52.
3. The Ecomodernist Manifesto <http://www.ecomodernism.org/>
4. *Stockholm Environment Institute and Brown Climate and Development Lab*. “Deeper Decarbonization for the Ocean State” 2019.

### **Optional Additional Resources:**

Broadly ecomodernist perspectives on environmental politics are articulated at <https://thebreakthrough.org/> and <https://www.drawdown.org/>.

For a complete subversion of conventional ecomodern energy discourse from a perspective closer to degrowth see: Nicholas Hildyard, Larry Lohmann and Sarah Sexton “Energy Security For Whom? For What?” <http://www.thecornerhouse.org.uk/resource/energy-security-whom-what>

Charlotte Louise Jensen, Maj-Britt Quitzau ”Towards more eclectic understandings of energy demand and change—A tale of sense-making in the messiness of transformative planning” *Energy Research & Social Science* 31 (2017) 253–262

## **Week 3. Sept 19: Policy Design for the Transition: Multi-Sector Analysis, the Multi-Level Perspective, and Policy Sequencing for Coalition Building**

In this class, we look at three different but potentially overlapping ways to think about policy design for energy transitions. (1) Hal Harvey writings makes the case for the virtues of a technocratic energy policy that is developed through *performance standards* that continually ratchet up across time and are sufficiently post-partisan to outlast specific administrations. (2) European transition thinkers such as Geels, Kemp et al have placed more emphasis on identifying the *system dynamics* and *policy spaces that can facilitate multi-level innovations across all sectors of society*. (3) Finally, we look at the growing literature on *policy sequencing*. This literature suggests that if we view decarbonization primarily as a *political project* - rather than a technological challenge - attention needs to be given to the political

regimes, overlapping political interests and modes of political coalition building that could move decarbonization forward.

**Group B** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. Hal Harvey (2018) *Designing Climate Solution* Chapters pp 52-120.
2. Geels, F.W. and Kemp, R., 2012, 'The multi-level perspective as a new perspective for studying socio-technical transitions', in: Geels, F.W., Kemp, R., Dudley, G. and Lyons, G. (eds.), 2012, *Automobility in Transition? A Socio-Technical Analysis of Sustainable Transport*, Routledge, pp. 49-79.
3. Michael Pahle et al "Sequencing to ratchet up climate policy stringency," *Nature Climate Change*, <https://www.nature.com/articles/s41558-018-0287-6>
4. Jonas Meckling et al, "Winning coalitions for climate policy," *Science*, <https://science.sciencemag.org/content/349/6253/1170>

#### **Optional Additional Resources:**

Check out the following podcast: Leah Stokes on the Interchange "The Surprising Public Opinion Trends Behind the Green New Deal" <https://www.greentechmedia.com/articles/read/the-surprising-public-opinion-trends-behind-the-green-new-deal#gs.r8h0r9> ; The multi-level perspective and other approaches to socio-technical transitions can be found at <https://transitionsnetwork.org/>

#### **Week 4: Sept. 26: Environmental Justice and the Renewables Revolution: Supply Chain Issues and the possibilities of co-benefits**

Renewable energy might well be low carbon but wind, solar and lithium ion batteries can have other kinds of environmental and social impacts across the supply chain: from land use issues to labor exploitation; from the displacement of indigenous and other marginalized people to socio-ecological impacts on wildlife/noise etc. In this session we explore some of the environmental and social justice concerns that have been raised by the prospect of a global shift of energy systems to renewables. We also consider the work of critical scholars that argue some of the negative socio-ecological impacts of renewables can be ideologically overstated (by pro-fossil fuel scholars on the Right and the degrowth/anarcho-primitivist Left of the political spectrum). Finally, we look at the work of Miller and Richter and Hernandez (et al) who argue that there are very different ways of socio-technically, socio-ecologically and socio-politically configuring different local carbon energy regimes and some configurations marked by thoughtful planning and greater community incentives and engagements can generate very different outcomes than others.

**Group A** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. Dustin Mulvaney (2019) *Solar Power: Innovation, Sustainability and Environmental Justice* (Selections).
2. Clark Miller, Jennifer Richter, J O'Leary "Socio-energy systems design: a policy framework for energy transitions" *Energy Research & Social Science*, 2015.
3. Rebecca R. Hernandez (et al) 2019 "Techno-ecological synergies of solar energy for global sustainability" *Nature Sustainability* 9 July.
4. Clark Miller & Jennifer Richter (2014). Social planning for energy transitions. *Current Sustainable/Renewable Energy Reports*, 1 (3), 77-84.

**Optional Additional Resources:** If you want to dig further into discussions about the possibilities of responsible sourcing for renewables see: Dominish, E., Florin, N. and Teske, S., 2019, *Responsible*

*Minerals Sourcing for Renewable Energy. Report prepared for Earthworks by the Institute for Sustainable Futures, University of Technology Sydney. Read the executive summary*

If you want to look at how some technocentric and business friendly currents are considering what to do with the “hard to abate” sectors take a look at this recent report by the UK’s Energy Transitions Committee **Mission Possible: Reaching net-zero carbon emissions from harder-to-abate sectors** <http://www.energy-transitions.org/mission-possible>

### **Week 5: October 3: Just Transitions/Designs for Transition:**

The concept of the “just” energy transition has its roots in the labor movement but has quickly spread through the environmental and climate justice movements. In this class we explore the histories of blue-green alliances. We look at how feminist, anti-racist and indigenous activists have sought to expand energy questions beyond the “techno-economic” framework of ecomodernism and think more expansively about possible alliances for building just energy transitions. We consider how these discussions have now moved into the world of design and we look at some of the tensions between modernist, feminist and decolonial perspectives that are exploring designs for just post carbon transitions.

**Group B** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. Damian White 2019. “Just Transitions/Design for Transition “Just Transitions and design for transitions: Preliminary notes on a Design Politics for a Green New Deal.” *Capitalism Nature Socialism* [https://www.academia.edu/38329433/Just\\_Transitions\\_Transition\\_Design\\_-\\_Preliminary\\_Notes\\_on\\_a\\_Design\\_Politics\\_for\\_a\\_Green\\_New\\_Deal](https://www.academia.edu/38329433/Just_Transitions_Transition_Design_-_Preliminary_Notes_on_a_Design_Politics_for_a_Green_New_Deal)
2. Alyssa Battistoni 2017. “Green-Pink Collar Labour: Revaluing Social Reproduction for Just transitions” <https://www.jacobinmag.com/2017/08/living-not-just-surviving/>
3. Nick Estes 2019 *A Red Deal* <https://jacobinmag.com/2019/08/red-deal-green-new-deal-ecosocialism-decolonization-indigenous-resistance-environment?fbclid=IwAR3QFvoHy626hAYUYrsh8s4UvnT7LpGy82s2BJt0kT19iqMRE3rLfYXGQ>
4. Arturo Escobar 2018. “Autonomous Design and the Emergent Transnational Critical Design Studies Field”. *Strategic Design Research Journal* 11(2). pp. 139-146 <http://revistas.unisinos.br/index.php/sdrj/article/view/sdrj.2018.112.10/60746370>
5. J. Mijin Cha 2019. “Learning from the New York Experiment: Managing a Just Transition to a Low-Carbon Future” July 16, 2019 *Public Administration Review*.

**Optional Additional Resources:** There are now many organizations, groups and intellectual clusters exploring just transitions – the Indigenous Environmental network <https://www.ienearth.org/>; the Climate Justice Alliance <https://climatejusticealliance.org/just-transition/>. For a feminist decolonial approach to transition see <https://www.justpowers.ca/projects/feminist-energy-futures/>. For labor focused just transitions activities see the Labor Network for Sustainability, <https://www.labor4sustainability.org/uncategorized/just-transition-just-what-is-it/>; the just transitions research collaborative <http://www.just-transition.info/>



## **Week 6: October 10: Design for Transition and the Question of Scale: From Landscape Planning to Everyday Life**

Many of the central traditions of ecological design have been informed by a critique of 20th century modernist planning and design which has often resulted in advocacy of eco-localisms and small-is-beautiful interventions. The climate crisis though would seem to require a design politics that can move from the local to regional to the national and perhaps even continental scale. In this session (1) we will explore literatures emerging out of landscape architecture and design that consider what the New Deal era can teach us for implementing large scale public works and national-scale landscape planning and design. We will attempt to get to grips with the alphabet agencies and institutions that were central to this work, the CCC, the WPA, and so on. We will then contrast this with literatures on transition design which argue post carbon design still needs to attend carefully to social practices and design for everyday life.

**Group A** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. Kevin Baker 2019 “Where Our New World Begins” *Politics, power, and the Green New Deal* <https://harpers.org/archive/2019/05/where-our-new%e2%80%a8-world-begins-green-new-deal-alexandria-ocasio-cortez/>
2. Billy Fleming (2019) “Design and the Green New Deal.” <https://placesjournal.org/article/design-and-the-green-new-deal/>
3. Nicholas Pevzner “The Green New Deal, Landscape, and Public Imagination,” *Landscape Architecture Magazine*, 23 July 2019 <https://landscapearchitecturemagazine.org/2019/07/23/the-green-new-deal-landscape-and-public-imagination/>
4. Terry Irwin , Gideon Kossoff, and Cameron Tonkinwise, “Transition Design: The Importance of Everyday Life and Lifestyles as a Leverage Point for Sustainability Transitions” [https://www.academia.edu/15403946/Transition\\_Design\\_The\\_Importance\\_of\\_Everyday\\_Life\\_and\\_Lifestyles\\_as\\_a\\_Leverage\\_Point\\_for\\_Sustainability\\_Transitions\\_presented\\_at\\_the\\_STRN\\_Conference\\_2015\\_Sussex](https://www.academia.edu/15403946/Transition_Design_The_Importance_of_Everyday_Life_and_Lifestyles_as_a_Leverage_Point_for_Sustainability_Transitions_presented_at_the_STRN_Conference_2015_Sussex)

### **Optional Additional Resources:**

For an introduction to transition design which contains many other sources see CMU’s Doctoral Program <https://transitiondesignseminarcmu.net/>. The Ian McHarg Center is pushing forward discussions on landscape planning and the green new deal <https://us2.campaign-archive.com/?u=4d29cc62d167dea835ce55013&id=e751711b0a>

## **Week 7: October 17 Green Urban Design and the Green New Deal**

If many environmentalists in the 1960s and 1970s defined themselves in opposition to the urban, we have now come to recognize that urbanization processes potentially come with major ecological benefits, as well as continued problems and challenges. Urban areas are prodigious energy users and centers of consumption. The building sector accounts for about 8% of global emissions. Cities are deeply reliant on communities beyond their borders for food, energy and resources and they are continually involved in displacing their socio-ecological impacts across time and space well beyond points of origin. However, urban proximity and urban density (coupled with other policy shifts) can also facilitate all manner of low carbon innovations and citification can come in many different forms - some more ecological and just than others. So, how can urbanization processes be made to work for us? What will have to change? What will have to be transformed? What will be the balance between adaptation and mitigation in urban transition strategies?

Read the following before class:

1. Hal Harvey *Designing Climate Solution* Chapters pp 199-214.
2. Jennifer L. Rice, Daniel Aldana Cohen, Joshua Long, and Jason R. Jurjevich. 2019. Contradictions of the Climate-Friendly City: New Perspectives on Eco-Gentrification and Housing Justice. In *International Journal of Urban and Regional Research*. Online. first. <https://doi.org/10.1111/1468-2427.12740>

Choose two further readings from the following: [everyone should do the general reading and then different groups will report back and critique more specific thematic cluster debates. See section above about “policy briefings.” These will be due before class online, and all should read and comment/ask questions online before class]

*Green Infrastructure and Housing:*

3. Daniel Aldana Cohen. 2019. A Green New Deal for Housing. *Jacobin*. February 8. <https://jacobinmag.com/2019/02/green-new-deal-housing-ocasio-cortez-climate>
4. Johanna Bozuwa (2019) Building Resiliency through Green Infrastructure: A Community Wealth Building Approach <https://democracycollaborative.org/greeninfrastructure>

*Sea level rise and Managed Retreat:*

5. Liz Koslov “The Case for Retreat,” *Public Culture*, [https://read.dukeupress.edu/public-culture/article/28/2%20\(79\)/359/85821/The-Case-for-Retreat](https://read.dukeupress.edu/public-culture/article/28/2%20(79)/359/85821/The-Case-for-Retreat)
6. “Urban Waterscapes: The Hydro-Politics of Flooding in a Sinking City,” *IJURR*, <https://onlinelibrary.wiley.com/doi/full/10.1111/1468-2427.12756>
7. Matt Hauer “Migration induced by sea-level rise could reshape the US population landscape,” *Nature Climate Change*, <https://www.nature.com/articles/nclimate3271>

*Transportation:*

8. Hal Harvey *Designing Climate Solutions* pp 123-199.
9. Scott A. Cohen, James Higham, Stefan Gössling, Paul Peeters & Eke Eijgelaar (2016) “Finding effective pathways to sustainable mobility: bridging the science–policy gap”, *Journal of Sustainable Tourism*, 24:3, 317-334  
<https://www.tandfonline.com/doi/pdf/10.1080/09669582.2015.1136637?needAccess=true>
10. Stay Grounded- 13 Steps for a Just Transport System and for Rapidly Reducing Aviation <https://stay-grounded.org/position-paper/>

**Week 8: October 24: The Industrial Sector: Industrial Efficiency, Circular Economy, Maintenance and Repair, Plenitude and Pleasure (Timmons in Washington DC with his other class)**

In this class, we contrast industrial efficiency and “circular economy” approaches to reworking our production/consumption to plenitude and maintenance and care focused approaches. These approaches are not necessarily incompatible but they do have different emphasize and foci. Hal Harvey and his colleagues propose a range of practical proposals to improve industrial efficiency and introduce emissions policies. Circular economy advocates more ambitiously argue that the “take, make and dispose model” of our present linear economy” needs to be fundamentally re-designed by a regenerative and restorative circular economy model where sustainable energy stands as one moment of a new productive system that also includes rigorous pursuit of energy efficiency and the further need to build closed loop production systems writ large. The concept has its roots in industrial ecology and work on product system services. It

has gone on to have major champions not only with the European Union's Closing the Loop Action Plan but also in China with the Circular Economy Promotion Law. In contrast to these literatures, scholars closer to degrowth, decolonial and plenitude positions have argued post carbon economies are going to require a fundamental rethink of the culture and political economy of work, production and consumption. From these perspectives, maintenance, care and repair and fundamental shifts in work and spend culture need to be as central to a vision of sustainable production and consumption as closing the loop.

Read the following before class:

1. Hal Harvey *Designing Climate Solutions* pp.215-250.
2. The Ellen MacArthur Foundation *Growth within: A Circular Economy for a Competitive Europe* [https://www.ellenmacarthurfoundation.org/assets/downloads/publications/EllenMacArthurFoundation\\_Growth-Within\\_July15.pdf](https://www.ellenmacarthurfoundation.org/assets/downloads/publications/EllenMacArthurFoundation_Growth-Within_July15.pdf)

Choose two further readings from the following: [everyone should do the general reading and then different groups will report back and critique more specific thematic cluster debates.]

*Maintenance, Care and transition design:*

3. Shannon Mattern "Maintenance and Care" <https://placesjournal.org/article/maintenance-and-care/>
4. Tristan Schultz "Design's Role in Transitioning to Futures of Cultures of Repair" A. Chakrabarti and D. Chakrabarti (eds.), *Research into Design for Communities, Volume 2, Smart Innovation, Systems and Technologies* 66. [https://www.academia.edu/31039493/Designs\\_Role\\_in\\_Transitioning\\_to\\_Futures\\_of\\_Cultures\\_of\\_Repair](https://www.academia.edu/31039493/Designs_Role_in_Transitioning_to_Futures_of_Cultures_of_Repair)

*Shorter Working Hours + More Leisure:*

5. Juliet Schor 2013. "Why solving climate change requires working less" in *Time on Our Side: Why We All Need a Shorter Working Week*, eds. Anna Coote and Jane Franklin, 3–20. London: New Economics Foundation.
6. Daniel Aldana Cohen 2014. "Seize the Hamptons" <https://www.jacobinmag.com/2014/10/seize-the-hamptons/>

*The job guarantee:*

7. Annie Lowrey "A Promise So Big, Democrats Aren't Sure How to Keep It Progressives are lining up behind a jobs guarantee—but leaving the details for later" <https://www.theatlantic.com/ideas/archive/2018/05/the-democratic-party-wants-to-end-unemployment/560153/>
8. Kate Aronoff "Yes, a Jobs Guarantee Could Create "Boondoggles." It Also Might Save the Planet". *In These Times* May 2018. [https://inthesetimes.com/working/entry/21110/federal\\_jobs\\_guarantee\\_boondoggle\\_climate\\_bernie\\_sanders](https://inthesetimes.com/working/entry/21110/federal_jobs_guarantee_boondoggle_climate_bernie_sanders)
9. Johanna Bozuwa "Shovel Ready Green Jobs: The Job Guarantee and Climate Resiliency" <https://thenextsystem.org/learn/stories/shovel-ready-green-jobs-job-guarantee-and-climate-resiliency>

## **Week 9: October 31: Agro-Food Futures**

Land use, agro-food production and the future of urban and rural futures raise critical issues for any attempt to think viable post carbon futures. There are deep disagreements in the literature though concerning the best pathways to low carbon. The field of debate is so largely that it could easily fill a whole course. In this class we attempt to get to grips with some of the key disputes:(1) land sparing/land sharing, (2) sustainable automation/neo-ruralism and "sustainable densification/agro-ecology...

1. Raj Patel and Jim Goodman “A Green New Deal for Agriculture” Jacobin 04.04.2019  
<https://jacobinmag.com/2019/04/green-new-deal-agriculture-farm-workers>
2. Max Ajl “Beyond the Green New Deal” <https://brooklynrail.org/2018/11/field-notes/Beyond-the-Green-New-Deal>
3. Angelina Sanderson Bellamy and Antonio A. R. Ioris “Addressing the Knowledge Gaps in Agroecology and Identifying Guiding Principles for Transforming Conventional Agri-Food Systems” *Sustainability* **2017**, 9, 330

Choose two further readings from the following: [everyone should do the general reading and then different groups will report back and critique more specific thematic cluster debates.]

*Sustainable Food Futures:*

World Resources Institute “Creating a Sustainable Food Future”, authored by Tim Searchinger, Richard

4. Waite, Craig Hanson, Janet Ranganathan, Patrice Dumas and Emily Matthews  
<https://www.wri.org/blog/2018/12/how-sustainably-feed-10-billion-people-2050-21-charts>

5. Ted Nordhaus “The Environmental Case for Industrial Agriculture”  
<https://thebreakthrough.org/issues/food/the-environmental-case-for-industrial-agriculture>

*The Land sparing/Land sharing Debate:*

6. Fred Pearce “Sparing versus Sharing” Yale 360 <https://e360.yale.edu/features/sparing-vs-sharing-the-great-debate-over-how-to-protect-nature>

7. Bram Büscher and Robert Fletcher “Why E O Wilson is wrong about how to save the Earth”  
<https://aeon.co/ideas/why-e-o-wilson-is-wrong-about-how-to-save-the-earth>

*Cyborg Ecologies:*

8. Hannah Wood & Christine Bjerke “New Ground I: Advancing the Countryside” Archinect Jan 31, '18  
<https://archinect.com/features/article/150047669/new-ground-i-advancing-the-countryside>

9. Paul Robbins “We need to talk about robots” <https://entitleblog.org/2018/07/17/we-need-to-talk-about-robots/>

*Work and Farming:*

10. Chris Newman “Small Family Farms Aren’t the Answer” <https://medium.com/@cnative100/small-family-farms-arent-the-answer-742b6684857e>

11. Jennifer Bernstein “On Mother Earth and Earth Mothers Why Environmentalism Has a Gender Problem” Breakthrough Journal Issue 7 <https://thebreakthrough.org/journal/issue-7/on-mother-earth-and-earth-mothers#print>

**Week 10: November 7: The Green New Deal, the State and its limits**

In this class we continue to explore the range of ways in which many elements of transition thinking look to state structures, public institutions and public administration as a key agent of transition. The state is being reclaimed as a key force in innovation policy and eco-industrial policy by neo-Schumpeterian political economists - particularly in US and UK transition discussions. There is also a growing body of literature that argues key controversial technologies such as 4th generation nuclear or carbon removal technologies will have to be guided by massive state investments. However, as Flyvbjerg argues there is also a long history of state led “mega-projects” not producing the desired end or having deleterious impacts on marginalized people. Myles Lennon has further argued that the 2008 response to the Great Recession revealed that significant gaps can emerge between well meaning legislation and implementation on the ground. A great deal of post carbon innovation can be driven by public agencies but, the argument goes, if it does not work with the grain of how everyday life is lived and experienced

and further supported by social movements on the ground, it will fail. In this session, we seek to get to grips with the gains and the dangers of “thinking like a state”.

**Group B** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. Dan Traficonte and Ian Wells (2019) “An Innovation Policy for the Green New Deal.” <https://www.peoplespolicyproject.org/wp-content/uploads/2019/04/GNDInnovationPolicy.pdf>
2. Todd Tucker (2019). “Industrial Policy and Planning: What It Is and How to Do It Better,” July. [https://rooseveltinstitute.org/wp-content/uploads/2019/07/RI\\_Industrial-Policy-and-Planning-201707.pdf](https://rooseveltinstitute.org/wp-content/uploads/2019/07/RI_Industrial-Policy-and-Planning-201707.pdf)
3. Holly Jean Buck (2018) “The Need for Carbon Removal” Jacobin 07.24. 2018. <https://www.jacobinmag.com/2018/07/carbon-removal-geoengineering-global-warming>
4. Bent Flyvbjerg (2004) “Megaprojects and risk: a conversation with Bent Flyvbjerg” - *Critical Planning*. vol. 11, pp. 51-63. [https://www.academia.edu/3291062/Megaprojects\\_and\\_Risk\\_A\\_Conversation\\_with\\_Bent\\_Flyvbjerg](https://www.academia.edu/3291062/Megaprojects_and_Risk_A_Conversation_with_Bent_Flyvbjerg)
5. Myles Lennon “No Silver Bullets” <https://jacobinmag.com/2019/04/green-new-deal-black-radical-tradition>

### **Week 11: November 14: High Energy Planet? High Energy (Green) Imperialism? Is the Green New Deal Northern/US Centric and Myopic to the needs of the Global South?**

In July 2012, India was hit by the largest energy blackout in human history. Over 700 million people were left without power. When the power outage was repaired and the energy infrastructure returned to “normal operations”, hundreds of millions of Indians living in rural areas were still left without any basic power, without access to running water or basic sanitation. They never had it. Few assertions have undercut the moral high ground of Northern environmentalists more than the claim that romantic stories of the just transition are premised on a fundamental Northern-centric worldview. Not only is it often pointed out that Northern discussions of ecological modernization have little purchase in the global South, but it is still maintained today by neo-liberal thinkers and assorted climate skeptics that talk of the sustainable transition is invariably premised on a denial of the rights of the majority world to develop. Yet such interventions can often contain their own bias saying little about the role that energy imperialism or high energy militarism plays in increasing carbon emissions.

In this class, we scrutinize these arguments, seeking a balanced assessment of their merits and shortcomings. We seek to explore the ways in which “Southern” discussions of the sustainable transition are fast changing and fluid, and how they are now fragmenting into quite diverse positions. Saudi Arabia no longer drives the G77 agenda to a fossil-dependent lowest common denominator, as the South Asian, Latin American, low lying, and least developed nations (many in Africa) now speak up in the face of their extreme vulnerability to the impacts of climate change. There are first mover outlier nations from Bhutan and Costa Rica to Chile and Morocco that see a potential clean path to low carbon development and possible leapfrogging opportunities. The agreement in Paris was largely a result of the breakdown of the G77 and the weakening even of the bloc of rapidly emerging economies. As the cost of renewables drops further and examples of low-carbon prosperity gain traction in the popular imagination, different kinds of alignments are opening up.

**Group A** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

Read the following before class:

1. The Breakthrough Institute *Our High Energy Planet* <https://thebreakthrough.org/images/pdfs/Our-High-Energy-Planet.pdf>
2. Julia K Steinberger, J.T. Roberts “From constraint to sufficiency: The decoupling of energy and carbon from human needs, 1975–2005” *Ecological Economics* 70 (2), 425-433
3. Schwartzman, D., 2016. How Much and What Kind of Energy Does Humanity Need? *Socialism and Democracy*, 30(2), pp.97–120.
4. Oliver Belcher, Patrick Bigger, Ben Neimark, Cara Kennelly. Hidden carbon costs of the 'everywhere war': Logistics, geopolitical ecology, and the carbon boot-print of the US military. *Transactions of the Institute of British Geographers*, 2019; DOI: 10.1111/tran.12319

**Week 12: November 21: Debating Post Carbon Futures: Climate Leviathan? Degrowth? Green Keynesianism? Ecosocialism? Ecocapitalism?**

In this final session we explore Mann and Wainwright’s Climate Leviathan hypothesis. We look beyond the US to consider how climate crisis might change global geopolitics in the next few decades – for better and worse. We then go on to consider the ideological and political economic struggles to define the core of a Green New Deal that could possibly help us avoid some of these outcomes.

**Group B** writes SEQ papers and posts them before class, rest of class posts questions and comments on them.

1. Geoff Mann & Joel Wainwright 2012 “Climate Leviathan.” *Antipode* 2012
2. Andreas Goldthau Kirsten Westphal 2019 “How the energy transition will reshape geopolitics Paths to a low-carbon economy will create rivalries, winners and losers.” *Nature* 9 2 May 2019 Vol. 569.
3. Robert Pollin “Degrowth Versus a Green New Deal” *New Left Review* 112, July-August 2018 <https://newleftreview.org/II/112/robert-pollin-de-growth-vs-a-green-new-deal>
4. Juliet B. Schor and Andrew K. Jorgenson “Is it Too Late for Growth?” *Review of Radical Political Economics* 2019, Vol. 51(2) 320–329
5. Yanis Varoufakis and David Adler “It's time for nations to unite around an International Green New Deal” [https://www.theguardian.com/commentisfree/2019/apr/23/international-green-new-deal-climate-change-global-response?CMP=Share\\_AndroidApp\\_Tweet](https://www.theguardian.com/commentisfree/2019/apr/23/international-green-new-deal-climate-change-global-response?CMP=Share_AndroidApp_Tweet)

**NOVEMBER 28 NO CLASS--Thanksgiving**

**December 5: Symposium:** These are national leaders on this course’s subject matter. Students are expected to attend at least two sessions, and write a two-paragraph minimum reflection on the direction these speakers took. We hope you’ll come for more, it’ll be exciting. For the full program see below.

**December 6<sup>th</sup>, Friday Liberal Arts Exam Day/Exam period:** Final Presentations/Imagining Transition. Details to be circulated.