Instructor: Marc Tsurumaki

Public Works for a Green New Deal

Imaginative Realism Cli-fi, the Sublime and the Public Imaginary Greater New York, 2050

Introduction

The Green New Deal is typically described in terms that evoke not only the radicality of its nominal predecessor, FDR's New Deal, but also position it as the heir to a legacy of sweeping techno-social change that characterized 20th century American initiatives-from electrification to the war effort to the moon landing -that required mobilization at a grand, national scale. These descriptions recognize that the far-reaching transformations called for by the resolution are a necessary and proportionate response to the massive scale and complexity of the climate crisis while at the same time acknowledging their unprecedented, even heroic magnitude. Indeed, when the very survival of the species is on the line, one makes no small plans.

More than a set of ambitious goals for paradigmatic shifts in everything from agriculture to energy production, from transportation systems to social infrastructure, the Green New Deal, represents, in the words of its principal author, Alexandria Ocasio Cortez, an effort to *"rediscover the power of the public imagination."* But this imaginative aspiration has been a source of derision as well. Conservatives have branded the GND a delusional fantasy – an 'instruction manual for unicorn assembly', simultaneously dismissing it as a naïve fiction and in the same breath evoking dystopic visions of the 'socialist apocalypse' it would bring about. In either case, it's clear that the GND, which today exists only as relatively broad outline of goals and principles (a non-binding resolution), both inspires and relies upon the evocation of a collective, intersubjective assembly of images and ideas– visions of utopian change on the one hand and images of catastrophic environmental or economic collapse and despotic government control on the other.

It could therefore be argued, as AOC herself seems to suggest, that the most salient political battleground on which the fate of the Green New Deal will be decided is not one of policy but rather of perception; that its success depends on the degree to which it catalyzes a new form of social imaginary. Indeed, the GND calls for a level of creative projection and speculation proportional to the radicality of its aspirations, a leveraging of the public imagination on the scale of the undertaking at hand. Therefore this studio will examine how the GND, beyond the implementation of specific policies, might necessitate and provoke new modes of conceptualizing the relationship between technology, society and the natural world. Recognizing the crucial link between material culture and imagination, we will ask whether architecure's most potent role may be its capacity to envision, in specifically spatial, programmatic and inhabitational terms, new ways of living in a profoundly transformed world. To do so, we will simultaneously look back and look forward, examining two seemingly disparate, but ultimately intersecting genre's: the aesthetic/philosophical category of the Sublime and the emergent branch of speculative literature know as Cli-Fi.

Sublime

'Beauty is nothing but the beginning of terror, when we are still just able to endure it.'

Rilke

To begin to imagine the implications of the GND, it may be relevant to examine the intertwining of technology and nature in the American experience and how issues of representation, imagination and public perception have interacted in the context of major technocratic initiatives of the past. According to historian David Nye in his book *The American Technological Sublime*, the U.S. public has a long-held fascination with large-scale technical innovation– from the railroad, to the interstate highway system, from hydroelectric dams to the space race–most accurately characterized in terms of the sublime. An aesthetic and philosophical category most frequently associated with Edmund Burke and Immanuel Kant, but elaborated by philosophers from Hegel to Lyotard, the notion of the sublime was, in its original 18th century form, applied primarily to natural phenomenon. Equal parts awe and terror, it was variously described as a 'delightful terror' or a 'negative lust' and was associated with not only the magnitude and incomprehensibility of natural phenomenon but also their destructive force and seeming indifference to the human subject. Nye traces the shift in 19th and 20th century America from the sublime as a reaction of awe in the face of nature to one of wonderment in relation to man's mastery over nature, as well as from an introspective, philosophical or aesthetic tradition to a public practice with overt political implications.

As the century progressed, Nye argues the ambivalence intrinsic to the sublime became increasingly pronounced, awe shifting to apprehension with the advent of the atom bomb, the mushroom cloud signifying the terrifying potency unleashed by man's technological 'mastery' at the nuclear scale. More recently, we have seen the emergence of the 'toxic sublime,' typified by Edward Burtynsky's photographs of industrial waste and environmental devastation, images that evoke the scale and terrible beauty of the Anthropocene. At the same time, allusions have been made to a 'digital sublime' that resides in the infinity of number and permutation unleashed by computer intelligence. In all of these incarnations, the sublime is situated at the boundary between human inquiry and the incomprehensibility of natural phenomena. It represents a point of crisis for the subject, a pause before the limitless which implicates the limitations of our own subjectivity, individual and collective.

Today, we are faced on a near daily basis with visions that invoke apocalyptic dread, from the vast panoramas of forest fires on the West Coast to the aftermath of increasingly devastating storm events in coastal communities in the US and across the globe. These images are reflected and multiplied in popular culture, saturating YA book sections and cinema's with post-collapse narratives and repeated endlessly on the 24-hour news cycle, confronting us with a continual spectacle of nature rendered destructive by human action, a spectacle that elicits simultaneous fascination and horror. Despite this, long standing myths of progress have remained surprisingly intact, with a seeming lack of political will to action attributed to the unimaginable scope and scale of climate change, an incapacity to assimilate it into any meaningful personal or political narrative regarding the future.

This studio will examine if and how the historical notion of the sublime might provide a lens through which to view our current crisis, examining the ways climate change is imagined, envisioned and represented in order to understand how alternate narratives might be formulated and advanced. Using the terms of the GND as

a starting point, we will construct scenarios predicated not on nature as an 'other', either to be feared or exploited, but rather on the reciprocity between the human-made and the natural. These speculations will recognize and catalyze the interdependency between biological, climatological, infrastructural, social and economic systems, challenging the categorical divisions that have engendered the grounding conditions of our current predicament. We will ask if a new architectural, urban and landscape imaginary can foster action, navigating between the anxieties of the present moment and the projection of a fragile but still possible future.

Cli-Fi

If science fiction is the mythology of modern technology, then its myth is tragic.

Ursula K. LeGuin

If the scale of changes implied by the GND requires a corresponding extremity of vision, one that might leapfrog over some of the more quotidian impediments that entangle more prosaic plans, then as architects, it might be possible to envision the world of the GND not as a set of incremental proposals but rather as a *fait accompli*, visualizing the currently impossible in order to render it feasible. To do so, we might invoke the techniques of speculative fiction and, in particular, the emergent genre of climate change inspired fiction known as cli-fi.

If science fiction is the literature of change par excellence, then cli-fi is the logical literary response to conditions which, despite their incipience, remain incompatible within any comfortable world view. From Margaret Atwood's *Maddaddam trilogy* to Kim Stanley Robinson's *New York 2140*, climate fiction oscillates between visions of society in collapse (by far the most common scenario) to depictions of adaptation and resilience. According to a recent critical evaluation (New Yorker, November 2018), such fictions inhabit the paradoxical territory between elegy and resistance; they "both confront and gently transfigure the incomprehensible realities of climate change."

While it's possible that the ubiquity of apocalyptic fiction carries with it the danger of normalizing climate change and fostering resignation, sub-genre's like Solarpunk suggest the capacity to catalyze new forms of urgency and even optimism regarding the future. Cli-fi has also provided a territory in which historically under-represented voices, those of indigenous peoples, people of color and women have found expression, advancing alternative narratives regarding nature, technology and power. Like other forms of science fiction before it, climate-fiction provides a tentative road map to an obscured future, giving it form and rendering it sensible in advance not as a single scenario but as a multiplicity of possible trajectories.

Informed by a series of readings of current climate-change fiction, we will imagine a condition set 30 years into the future, the 2050 referenced in the GND as the *Intergovernmental Panel on Climate Change's* target date for global carbon neutrality. A modest leap by science fictional standards, this three-decade gap will require a projective mental cast that engages the complex interactions between environments, people and technologies, implicating larger systems by envisioning specific scenarios within the larger New York metro-politan region. Like all good science fiction, our projections will be based on extrapolating given conditions, combining the plausible with the as yet unimaginable. Anticipating both the future environmental effects of climate change and our technological capacity to address them, we will formulate scenario's that combine the spatial and the social, imagining not only the material contours of our proposals but also their inhabi-

tation. To do so we will need to negotiate between the projection of a radical imaginary and the inescapable realities of technical systems, energetic and financial economies, racial and social inequities. We will need to ask: How do we make the projective productive?

Paradoxical Efficiencies and Productive Exorbitance

"It is possible to discover in every rational object an irrational residue."

Caillois

Whereas the visionary is typically conceived in opposition to the pragmatic, as a shedding of limits and constraints, we will instead examine the intersection of pragmatism and invention. In five previous studios, we attempted to exploit the paradoxical nature of efficiency in architecture as a productive catalyst. Recognizing that efficiency is always shadowed by its opposite in the terms of the inefficient, the wasteful and the excessive, we asked how these terms could become generative rather than restrictive. By extrapolating rational trajectories to the point that they produced a surrational excess – these studios sought to challenge dominant narratives of optimization and to imagine new spatial, programmatic and inhabitational possibilities.

The changes outlined in the GND demand not only advances in technical capacity but paradigmatic shifts in our cultural relationship to questions of production, consumption, waste and economy. Energy production, landscape reclamation, the restoration of toxic sites, and the remaking of our transportation networks and cities all come laden with their own intrinsic logics of efficiency and inefficiency. Solar and wind-based power generation, for example, while energetically efficient, currently require large expanses of open land, an 'inefficiency' that nonetheless implies an opportunity for spatial and programmatic exploitation. In order to generate our speculative proposals, we will examine the assumptions of efficiency underlying various components of the GND, from urban retrofits to green factories to new means of agricultural production, identifying in each case where the excesses within systems can be cross wired, merged or productive possibilities, exploiting paradoxes and contradictions within interdependent systems to produce precise architectural proposals. Oscillating between the pragmatic and the fantastic, the utopic and the dystopic, between the logics of rational efficiency and the sublime, our projects will seek new urban, landscape and architectural formations that engage equally the anxieties of the Anthropocene and the optimism embodied by the GND to crosswire our techno-social and political imagination.