Becoming Environmental

Media, Logistics, and Ecological Change

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Just west of the University of California, Santa Barbara campus is an open trail along the bluffs, daily traversed by local surfers, students, and faculty. Sandwiched between a wide mountainous backdrop inland and stunning sepia-colored sunsets offshore, the route is one of the region's most picturesque. Equally part of this landscape, however, is the row of oil platforms roughly two to three miles offshore that give the area its name: Coal Oil Point. Formerly occupied by indigenous Chumash communities, Coal Oil Point has been a productive drilling area since the 1920s, and retains with it the menacing memory of the 2015 Refugio Oil Spill by Platform Holly—still visible on the horizon in the glittering sun—and the 1969 Santa Barbara Oil Spill before it. It has taken three years just to begin the long process of decommissioning Holly, due in part to the operating company filing for bankruptcy in 2015. In 2018, the process was finally revived, acting as a testament to the burdensome logistical, economic, and political undertakings necessary to shut down extractive infrastructures. Save for the sticky wads of black tar wedged into the sandy beaches below, today, the struggles between local residents and infrastructural operators feel remote and largely invisible to the average visitor. Residents often rely on social media to circulate information to the public and to one another, while infrastructural operators interface with the software of media. While sometimes failing to articulate just how entangled these spheres of conflict and activity are, stories of sticky encounters between extractive industries, environmentalists, and local residents continue to proliferate globally in our media ecosystems, whether in the form of indigenous protest against gas pipelines, outcries over polluting data centers, or attempts to manage desertification brought about by anthropogenic activity.

Media—traditionally thought of as the stuff of paper, screens, code, and wires—are inextricable from their frictive landscapes of resource depletion, protest, social inequality, and environmental risks. Today, scholars and activists not only re-evaluate the infrastructural and environmental basis of global media systems but further critique modernity's division of nature and culture and its implication that becoming digital necessarily entails a becoming *less* environmental. Building on these critiques, this special issue of *Synoptique* highlights the critical tractions of Jennifer Gabrys' notion of "becoming environmental" (2016), where computational media becomes constitutive to the very environment, and subject formation within it, rather than treating the environment as merely a backdrop to operations. By taking on the language of "becoming" here, we not only acknowledge that social and political imaginaries of both built and natural environment are always in a *process* of constitution, as are the subjects relating to the world. But also, we attend to how emerging human/nonhuman relations are constantly reconfigured, if not naturalized, via the state, global market, or other ideological projects. Put differ-

ently, while the infrastructures of media become increasingly embedded within the everyday practices and conditions of living, new governance of life and environments rely on instrumentalizing and extracting from existent life-worlds, materials, atmospheres, and elemental circulations, all of which represent crucial points to identify, unpack, and push against the forces of capital that co-exist within any "logistical" space.

Such conceptual thinking calls attention to the importance of media practices—from visualization, to mapping, to documentary—in constituting social relations and sociotechnical imaginaries. Ecocritical scholarship argues that film and media have always been environmental, in the sense that they articulate "the human-nature relation and its mediation through technologies" (Cubitt 2014). Yet, the intersection between a critical media studies framework and an environmental or infrastructural one transcends the ambit of representational discourse. The perspective of environmental media studies seeks to illuminate the ways in which environments participate in media functions such as storage, processing, transmission, and communication, as well as to attend to the ecological footprints of media objects and infrastructures themselves. The connotations of media thus play in diverse ways, thinking through the mediatory roles of objects that are geological, biological, and atmospheric, in addition to technological. Moving from this critical impetus, we follow Nicole Starosielski's call to extend "the environment to encompass the social, architectural, and natural ecologies" (2016, 21) through which information circulates and infrastructure surfaces. As these environments come to be saturated with media and information in material and immaterial registers, we must re-evaluate categories that continue to appraise a so-called "natural" environment.

Numerous scholars in the humanities, especially those within the Marxist tradition, have investigated the relationship between capital and Nature (with a capital N). Neil Smith (1984) argues that the Hegelian categories of first and second nature are useful in articulating the intensification of capital as its reserves of value extraction shift elsewhere. In this process, "first nature" (traditionally conceived as the "natural environment," or Nature with a capital N) comes to be produced (or so deeply intertwined as to be inseparable) from Society. David Harvey (2003) famously articulated what he called "accumulation by dispossession," the process by which "new imperialist" formations operate within a financialized global economy. Here, he conceives the Marxist originary myth of "primitive accumulation" as an ongoing process of dispossession, through spatial development, reduction and refusal of rights, the displacement of populations, the exploitation and extraction of natural resources, and the like. Political ecology approaches to capitalism's entanglement with the environment have also moved beyond more traditional Marxist discourses of production and humanity's control over nature (Moore 2015; Robbins 2012), with some putting forth the concept of the "capitaloscence" over more popular discourses of the "Anthropocene" (Moore 2017). But key within each of these scholars' arguments is the conceptual apparatus of "modernity" and "postmodernity" as progressive developments unevenly experienced across time and space. While these scholars would perhaps challenge more uniform theses of "uneven development" which fail to account for the capture of particularities, each primarily takes a Marxist approach for granted as a framework for understanding ongoing processes of colonization and resource extraction from the natural environment.

But although such scholars have attempted to articulate the entanglements of capital within the natural world, there is a fundamental disconnect between Marx's ascriptions of value creation, dispossession, and the question of colonialism. Thus, many have convincingly and expressly revitalized the concept of dispossession and the centrality of colonialism within it, whether in terms of Harvey's idea of continuous "accumulation by dispossession," or economies of abandonment (Povinelli 2011), dispossession (Byrd et al. 2016), and disposability (Tadiar 2013). At the center of the latter concepts are struggles of indigenous peoples in settler colonial states against the extractive partnerships of states and transnational corporations. In the case of Povinelli, the primary culprit is what she calls "late liberalism's" approach to recognition and reconciliation, which operates from an intertwined legacy of modernity, colonialism, and the treatment of indigenous land and value. Lisa Lowe's concept of *intimacy*, brought up by Deborah Cowen in her conversation with Kay Dickinson in this issue, offers an alternative vision of histories of modernity across the colonial

world. Western modernity, Lowe argues, is always built on colonization, enclosure, and extraction from the non-European world, whose dominant concepts of intimacy were tied up in norms of the liberal private sphere, in other words, "property, marriage, and family" (2015, 29). The legacies of liberalism in the governing of colonial difference prevents alternative formations from arising, but these formations arise still, and "frame[s] this sense of intimacy as a particular fiction that depends on the 'intimacies of four continents,' in other words, the circuits, connections, associations, and mixings of differently laboring peoples, eclipsed by the operations that universalize the Anglo-American liberal individual" (21). Intimacies—dispersed solidarities and actions across oppressed peoples within imperial networks—are as important to unpack as the networks themselves.

Rethinking notions of intimacies also foregrounds various struggles over the commons, which is often articulated across Marxist discussions of capitalist enclosure, the state, and Garret Hardin's "tragedy of the commons" (1968), that is, the destruction of a commons by individual self-interest. But the idea of an environmental commons offers revisions to these imaginaries. As the Anthropocene converges with neoliberal capitalism, the perception of immanent disaster brings with it a spectacular return of primitive accumulation, as cycles of extraction and depletion accelerate to extend a world for modernity. Global modernity and capitalist expansion also bring about displacement, deterritorialization, and contestations over belonging, fundamentally altering the possibilities for intimate encounters with nature on a local level. As such, the challenge becomes that of creating a notion of identification and cultural intimacy with the environment on a global scale without merely bowling over local and embedded forms of knowledge (Tsing 2004; Heise 2008). Lauren Berlant tackles this problematic by focusing on belonging as a contested relation in a broken world. In particular, Berlant holds the concept of the common under scrutiny, arguing that as a performative and often conflicted ideal, it papers over the redistribution of insecurities that underlines politics today by "positivizing the ambivalence that saturates social life about the irregular conditions of fairness" (2016, 395). Berlant's idea of the "common" can mobilize around people, principles, or land. Berlant puts "common" in conversation with "commons," which also invokes the universal, but frequently stresses political struggles around resources, lands, and divisions of property.

As scholars like Michael Hardt and Antonio Negri, Isabelle Stengers, and Jodi Dean have also described, related social practices like environmentalism, communal management of natural commons, collective bargaining, and struggles against land expropriation constitute new communist practices. For Berlant, these performative and often idealistic invocations of the common are a lens through which to view the struggles of living with "messed up yet shared and ongoing infrastructures of experience" (2016, 395). In her own contribution within this collection, Elizabeth Miller mobilizes David Bollier's notion of "commoning" to describe a related mode of resistance to extractive market logics, in which social connections and connections to nature are emphasized. Miller deploys commoning as a pedagogical tool for her case study on Florida swamps, but such struggles over the common can also be seen in resistance practices such as the privatization of water and biopiracy in the Amazon.

However, Sandro Mezzadra and Brett Neilson (2013) explain that natural and artificial commons require different kinds of organization, distribution, and management processes achieved through the infiltration of calculative and preemptive technologies into natural environments. In *The Extractive Zone*, Macarena Gómez-Barris discusses the ways in which extractive capitalism relies on advanced technologies to map and earmark biodiverse and/or indigenous territories for commodity conversion: "If colonial seeing first appeared as administrative rule over peoples and land, then in the digital phase, extractive states currently dispossess through new technologies" (2017, 26). Mezzadra and Neilson build on this to say that the high-tech regulation and management of such commons also necessarily leads to an interrogation of borders. As capital expands its frontiers, borders and commons come into contest with each other, bringing about a "primitive accumulation of modern cartography," gesturing towards the mutual production of capital and geographic border zones. In this sense, negotiations over the commons, managerial and logistical technology, and border regulation collide at zones of extraction.

But although extractivism conceptually covers many of the logics underpinning liberal cap-

italism's expanding dynamic of value extraction, and its violence, displacements, and colonizations, such technologies of governance do not function without the cooperation of various actors across state borders and within certain territorial formations. Mezzadra and Neilson posit the importance of the intersection of "extraction, logistics, and finance" in the global economy (2015), by which these various methods of territorial control and value extraction attempt to re-organize space and time for their seamless operations. A deeper study of how these "operations of capital" function allows us a way to see where the extractive measures of finance and logistics "hits the ground." This requires constant negotiations between states, supranational regulators, and transnational corporations to ensure that the infrastructure of global trade facilitates smooth circulation. But as "rough trade" comes across these various barriers and challenges, the practical and militarized managerial science of "logistics" comes to the fore.

A growing body of work on logistics as both global infrastructure and managerial philosophy articulates the stakes of studying the flows of goods, people, and capital through the world's roadways, railways, seas, and skies. Governments, corporations, and scholars alike has recently focused on the "frontiers" of these infrastructures, the newly paved (silk) roads and emergent paths for the movement of goods. The Arctic North as much as the "developing" world are in the crosshairs of how governments and corporations see the future of global mobility. From the water routes opening across the Arctic ice to new routes of road and rail being built across Asia, logistics fundamentally alters the geopolitical and planetary landscape.

At the heart of these discussions are the operations/dynamics of space and territory in an increasingly privatized, zoned, and cordoned off global landscape. These processes of containment and control are part of an ongoing slippage between corporate logistics and state securitization that manifests in the prioritization of productivity, economy, efficiency, and the predictability of movements—both of people and of goods. As Gilles Deleuze predicted in his "Postscript on Societies of Control" (1992), the discipline of industrial society gives way to the tracking and control mechanisms of computerized governance and commerce, by which the human subject becomes a raw resource for data extraction, whether we look at smart cities, the internet of things, or the darker logistical media of biometric tracking, whether in borders, Amazon warehouses, or around your wrist while exercising. Such regimes of management also include sorting mechanisms, demarcating the norm from what constitutes unacceptable aberration in what becomes "an exceptionalism that operates within liberalism" (Bigo 2006, 36). That is, as Deborah Cowen points out, logistics seems to operate in the same ungovernable spaces as piracy, traditionally treated as an exceptional legal condition since the earliest iterations of Western law (2014, 138-139). The pipes, cables, and atmospheric circulations of these technologies course through air, seas, and skies. The fact that the category of the piratical has long since extended to the internet, where media piracy and other piratical activity flits transnationally across boundaries in a "lumpy landscape" (Lobato 2012) of jurisdictions, legalities, ownership regimes, and the like, attests to the fact that our global infrastructures are always circulating with unruly forces of movement as well as the powers of stoppage, breakage, blockage, and containment. Struggles over who gets to determine how and where these infrastructures are built, how they move information and material, and most importantly, who profits from them, are often centered around public knowledge campaigns and attempts to (retake) control of narratives of access and ownership. Material infrastructures like these which distribute material of value often elude visibility—a condition that obscures both their role in perpetuating inequalities and violences, as Cowen argues, as well as their precarity and their environmental contingencies. Such infrastructures also play a crucial role in the technical and conceptual production of governance, as objects like dams come to act as colonial and postcolonial cultural forms (Larkin 2008). The logics of modernity and liberalism pervade mainstream discussions. However, with these struggles, different practical and conceptual apparatuses must be constructed to better understand how alternative regimes of sovereignty, ownership, and governance can be imagined. Building on the scholarship of Lisa Parks, Nicole Starosielski, Mel Hogan, among others, our attention to logistics and infrastructure thus aims to articulate the social, political, and cultural negotiations of infrastructure to their environmental landscapes.

Thus, this special issue contributes to emergent research that advances what Charmaine Chua et al. define as a "critical logistical research agenda," which "interrogate[s] how the politics of financial, corporeal, and material movement reorganizes social relations with and against profit and power" (2018, 621). The work of scholars such as Cowen, Jasper Bernes (2013), Joshua Clover (2016), Anna Curcio (2014), Carolina Bank Muñoz (2017), and Jake Alimahomed-Wilson & Immanuel Ness (2018) are indispensable resources in terms of mapping the anti-capitalist and decolonial terrains on which workers and communities struggle within the arcane networks of global logistics. It is essential to keep tabs on the constant tension between the locality of these struggles (from scattered ports to border regions disconnected from infrastructure) and the global connections of workers' conditions. As Alimahomed-Wilson and Ness argue, "The exploitative material conditions inherent in global trade become lost when workers' perspectives, conditions, and struggles are ignored" (2018, 4). The academic study of logistics must always remember that our departments, our hallways, our funding, is so often shared with those producing the forms of knowledge that ensure workers' subjugation within the global supply chain. Deborah Cowen and Kay Dickinson discuss this in their conversational interview in this issue, and argue the stakes of logistics within local and global struggles as well as how we, as scholars and activists, deal with knowledge. While many of the pieces in this special issue address the global and planetary imaginaries of logistics and the modes of seeing, producing, and extracting value from the environment, others—especially those in our special section on "Coastal Media" and Liz Miller's separate contribution on her Swampscapes project—articulate modes of resistant aesthetic and activist practices towards more ethical and sustainable social and environmental relations.

But an intervention that we wish to make here in our study of logistics is that the environment is always-already embedded within the networks of social relations that mobilize workers as much as subdue their struggles. The environment is a terrain of labor struggle, and it is essential that we expand this understanding of work to include the protection of the global commons, even if we must also restructure our own academic understandings of such commons to account for non-western epistemologies of work and human relations to the environment. Thus, various struggles against expanded extractivism, oil pipelines, fishery exploitation, mining, dredging, and various other environmentally catastrophic enterprises, even in deprived areas, need to see through the short-sighted state and government promises of jobs, access, and investment in order to account for the co-existence of human and non-human agencies within the future of the planet. While certainly "circulation struggles" (Clover 2016) in the sense that they respond to the circulatory organization of global capitalism's production of value, these are simultaneously struggles against Western sovereignties and control over the global commons. Perhaps it is time to supplement the focus on labor with an understanding that capitalism, liberalism, and colonialism work together to incorporate both human labor and environmental agencies into their expanding dynamics of territorial control and value extraction while expelling those materials and subjects deemed disposable to its calculative rationality.

With these larger issues in mind, the first half of the special issue features five original articles that examine the distinctive ways media—from cinematic apparatus, drone technologies, urban computational networks, and regimes of visuality at airports to transnational infrastructures and logistics—become environmental, entangled in global economies of extraction and the drastic ecological change. Peter Lešnik's piece "Michelangelo Antonioni's Images of the Planet in the Anthropocene" re-accounts the significance of Antonioni's cinema to current debates of the Anthropocene and to "address the experience of living in a posthumous time." As Lešnik argues, Antonioni's cinematic imaginary of the deserts in the 1960s and 1970s both prefigures "the ethical and philosophical tasks of the Anthropocene" and reconfigures the end-of-the-world scenarios produced by mainstream entertainment industry. Shifting the focus from deserts to oilfields, Ila Tyagi's "Spatial Survey: Mapping Alaskan Oilfield Infrastructures Using Drones" investigates how drones are used to map, visualize, and monitor large-scale spatiality that is entangled within global resource industry, military complex, and civil technologies. Tyagi pinpoints the neo-colonial control over the natural world through automated visions, often driven by corporate interests, but at the same time, a collab-

oration of military and civil sphere in monitoring human bodies in visual fields and actual ecological risks. Sydney Hart's "Senses of Place at the Border: Visual Cultures of Mobility at Canadian Airports" brings these risks much closer to home, where airports become the frontline to control transnational mobility. As Hart elaborates, as the most important border space in the 21st century, airports exemplify how surveillance technologies and visual cultures of display work together to manage how humans experience mobility and the sense of identity. In her article "The Making of Urban Computing Environments: Borders, Security and Governance," Ilia Antenucci offers a critique to the discourse of smart city as a seamless space and examines how urban digitization in Cape Town is in fact developed through proliferating bordering techniques and processes that reproduce existing social borders and infrastructural inequality. She further argues that smart cities should be seen as security projects because "they are informed by a logic of anticipation and preemptive risk management." The section concludes with Solveig Suess's "Distributed Resistance," a timely intervention for "a more ecologically informed understanding of logistical media" through the New Silk Road project. Echoing the call to bring together postcolonial and environmental theories, Suess returns to the unsettling deserts, this time in Xinjiang, China, to investigate the management of sand, weather patterns, and logistics at various scales and different directions of movement. Therefore, she argues, supply chain development is contingent upon state support, concentration and monopolization of capital power, and the organization of weather and the environment itself.

The second half of this special issue constitutes a variety of creative and activist-leaning approaches to media and environmental politics. The first contribution is a dossier compiled by anthropologist Alix Johnson entitled "Coastal Media," which collects short pieces from artists, researchers, and activists looking at the entanglements of humans, media, and the environment along the world's coastlines. Taking a cue from Starosielski's influential work on underwater cable infrastructure, as Johnson articulates, "These creative and experimental interventions probe the liveliness, as well as the volatility, of the coastline. Coasts, after all, are zones of productive encounter as well as spaces of risk, threat, and violence." Her collaborators are more than up to the task, emphasizing the productivity of coastal encounters while highly sensitive to the fragility of these ecosystems often under threat by anthropogenic forces. Liz Miller's interactive *Shore Line* project brings much-needed attention to these areas, presenting users with an opportunity to explore collaborative projects dealing with these environments and their crises. Shirley Roburn revisits the concept of "communication" and the ongoing process of underwater regulation to protect species from the largely military technologies that disrupt these sonic environments. WhiteFeather Hunter's contribution outlines the video project "*blóm + blóð*," which investigates the entanglement of culture and the landscape in opposition to touristic imaginaries of Icelandic life. And finally, Zahirah Suhaimi-Broder provides us with a vivid description of the clash of traditional and industrial fishing practices in the Johor Straits.

The following two contributions offer more conversational approaches to the topics of media, logistics, and the environment, featuring collaborative discussions about the politics of research at the intersections of these various areas. Elizabeth Miller's collaborative piece with Kim Grinfeder, Evan Karge and Grant Bemis, entitled "SwampScapes: A Creative Practice of Commoning in Florida's Swamps," details a project that Miller embarked upon while a visiting researcher in Miami. Her and her collaborators, largely students, used media and artistic practice to visualize and engage with a largely forgotten ecosystem—swamps. Using the concept of "commoning," Miller and her collaborators present us with an array of possibilities for working with environments facing irreparable damage from anthropogenic forces. Similarly, the conversation between Deborah Cowen and Kay Dickinson focuses largely on the theory and practice of research on logistics. Investigating the field as a "trendy" object of study, Cowen and Dickinson detail their own research philosophies, re-grounding the debates in labor politics. Throughout the conversation, the politics of knowledge creation itself are foregrounded, stressing the importance of activism and collaboration between academia and on-the-ground struggle. In relation to this special issue's broader intervention in the field, this illuminating conversation articulates the stakes of the study of logistics as an ongoing field of struggle.

The book review section of this issue continues to highlight recent debates around extractive futures, environmental reconfigurations, and contemporary technical/infrastructural productions. Speculation comes to the fore of the Anthropocenic imaginary in Léa Le Cudennec's review of Richard Grusin's *After Extinction* (2018) in which Grusin's volume makes important linkages between extinction and large-scale ideologies like capitalism, race, ability, utilitarianism, and geologic subjectivity. Meanwhile, Miles Taylor's review of Sara Anne Wylie's *Fractivism* (2018) takes a deeper dive into the neoliberal debates around fracking, critiquing Wylie's own privileging of information collection as a bulwark against industry abuses of the environment. Miguel Penabella's review of Derek McCormack's *Atmospheric Things* and Tyler Morgenstern's discussion of Michael Osman's *Modernism's Visible Hand: Architecture and Regulation in America* both, to some extent, deal in the relationship between built and natural environments. Penabella zeroes in on McCormack's analysis of balloons as mediums of atmospheric transmission and meditations on intangible elemental mediums, while Morgenstern points out the ways in which Osman's historical interest in the architectural modulations of temperature and simulated biotic environments draws attention to the social dimensions of environmental technology, logistics, and infrastructure.

In this special issue, we hope to advance the projects put forth by both our own authors and others working through these dynamic fields. Intimacies and solidarities must be built across platforms, between the institutions within which we study, the industries we study, and the communities they affect. This project cannot remain within the pages of a journal, but we hope that the works collected here, and the processes through which they were collected, contribute to an ongoing discussion and collection of knowledge around fighting for and building a better collective future. Through understanding the local, transnational, and global ways in which capitalism entangles itself with the environment, we can better understand how to meet—and where scholars, artists, and activists are already meeting—these challenges to nature and the common where they hit the ground, on the ground.

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