

Underlying, a *dérive*-ative: Sea Level Rise and Settler Futurities

(draft)

Rosalinda Borcila

text+video : vimeo.com/290332190

for the New Local, Brussels - www.thenewlocal.org

Beginnings

In November 2017, Miami citizens with voting rights approved a \$400 million bond for climate resiliency adaptation in response to climate-change induced sea level rise. This is only a small portion of the price tag of the city's sea level rise plans, which varies from official estimates at \$900 million to analyst projections of \$20 billion. Infrastructural adaptation involving pumps, sea walls and the elevation of some metropolitan areas by 8-10 feet above grade - as well as the cultural and social management operations that would ensure the continued viability of Miami as financial capital of the Americas, tourist megadestination and playground of the rich and famous - have come to appear as inevitable as the sea level rise itself. So has the idea that the risks of immanent climate change must be mitigated by financial innovation, social impact investing and philanthrocapital.

Climate resiliency - which has been unfolding as a policy framework, discourse and imaginary - is structured around innovations in financial markets such as climate change derivatives, sea level rise futures and social impact bonds. These operations promise competitive rate of return on investment for philanthrocapitalists who finance climate resiliency by leveraging future "savings" in public expenditure in response to climate change. But how are these calculations organized? What is underlying the process of securitization and capitalization that reconfigures sea level rise as *investible* ? How is that process organized; who has the ability to leverage the future, and *who will pay the returns*? What does the governance of sea level rise look like? How is resiliency financing, as an operational strategy of risk management, reconfiguring the spheres of economy, polity and culture?

"Underlying" is an ongoing experimental pedagogy/research/art project that considers the operational logics of climate futures finance as linked with the unfinished business of inscribing settler colonial jurisdiction upon native (wet)lands and the production of racialized life. It began with a 4-day summer intensive seminar I developed at the invitation of Gean Moreno, curator of education and programming at the Institute for Contemporary Art Miami.

The first phase of the seminar put together a reader, a series of discussions and exploratory learning walks that would focus on securitization in relation to the production of racialized life and indigenous dispossession. The next phase of the project will turn our attention to the specific forms of climate change securitization being proposed to finance climate change resiliency. The project attempts to gradually elaborate an analytic through which to explore emerging forms of sea level rise governance by considering what are the underlying bodies for the derivative forms they generate.

My goal was to make the road by walking - to build the analytic by using it, by testing it out, by moving through moments of failure and realization. In this sense, the analytic is intended as distributed, partisan, tactical and relational. It is also oppositional, directed at maintaining an antagonism to the logic of finance - particularly as it unfolds through the dominance of philanthrocapital and its social turn. It is not coincidental that I situated this kind of study in the context of an art museum in Miami. The art, culture and education sectors are redefining capitalist metropolitan regions through the deployment previously inconceivable amounts of investment in "innovative social interventions". I want to probe the social turn in art in relation to the social turn in finance, the increasing coincidence in self-interest between artists and financiers, as well

as the ways capital accumulation under conditions of the securitization of the social and of the biosphere are reconfiguring the “creative class” in financial capitals like Miami. I wanted to consider the investability of the social turn in art from the perspective of capital – and to explicitly address the ways socially-engaged art is often disarticulated from political struggles that challenge the structural relations of power producing social and ecological crises, and instead serves the drive to reorder – to remake the order of the social and natural worlds – in the image of capitalization.

The project pairs an analytical dimension (a reader and a series of discussion sessions) with exploratory field trips or “learning walks”; while distinct, these two modalities unsettle and seep into each other. The reader charted 4 genealogies or pathways: finance and racialization (slave bonds and social impact investing); genealogies of resilience as a policy analytic (homeland security doctrine, the operational logics of financial risk management, ecosystems science); land-water relations (Indigenous sovereignties, settler jurisdictions); climate futures (carbon markets, ecosystems services, social impact bonds). The embodied part of our study charted a pathway from West to East, between the ocean and the hemmed in wetlands – moving across infrastructures of informational networks, to hydraulic pumps against saltwater intrusion, sites of public “Indianness”, logistics zones, limestone mines and prisons. This essay functions as a first set of notes for an evolving analytic.

A Reader in Four Pathways #1: Genealogies of racial finance

In *Bonded Life*,¹ Zenia Keish and Justin Leroy consider the social turn in philanthrocapital that manifests with increased vigor after the 2008 financial crisis through the rise to prominence of social impact or “pay-for-success” investing. Framing overlapping financial, social and ecological crises as a “moment when the capitalist system is under siege”, business gurus see social finance as a way “to reinvigorate capitalism itself”. Financial innovation, in turn, is presented as the only solution to solving dire social problems in the wake of the receding (or failing) public sector. In this way, the imaginary of social finance obscures the role of corporate and financial power in reconfiguring the public sector and producing both social and ecological crises, as well as disavowing the structural and racialized nature of the problems supposedly addressed. Social finance also represents specific populations as a social risk (what the authors call *subprime populations*) which must be reconfigured as assets, so that rather than putting others at risk (the state, taxpayers or presumably the financial system as a whole) these subjects can be seen as “worth taking a risk on, as potential investments that can produce profit in the form of future dividends”.

One of the technologies meant to transform subprime populations into investible opportunities is the Social Impact Bond (SIB). The SIB and instruments like it incentivizes private financing of social rehabilitation programs intended to “solve social problems”, presumably by lessening the burden of future public costs, thus justifying investors being paid dividends by the public sector. The transfer of future public sector funds into financial dividends relies building forms of calculation and forms of governing that can render all aspects of social life amenable to this calculative logic. Thus, “ethicalized” finance capital must expand into a “broader social power” that can “reconcile present social risks with more desirable futures”.

Financial innovations like the SIB are informed by the relationship between race, finance and transnational commodity flows that was forged in the expansion of the slave trade. The text considers series of financial instruments, with particular emphasis on the emergence of slave bonds, which were created as for of credit for slave owners. Slave owners pledged land and slaves as “bonded” assets to banks and borrowed back a portion of the assessed value; property banks then bundled those assets, collateralized them, and sold slave-mortgage-backed securities to foreign investors. But European financiers wanted a way to hedge against loss, since the human assets underlying the securities were “perishable”. So in the 1820’s sugar and cotton slavers convinced the Louisiana legislature to back \$2.5 million in bank bonds (due in ten to fifteen

years, bearing five percent returns) with the full "faith and credit" of the people of the state. The intervention of the state was crucial in hedging against investor loss and also in ensuring the financial system itself would not fail. The British bank Baring Brothers was the first to market slave bonds on European securities markets; soon European merchant bankers across Europe marketed slave-backed securities in American dollars, Dutch guilders, and English pounds sterling. By 1831, slave bonds were also being issued by the legislatures of Alabama, Arkansas, Mississippi, and the Florida Territory, funding a massive expansion of slave-backed credit, which in turn allowed the US domestic slave trade to surge by 83% in the 1830's over the previous decade.

In becoming subject to securitization, racialized life became "a potentially limitless source of profit extraction", as well as underlying forms of calculation that would outlive the slave trade and could be applied to every aspect of social life.

Dick Bryan and Michel Rafferty² provide a useful and understandable overview of the derivative as a financial instrument and expanding social form. In finance, derivatives - such as futures, options or swaps - are financial contracts derived from an underlying "thing" (commodity, financial instrument, index) which is broken up into quantifiable attributes that fluctuate in time. Traders of derivatives do not take possession of the underlying; instead, they buy and sell wagers on the future fluctuation of the attributes, which in financial parlance is expressed as trading in exposure to risk or trading on trends in risk perception. It is precisely by being reframed as "risky" that more aspects of social life and of the biosphere are increasingly becoming reconfigured as an underlying asset -- broken up into a set of attributes, subjected to quantification or indexing, aggregated and then cut into tranches across levels of risk or probability, such that even the smallest differentials and fluctuations (in different markets or at different times) become opportunities for high-stakes wagers.

The rhetoric is that derivative markets allow for the transfer of risk from those who cannot bear it to those willing to speculate - in the case of SIB's, a transfer of risk from governments and taxpayers to financiers and investors. But this rhetoric is meant to disavow the role of the state as ultimate guarantor and to obscure the transfer of risk from financiers onto the bodies of racialized human beings.

By the 1830's, the cotton that enslaved people grew in the US territories had become the raw material that powered the global industrial revolution: it was not only the most widely traded commodity in the world, but income streams from slave bonds were used to underwrite enterprises far beyond the slave trade. The transformation of the world economy was being driven by the slaver's whip. This analysis takes settler possession of land - settler property to be then securitized and leveraged on financial markets -- as already given or self-evident. But settler-owned property had to be produced and exerted against indigenous sovereignties by capitalizing indigenous lands. The reallocation of risk via the intervention of the settler state - from investors and enslavers to the slaves themselves - moves through cycles of indigenous genocide and removal that are missing from this analysis. The expansion of chattel slavery into the Florida peninsula provides a counter to this omission.

The justification of American interest and armed invasion into Indigenous lands nominally under Spanish rule -- La Florida -- was twofold: slave plantation agriculture in US territories to the north were rapidly depleting land of its nutrients; meanwhile, the peninsula had become a refuge for escaped and freed slaves, whose increasing ties with large and insubordinate Indigenous populations threatened the security of chattel slavery as a whole. Under pretext of recovering millions of dollars of "property that had stolen itself" to La Florida, the American invasion and occupation declared legal possession of the territory in 1821, but would face the largest and most protracted indigenous insurrection and slave rebellions in the US territories. The project of securing occupation hinged on producing settler-owned property in land for

large-scale sugar and cotton plantations, which in turn was underwritten by slave-backed securities and guaranteed with bonds issued by the government of the Florida Territory.

Our commitment for the duration of the project is to always try to look for the underlying bodies that are made to pay - the racialized populations, lifeways, social and biological systems as well as sovereignties that become reconfigured as underlying assets for capitalization and thus become the ultimate risk absorbers. In developing an analytic that views capitalization and financial markets from the perspective of the underlying, our goal is to attend to the processes of genocide and ecocide that are deployed to extract profit -- as seminar participant, Miccosukee artist and activist Houston Cypress, summarized, *to attend to how* "these systems of extraction defer risk to the underlying bodies: Black & Brown & Our Mother Earth".

A Reader in Four Pathways #2: Genealogies of Resiliency

The second phase of discussions concerned the rise to prominence of the discourse of resilience across a broad range of arenas - from natural resource management and climate change preparedness, to international finance, corporate risk analysis, urban planning, national security, public health and the psychology of trauma. Jeremy Walker and Melinda Cooper³ trace the genealogies of resilience along several trajectories. Their text locates the origins of resiliency science in CS Hollings' formulations of ecological resilience, understood as the ability of ecosystems to remain coherent - and specifically to remain *productive* - even under conditions of extreme instability. This informs an approach to risk management that recognizes the limits of predictive knowledge and seeks to "design systems that can absorb and accommodate future events in whatever unexpected form they may take". Hollings develops a common theory of the dynamics of ecosystems *and* social systems based on describing both through the concept of capital, which he defines as "the potential of a given system that is available for change".

Economist Friedrich Hayek's theorizing of markets as complex ecological systems even more radically conflates the biological, financial and social spheres. For Hayek, markets are both radically free of external limits and transcendental laws, as well as endowed with resiliency which manifests immanent law-making power generated through the exercise of market freedom - a power to which all other social institutions become subject. Hayek calls for a project that would remake all of social life "in accordance with the self-organizing dynamic of the market", a project in which "he enlists the institutions of the state even in their most authoritative expressions".

A resiliency perspective becomes dominant as a framework for crisis management in financial markets after the 2007-2008 credit crisis. Even as models of calculability govern the design of derivatives trading instruments, central bankers and policy consortia comprised of financial risk analysts from the world's most influential financial institutions are increasingly turning to complex ecosystems theory, disavowing the needs for regulation of financial markets in favor of improving the resilience of the financial system as a whole.

The concept of infrastructure security was first deployed in US security policy after the oil crisis of the 1970s, and then emerged as a policy framework during Bill Clinton's administration. Critical infrastructure resiliency emerged as a national security concern during a period of intense privatization of public infrastructure services. This process of privatization was, much like SIB's and climate derivatives, rhetorically justified as a response to the failures of the public sector, but was driven by the imperative of "creating secondary financial markets for trading in the securitized debts arising from the infrastructure privatization itself". Critical infrastructure resiliency thus brings together within a single optic of risk preparedness what were until then separate arenas: military threat, social unrest, natural disaster, operational failure and the failure of financial systems architecture. This conflation would be further institutionalized in the formation of

the Department of Homeland Security. The privatization of state-controlled services is accompanied by a transformation of regulatory authority from civilian sectors (transportation, public health and safety, environmental protection, emergency response and telecommunications) to the newly-formed logistics/security sector of the war on terror.

US Homeland Security doctrine reasserts the centrality of resilience as a strategic and psychological imperative. Resilience is defined as the essence of a permanent “culture of preparedness” that recognizes an acceptance of “a certain level of risk” of catastrophic possibilities as “as a permanent condition”. Homeland security integrates military, ecosystemic and financial contingencies into a singular optic of resiliency as permanent adaptability with and through unpredictable crises. The culture of preparedness envisions no end to emergency; resilience becomes therefore a fundamental organizing principle.

Resilience has become framework of climate change capitalism, institutionalized in a series of organizational forms like The Stockholm Resilience Center, one of the most important links between climate research and the shaping of multilateral climate agreements and environmental conventions in the arena of international development policy. Resiliency has become a means to measure different populations’ ability to adapt and survive to conditions that link the stresses of depleted ecosystems with the demands of financial markets and global security concerns. Thus, the “risk” or threat represented by those who are not resilient is routinely viewed as a security threat, and increasingly linked with fear of migration and social unrest. The adaptive models of resource management offered by resiliency science have been amenable to approaching the depletion of ecosystems as a global security problem, the solution to which is the securitization of the biosphere: defining and quantifying ecosystems services that can be priced and traded on financial markets.

Institutions like the Stockholm Resiliency Center, the United Nations Development Programme, the World Bank and the World Resource Institute have been instrumental in developing new forms of socioecological governance that make territories in the Global South, particularly indigenous territories amenable to securitization. Thus, lands and waters that are calculated as maintaining a net absorption of carbon (like old growth rainforests, for instance (under climate discourse “carbon sinks”) are reconfigured as underlying assets, seized from indigenous communities in order to be officially “managed” per international climate agreements⁴.

A Reader in Four Pathways #3: Problems of Sovereignty

Since 2007, a project called the River of Grass Greenway (ROGG) has been promoted for development in South Florida. It proposes a new recreation and transportation corridor across the Everglades wetlands, a bike and walking path that would allow south Floridians to “really experience ” the everglades, to “slow down, hear the sounds, breathe in the scents, feel the breeze”. The project would “foster an appreciation of our Everglades while we protect them for generations to come”. In many ways this is an unremarkable project, a by now familiar neoliberal articulation of ecotourism and green capitalism as a solution for ecosystems made fragile by tourism and development. It also illustrates the ways in which “embodied experience”, that links appreciation with stewardship, moves through settler possession.

In today’s remaining Everglades wetlands, three distinct forms of indigenous nationhood continue to be asserted: The Miccosukee Tribe of Indians of Florida, The Seminole Tribe of Florida and an older, traditional nation that is not recognized by the US Government and is known in English alternately as the Independents, the Miccosukee Simanolee Nation Aboriginal People or the Original Miccosukee Simanolee Nation Aboriginal People. Miccosukee Simanolee Elders and community members challenged the ROGG

as an illegitimate and ecocidal project that violates the inherent Natural Law of the land. Under the leadership of clan Elder Bobby C Billie, tribal and nontribal people, together with non-Indigenous allies, came together to mount an ongoing successful campaign to stop the ROGG, a dynamic which also informed the peninsula-wide struggle against the Sabal Trail natural gas pipeline. The understandings of legal order and sovereignty that were asserted by Miccosukee Simanolee Nation Aboriginal People in their struggles against these infrastructure projects repeatedly disrupted and denaturalized settler historical narratives and the assertion of settler sovereignties within and beyond the boundaries of today's Everglades.

In our seminar we read an address written by the Council of the Original Miccosukee Simanolee Nation Aboriginal People - which speaks directly to and against US settler authority and asserts a type of indigenous sovereignty that we find challenging, even impossible to understand.

We find that our notions of sovereignty are limited by Enlightenment-derived forms of political authority and European understandings of land as property. We seem equipped to make sense of indigenous sovereignty insofar as it articulates within nation-state legal practices, engaging settler state courts and legislatures. This is the case with the tribal and reservation system, a form of political and territorial organization that was imposed by the US government upon native peoples⁵ -- a system that some of the indigenous communities of the peninsula adopted under coercion. One community incorporated as Seminole Tribe of Florida, Inc, recognized by the US government in 1957. In 1962 another group followed suit incorporated as the Miccosukee Tribe of Indians of Florida, Inc. But many indigenous people in Florida refused to adopt modes of government, legal systems and relations to land imposed by the settler state, maintaining instead a society based on an Indigenous legal orders. It is this group that came to be known in English as the Independents or the Miccosukee Simanolee Nation Aboriginal People.

The address by Council asserts an indigenous sovereignty that is not restricted to reservation or tribal lands, and does not articulate within the settler colonial legal system or any of its forms and discourses. What is asserted instead is a form of sovereignty that is inherent in the land; it therefore precedes - but also exceeds and supersedes - the settler colonial framework. "The Creators' Gift is in us, which is: Our Way of Life and the Natural Law and all his Creation, which is: The Air, the Water, the Trees, the Plants, the Animals, the Fish, the Birds, the Reptiles, the Insects and all the others, and for that reason we cannot accept other peoples' way of life or their man-made laws." The Council challenge the name Seminole, which is almost universally used to designate native peoples in Florida: "- they gave names to our people according to what they thought they heard. But it is not the way we talk, and it is not the language we call ourselves. It is not the true names..". They also challenge the Eurocentric consensus of historians, anthropologists and ethno-linguists according to which today's "native Americans" of Florida emerged from a process of ethnogenesis from various groups, particularly those arbitrarily labeled "Creeks" by the 17th century English colonists, who migrated into Florida in the 18th century -- after all the peoples who were indigenous to the peninsula either became extinct or left at the end of the Spanish occupation. Instead, the Council asserts that the Miccosukee Simanolee are the original people of the peninsula. "The Simanolee People did not come from the Creek. They came from the Earth, and the Law we follow comes from the Creator Himself at the beginning of the Creation of Life." ... "These are the grounds of our ancient relatives and of the Miccosukee Simanolee people who died for us. These are the people of our people. We are still here. You cannot separate us from them".

This astonishing statement has implications for the application of US law in terms of the legal doctrine of *equity*, which designates some rights to indigenous groups that can prove enduring and uninterrupted occupation of territory: repatriation of human remains, ownership over archeological artefacts, and in some cases access to culturally significant or sacred sites for ceremonial use, harvesting of medicine etc. But this

statement is not directed at securing rights for indigenous people according to the framework of the nation state and its laws. Instead, it asserts a legal order referred to as “Law of the Human Beings” or “Natural Law of this Land” - that does not govern the people, the land, air, water, trees plants, unborn life and so on but is instead inscribed within them. The Council asserts the obligations of the newly arrived and uninvited illegal immigrants within the legal order inherent in the land: “You have an obligation to Us, the Original Aboriginal Indigenous People of this Land, And, You have an obligation to Them, the Unborn Life, and to all the other Life: the Water, the Air, the Trees, the Plants, the Grasses, the Rivers, the Streams, the Oceans, the Animals, the Fish, the Birds, the Insects, the Reptiles, and all the others”.

Engaging indigenous sovereignties articulated this way would require what Fiona Nicoll⁶ has called “an embodied recognition that we already exist within Indigenous sovereignty”. Here is where our seminar conversations become stuck - this encounter becomes for us, as Irene Watson anticipated, a “ground of ‘impossibility’⁷”. The “constitutively indefinable quality of Indigenous sovereignty for non-Indigenous people⁸” allows for a peculiar denial - our difficulty in understanding what it is operates as sufficient proof of its nonexistence, enabling a process of reproducing the conditions that prohibit indigenous sovereignty from actualizing itself. There is more here than merely a psychic block; it is part of an extensive, complex and self-interested process that reproduces the deferral of indigenous sovereignties while reaffirming settler sovereignties as normal and given in everyday experiences. Chickasaw scholar Jodi Byrd has called this political, social and psychic condition a settler agnosia⁹.

Irene Watson argues that as non-indigenous peoples it is precisely with this ground of impossibility that we should begin a confrontation with the ways settler sovereignty has become naturalized, both as a structure and as a lived hegemony in everyday experience. Mark Rifkin¹⁰ refers to a “settler common sense” in theorizing the ways settlement - “the exertion of control of by non-Natives over Native people and lands” - is structured by laws, policies and procedures, but is also present as a “structure of feeling” that saturates everyday experiences while not being “present to settlers as a set of political propositions or as a specifically imperial project of dispossession”. In this way, settler perceptual engagements with place are characterized by a relation of nonrelation to the everyday reproduction of settler sovereignty, in that they take “shape around the policies and legalities of settlement but... do not specifically refer to them as such or to their effects on Indigenous peoples.”

Revisiting the imaginary of the ROGG proposal, Rifkin’s understanding of settler common sense allows us to consider how the call to greater intimacy with our place of inhabitation functions to “reaffirm, normalize and propel settlement as the ‘ready-made’ against which new information, sensation, experience affectively is managed”. Embodied experiences of “nature” both arise from, and efface, the “jurisdictional claiming of ... space as against geopolitical claims by other polities, specifically Native peoples” - as the challenge of the council against both the ROGG and the Everglades Restoration Project makes clear. From this perspective, it is not surprising that the strong opposition of a united front of tribal and nontribal indigenous entities to the project - which even in a restricted, statist formulation of sovereignty should halt given that it passes through tribal lands upon which the tribal governments have jurisdiction -- was met, in session after session of impassioned testimony, by settler accounts of a “love of the Everglades” that are intended to bracket questions of jurisdiction and open up instead to a horizon of possibility for self-actualization that would *enable us all* to form the proper ethical resources for responding to ecological degradation and the problems of climate change.

Settler-indigenous encounters in Florida, particularly around questions of relationship to nature, ecology and the climate, draw upon a “hypothesis that has been repeated so many times it has become axiomatic”: today’s indigenous people are recent arrivals from the 18th century, roughly about the same time as the Americans came. This forms the basis of a powerful imagining and experience of settler indigeneity and

belonging. The transmission of such “affective orientations” -- the sensation of belonging, of “historical density” that properly extends settlers into the places they occupy – also orients the “field of possibility” for present and future action.

Our methodology combines analytical readings with excursions and other embodied modes of enquiry. This section opens upon the need to denaturalize the reproduction of settler sovereignty – the legalities, administrative structures and calculative logics of settler governance, but also the embodied perceptions, sensations and dispositions that reproduce the common sense of settlerness in daily life. This intention seeps through the entire project, and we engage with it unevenly, hesitantly and with great discomfort. Of all the trajectories of our study, we seem to encounter failure the most quickly here.

Journeys – from ocean to wetland

Governing Miami’s resilience to climate change merges the imaginaries of global finance, tourism, global commodities movement and the homeland security state. The arrangements that render Miami *investible* as the “Gateway to the Americas” involve producing the spatial concentration or clustering of far-flung networks and corridors by creating local “favorable climates” for global flows of capital. But how the gateway remakes territories – both near and far -- to the demands of capital flows, containerization and the calculative logic of finance is only partially visible in the city center and along the ocean front, with its yachts, private islands, cruise ships, container port and financial district that agglomerates central and south American banks and financial firms, traders and consultants. In parallel to analytic readings and seminar discussions, we engaged in a series of excursions to look for evidence of these transformation, beginning at the ocean’s edge where the gateway most obviously regulates arrivals, both undersea communication cables and overseas voyages, linking the mass movement of goods, financial calculations and informational networks, and the management of mass deportability. Miami remakes the Caribbean as both an integrated informational ecosystem and extensive detention archipelago.

We continue moving inland straight west, from the ocean to the hemmed in wetlands at the edge of the metropolis. Our excursions become propelled not just by an exploration of territory, but also by the need to question and denaturalize the encompassing sovereignty that licenses our access to this territory. In this we read, talk and try out a number of body work exercises that borrow from – and critique – methods of deep listening developed in acoustic ecology and modalities of the *dérive* from psychogeography.

Walk #1: Networked

“To build the right universe, you need the right tools” - Digital Realty

Two cable landing sites on the north side of Miami are the destination points for submarine cable networks bearing such names as MAYA-1, Americas-II and Columbus -III, linking Miami to the Caribbean, Central and South America and informational nodes in Europe. We begin our walk halfway between the cluster of financial firms downtown and the cable landing sites to the north, scouting for the material infrastructures and calculative logics that link the two. It seems like a simple exercise in amateur forensics – learning to look for clues of cable networks underground and microwave signals overhead. As is usually the case in American cities, I expect to find these routes following the pathways of previously built infrastructures: rail lines, roadways, and canals.

Within a few blocks we come across markers of the cable networks we were searching for, alongside the railway, the main north-south trunk line of the Florida East Coast Railroad, which today takes containers

from the port of Miami to the intermodal yards north of the city. The railroad was built by the man heralded as the great white father of Miami. It is through his figure that Miami tells its origin story: from 1885 to 1913, Standard Oil founder Henry Flagler built an empire of railroads, hotels, steamship lines and resorts, developed the agricultural industry and modern Florida real estate. The tracks we are walking alongside of were laid in 1896, the year of Miami's incorporation; the arrival of the rail and the development boom that accompanied it are credited as giving birth to the city. What is missing from the glorious story of visionary men like Flagler who build empires and the future we are now inhabiting is an understanding of the role of state and federal government in subsidizing railroads through land grants, secured rights of way and the enforcement of indigenous dispossession, through incentives for drainage projects to "recover" land for agriculture and development from the vast swamplands that dominated the southern half of the Florida peninsula. Railroads were built through new forms of credit which were underwritten by the state and federal government. Governments also created the brutal labor systems of racialized involuntary servitude that railroad empires like Flagler's relied upon, a form of bondage that reconfigured slavery after its formal abolition: convict leasing and debt peonage. In Florida, unleashing development -- in particular agriculture and tourism -- were predicated on the inauguration of a prison and legal systems intended to recapture freed Blacks in order to render them available as bonded labor, to be leased to corporations growing sugar and cotton, and building railroads, roads, canals, hotels and harbors.

In *Carbon Democracy*, Timothy Mitchell demonstrates that, more than a project of moving people and goods, railroads are linked with the rise of the modern corporation as a structure of accumulation that sells shares in stock markets - not just shares in the material it owns, but shares in anticipated future income. This kind of financial exchange requires calculating the value of shares as the value of that future in the present. The ability to do this is both a technical and financial structure - the work of securing property and rights of way, smelting iron ore based on coal power, manufacturing and laying track, but also an entire work of developing forms of inscription, information and calculation which make possible the process of capitalization, and which consolidate the power of financial institutions on a global scale. The stock market was made possible by the building of railways.¹¹

Both the securitization of slaves that produced the cotton and sugar boom, and the forms of capitalization that produced the railway boom, precipitated defaults and financial busts. Highly leveraged corporations, marketing dubious securities that were so innovative they were often not really comprehensible even to those trading them, caused massive crashes and bail-outs. But the losses were never extracted from the slavers or railroad barons themselves. Though the parallels between more distant and recent financial crises are imperfect, the startling continuities that run through cycles of boom and bust suggest that financial innovation is historically a way of reorganizing social life and capital accumulation that sets in motion forms of destruction and deathmaking.

Today, the reorganization of forms of accumulation so that the future is brought into the present, all the while masking the destruction necessarily created in the process, is realized not around industrial enterprises like the railroad, but through the organization of informational enterprises and infrastructures upon which finance capital relies. A walk along the tracks allows us to trace the pathways of fiberoptic cables that link cable landing sites with server farms and data centers in the financial district where hundreds of firms from the financial, insurance, logistics and government sectors collocate their servers and data engines. A line of sight journey allows one to follow a network of microwave towers that connect cable landing sites with data centers and from there moving directly west to the flood control canals that constitute the border between the metropolitan sprawl and Miccosukee tribal lands, where land-filled development ends and the diminished Everglades wetlands begin: the Krome Avenue Detention Center and the gates and dykes regulating water flows along Tamiami Trail.

Walk #2: Forward pumping

From train tracks moving straight West , we pause for a walking and listening session at a hydraulic gateway, a forward pump funded through the Everglades Restoration Project and recently installed where the C4 canal drains the Miami International Airport. We move under a tangle of intersecting highways and flight paths, along a pedestrian walkway narrating the history of the canal system as one of prophetic vision and engineering.

The C4 is part of an extensive water management system of canals, dykes, dams, gates, pumps stations, culverts, water storage reservoirs and spillways built between 1903 and the 1980s. The integrated system is called the Central and Southern Florida Project, one of the largest flood control systems in the world. It was built to drain the Everglades wetlands which covered half of the peninsula; this draining was framed as the imperative to “recover” land for productive use and it gave rise to the peninsula’s dominant economies: an enduring sugar empire, real estate development and tourism.

It also rendered flooding a permanent emergency, inaugurating a cycle of ongoing and increasingly complex mitigation measures to maintain the land productive for capital. Some of the harms of this transformation have become apparent to the metropolitan population over the past few decades: pollution and nutrient runoffs from sugar farming and development, the disruption of wetland habitats and ever increasing vulnerability of populations, enterprises and infrastructures built on unstable dry land predisposed to rewatering. But the effects on the water stored underground are less apparent. Since the aquifer was formed, and can only be replenished, if the land is submerged in surface water, the violent drying of the swamp has sabotaged the capacity of the aquifer to recharge itself. This became compounded by a century of drilling wells into the aquifer to quench the thirst of an expanding metropolitan megaregion. Though groundwater sustains rivers, wetlands and lakes, as well as many surface and subterranean ecosystems largely or totally dependent on it, the social order on the surface has remained mostly indifferent to the harms of its depletion. And given the time lags inherent in the dynamic response of groundwater levels to development, the effects of groundwater overdraw on human systems could until recently be deferred into the future. But these effects are now rendered immediate by rising sea levels: an overextracted aquifer has lowered the water table, which in turn has accelerated saltwater intrusion, threatening the viability of the freshwater supply for human as well as nonhuman systems across the entire region.

We are walking on top of the saltwater intrusion line – the very edge where ocean water seeps westward against the underground aquifer and saltwater pushes up the canals into the freshwater system. The C4 canal puts water to work – channeling waters hemmed in behind dykes surrounding lake Okechobee in the heart of the peninsula, drawing waters out of the sugar empire extending between the lake and Miami, and gathering and redirecting rainwater runoff from over-paved and filled-in metropolitan development. Forward pumps here pressurize these flows against the increasing incursion of the ocean.

But the ways in which water has been harnessed, disciplined and weaponized must be understood as part of a larger and unfinished project of occupation and settlement.

After taking possession of Florida and organizing a territorial government in 1821, the United States moved to secure occupation by selling land to squatters and speculators. In 1824 and 1828 the US passed preemption acts that permitted American squatters to acquire valid titles to land they had been occupying extra-legally, as well as measures allowing for the sale of large tracks of land intended to facilitate the development of slave plantations, which accelerated with the draining of the wetlands authorized in 1843

by the Sugar Act. Indigenous populations and their free African and Maroon allies resisted the southward expansion of the United States in an insurrection known to settler history as the Second Seminole War, spanning the entire peninsula and lasting from 1835 to 1842 – sacking plantations and defeating thousands of settler militia sent from northern territories as well as federal armies. Many indigenous people were slaughtered; thousands were forcefully deported to territories in Kansas. But it was the United States that was forced to seek an end to an unwinnable war and initiate a treaty through which it promised a great portion of the peninsula to the remaining, unconquered Indigenous peoples -- a treaty which the US then proceeded to violate and, to this day, deny its very existence. Despite extensive evidence provided through native oral histories, confirmed in the late 1970s by legal investigations into government archives, settler consensus narrates the end of the war as a decisive victory of the US and of the Indian removal project¹².

By the end of the war, Florida's cotton and sugar industries had been burned to the ground. Global cotton prices collapsed due to overspeculation in securities markets. Slavers had over-mortgaged slaves and lands, and the banks chartered by the territorial government collapsed; the state owed \$3.9 million in "faith bonds" to different financial institutions and was in danger of becoming insolvent. The solution was increased settlement. The Armed Occupation Act of 1842 granted 160 acres of land for free to men who were head of family, or single men over eighteen, who would "clear, enclose and cultivate" at least 5 acres and bear arms to defend settlement against natives: "Armed occupation, with land to the occupant, is the true way of settling and holding a conquered country... the peninsula of Florida is now prepared for this armed settlement: the enemy has been driven out of the field. He lurks an unseen foe in the swamps and hammocks. . . . We want people to take possession and to keep possession; and the armed cultivator is the man for that. The blockhouse is the first house to be built in Indian country; the stockade is the first fence to be put up . . . these are the proof that the owner has come, and means to stay. . . ."¹³

The Swamp Land Grant Act of 1850 further authorized drainage of the wetlands in order to remove the Indigenous populations that endured here. The state claimed all of the southern half as overflowed swamp lands and organized land sales, giveaways and subsidies to developers who would pursue drainage and "reclamation". In 1851 the federal government legislated the final forced removal of the Florida Indians; Florida Militia patrols were formed to hunt down Indians, the federal government ordered the sale of Indian lands and dispatched federal army troops to defend settlers. Indigenous peoples, who had systematically withdrawn from contact with settler society expecting the terms of the treaty with President Polk would be honored, were forced to return to arms. The so-called Third Seminole War lasted until 1858. Indigenous hiding places and villages in the swamp were discovered; troops slaughtered as many of the remaining indigenous people as they could find. The war was declared over with no treaty or legal resolution; conventional settler histories declare indigenous removal all but complete. Indigenous people who survived the war were forced to seek refuge deeper and deeper in the Everglades wetland.

By the turn of the century development had accelerated, fueled by a convict lease system that rendered Black people reinslaved into labor bondage. This enabled the further damming and dredging of wetlands; the construction of rails, canals, and roads spurred an invasion of white farmers, developers, and hunters into Southern Florida. Indigenous people faced a shrinking territory, loss of food supply and access to medicine, the poisoning of drinking water and a radically altered ecosystem affecting all aspects of physical, social and spiritual life, and compromising the arrangements that made Indigenous legal orders possible. Families slid rapidly into hunger, poverty and total dependence on trade within settler economies. Rumors of oil strikes spurred exploration and the arrival of drilling crews. Land values skyrocketed and recreational development soared; private landowners now called for removing the remaining Indians who impeded oil exploration, leisure activity, and agriculture.

Reclaiming land for the nation had envisioned the wetland as an environment hostile to cultivation and which, therefore, had to be drained. The Central and Southern Florida Project that resulted not only dewatered the wetlands but also compartmentalized it into distinct zones for agriculture, residential and commercial development, water conservation, and environmental preservation. But the project of preserving nature required the ideological production of wilderness as an unpeopled place that is worthy of protection, disavowing millennia of indigenous habitation – a draining of indigenous presence and of the human and more than human relations inscribed in the wetlands since time immemorial.¹⁴ In Florida, this took form in the Everglades National Park, authorized by the Federal Government in 1947, which resulted in the forced eviction of indigenous people who still endured here. Preservation, like reclamation, was a project of occupation, settlement and indigenous dispossession.

In the 1990's an 8-year multi-agency study found that conditions of increasing ecological degradation – including high levels of mercury and phosphorous in the waterways, increasing outbursts of toxic cyanobacteria and saltwater intrusion would immanently threaten the commercial, tourism and real estate economies of South Florida. The Everglades became subject to revaluation through the lens of South Florida's resiliency, resulting in Congress passing legislation for a 30 year, \$7.8 billion Everglades Restoration Project – the largest and most costly environmental restoration program ever attempted. Vast hydrologic systems and cycles are once more being reengineered to produce highly localized effects corresponding to analytical water budgets and the valuation of ecosystems services. Restoration public funds became directed less to radically undoing large-scale technical and organizational structures that enclose, capitalize and put ecosystems to work in the interests of financial markets, and instead are financing the engineering of more technological solutions for filtration, ecotourism, green development, the logistics of water management and flood containment, emergency preparedness and an expanding mitigation banking financial sector.

Jessica Cattellino's extensive work on the cultural politics of Everglades restoration considers it as a mode of settlement that works to secure an imaginary future that restores an imaginary past. The temporalities of restoration operate upon the future according to settler fantasies of the wilderness before settlement, as a way of beholding and constructing a territory that is about to be invaded. Though nominally included through a process of government to government consultation, tribal governments have not been able to set the "restoration" agenda nor effectively secure sovereignty over water politics in their own reservation boundaries. Under the pretext of restoration, people from the communities of Independents have been denied even previously permitted access to harvesting medicine and ceremonial use, the repatriation of human remains and consultation on water and wildlife intrusions within the Everglades. As a result, Indigenous people from both tribal and traditional communities often refer to contemporary forms of social-ecological governance – from carbon trading and the securitization of the biosphere, to Everglades Restoration programs and the governance of climate resiliency – as a reconfigured form of eco-genocide and indigenous dispossession.

Walk #3: Indianness and the Great Freakout

The next walk takes us less than a mile further west, in a residential development that stretches alongside a canal. Across the canal, a wall behind which a layered landscape is obscured – a rail yard, logistics park and prison. On this side of the canal, a linear public park dotted with chickees, replicas of traditional Indigenous housing structures. We pause to consider how the representations of Indianness, so prevalent in Miami's public spaces as well as leisure and tourist economies, function to contain and disavow the geopolitics of indigenous sovereignty. We revisit Rifkin's assertion that tropes of "Indianness" represent a kind of "crisis management that allows non-Natives to engage with Indigenous presence in ways that contain the threat it

poses to quotidian modes of affective anchorage in which the settler state and its legal and political mappings are lived as given". The crisis Rifkin is referring to here operates not merely at the level of an imaginary, or of discourse or self-perception; it is our ability to resolve sensation into a "coherent perceptual field" that is thrown into question.

We pause to revisit how some of our listening exercises engaged with the space between hearing and listening, between sensation and perception. We also pause to engage with how this location can make very perceptible what we mean by being in a "relation of nonrelation" to settlerness. It also helps render concrete what Potawatomie philosopher Kyle Whyte refers to as the ways "industrial settler colonialism is a physical, material and ecological excavation that can ground and provide evidence for the discursive constructs and mental states of settlers" at the same time as it "makes obscure its own support systems". The settler homeland creation process works against the assertion of indigenous self-governance and sovereignty by seeking to erase Indigenous peoples "physically, discursively, culturally"¹⁵. What is meant by ecosystemic erasure does not mean the lack of representations of Indianness; rather, it relates to the ways "the social institutions of one society systematically erase certain socioecological contexts, or horizons, that are vital for members of another society to experience themselves in the world as having responsibilities to other humans, nonhumans and the environment. Injustice, here, involves one society robbing another society of its capacities to experience the world as a place of collective life that its members feel responsible for maintaining into the future"¹⁶.

The seminar's only Indigenous participant, Miccosukee two spirit poet and activist Houston Cypress, agrees to share a perspective on the three forms of nationhood and sovereignty asserted in the Everglades, as well as the significance of the Miccosukee Simanolee Aboriginal Peoples for the tribal communities. He also introduces us to some aspects of Miccosukee Tribal water sovereignty, and to how forms of native "inclusion" and "consultation" inform the politics of Everglades Restoration, while simultaneously circumventing and circumscribing the assertion of tribal water sovereignty. More, it seems the very possibilities of self-definition and self-actualization for indigenous peoples are sabotaged: "We are dehumanized in the process".

Houston Cypress echoes the framework of responsibility for the future and of binding relations between human and more-than-human systems, which we struggled to understand from our reading of the address of the Council of the Aboriginal Miccosukee Simanolee Aboriginal People¹⁷, and from multiple conversations along the walk. Anishinaabeg scholar Leanne Simpson describes the system of Nishnaabeg laws and lawful behavior as adhering to ceremonial agreements between nations both human and more-than human.¹⁸ In explicitly grappling with the ways non-indigenous people appropriate indigenous "cultures" and "lifeways" while disavowing indigenous sovereignties, or extract indigenous knowledges as philosophical abstractions or metaphors, performance artist and petroleum anthropologist duskin drum uses jurisprudence as an English-language proxy that can help non-Indigenous people understand some important aspects of Indigenous sovereignty as distinct from "culture". Indigenous jurisprudence refers to "social relations on the land between humans and nonhuman and more than humans as an institutional order, an intentional established set of precepts negotiated through living together since time immemorial" which have a specific emphasis on lawful and right behavior, responsibility and caretaking¹⁹.

We are facing the difficulties of denaturalizing the innumerable ways through which settler sovereignties reproduce themselves as normal or given in our everyday experiences, feelings, perceptions and dispositions. The other difficulty we face is that we keep wanting to define Indigenous sovereignty in a way that is more understandable and accessible to us. But indigenous sovereignty is not a discursive formation or philosophical abstraction. Yellowknives Dene scholar Glen Couthard relates it to a notion he calls grounded normativity - the place-based foundation for indigenous thought, practice, lifeways and legal

systems – as a practical ethics. “It attempts to capture the ethical engagements—with situations, communities, land, and relationships—that inform our understandings of right and wrong, how to go about resolving conflict, and how to best relate to the world and each other in a healthy and sustainable manner²⁰”. Interestingly for Couthard, this is not a return to a long-gone historical experience but rather “grounded normativity has a prefigurative aspect” as it “puts into practice decolonial worlds” in the daily lives of indigenous peoples.

A Reader in Four Pathways /Walk #4: Extraction and mitigation

Our final analytic pathway considered the securitization of nature and the emergence of “social impact bonds” in Miami climate resiliency governance. We moved this discussion session from the seminar space to the route of our final walk -- a half mile route at the western edge of the metropolitan region, stretching between a prison and a limestone quarry.

The securitization of nature relies on defining natural capital as the stock of renewable and nonrenewable natural resources (plants, animals, minerals, water, air) that yield a flow of benefit to people. This flow of benefit is called “ecosystems services”. Once the functions of ecosystems are defined in terms of their use and value to humans, valuation processes can be developed that simplify and quantify these services.

To create an ecosystems services market, modes of quantification and calculation must be devised in such a way as to allow for standardized increments of “improvement” to be traded for standardized increments of “destruction”. Sian Sullivan notes that the “global multi-billion dollar trade in carbon, in particular, is providing a market-based model, embraced by both business and major environmental organizations, for *pricing* and *exchanging* environmental products across the environmental spectrum ... A critical component of the logic underlying these approaches is an assumption that environments, emissions and effects in very different locations somehow are equivalent and therefore substitutable, such that they allow negative impacts in one location to be *offset* against environmental investments in another²¹. This is what is meant by offset trading and by mitigation banking.

What kinds of “nature work” can become billable? Who will build those forms of inscription and calculation? And who can capture payment for this billable work? Who can profit from speculation on its future value? Securitization necessitates information and informatization, high-speed electronic networks, an imposition of enforceable ownership rights and protocols in order to organize these transactions, as well as forms of hedging against loss. It requires governance.

Carbon trading illustrates the ways the rhetoric of incentivising emission reduction was used to create a trillion dollar market with vested interests in maintaining emissions, not reducing them. This has had devastating consequences for the Global South – sabotaging the diplomatic efforts and social movements of Bolivia, the G77 (developing nations from the global South) and the Small Island States to demand carbon emission reductions at COP 15 in 2009. Chief negotiator Lumumba Di-Aping has been instrumental in illustrating how for African countries, climate crisis cannot be talked about in the future tense, but has instead been unfolding and the backdrop for enormous suffering in Rwanda, Southern Sudan and in Darfour. Financial innovations that opened up carbon trading allowed for a deepening of the colonization and expropriation of the global south, and has justified the seizure of indigenous lands and waters for management under international so-called climate protocols.

The 100 Resilient Cities program, a Rockefeller foundation initiative, is now heralding a new era of financial innovation, “social impact investing” and ecological governance in response to climate change in 100 cities around the world. Miami is one of the cities in this program. Social Finance, the U.K.- and Boston-based

nonprofit behind social impact bonds is the firm providing consulting for the US-based cities in the 100RC program on how to develop pay-for-success or social impact financing in their jurisdictions.

"Cities are learning to do more with less, and pay for success offers a promising pathway to make better use of city resources, improve the lives of our cities' most vulnerable, and help cities become more resilient," said Tracy Palandjian, founder and chief executive of Social Finance.

The rhetoric of Resiliency and social investing works to occlude the reasons why cities have to "do more with less". While local politicians are framing the crisis as an attack by the water, there are other underlying causes for the climate induced rising water levels and for the public sector crisis that social financing is meant to defer and profit from. The National Flood Insurance Program ("NFIP") is on the brink of failure - this is the public private partnership through which the government backed credit for the corporations that profit from flood insurance. The NFIP is overleveraged and has a net "exposure" of over \$1.2 trillion - the government needs to bail out corporations from overspeculation in insurance secondary markets.

Meanwhile, Miami has appointed a Chief Resiliency Officer, a position which is required by 100CR program to have authority to oversee programs in all areas named in the resiliency strategy - which span from resource management, to financial market resiliency, disaster preparedness and national security. "We are unable to support cities that do not explicitly enable CROs to perform these functions".

Walking alongside the prison offers us a stark reminder of the ways racialized bodies have always served as experimental terrain for the invention of new forms of profit and capital accumulation for others. This is most nakedly visible in the prison system itself, the Black Codes that provided a steady supply of unfree labor through the convict lease system and later through the decentralized network of "road prisons". Since the 1960s, inmate labor is provided to Florida's Department of Transportation, Division of Forestry, and nonprofit organizations - as well as maintaining the prison system itself. But the relationship between race and finance is visible across the larger neoliberal reconfiguration of the "social services" and public sector in the interests of capital accumulation. Keeanga-Yamahtta Taylor's work²² provides an analysis of the ways private-public partnerships structured through the housing and credit reform in the 1970s were crucial in unleashing predatory financing upon effectively captive urban Black populations -- with the backing of the federal government and the billions of dollars of credit moneys it unleashed to make it possible. The subprime mortgage crisis was the culmination of this process.

It is also visible in the emergence of the Social Impact Bonds like the ones recently innovated in Chicago. Underlying this SIB was the idea that investors would fund social intervention programs that could reduce or eliminate the expense of future special education programs in the public schools. The pilot programs targeted low income preschool children of color ages 3 and 4; if the programs were successful, the financiers would be paid dividends from future savings in the public school system. The success of the program would be measured by subjecting children to valuation using standardized testing; the financing scheme created financial incentives for the financiers who were also instrumental in devising the assessment - and who sit on the Commercial Club of Chicago and directly impact the policies of the public school system. The "success" of the program paid handsome dividends, while extracting labor and profit from the bodies of 3 year old children of color to justify the city doing away with "unnecessary" special education programs altogether.

A similar logic is already being prefigured in the types of "pay for success" investing proposed for financing the sea wall in Miami. These programs articulate future disaster relief in response to sea level rise as a risk to the public sector - investment in a sea wall and other mitigation measures today will draw dividends against future savings which presumably will come from reducing or eliminating future public sector costs

in flood and other disaster relief. In our next session we will look more closely at how this form of capitalization sets in motion a future withdrawal of the public sector from disaster recovery programs, as well as trying to understand how a range of factors combine to cause highly localized flooding effects due to the hydrological engineering of the regions' water systems. In other words, the bets on future "savings" from withdrawing post disaster support due to flooding are likely to have uneven effects upon different zones and populations in the city. Some parts of the city, and some populations, are more drownable.

As we walk to the limestone mine, we are confronted by the lakes that form Miami's lake belt, a vast area circling the metropolitan region. Here we get to experience limestone extraction - which is sure to increase given the technical solutions to climate resiliency that depend on more concrete for sea wall, roadways, tunnels etc. The water table is very close to the surface - and here we get a measure of this depth. Once excavation hits 8 feet or so, water rushes in to fill the enormous pits left by the extractive process. What we are looking at, extending as far as the eye can see, is the exposed water aquifer. The protective, porous layer of limestone has been ripped away, exposing an intricately interconnected and endangered groundwater system to surface pollutants.

Ozinga and Cemex, two of the main companies that operate here, are partners in the 100 Resiliency Cities project. In order to expand their extractive operations while managing mounting public outcry at the devastation wrought about by the extraction upon the and the wetlands - as well as the ways extraction and infill accelerate development and sprawl westward towards by producing future "waterfront development" for real estate speculation - the federal government initiated mitigation banking, a federal policy of off-site, third party mitigation. This means that developers can compensate for destruction of wetlands by purchasing "credits" from wetland bankers who finance wetland "enhancements" elsewhere.

Though an analysis of wetland banking as a form of environmental governance will have to wait for a future session, a walk along the lake belt and an encounter with some of its material practices renders inescapable the devastating, targeted and highly localized ecological harms that underlie the financialization of wetlands as "ecosystems services" available for market exchange.

Reprieve

On the day of our walk, the Port of Miami received its first Panamex container ship, following an extensive multi-year project that not only dredged the port in order to widen and deepen its channel, but also drove the large scale remaking of the city to respond to the demands of intensifying containerization, transnational goods movement and capital flows. We have been moving westward tracing some of these re-makings, from the oceanfront, the port and financial district to the lake and prison belt. We are searching for other logics, understandings and realizations - both analytic and embodied - beyond and against the terror of financialization and its drive to creorder in its own capitalized image. Our pathways and conversations remain incomplete, discontinuous, and uncertain. We continue, stumbling.

¹ Kish, Zenia and Justin Leroy. "Bonded Life: Technologies of racial finance from slave insurance to philanthrocapital." *Cultural Studies*, 2015, 29:5-6, pp.630-651

² Bryan, Dick and Michael Rafferty. "Financial Derivatives as Social Policy beyond Crisis." *Sociology*, SAGE Publications, 2014, Vol. 48(5) pp. 887-903.

³ Walker, Jeremy and Melinda Cooper. "Genealogies of resilience: From systems ecology to the political economy of crisis adaptation." *Security Dialogue*, Special Issue on The Global Governance of Security and Finance, Vol. 42, No. 2, SAGE Publications, April 2011. pp. 143-160.

⁴ Heidi Bachram, Climate Fraud and Carbon Colonialism: The New trade in Greenhouse Gasses. *Capitalism Nature Socialism* 15(4): 5-20.

⁵ The Indian Appropriations Act of 1851 established reservations as part of Indian Removal. In 1887, the Dawes Act authorized the federal confiscation and redistribution of tribal lands, the elimination of tribal governing councils and the eradication of indigenous communal land tenure. In the 1930s the US Indian Reorganization Act enforced tribal political re-organization according to forms of governance determined by the US federal government - these became today's federally recognized tribes.

⁶ Fiona Nicoll 'Reconciliation in and out of Perspective: White Knowing, Seeing, Curating and Being at Home in and against Indigenous Sovereignty', in Aileen Moreton-Robinson (ed.), *Whitening Race: Essays in Social and Cultural Criticism*, Canberra, Aboriginal Studies Press, 2004, pp. 17-31.

⁷ Irene Watson, 'Settled and Unsettled Spaces: Are We free to Roam?', in Aileen Moreton-Robinson (ed.), *Sovereign Subjects: Indigenous Sovereignty Matters*, NSW Australia, Allen and Unwin, 2007, pp. 15-32

⁸ Fiona Nicoll "Are you calling me a racist?": Teaching critical whiteness theory in indigenous sovereignty. *Borderlands*, Vol 3, No 2. (2004)

⁹ Jodi A. Byrd, "Fracturing Futurity: Colonial Agnosia and the Untimely Indigenous Present." Lecture presented at the University of New Mexico, Albuquerque, NM. October 25, 2012.

¹⁰ Rifkin, Mark. *Settler Common Sense: Queerness and Everyday Colonialism in the American Renaissance*. University of Minnesota Press, 2014.

¹¹ This history begins with the colonizing corporation, which was endowed with rights of monopoly, rights to raise an army, to rule territory, to establish courts -- in its origins this powerful and in many ways sovereign political form is a colonizing one. Corporation was in fact the government before it was superseded by the settler state structure.

¹² The address of the Council of the Original Miccosukee Simanolee Nation Aboriginal People makes extensive reference to this treaty and provides documentary evidence.

¹³ speech by Senator Tomas Hart Benton when introducing the act in Senate, 1842.

¹⁴ Perhaps the most concise and famous articulations are found in the Federal Act of 1916 which created the National Park Service, and the Wilderness Act of 1964, which systematically erases indigenous habitation from the very places designated as unpeopled and worthy of protection, by defining wilderness as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.".. "an area of undeveloped land retaining its primeval character and influence, without permanent improvements or human habitation."

¹⁵ Whyte, Kyle Powys. *Indigeneity and US Settler Colonialism*. Oxford Handbook of Philosophy and Race, Oxford University Press, 2016. pp. 91-101

¹⁶ Whyte, Kyle Powys. "Indigenous Experience, Environmental Justice and Settler Colonialism". 2016. [Nature and Experience: Phenomenology and the Environment](#). Edited by B. Bannon, 157-174. Rowman & Littlefield

¹⁷ Council of the Original Miccosukee Simanolee Nation Aboriginal Peoples. Statement, November 21, 2013.

¹⁸ Leanne Simpson, "Looking after Gdoo-Naaganinaa." Looking after Gdoo-naaganinaa: Precolonial Nishnaabeg Diplomatic and Treaty Relationships. *Wicazo Sa Review*, Volume 23, Number 2, Fall 2008, pp. 29-42

¹⁹ duskin drum. "Petroleum Performance". PhD Dissertation, unpublished.

²⁰ "From Recognition to Decolonization: An Interview with Glen Coulthard." *Upping the Anti*, no 19.

²¹ Sean Sullivan. "Green Capitalism, and the cultural poverty of constructing nature as service provider". *Radical Anthropology*, 3. pp. 18-27.

²² Keeanga-Yamahtta Taylor, "How Real Estate Segregated America", *Dissent Magazine*, Fall 2018