UNDERGROUND AND AT SEA

Oysters and Black Marine Entanglements in New York's Zone-A

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ABSTRACT: This article offers a pre-history of New York's Zone-A (flood zone) through analysis of 19th Century Black mariners and their relations with aquatic life. Before European colonisation, New York was one of the most oyster-rich habitats in the world, but reefs were exhausted in just two centuries of settlement. A focus on Black life in the marine trades highlights the ways in which Black work at sea was mediated by desires for freedom on land. This article considers how marine entanglements have assisted Black fugitivity, liberation and community empowerment in 19th Century waterfront communities, but also how the extractive relation to life in the aquapelago ultimately exploited both human and non-human life, reflecting inter-species interdependencies, endangerment and habitat loss under colonial capitalist policies in Zone-A. Considering the intersection of environmental and social justice, this paper models the importance of historicising the liminal space between land and sea, for advancing ideas about race, nature and value in plans for 'resilience' in New York's Zone-A.

KEYWORDS: Zone-A, Black mariners, oysters, underground railroad, resilience

Introduction

Zone-A is not only a modern insurance term for high-risk flood areas where disproportionate numbers of low-income and people of colour live today, but also refers to landfilled space where enslaved and low-waged labourers have historically navigated unsustainable, exploitative relationships between race, nature and capital on the New York waterfront. Adding to studies of Black maritime life in 19th Century New York, this essay historicises the Zone-A littoral through study of coastal relationships forged through the oyster trade, where the lives of mariners were entangled with the lives of other species in their aquapelagic networks. This study is also important for contemporary questions of resilience on the New York waterfront, resilience being a term that, as Dawson (2019: 171) has argued, "seems to offer adaptive solutions without addressing the political roots of contemporary social risk and disaster." As a modern term for waterfront flood risk, Zone-A offers us an important category for historical analysis of the effects of natural resource extraction, Black labour networks, and New York's growth imperative on the liminal space between land and sea. We can look to 19th Century experiences of Black mariners, who found work on docks of lower Manhattan and on the barges, boats and ships of the oyster industry, to see the intersectional and mutually constituting exploitations of race, nature and coastal property in New York's Zone-A (Figure 1).

In New York, landfill has long been an important tool of urban growth. Today's Manhattan is 30% larger than the island the Lenape inhabitants knew, and as a whole, the city has an added 9,000 acres of new land to island edges since European settlement (Bone, 2004: 41).

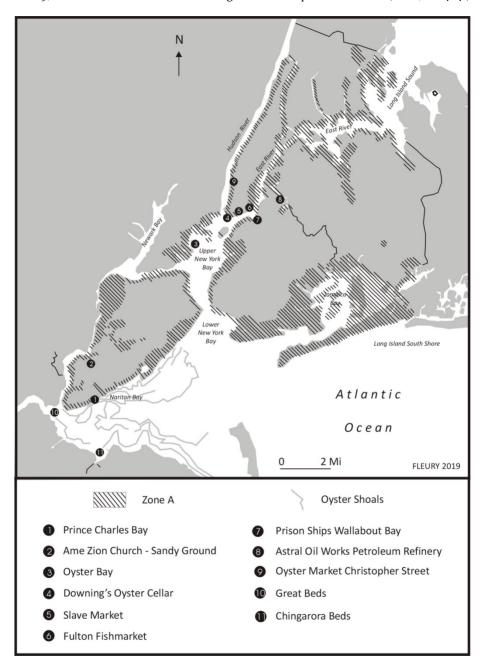


Figure 1 – Black aquapelagic entanglements in New York Harbor – Zone-A and 19th Century littoral landmarks. (Christian Fleury after Ulrike Zollner, 2019.)

Many of the reefs and marshlands of pre-colonial New York have been "reclaimed" by European dredge technologies, filled with ballast from merchant ships and the waste of the growing city. By the turn of the 19th Century, as the new grid plan rationalised Manhattan real estate it also extended the market underwater, with an explosion of waterfront lot grants in 1804. Those lots are the edges of Lower Manhattan's Zone-A today: South Street on the East river and West Street on the Hudson (Steinberg, 2015: 52-55.) This waterfront landfill, which we know today as Zone-A, has always been prone to sinkage, flood and waterborne disease, and was home and workplace to some of the Black New Yorkers I discuss in this essay. On this new waterfront, the city's poor and enslaved worked as stevedores, draymen, ship carpenters and caulkers, sail makers, and as ferrymen.

As the port city grew through the 19th Century, New York's waterfront also served an important place of fugitivity, where struggles for Indigenous and Black liberation relied on sea skills and the hunting, gathering, and trade of sea animals. The contexts and consequences of extractive marine activities in the New York are deeply entangled with the history of Native and Black experience. Black and Indigenous men had long-standing investments in marine trades, while they actively led abolitionist activities (Malloy, 1990: 7; Putney, 1987: 100). Maritime jobs were among the most prevalent for Black New Yorkers. Free and fugitive Blacks who worked in New York also gravitated towards whaling hubs in Sag Harbor, Long Island, Martha's Vineyard, Nantucket and New Bedford throughout the 19th Century, where the dwindling Native whaling workforce intermarried with Black workers, some of them fugitive slaves. Many of the most prominent men in New England marine industries were of enslaved-African and Native American descent.

Since New York's Indigenous peoples' earliest contact with Europeans in the early 17th Century, New York's islands and waters have undergone destructive histories of "Colonial Capitalism," a process that Gomez-Barris (2017: 4) identifies as having "gobbled up the planet's resources... discursively constructing racialised bodies within geographies of difference, systematically destroying through dispossession, enslavement, and then producing the planet as a corporate bio-territory." Lipman's (2015) study *Saltwater Frontier*, reminds us that the colonisation of New York was a process that happened at sea as well as on soil and, like Gomez-Barris, Lipman argues that colonialists exploited indigenous knowledges in their quest to settle the coast. In early deeds between English and the Montauket for the purchase of coastal lands on Long Island, Natives made sure to preserve their rights to harvest any or all parts of whales that would become beached at the shoreline, suggesting that salvaging whale parts was an important indigenous custom.² Settlers, interested in harvesting large quantities of whale oil for lamps brought large boats and weapons to Long Island and hired Natives to apply their navigation and vernacular skills to capturing and butchering the mammals offshore, in order to light up their colonies and colonial trade routes. Laist (2017: 182) argues that these early Long Island settlers probably

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¹ Crispus Attucks (an American stevedore of African and Native American descent, widely regarded as the first person killed in the Boston Massacre and thus the first American killed in the American Revolution) and Prince Boston (the first enslaved person in Massachusetts to successfully sue for his freedom and receive back wages for his time spent on a whaleship), are two such runaways who sought out whaling work in their pathways to freedom. Prince Boston's nephew Absalom Boston would become the first whale ship captain known to employ an all-Black crew (Farr, 1983: 160.)

² In 1648, on present day East Hampton, the Montaukett people negotiated their right to continue to "have the fynns and tayles of all such whales as shall be cast up."" Ten years later, another Southampton deed belonging to Lyon Gardiner stipulated, "whales cast up shall belong to me and to other Indians within these bounds" (Edwards, 2018: 194-195).

learned how to catch North Atlantic right whales with Natives "through a process of trial and error." Without indigenous knowledge of the coastal waters, the whaling industry could not have grown as fast as it did. This socio-ecological relationship developed under colonial capitalism's introduction of species *and* racial hierarchies. After just twenty years of this experimentation, the local right whales were exploited to endangerment, while most Indigenous tribes had been driven from the coast, exemplifying the intersectional histories of species and racial exploitation in Zone-A's colonisation.

This study seeks to recover attention to historical processes of racialisation and exploitation of waterfront life to demonstrate the importance of 19th Century maritime histories for conversations about the conditions of precarious life in New York's Zone-A today. While many indigenous histories on Zone-A, like those of the Indigenous whale fisheries, have been neglected, "American" histories of New York's Zone-A have been memorialised. For example, the lives of eleven thousand "patriots", who died on prisoners on British ships in Wallabout Bay – the Brooklyn Navy Yard – during the American Revolution have made public history. These prisoners who died on board were buried in shallow graves on Zone-A landfill at the Brooklyn shoreline. Their bodies were sometimes unearthed by the effects of wind and surf, setting off outraged calls for dignified sepulture by former prisoners. They launched a campaign for the reinternment of the bodies to higher land, with the advocacy of the White, fraternal organisation, the Tammany Society. The public campaign would take over a century to realise its goal of memorialising the dead patriots, but the Prison Ship Martyrs' Monument was finally erected on a hill at the centre of Brooklyn's Fort Greene Park in 1908.

It would take another century, however, for city officials to recognise the violent history that transpired just across the East River from the Wallabout Bay prison ships, where, on the corner of Wall and Water Streets between 1711-1762, the city's Slave Market condemned thousands of Blacks to a life of forced labour and premature death. Zone-A was the first land that enslaved people touched in New York when they arrived at the City, and where they were hired out as day labourers by their masters until slavery's gradual abolition in the 10th Century.³ A small marker acknowledging this long, dark chapter of Wall Street was only added to a plaza adjacent the site (now housing retail space and luxury condominiums) in 2015. In exploring the relation between 19th Century Black lives and New York's sea life, I hope to add an important dimension to what McKittrick articulates as "a black sense of place" on the New York waterfront. McKittrick (2011: 949) writes, "a black sense of place can be understood as the process of materially and imaginatively situating historical and contemporary struggles against practices of domination and the difficult entanglements of racial encounter." She explains, "racism and resistance to racism are not the sole defining features of a Black sense of place, but rather indicate how the relational violences of modernity produce a condition of being Black in the Americas that is predicated on struggle" (ibid).

While the Slave Market's marker addresses a long-neglected, violent history of racial subjugation and exploitation, lower Manhattan's Zone-A should also be recognised as

³ New York's strong trading relationship with the West Indies resulted in more than three thousand slaves being imported into New York in the first four decades of the 18th Century. Men, women, and children continued to be bought and sold throughout the city until 1799, when New York passed a Gradual Emancipation act that freed slave children born after 4th July 1799 but indentured them until they were young adults. In 1817 a new law passed that would free slaves born before 1799 but not until 1827. For more on West Indian trade see Foy (2016).

representing a place where countless Black fugitives escaped enslavement by finding work aboard the ships and barges that docked in the harbour. On 19th Century Zone-A, free Blacks worked alongside newly arrived Europeans. It was common for people of Native American and African descent to live in waterfront boarding homes and to hold jobs on the docks and ships and oyster barges which berthed at the Hudson and East rivers. The prevalence of Black people in New York's Zone-A provided opportunities for enslaved fugitives to blend in, and so the waterfront emerged as an important site of Black surveillance (Foy, 2016). In an account describing his escape from slavery, Fredrick Douglass (1881: 125) remembers the warnings of a friend upon reaching New York, "that I must not think of going either upon the wharves or into any coloured boarding-house, for all such places were closely watched." These stories exemplify how Zone-A and "Blackness in the Americas is deeply connected to sites of environmental, social, and infrastructural decay and geographic surveillance," as McKittrick (2011: 951) writes.

For many New Yorkers, to work at sea was a sacrifice made to gain liberties on land. The docks of whaling ports were known as particularly abolitionist spaces, still, American whalers in the 19th Century hoped to do only a few arduous voyages to save enough money to buy land to farm on and live self-sufficiently in New England (Pearson, 2006: 361). The preferred maritime work in New York was in the oyster business. If one had access to a boat, tonging for oysters provided steady income. Whereas some marine work, like whaling, took sailors out to sea for long periods, to be a common oysterman in New York meant one could support collective efforts to Black liberation through investments in local community services like Black schools, churches, and stations on the Underground Railroad, often concentrated by the waterfront. The industry's steady wages provided many longshoreman, deckhands, and other marine workers seasonal jobs as shuckers in the harbour (Kurlansky, 2007: 181). This work allowed opportunities for workers to buy kin out of slavery and to buy property, then a prerequisite for Black men to vote.

But the oysters of New York harbour would share the same fate of the right whales of the New England. New York's shift from a communitarian-based economic order to a market society and money-based economy meant the oyster was commodified and the native beds were quickly exhausted at the turn of the 19th Century.⁴ Throughout the next hundred years, the reefs would be replanted each season with oyster spats brought up from the Chesapeake Bay, but industrialisation of the waterfront and extractive practices in the harbour produced unsustainable entanglements of socio-economic and environmental vulnerabilities. Powerful capitalists exploited coastal environments and the social groups who lived from their relation to them, leading to racialised processes of labour exploitation and industry exclusion. As New York's global position shifted from that of a colony (providing raw materials to far-off wealthy European nations) to a centre of capital investment and the emergent manufacturing capital of North America; urban waste streamed into harbour. Aquatic life suffered. Shellfish were poisoned and reef life deteriorated under the effects of habitat encroachment and eutrophication from the dumping of sewage from the growing city. These effects endangered life for human and nonhuman communities in 19th Century New York and continue to influence the risks of living on Zone-A today.

⁴ As Jacques (2017: 162) explains "the turn to a market society between the Revolutionary War and the beginning of the 19th Century increased the role of monetary relations and the native oysters, alienated from a living ecosystem, became a simple commodity in the M-C flow."

The littoral is a zone is where land and sea intertwine and merge. The stories of Black sailors and oystermen offer an important submerged perspective of "littoral society," a term which Pearson (2006: 356) uses to call attention to the ways in which waterfronts are places connected by shared cultures of mutual dependence between land and ocean life. While littoral workers derived their sustenance from the sea, their lives were entangled with trades on land. Pearson (2006: 359) writes that if "the littoral is permeable, then our description must be amphibious, moving easily between land and sea." Morgan (2010: 313) similarly suggests maritime history pay "considerable attention to the lives of sailors ashore; all the ancillary personnel and institutions that supported life afloat - the merchants, shipping agents, crimps, stevedores, longshoremen, lighter-men, dockworkers, artisans, as well as the shipyards, ropewalks, cooperies, boarding houses, taverns, and brothels - require examination." Schlichting (2019: 13) has suggested that "the coast is a particularly useful framework with which to study environmental change in a city of islands because the city's real estate market, recreational networks, shipping and manufacturing interests and public works authorities all had vested interests in coastal access." The relationships and competition between different users of the shore have been affected by entanglements with other species in New York's of Zone-A, as this essay explores. Non-human nature in the coastal flats of New York played a formative role in shaping (and financing) New York's urban expansion.

New York is a city of islands, an archipelago. If you were to imagine New York Harbor drained of water, you'd see that the large islands (Manhattan, Long and Staten) and many smaller ones, like Liberty, Governors, Roosevelt, and Rikers, are all part of the same underwater mountain range. The islands are deeply related from an environmental perspective, even before we begin to conceptualise cultural and political linkages. Today, in the field of Island Studies, a debate about conceptualisations of island space and the sociocultural life of islands can be traced in the emergence of the term "aquapelago." The term was proposed by Hayward (2012a) to refer to the integrated marine and terrestrial assemblages generated by human habitation and activity in particular island locales. As an intervention, it is meant to serve as a corrective to the strong terrestrial focus within the field and describes regions in which aquatic spaces play a vital constitutive role in social and cultural life. The neologism argues for a greater recognition and analysis of the integrated terrestrial and marine environments of island aggregates and of human engagement with them.

Hayward's (2015) exploration of the New York aquapelago has brought focus to the socioecological constructions on and between New York's islands' waterfronts, encouraging a reading of the relation between humans and their aquatic environments as "aquapelagic assemblages," where human and nonhuman life change and develop each other. This work is influenced by Bennett's (2010) "Vibrant Matter" framework, which looks to the agency of non-human matter and engages the field of relational ontology with ecology, encouraging a new-materialist study of "the political ecology of things." Similarly, Stacy Alaimo's (2010) "trans-corporeality" framework traces the material interchanges across human bodies, animal bodies, and the wider material world. New materialists like Alaimo, Bennett, and Hayward, "attend closely to the material connections between the human and the morethan-human, "reconfiguring understandings of ecologies as bodily relations between the animate and inanimate (Alaimo, 2010: 2). Bennett (2010: viii) describes all matter as "lively,"

⁵ The aquapelago framework was initially advanced in *Shima: The International Journal of Research into Island Culture* by Hayward (2012a, 2012b), Suwa (2012), Dawson (2012) and Maxwell (2012). Most recently, Hayward (2018) further explored the "aquapelagic imaginary."

and argues that while vitality is not equivalent to life, vitality exceeds human orderings and must be considered a political force. She argues for the articulation of a "vibrant materiality that runs alongside and inside humans to see how analyses of political events might change if we gave the force of things more due" (ibid).

The question Bennett asks in the introduction of *Vibrant Matter*, "How could political responses to public problems change were we to take seriously the vitality of non-human bodies?" (2010: vii) is layered with new meaning for this study when we consider the historical exclusion of Black bodies from humane treatment and the erasure of slavery's shape on Zone-A's development. As Sharpe (2016: 7) writes, the "history of blackness is testament to the fact that objects can and do resist." Acknowledging the uneven hazards planned into contemporary Black geographies on today's Zone-A, one might ask, "how might political responses to public problems change, were we to take seriously the vitality of Black bodies?" There are infinite ways to think materially about Black bodies' influence on the ecologies of the New York waterfront, and about the influence of aquatic "vibrant matter" on Black experience and geographies. An aquapelagic framework might encourage us to study racially dissonant experiences of time, and thus history. This article uses an aquapelagic framework, which reframes analysis of urban socio-ecological relations as entanglements between land and oceanic space, to study inter-species relations in New York's 19th Century harbour.

A focus on Black life in the oyster reefs, barges, and coastal community settlements, highlights the interdependencies of precarious life lived between land and sea, as well as the ways in which work at sea was mediated by desires for freedom on land. This essay also joins McKittrick and Woods' (2007: 9) call to explore "how the Underground Railroad might be theorised as a complex, non-linear, diaspora geography." By following the marine networks of labour that offered fugitives and poor free Blacks spaces of autonomy and community solidarity, I retrace the spaces which garnered the attention of man-stealers and exploitative lawmakers who sought to control Black social and economic mobility. I look to the politics of fugitivity and mobility across the New York archipelago in maritime trades as a frame with which to also study historical Black entanglements with sea life in Zone-A. In another sense of the term, this essay looks "underground," in tracing waterfront history through the presence of community grave sites, while recognising that many Black mariners died at sea, and the majority never owned land under which they could be buried. In exploring the ways in which experiences of Black New York life has been bound up in the aquatic, I consider how activities of racial and species exploitation, coupled with resource extraction, have produced and exacerbated crisis in New York's urban waterfront history. In a world where accelerating sea level rise will prove a major impetus of further aquatic interdependencies and littoral diasporas, affecting racialised communities first, we need such an oceanic worldview.

Underground at Sea

Early 19th Century records from the New York Municipal Almshouse, where many free Blacks lived after falling ill, show that some patients recorded their own places of birth as "At Sea." As Harris (2004: 74) suggests, perhaps this referred to some leg of the Middle Passage. However, claiming the sea as place of birth might have also freed fugitive slaves from their own relation to property too. As legendary escape stories of Black people like Billy Blue, Peter Wheeler, or Robert Smalls suggest, if one could sail, despite its danger the sea could be a place of relative freedom like the forests of feudal Europe or the mountains

of marooned slave societies. Word spread about the free Black spaces of New York on the routes of ships, and in the texts of libraries installed on vessels by the Seamen's Friends Society (it was on ships at sea that many who worked in maritime trades learned to read). Abolitionist texts passed between trade ports around the Atlantic, uniting Black people who found themselves in a common struggle for liberation. As Paul Gilroy (2007) has explored, a distinct Black Atlantic culture developed that incorporated elements from African, American, British, and Caribbean cultures. Black people who shipped from the port of New York frequently sailed to the West Indies where some had seen at first hand Blacks asserting their equality with Whites in the early slave rebellions of St Dominique (Gilje, 2007: 421) (Scott, 1991: 37-52). Often the first to hear of major events, maritime slaves and free Black sailors became valuable conduits and informants within their communities (Morgan, 2010: 314). Sailors who socialised with slaves in southern ports helped fugitives from the southern states make their way north to New York, assisting through marine networks that stretched across the archipelago.

As Black men had few alternatives to employment at sea as a means to establish households and raise families, seafaring emerged as one of the most significant occupations between 1740 and 1865, with Black people making up about one fifth of the total maritime force on the eastern seaboard (Bolster, 2007: 159; Sokolow, 2009: 45-46). The Lower East Side of Manhattan was a neighbourhood where many had performed slave labour on the docks before Emancipation, and where their skills allowed them to find work as independent dock hands thereafter (Foy, 2006: 46-47). Many of the city's enslaved came to New York knowledgeable in maritime matters, having been mariners in the West Indies or Africa. Enslaved African oystermen made headlines for twice stealing vessels belonging to John Cannon, the "commander" of the city's oyster fleet in the mid-18th Century, and setting sail to freedom (Foy, 2006: 55). Runaway notices posted by slave owners in newspapers during the 18th and 19th centuries expressed anxieties about fugitives' sea skills and begged captains not to employ them, suggesting a common practice of Black resistance was to escape to the sea. Fugitives like Prince, in 1762, had "been used to sea and followed boating many years" while lim, in 1763, was believed by his master to have plans to "go off in some vessel" in New York. Some enslaved men who were hired out by their masters on ships as privateers used this opportunities to flee too, like Ben, who "ran away on board the man of war" in 1776 or Shefford who "ran away from schooner Lydia... when he was at Staten Island, near N.York when they were taking in water" a year later. In 1805, Harry, who had "the appearance of a sailor with a kind of roll in his walk" escaped slavery, when he "went off a Yawl Boat with two oars," and the same year so escaped King, who had "been on several voyages to sea" and escaped his servitude wearing a "blue sailors Coat."9

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⁶ For more on these legendary accounts of fugitive slaves who escaped slavery with sailing skills and marine networks, see Pybus (2007), Wheeler and Lester (2009) and Foy (2016).

⁷ The Seamen's Friend Society collected donations to bring wooden cabinet libraries on board American vessels sailing from New York. Seamen's libraries had "put some 2,000 volumes on board naval and merchant vessels" by 1853 (American Seamen's Friend Society, 1853: np). The annual report,1930, suggests that the whole number of libraries sent to sea since 1859 was 13,352 and that 16,688 had been refitted and reshipped, an aggregate of 30,040 libraries.

⁸ Almost one-quarter of New York City fugitive slave advertisements contained warnings to masters of vessels not to harbour runaway slaves, while almost 14 percent of such advertisements indicated that the runaway's master was engaged in some aspect of the maritime industry (Foy, 2016; Burrows and Wallace, 1999: 123).

⁹ See runaway notices in Stessin-Cohn and Hurlburt-Biagini (eds) (2016) - 'Jim of Albany County' (*New York Gazette*, 1763) 'Prince of Ulster County' (*New York Gazette*, 1763) 'Harry of Westchester County'

One reason that so many Black people ran to the sea is because of the security of Seamen's Protection Certificates. Beginning in 1796, the federal government issued Seamen's Protection Certificates to free, working Black merchant mariners, which defined them as citizens. These papers were often faked or leant to those to escape slavery in southern ports. Frederick Douglas, in his essay 'How I escaped Slavery,' explains how he used seamen's papers to flee from Maryland to New York: "I relied upon my skill and address in playing the sailor, as described in my protection," how he dressed to impersonate: "In my clothing I was rigged out in sailor style. I had on a red shirt and a tarpaulin hat, and a black cravat tied in sailor fashion carelessly and loosely about my neck," and how sea skills came in handy: "My knowledge of ships and sailors talk came much to my assistance, for I knew a ship from stem to stern, and from keelson to cross-trees, and could talk sailor like an old salt" (1881: 125-131). The stories of men like Prince, Jim, Ben, Shefford, and Frederick Douglass alert us to an important underground history of New York's Zone-A, highlighting the importance of the waterfront as a space of Black fugitivity, where men utilised maritime abilities to engage in stealth resistance.

By the 19th Century, many free Indigenous and Black families relied on the wages from maritime and coastal trades like sailing, whaling, and oystering, to achieve upward mobility and political autonomy in New York society, and were involved in the maritime industry as employees, investors and owners. Scholars of maritime history, Putney (1987), Foy (2016), and Bolster (2007) have all described the importance of Black sailors to the merchant and whaling industries. While some were enslaved, by 1800 most sailors working out of the Port of New York were free men who worked on ships because it afforded economic opportunity and a respectability that existed in few other industries. An unusually large number of New York Port lists had no physical description for the crew personnel (Putney, 1987: 14). This would have made joining crew as a fugitive even more attractive as there would be no paper trail to match a runaway notice. Mariners often went unrecorded in the census and many Black mariners' lives went unaccounted for in maritime records.

Bolster's research, the most complete study of Black life at sea, suggests that for 19th Century Black families, holding maritime occupations was a point of pride. Even if the pay was poor by the mid-19th Century, to be a free earning labourer at sea brought its own status and generated social capital and there was a level of economic racial equality that continued to appeal to Black mariners. Sailors transported goods from the foreign ports they visited to sell for profit at others to augment their pay, or to gift to family at home ports (Bolster, 2007: 173-174). On whaling ships and small coasters there were opportunities to advance one's position in the crew.

In the antebellum period, domestic commerce grew, which allowed for a rise in the proportion of American commerce moved in coasters rather than in deep-water ships. Because Black mariners moved not only cargo but abolitionist messages too, slave states increasingly restricted free Black maritime entrepreneurship, passing a series of laws that disallowed Black-manned ships to trade at their ports in the 1820s (ibid: 173-174). "Coasting" had become the preferred work of Black mariners with families, as it allowed them to stay closer to home and invest in their communities, but by the time legal restrictions on Black's command of coasters were removed in 1862, northern free Blacks had less capital and fewer opportunities to invest in the trade than they had during the 1810s and 1820s (ibid: 170,175).

⁽The New York Gazette and General Advertisers, 1805) 'King of Ulster County' (The Poughkeepsie Journal and Constitutional Republican, 1808).

In lower Manhattan, poor families navigated discriminatory real estate practices that made participation in a growing economy of wealth through property acquisition difficult. Those without the wealth to buy and settle on higher, solid ground were pushed to the City's soggy, landfilled areas as Zone-A renters. For many of the freed Black community, this tenuous earth was the site of their first place of freedom, and yet, despite these insecure footings, from the beginning of 19th Century New York, landfilled and waterfront neighbourhoods were hotbeds of progressive organising, where interracial relationships and new sources of Black capital empowered political struggles for racial equality. The cultural norms and capital earned from Black maritime work not only influenced these communities' activities but also the destinies of the species' with which their lives were entangled at sea.

The Oyster

Before colonisation, the New York estuary was filled with millions of oysters. The waters including Jamaica Bay, Raritan Bay and the Jersey Flats, are believed to have held as many as half of the world's oysters, according to some environmental historians (Kurlansky, 2006: 35). The oyster had supplied the pre-colonised Indigenous, Lenape society with a large part of their diet, especially during winter, when land life hibernated (Pritchard, 2007: 39; Sanderson, 2009: 106-107). Settlers in New York adopted the oyster as a mainstay of their culinary culture as well, and the reefs would come to feed not only a growing New York population, but also southern and West Indian colonies connected to New York by company trade routes. Oysters were pickled in barrels to preserve for long voyages across seas and sent back to Europe too (Washington, 1910: 6).

To be an oysterman in New York required the mastery of sailing and the muscle to operate wind-powered boats. These were skills which many African American labourers developed after two centuries of enslaved labour in Lower Manhattan ports. Captains of oyster sloops relied on slave labour to help harvest reefs from the 17th Century onwards (Foy, 2016). Some Black oysterman used sea-skills inherited from West Africa, where sustainable indigenous knowledge's of net-harvesting molluscs were learned and passed down through generations of enslaved people brought to the Americas. Many free Blacks in New York chose to work as common oystermen and in 1810, in the infancy of the oyster trade, more than half (sixteen of twenty seven) of the oystermen listed in the city directory were free African Americans (Hewitt, 1993: 240). Unlike working a job on land, where competition with poor White labourers for employment could be dangerous, Black oystermen worked for themselves most of the year. By the mid 19th Century, many of New York's successful oystermen were Black people, working at all levels and spaces of the trade. Those just starting off could help captains to harvest private oyster beds while selling their own daily catch from "tonging" the natural beds commons too. This provided opportunities for free Black people to work in relative independence, while coming together in the space of their shared resource: the oyster commons. As Pearson (2006: 360) suggests, "relying as they do on a small number of significant others who are literally in the same boat as they, fishermen are more individualistic but also more egalitarian than farmers."

Oysters grew along the shores of Jersey City, Manhattan, and Brooklyn and Wards, Ellis, and Bedloe's islands (MacKenzie, 1984: 38). Some of the richest beds of oysters in the entire

¹⁰ Black people in Lower Manhattan's Zone-A formed an estimated 50 self-help societies over the first half of the 19th Century. See Perlman (1971) and Hodges (1999).

¹¹ For more on sea-skills inherited from West Africa for Black and Indigenous oyster harvesting in the Caribbean see Warsh (2010).

country were out in the lower part of the Lower Bay known as Raritan Bay. Most of them were on shoals, under ten to twenty feet of water (Mitchell, 1956). A huge bed, later known as the Great Beds, was located at the western end of the bay just beyond the mouths of the Raritan River and the Arthur Kill. Oysters grew along the Raritan River from its mouth to five miles upriver, and also along the entire length of the Arthur Kill and to an extent in the Kill Van Kull. Another natural bed, known as the Chingarora Bed, was located on the south of Raritan Bay (MacKenzie, 1984: 38). Oystermen saw their livelihoods threatened during the first oyster collapse, when most of the natural shellfish beds in Kill van Kull, Arthur Kill, and Prince's and Raritan bays began to thin as early as the 1810s. To preserve their livelihood and meet increasing demand, waterman imported and transplanted small "seed" or tiny, larval "set" oysters from fertile Virginia beds (Burrows and Wallace, 1998: 662). The immature oysters were left alone until they reached market size, which took from one to four years, according to how mature the oysters were to begin with. Oystermen had to clean the empty shells and bottom trash off the beds where they were transplanted, to spread them out as evenly as possible. Handled this way, oysters grew faster than they did on natural beds, they grew more uniform in size and shape, and they were considered to have a better flavour, bringing higher premium prices (Mitchell, 1956). Still, by the end of the 19th Century, there would be a second collapse, this time by littoral industrialisation and an extractive view of profit maximising on cultivated beds that developed unsustainable practices without regard or care for ecosystem interdependencies.

By the mid 19th Century, many thousands of people were employed in the waters around Manhattan, gathering, delivering, shucking, oysters for their wholesale and retail, while others were employed in constructing and maintaining oyster barges and docking facilities on land. As Hayward (2015: 85) notes, this "created multiple nodes of interaction between estuarine and terrestrial environments for those involved in the production, distribution and marketing of the aquatic resource" and it is estimated that in the mid 1860s, over twenty-five thousand people were involved in the marine oyster trade. One thousand sailing vessels were deployed in the harbour (about five hundred in the great South Bay, two hundred and fifty in the East River, and the rest around Staten Island). Five thousand men did the planting and gathering of oysters, while no less than twenty thousand engaged in buying, selling and serving them after they were landed, representing the littoral reach of the sea trade.

Oystermen sold their harvests to merchants, who controlled the marketing of the trade and oversaw it from brightly painted barges. The decorative barges were not seagoing vessels and resembled two-storied house boats. As intermediary spaces, they provided a floating factory/market at the edge of the city. Extending the architecture and commerce of the city into the waves, oyster barges effectively blurred the boundary between land and sea, as one side of the barge was open to oystermen who arrived by boat, while the other side hosted a ramp to trade at shore (Chiarappa, 2007: 89). Merchants stood at balconies at both the front and back end of the barges to oversee business and watch for theft, while shuckers worked in the shucking and packing rooms on the water deck below. Because oysters were frequently sold by names according to their source: Malpeques, Cotuits, Robbins Islands, Blue Points, Rockaways, Sounds, Prince's Bays, Shrewsburys, Maurice River Coves, Bombay Hooks, Potomacs, Rappahannocks, Chincoteagues, etc, the barges also brought public insight into the ecological web of New York's oyster trade, and signalled their niche in a web of environmental relationships that extended beyond the docks of Manhattan (ibid: 91). The piles of oyster shells that accumulated at their wharf-side moorings, like the native Lenape middens before them, invited contemplation of the significance of the abundant marine environment that grew the diets and fortunes of New York City.

In 1816, the city built the Fulton Fish Market, and the all-night ferry between Brooklyn and Manhattan helped to make it a late-night institution on the East River. On the Hudson, from 1865-1898. Christopher Street in Greenwich Village was the central oyster market of Manhattan (Kurlansky, 2006: 178). Akin to the hotdog stands of today, 19th Century oyster stands were scattered throughout the streets of downtown Manhattan, especially along Zone-A where longshoremen, cartmen, sailors and fishermen were regular clientele (ibid: 195). This busy working waterfront landscape afforded opportunities for Black people to earn steady wages. If they had access to a boat and learned to tong oysters from the public beds, Black oystermen could sell their catch directly to vendors for good money and one could always find work shucking at the barges too. At the peak of the industry in the late 19th Century, 25-40 oyster carriers worked on each river. Oysters offered able-bodied men (and we might assume some women, though I haven't found evidence of this), a means to a secure livelihood. The oyster's tough shell and variable size, developed to withstand the forces and predators of the sea, also defied the modern mechanisation of the market. In order for New Yorkers to reach their oysters, a skilled shucking of the shell by hand and knife is required. Competitions for the speediest shucker gamified the industry, until shuckers were expected to open 500-700 per hour, accelerating consumption in an already fast-paced industry (ibid: 181-183). The necessity of embodied skills, rather than expensive machinery, to engage in the trade levelled the playing field across race and class boundaries.

Sandy Ground, on the south shore of Staten Island, is one of the oldest surviving communities established by freed slaves in North America and one of the region's most important oystering communities. The first recorded Black person in the Sandy Ground region, John Jackson, bought land there in 1828, shortly after slavery was officially abolished in New York in 1827, while land-ownership was still a prerequisite for Black men to vote. Sandy Ground developed, first, as a farming community. In the decades following, a number of Black families from around Snow Hill, Maryland (including the Purnells, Landins, Bishops and Henmans) moved to join Jackson in Sandy Ground. The graves of these early black settlers can be found in the AME Zion cemetery. The church that buried these bodies is an important American landmark, not only because it hosted the congregation of one the first free Black settlements, but because it was also a major stop on the Underground Railroad. The Black, abolitionist community met at the AME Zion church, and Sandy Ground emerged as a centre of political activism and social life for free Black people all along the eastern seaboard. When free Black oyster gatherers arrived in 1841, fleeing violence in the Baltimore area, Sandy Hook had already developed social networks to aid Black fugitives on the Underground Railroad (Lee, 2008).

AME Zion church sits upon one of the highest elevation points in New York (at 40 metres) but Sandy Grounders walked to work in Zone A, the waterfront on southwestern shore of Staten Island known as Princes Bay, where boats docked to navigate the plentiful oysters of Raritan Bay. Over the 19th Century, Sandy Ground's population grew and those who died were buried in AME Zion Church Cemetery. Some came from the South, but the majority came from New York, New Jersey and other places in the North. It's likely that some of these people relocated from Manhattan after the racial attacks of the Draft Riots in 1863, when the Black population in Manhattan fell while those in New Jersey and Staten Island grew. In the early days of Sandy Ground, the community was very poor. As George Hunter told it:

there wasn't a real house in the whole of Sandy Ground. Most of the families lived in one-room shacks with lean-tos for the children. In the summer, they ate

what they grew in their gardens. In the winter, they are oysters until they couldn't stand the sight of them. (Mitchell, 1956: online)

By 1865, at least four Black men captained their own sloops, and dozens more worked as common oystermen in the oyster trade. By the 1880s, Sandy Ground was "really quite a prosperous little place" (ibid). As Hunter recalled, "most of the men were still breaking their backs raking oysters by the day, but several of them had saved their money and worked up to where they owned and operated pretty good-sized oyster sloops and didn't take orders from anybody" (ibid). As many as forty African-American Sandy Grounders were common oystermen by 1900 (Askins, 1991: 8). Over time, the Sandy Ground community grew to include White settlers and oystermen as well, and the oyster industry grew to host tens of thousands of full-time occupations for New Yorkers over the 19th Century.



Figure 2 - Photo of oyster workers, 1894. The people of Sandy Ground built one of the only free black communities to exist in the early 1800s. Oyster gatherers, such as these from Maryland, helped the community grow. (Courtesy Alice Austen Collection, Staten Island Historical Society.¹²)

The relationships that developed in Sandy Ground influenced the larger socio-ecological landscape of the harbour. Oyster work in the aquapelago and on Zone-A offered one of the few contexts where Blacks and Whites did business as equals. The interracial nature of the Oyster trade in New York was unique. Black oystermen sold seed to White oystermen, and while the oyster business relied on oak baskets by the thousands, Black Sandy Grounders sold basket-making skills by cutting white-oak saplings, splitting them into strips to soak in water, and weaving them into bushel baskets. Another means of littoral work that supported the industry, several men in Sandy Ground became blacksmiths, "they made oyster rakes and repaired them, and did all kinds of ironwork for the boats" (Mitchell, 1956: online).

¹² Online at: http://maap.columbia.edu/image/view/806.html - accessed 8th August 2019.

Captains, Black and White, were the local leaders of the industry, and oversaw the resolution of disputes and decision making among the Oystermen community (Askins, 1991: 8). During the era of the oyster commons, captains bought oyster seeds (known as "spats") from the common oystermen, and chose protected waters (usually in coastal bays) to optimise their safe growth. Common oystermen were hired by captains for part of the season, but they otherwise worked to cultivate the public, natural growth beds, where it served their best interest to act as ecosystem stewards. Everyone sold to the merchants on Manhattan barges. Their harvest was only regulated through a series of traditional customs which promoted the long-term sustainability of the beds, as they were seen as a resource held in common for all local oystermen.

It was tradition that common oystermen were permitted to glean the oysters left on the captain planters' holdings after the harvest. Underwater, private property was a wavy concept, as the ownership of a planted bed was considered forfeited if the planter did not return to harvest annually. Time served an important mediator in the trade, as it determined public access to private beds. On Zone-A, of course, it was urgent that the bulk commodity be handled efficiently, so that the tens of thousands of oysters that arrived in vessels to the barges each day did not spoil.¹³ This assemblage of cooperative and intimate relationships between the oyster, oysterman, captain, cartman, and merchant supported the growth of the industry and the growth of Black wealth in New York. Black people in New York worked on all levels of the trade, from sailing and planting on the water, to shucking and managing oyster saloons on land. Oyster cellars catered to different clientele, depending on their neighbourhood, but in the first half of the 19th Century, it was widely accepted that oyster cellars were run by Black people (Kurlansky, 2006: 167).

One such person was Thomas Downing, who posted himself in the 1823 City directory as an oysterman and rose to prominence as the trade's wealthiest businessmen. Like the oyster spats that were brought from fertile Virginia beds to grow in to New York, Downing was born in the Chesapeake Bay area and made his way north at age 21, following the troops of the War of 1812 (Hewitt, 1993: 240). He began tonging for oysters in 1812, with a small skiff that he sailed across the Hudson to the New Jersey Reefs known as Communipaw and Harismus coves (also known as 'Oyster Bay') until the mid 1800s when the Central Railroad Company of New Jersey expanded the Bergen Neck flats into the sea (Kurlansky, 2006: 167; Steinberg, 2014: 157). By 1830, he had opened Downing's Oyster House, located on the corner of Broad and Wall Streets, a fine-dining restaurant with plush rugs and chandeliers that catered to New York's elite. His was the most celebrated oyster cellar, and the restaurant catered official events such as company openings, ship launchings, railroad extensions, and board member elections. Downings' popularity with the city's bankers and politicians, meant he could charge large sums for his services. His mirrored walls, damask curtains, and gilded carvings made oyster cellars respectable, and Downing's came to be known as the place where uptown clientele ate downtown, while making important business deals (Kurlansky, 2006: 162-167). Selling large quantities of oysters daily, in 1835 he expanded the business, renting the basements of two neighbouring buildings on Broad Street, which today face the New York Stock Exchange. Conveniently located a short walk to the water's edge,

¹³ One of the most prominent jobs (on land) for African Americans in the 19th Century was to be a

cartmen who transported goods from the port to businesses throughout the city. The importance of cartmen for the oyster industry was acknowledged by the relatively high wages oyster loads brought them. Cartmen's rates were fixed by law, according to the commodity the horse-drawn carts transported, and oysters were one of the better paid loads at 31 cents per load. See Kurlansky (2006: 176).

Downing also used these cellars to hide Black fugitives on the run. With damp floors and walls, it was an ideal environment for oyster storage, but the underground hiding spot would have offered difficult conditions for people.

Fine dining was segregated in Downing's establishment, however, with the money he made from his elite White patrons (who often had investments in business that relied on enslaved plantation labour themselves), Downing would go on to found several Black schools, a church, and the all-Black United Anti-Slavery Society of the City of New York (Hewitt, 1993: 241, 46-47). It is not clear that his patrons knew, or cared much, about his activism and participation in the Underground Railroad. His story highlights the Black New Yorkers' relationship with the oyster as an important example of interspecies history, which allowed not only plentiful diets, but powered the financing of liberatory Black politics. The importance of Downing's oyster wealth can be traced to influential media organisations. To help keep the paper afloat in its early years; Downing loaned money to New York Herald owner, James Gordon Bennett, Sr. and the Herald, to some degree in return, supported Downing's business and politics (Washington, 1910: 18). Downing's son, George, would also become an active abolitionist and activist for racial equality in New York. Together with Frederick Douglass, Samuel Ward, Lewis Woodson, and others, he formed the American League of Colored Laborers as a union to organise former slaves working in New York City, and served (with his father) as an active member in the organisation of the American Anti-Slavery Society, and the Committee of Thirteen, which resisted the Fugitive Slave Law in 1850 and aided refugees from slavery pass through the city.14

For oystermen like Thomas Downing, New York's harbour ecology had provided economic and social mobility that was denied them in other land-based trades. By 1865 the New York City trade alone was estimated to be worth \$5,000,000 annually (Unattributed, 1865: np) - a relative inflated worth of over \$81,000,000 today. The oyster's demand grew with an influx of immigrant populations and consumption patterns, and the role of the shellfish in sustaining the livelihoods of poor workers was vital. The Civil War added pressure to the native New York oyster habitats, as the Chesapeake Bay oyster of the seceded state of Virginia were no longer entering the market.

One change in technology had a significant impact on the catch from New York reefs at this time: the invention of the dredge. A fascinated writer in *Frank Leslie's Weekly* in 1859 describes this new technology:

Upon boarding the schooner Yankee Bird we had an excellent opportunity of observing the various methods employed in obtaining the oysters. There were twenty-six men engaged in dredging on one vessel, and these were sufficient to work half a dozen dredges. The dredges are made of a square of iron bars, beneath which is a chain net, capable of holding a bushel and a half of oysters; above the square is an iron handle, to which is attached a sufficient quantity of rope to reach the bottom, which is from fifty to seventy feet in depth. The dredging is performed while the vessel is under sail; it takes but a few minutes to fill them, when the men immediately seize the rope nearest the stern and pull

¹⁴ Despite his family's radical abolitionist work, Thomas Downing was respected by New York's White, elite society, many of whom benefited from slavery and even opposed the Civil War. He was so popular that when he died the New York City Chamber of Commerce closed for a day in his honour (see Hewitt, 1993: 246-247).

¹⁵ Calculation made by Measuringworth.com

across from the larboard to the starboard side; as one man reaches the furthest end he immediately returns, seizes the rope close to the vessel's side, and so the men continue to hawl until the dredge is safely secured on deck. Upon examining the contents we found the oysters mixed with pebbles, small fish, cockle-shells and starfish, the deadly enemy and destroyer of the oyster. (Unattributed, 1859: np)

It was not the starfish that would destroy the oyster in the end though, rather the dredge ran its toll. An important tool in the industrial-capitalist overhaul of the industry, the dredge wreaked havoc on littoral habitat. As the above account admits, dredges dug up much of the local sea life beside the oyster and disrupted important ecological interdependencies. It replaced the net and tong with iron and chain.

The shifts from subsistence gathering, to seeding and growthing of the commonsand to the industrial extraction era of oystering coincided with the increased privatisation of underwater commons. New legislation imposed: 1) a costly licensing procedure, requiring the registration of beds and taxation on oyster habitats by area, which allowed for merchants to cut out the oyster trade middle men and invest in thousands of acres of harbour waters themselves; and 2) refused common oystermen the right to work planted beds after the end of the season, a right that had allowed a large sector of the industry to grow. The merchants behind the changes called themselves "oyster capitalists," and turned the trade into integrated corporations that employed dredge technologies on powered boats (Askins, 1991: 9). Manhattan oyster merchants used their political influence to change the legal guidelines of the industry and to establish racially segregated hiring practices during the latter half of the 19th Century. These changes exemplify the influence of what Gómez-Barris has articulated as the "extractive view," on colonised ecosystems, which, by "rendering land and life for the taking, while also de-valorizing hidden worlds that form the nexus of human and non-human multiplicity, facilitates the reorganization of territories, populations, and plant and animal life into extractable data, and natural resources for material and immaterial accumulation" (2017: 5).

In other words, the aquapelago saw a shift from indigenous subsistence relationships with the oyster reefs to a colonial extractive relationship that sought to maximise profits without regard to ecosystems dynamics and needs. Overgrowth of the city's population overwhelmed the harbour, and sewage contaminants caused severe oxygen drops in regional waters, resulting in occasional fish kills (Goldstein, 1990: 50). As New York's dependence on oysters grew, and artisanal production at the shoreline became industrialised with the help of new technologies like the dredge, spoil from the slips at the city's littoral edge was hauled to oyster reef areas, while factories refining sugar and petroleum along the Brooklyn and New Jersey waterfronts added industrial pollution to problem, accelerating the industry's collapse (Steinberg, 2014: 156). By the 1880s, the hunt for whale oil was replaced with processing plants that turned coal and crude oil into kerosene to illuminate the modern world (Kurlansky, 2006: 166-67). During this "production phase" of New York, the first refining district in the country was born in Newtown Creek, Brooklyn. The runoff of John D. Rockefeller's three million gallons of crude oil per week was released into the New York estuary, poisoning the shellfish with the taste of oil (Hurley, 1994: 345-346).

Not only did the dredge-era of oystering reorganise archipelagic relations underwater, but it changed race relations on Zone-A as well. The final component of the attack on the customary culture of oystering was the mobilisation of Jim Crow racism directed at African-

American oyster- men. Unlike the diverse groups of actors who had understood the fragile tipping points of harbour ecosystems and acted as stewards in an artisan-like culture of oystering, the oyster capitalists viewed the beds as a short-term resource for their own fast profit. They mobilised racist stereotypes to attack the customary culture of oystering, vilifying traditional practices and ostracising the oyster grower as an outlaw by using racist imagery (see Figure 3).

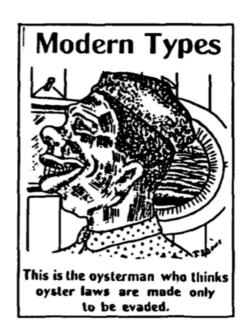


Figure 3 - A cartoon entitled 'Modern Types - This is the Oysterman who thinks oyster laws are made only to be evaded' (*The Oysterman* v6 n9, 1909: 18).

Many Black oysterman found themselves out of a work as they faced discrimination by the new oyster companies during harvests. These companies would not buy seed or mature stock from them, as captains once had. When they were hired, Black oystermen were only allowed to work as deck and shore hands (Askins, 1991: 10). Once the tongers were largely out of the picture, oystering was a hierarchically-organised, industrial effort using dredges to maximise catch (Jacques, 2017: 159). A series of "oyster panics," in the early 20th Century – related to outbreaks of waterborne typhoid – would eventually close all commercial reefs for good. The final nail in the coffin for the oyster trade in New York came in 1916, when industrial pollution from the Brooklyn, Queens and New Jersey waterfronts forced the closure of oyster beds, which caused many oystermen to switch trades to land labour (Askins, 1991: 9-11).

The social changes that brought more freedoms to Black New Yorkers during the antebellum period coincided with the rise of a capitalist system of production, expanding across the New York waterfront through port re-design and industrial manufacturing. Over the course of the 19th Century, the commons of New York's coastal oyster reefs were privatised and filled. A profit-focused overhaul of maritime labour, in which capitalists leveraged private property exclusions and a racialised smear campaign against the common oystermen, put

an end to the symbiotic relationship between Black men and the oyster in New York Harbor. As planters and stewards of common reefs, Black oystermen were invested in the healthy growth of oysters and their protected environments. Had they been allowed to keep gathering, an understanding of local ecological dynamics might have connected the notion that water-grown delicacies couldn't survive industrialised extraction rates, nor grow in toxic waste. It was both the extractive view towards aquatic life and Black labour, alongside the acceleration of a rapidly industrialising waterfront that condemned the oyster reefs in New York.

What happened to Black communities who relied on the trade? Anthropologist William Askins studied the race relations that developed in the Black oystering community of Sandy Ground over the 19th and into the 20th Century. He noted that in Sandy Ground the occupational culture and the equal status of African American and White oystermen was regularly proclaimed in public celebrations like clambakes, church events, and national holidays. Askins' research suggests that the equality in the trade served as a significant model for social relations between non-oystering Blacks and Whites of the region - and that the oystering culture of respect and conviviality was extended and accepted by the residential community at large. The interracial society responded to the attacks of oyster capitalists by calling upon and reinforcing rituals of community solidarity. "Ethnic and racial differences were notably not mobilised in public community culture after the Oyster collapse," as Askins traces, instead, "a local culture of relative equality which superseded ethic and racial differences" (1991: 9). He cites the interracial baseball teams, which continued to operate through Jim Crow era racism, as an example of interracial community resilience in the face of the socio-ecological labour crisis. Askins' study offers an example of how aquatic relations become entangled with those interdependencies on land, and how values are ascribed within communities in mutually constituting ways. Inter-racial solidarity in Sandy Ground suggests the importance of common space for engendering mutual aid and productive interdependencies. The ripple effect of equal race relations in Sandy Ground's oyster culture had implications for the community on land, where they rejected the racist practices and symbols used to divide the work force in the harbour.

However, by 1956, when a profile on Sandy Ground was published in *The New Yorker*, the community, consisting of "forty or fifty Southern-looking frame dwellings and a frame church," was also described as a ghost town with a disproportionate number of old people (Mitchell, 1956: online). Mr Hunter, an elderly man who had moved to Sandy Ground as a child, was raised by an emancipated enslaved woman and a Black oysterman. Hunter explained that after the collapse of the Oyster industry "the men in Sandy Ground had to scratch around and look for something else to do, and it wasn't easy" (ibid). Abandoning their sea skills for undesirable jobs on land as janitors, garbage men, porters caused "a lot of life to go out of the settlement" (ibid). The Church, the centre of community life, was especially hard hit. As Mr. Hunter told it:

many of the young men and women moved away, several whole families, and the membership went down. The men who owned oyster sloops had been the main support of the church, and they began to give dimes where they used to give dollars. (ibid)

Those families who stayed in Sandy Ground had to travel long distances to get to their new work places, with the women mainly working in hospitals, "such as Sea View, the big T.B. hospital way up in the middle of the island" (ibid) while the men mainly worked in construction, or in factories across the Kill in New Jersey. The community suffered a further

blow in 1963 when about half Sandy Ground's remaining 25 homes were razed in a brush fire that destroyed a large portion of Staten Island's south shore.

Traditional maritime skills could not compete with new industrialised waterfront uses that were less mindful of the limits of the natural world. But it was the rise of Jim Crow era racism, which excluded Blacks from the industry they helped to foster, that hit Black enclaves like Sandy Ground especially hard. The same extractive eye that rendered Blacks commodities for theft, trade, and labour exploitation, is the same extractive eye to the harbour that produced the loss of the oyster and the Black oysterman of Sandy Ground. Black inter-dependencies with precarious life at sea transferred to precarity of Black life and livelihoods on land. This effect is also traced by Sokolow (2009: 142), who writes on the impact of the oyster collapse on on-shore economies in Salem, Massachusetts. In the wake of disruptions in Salem's maritime trade, all but one of the Black barbershops of Salem also went out of business by the mid 1870s.

Histories of Black experience in Zone-A can be traced back as early as European experience can in New York Harbor, but the City has been slow to memorialise or landmark their stories, which are inextricably linked to exploitative and racist policies. The stories of Thomas Downing and the Sandy Ground oystermen offer historical lessons of navigating anti-Blackness that might be incorporated into acknowledgments of racial disparities in conversations about coastal resilience today.

Conclusion: Vital Relations

Zone-A is often thought about in the future tense because it an insurance term for flood risk. In ecology and sociology, "resilience" refers to a view of life made up of systems, and the ability of those systems to survive disturbance. More practically, the National Academy of Sciences defines resilience as "the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events," and the term is increasingly being deployed to connote "an ability to withstand the various, unpredictable shocks of the catastrophic convergence of urbanization and climate change" (Dawson, 2019: 156). In the 21st Century, New York's Zone-A has emerged as a space of future-oriented resilience thinking, with few policy and planning efforts taking seriously the aquapelago's past. New York City's Zone-A has historically served the frontline of socio-ecological crisis, while it continues to host precarious constructions of urban living on the New York waterfront today. The future orientation of resilience discourse often overlooks the importance of the historical political conditions that give rise to shocks in the first place. The stories of oystermen like Downing and the Sandy Ground Community, who navigated antiblackness as they tonged for oysters in the New York Harbor, remind us that extractive and exploitative littoral relations not only drive environmental precarities, but social precarity too. Tracing 19th Century littoral relations is helpful for questioning and contesting what Dawson (2019: 157) names the "manufactured insecurities" of New York's Zone-A.

The reefs and wetlands of coastlines provide critical services to human populations, providing food, storm protection and water filtration. They absorb the energy of storm surges, reducing their impact inland, and are the best ways to protect coastal communities from threats like hurricanes and sea level rise (Arkema et al, 2013). It has been estimated that had New York City's oyster beds been intact, the damage from Hurricane Sandy, which flooded New York's subway systems in 2012 and inflicted billions of dollars in damage to Zone-A, would have been attenuated by 30-200% (Brandon et al, 2016). Ocean acidification,

waste-dumping, dredging and other extractive activities continue to drive, estuarine and coastal ecosystems into systematic ecological decline, endangering coastal communities in Zone-A, who are now the frontline life to surges. While plenty of architectural and landscape designs have been proposed to tackle the question of climate adaptation on Zone-A, it is less clear how future waterfront plans might address the social conditions that exacerbate risks – ie how they might tackle the question of social resilience in Zone-A.

Zone-A, as land that was once sea, exemplifies the intersectionality of aquapelagic analysis. Central to Hayward's proposal was the suggestion that 'Aquapelago Studies' might study the assemblages of humans interacting with other actants, whether they be animate (living entities), inanimate ones (such as sand, soil, etc) or the product of energies (such as individual weather events or larger climatic patterns such as global warming (Hayward, 2015: 84). The aquapelago framework urges us to explore how New York City is defined by the movements of people between her islands and relations with the aquatic communities in her waters, just as much by as it is by settlements on land. To understand climate change as affecting a world of aquapelagos might encourage us to view their waterfronts as interrelated, mutually constituted and co-constructed places, where coalition building, and interspecies interdependencies are vital for robust waterfront life. Rather than understanding islands as isolated, territorially bounded political spaces, as processes of colonisation and urban jurisdiction have assigned, it is imperative that we also trace how constructions of racial hierarchies have driven speculative and exploitive treatments of life and land across coastal ecologies.

My study is also a response to Richard Gear's critique that the aquapelago framework has not given the historical dimension proper prominence. Gear has argued that history ought to be acknowledged as a vigorous and independent force to be considered alongside others, and problematises Hayward's aquapelagic assemblages for studying places only as they are constituted at particular historical points in time (Gear, 2014: 52). While Hayward, Suwa, Steinberg, and others involved in the Island Studies and Ocean Studies debate have made important and convincing arguments for the engagement of urban scholars with the waters surrounding islands, I echo Gear's call for more historical engagement, specifically with colonial, extractive histories of coastal ecologies. There is a need for more marginalised perspectives in New Materialist studies more broadly, so as not to overlook the importance of racialisation and environmental racism as determining factors shaping the ecological entanglements of the aquapelago at any given time - and across time. More directly, it seems the largest pitfall of the aquapelago framework within Island Studies, and with many Posthumanist and New Materialist viewpoints too, is the lack of attending to how historical, colonial relationships have shaped the socio-ecological assemblages between species, animate, and inanimate matter differently, across racialised geographies. To advance discussions of "the political ecology of things" in the work of Bennett, Hayward, and others from Island and Ocean Studies, we must acknowledge how historical constructions of racial difference and racialised space have influenced assemblages of human and nonhuman relationships to act upon each other.

Philip Steinberg, author of *The Social Construction of the Ocean*, has critiqued the tendency within recent Oceanic Studies to construct the ocean as a place that binds terrestrial societies along the oceanic rim while also under-theorising the ocean region itself (2001: 245). He argues, "one never gets wet," when reading Gilroy's *The Black Atlantic* (2007) and suggests the need for more conceptual models that attend to the ocean's "fluid mobility and its tactile materiality (2013: 157). Elizabeth DeLoughrey's 'Submarine Futures of the Anthropocene' also calls for new "Sea Ontologies" that attend to living matter within the

ocean as a means of understanding a "submarine temporality in which linear models of time are distorted and ruptured" (2017: 33). The overlapping story of New York's oyster reefs and Black wealth, activism and fugitivity on Zone-A offers one example of the importance of these interspecies sea-water entanglements for the social construction of the ocean. Since European colonisation of Lenape land, the waters that churn between New York's islands have also been reclaimed by humans for settlement at the shoreline. But the water and species whom settlers encroached upon, as well as the chemicals and bacteria that streamed into these spaces, have, likewise, been agents and co-creators of the city and political conditions.

There is more to learn from the trans-species intersectionality of exploitation in historical littoral relationships for modern questions of Zone-A resilience. The ongoing challenges facing vulnerable coastal communities in New York require ways of thinking that are responsive and responsible to the historical conditions that continue to produce risky assemblages of being. Considering the trans-species fate of life in Zone-A under capitalist policies unsettles the tenuous boundaries between humans and nature that encouraged Zone-A's colonisation, ecological manipulation and racial expropriation in the first place. While New York's reefs and waters were heavily exploited and polluted within just two and a half centuries of colonial settlement, Black mariners who lived and worked between the open sea and Zone-A navigated exploitative labour practices that sought to disempower their free movement and political autonomy as they struggled to sustain livelihoods and adjust to dying maritime industries. Parallel histories of human and environmental subjugation at the waterfront demonstrate the mutual embeddedness of environmental and social justice challenges, suggesting contemporary social and environmental justice movements have mutually constitutive goals and would benefit from interspecies considerations. These stories of Black oystermen offer lessons about New York's social and ecological resilience that might better inform climate justice efforts on Zone-A today.

A refreshing treatment of resilience thinking, which considers the important role of oysters and oystermen in New York' history, is SCAPE's 'Living Breakwaters' project, a winner of New York's Rebuild by Design Competition, which solicited landscape architecture designs for urban adaptation to Climate Change. SCAPE's proposal directed public attention to the aquapelago's rich littoral history. Channel dredging and the diminishment of natural and farmed oyster reefs have left Staten Island's south shore increasingly exposed to storm surges, 'Living Breakwaters' proposed a "necklace" of offshore breakwaters to "reduce risk, revive ecologies, and connect residents and educators to Staten Island's southeast shoreline" (SCAPE, 2019: online). Part of the project's resilience goal is to reorient Staten Islanders to the oyster habitats of their backyard. The proposal suggests collaboration with 'The Billion Oysters Project', a program working with public high school students (at the Harbor School on Governors Island) to restore oysters to seven restoration sites throughout New York Harbor.¹⁶

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¹⁶ For these restoration sites, spat on shell oysters have been produced in two ways: 1) larvae were shipped from Muscongus Bay Aquaculture (Maine) and raised and settled onto recycled oyster shell in the BOP Hatchery on Governors Island, or 2) adult oysters that had been living in oyster gardens at Richmond County Yacht Club (Great Kills Harbor, Staten Island), were conditioned and spawned in the BOP Hatchery and then larvae were set on recycled oyster shell. Unfortunately, their annual report suggests, that low oxygen levels measured at every site are likely to stress or kill oysters (see McCann, 2018: 4,9). Dawson (2019: 187) also suggests the impossibility of oyster resilience in New York Harbor because of intensifying processes of ocean acidification.

A close study of what resilience has looked like for Black communities on Zone-A has meant looking at systems of inter-species relation, care and cultivation that has supported survival. Their important role as planters and stewards of harbour ecology provided Black oystermen in 19th Century New York economic freedoms that were withheld from them in land trades. Their relationship with the oyster allowed opportunities to create landowning communities, then a prerequisite for Black men to vote, and helped to finance Black liberatory politics. Gómez-Barris argues the need to "connect the destructive force of colonial capitalism in extractive zones to expressive and emergent alternatives" (2017: 12). Thinking with the New York aquapelago today means to think intersectionality, to find histories of and opportunities for alliance and coalition building - to identify forms of resisting and living alternatively in companion relationships across racial and species difference. Navigating anti-blackness was communal practice for New Yorkers who worked at sea and on Zone-A. Collective bed care fostered the sustainability of reef life and social life among oystermen, so the relationship between the oysterman and the oyster was a mutually-supportive one. Both the livelihoods of Black mariners and oysters were challenged by the privatisation of the coastline, the encroachment of a growing city on its reefs and the polluting of the aquapelago by industrial runoff. A resilience thinking that attends to interspecies relationships and differential racial experience on Zone-A opens up a new reading of Zone-A's urban development that accounts for those communities who have had to go "underground" and out to sea for survival.

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