

Journal of Energy History Revue d'histoire de l'énergie

AUTEUR

JoAnna Poblete

Claremont Graduate University

DATE DE PUBLICATION

17/07/2023

NUMÉRO DE LA REVUE

JEHRHE #9

RUBRIQUE

Dossier

THÈME DU DOSSIER

Hydrocarbons and human resources: labor, social relations and industrial culture in the history of the oil and gas industry

MOTS-CLÉS

Pétrole ; genre ; territoire ; environment

DOI

En cours

POUR CITER CET ARTICLE

JoAnna Poblete, « Love and care in 2021: Women-led community activism towards oil refining on St. Croix, US Virgin Islands », Journal of Energy History/Revue d'Histoire de l'Énergie [En ligne], n°9, mis en ligne le 17 juillet 2023, URL : energyhistory.eu/fr/node/338

Love and care in 2021: Women-led community activism towards oil refining on St. Croix, US Virgin Islands

Résumé

From 1966 to 2012, oil companies operated a massive refinery on the Island of St. Croix, United States Virgin Islands (USVI). Over time, this fossil fuel industry has impacted the local community, particularly low-income families of color, as well as the marine environment and air and water quality, due to their close proximities to the facility. This essay will discuss the community activism led by women leaders of St. Croix when the refinery restarted in 2021. After providing a brief background about St. Croix and the refinery's history on island, this article will detail the 2021 social mobilization efforts which included a lawsuit, a community petition, townhall meetings, a community environmental and health survey, as well as collaboration with national advocacy groups. These endeavors culminated in the shutdown of the plant just over 4 months after its reopening. This essay will connect community activism on St. Croix with women-led environmental justice activism in the petrochemical corridor of Louisiana to highlight the central role of women, love, and care in these processes. This work will also discuss potential paths for future decolonization, including suggestions for imaginative kinship-based policies and practices, as well as socio-environmental rights for local, regional, and global coalitions for environmental and social justice and equity.

Plan de l'article

- → Introduction
- → Foundational Refinery Incentives and Federal Regulations in the USVI
- → Women-led Community Activism and Social Mobilization on St. Croix in 2021
- → Connections to Louisiana's Petrochemical Corridor
- → Decolonial Futurities: Social Mobilization Possibilities Across Extractive Energy Spaces
- → Conclusion

INTRODUCTION

- The US Virgin Islands' liminal political status has greatly contributed to the establishment of heavy industries on the island of St. Croix in United States Virgin Islands (USVI). While those born in the USVI became citizens of the United States in 1927, their region's in-between status as an unincorporated territory of the US since 1917 resulted in variable tax and tariff benefits for businesses in the region. Sometimes treated as foreign and other times treated as domestic, US Virgin Islanders are under the direct authority of the United States, whom I categorize as US colonials. The continued variable political and economic status of this population and its unincorporated territory motivated Leon Hess to develop what would become his largest refinery in the USVI, which started operations in 1966.
- 2 By the mid-1970s, this St. Croix facility became one of the largest oil refineries in the world, with a throughput capacity of up to 728,000 barrels of crude oil a day at its peak from 1975-1980.² For almost 50 years, foreign oil was processed on this 84-square mile island in the Caribbean, then shipped tax and tariff free to the continental United States. This plant supplied a significant portion of the gas and diesel for the southern and eastern coasts of the United States. Such petroleum refining on St. Croix was encouraged and bolstered by generous imperial trade concessions from both the US federal and USVI territorial governments.
- 3 The Hess Oil Virgin Islands Company (HOVIC) St. Croix refinery (which became HOVENSA in 1998) produced substantial environmental and human health consequences during its operation, some of which have lingered since its closure in 2012. After discovery of oil on top of the island's aquifer in 1982, the refinery started to

1 JoAnna Poblete, Islanders in the Empire: Filipino and Puerto Ricans Laborers in Hawai'i (Chicago: University of

2 For details on throughput capacity, see Matthew P. Johnson, "Black Gold of Paradise: Negotiating Oil Pollution in the US Virgin Islands, 1966–2012", *Environmental History*, vol. 24, 2019, 774.

Illinois Press, 2014).

remove more than 1,060,481 barrels of oil-based contaminants from the groundwater in 1987.3 People living in communities downwind from the plant often reported difficulty breathing, feeling nauseous, headaches, as well as eye and throat irritations due to factory emissions. Community members also had their water catchment systems, or cisterns, tainted with oil droplets. While government actions surrounding environmental degradation on St. Croix has made a difference, local community activism during this refinery era from 1966-2012 was often limited and social mobilization on a large scale was difficult to develop. Such lack of activism during this period was rooted in the consistently strong support the territorial government provided for the facility due to the economic benefits of the industry on island.4

Despite such environmental and health impacts from past refining, the continued prioritization of the refinery by the territorial government, as well as the supportive Presidential administration of Donald Trump, resulted in the facility restarting on February 1, 2021 as Limetree Bay Energy. Within days of re-opening, similar stories of respiratory issues, feeling nauseous, and finding oil on properties downwind from the plant were reported. That year, a coalition of local women community leaders spearheaded active and vocal activism that questioned the legality and ethics of the refinery restart. The ultimate goal of this community organizing was to make sure any re-opening of the refinery was done thoughtfully, taking into consideration community and

- 3 United States Environmental Protection Agency (EPA), "Hazardous Waste Cleanup: HOVENSA Environmental Response Trust, in Christiansted, US Virgin Islands". Url: https://www.epa.gov/hwcorrectiveactionsites/hazardous-waste-cleanup-hovensa-environmental-response-trust-christiansted (accessed 07/04/2022).
- 4 For example, in 1981 the Virgin Islands Senate approved a 16-year tax agreement extension with HOVIC which would pay \$219 million to the local government over 5 years, \$744 million over the life of the agreement, and two cents for each barrel exported from the territory. This agreement continued in 1990. In 1998 the Senate approved another extension of the tax agreement which increased the per barrel payment to five cents. William Boyer, America's Virgin Islands: A History of Human Rights and Wrongs (Durham: Carolina Academic Press, 1983), chapter 12.

.

environmental health. Both a permit appeal filed with the Environmental Protection Agency (EPA) and a community petition to hold Limetree accountable led to close communications with the EPA. On May 12, 2021, the EPA temporarily suspended Limetree's petroleum refining and processing operations due to compliance issues. In the wake of two intense online community town halls and a community survey of environmental and health impacts, Limetree indefinitely suspended its plans to restart the refinery on June 21, 2021, a little over four months after opening.

Scholars David Bond and Matthew Johnson have studied the environmental history of the St. Croix refinery prior to 2021, addressing issues such as financial incentives for building the refinery, groundwater pollution, and air pollution. 5 Adding to these studies, I started to conduct oral histories in 2018 and reviewed archival sources such as government documents, newspaper reports, and community organization materials for historical context on the petroleum plant. This essay augments the existing knowledge base by focusing on the recent, women-led community activism on St. Croix in 2021. This article also enhances scholarship on environmental and social ramifications of fossil fuels, particularly oil processed for the continental United

5 David Bond, "Oil in the Caribbean: Refineries, Mangroves, and the Negative Ecologies of Crude Oil", Comparative Studies in Society and History, vol. 59/3, 2017, 600-628; David Bond, "Crude Prosperity: Hess Oil on St. Croix (part Five)", St. Croix Source, 05/06/2021. Url: https://stcroixsource.com/2021/06/05/crude-prosperity-hess-oil-on-st-croix-part-five/ (accessed 27/11/2022); David Bond, "Crude Prosperity: Hess Oil on St. Croix (part Six)", St. Croix Source, 15/06/2021. Url: https://stcroixsource.com/2021/06/15/crude-prosperity-hess-oil-on-st-croix-part-six/ (accessed 27/11/2022); Johnson, "Black Gold of Paradise", 774 (cf. note 2).

6 Archives I have visited include the Virgin Islands Archives/Record section of both the Charles W. Turnbull Regional Library and Florence A. Williams Public Library, Department of Planning and Natural Resources, Frederiksted, St. Croix, Special Collections at the University of the Virgin Islands on St. Thomas and St. Croix, the St. Croix Landmarks Society, the St. Croix Environmental Association, and personal collections of individuals.

States. Furthermore, this research expands on work that has highlighted women-led activism in relation to petrochemical plants in the United States, such as the petrochemical corridor in Louisiana, an 85 mile stretch of the Mississippi river between Baton Rouge and New Orleans with nearly 150 chemical plants. My past research has also highlighted the long-history of women's leadership and activism for community needs on St. Croix. 9

Several women have been at the forefront of activist leadership for regions such as the Louisiana petrochemical corridor. In particular, authors Barbara Allen, Ronnie Green and Steve Lerner have detailed the efforts for environmental justice led by Margie Richard in the Diamond district of Norco, Louisiana. Richard was assisted by environmental researchers, such as chemist Wilma Subra and Beverly Wright, as well as environmental justice activists, like Anne Rolfes. This black, low-income community had relocated to Diamond after the land

For a good sampling of this work, see Christopher Jones, Routes of Power: Energy and Modern America (Cambridge, MA: Harvard University Press, 2014); Joseph A. Pratt, "Growth or a Clean Environment? Responses to Petroleum-Related Pollution in the Gulf Coast Refining Region", The Business History Review, vol. 52, n° 1, 1978, 1-29; Nancy Quam-Wickham, "'Cities Sacrificed on the Altar of Oil': Popular Opposition to Oil Development in 1920s Los Angeles", Environmental History, vol. 3, n° 2, 1998, 189-209; Christopher Sellers, "Petropolis and Environmental Protest in Cross-National Perspective: Beaumont-Port Arthur, Texas versus Minatitlan-Coatzacoalcos, Veracruz", Journal of American History, vol. 99, n° 1, 2012, 111-123; Jonathan Wlasiuk, Refining Nature: Standard Oil and the Limits of Efficiency (Pittsburgh: University of Pittsburgh Press, 2017); and Raechel Lutz, "Crude Conservation: Nature, Pollution, and Technology at Standard Oil's New Jersey Refineries, 1870-2000" (Ph.D diss., Rutgers University, 2018).

- 8 Barbara Allen, Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes (Cambridge: MIT Press, 2003), chapter 5; Ronnie Green, Night Fire: Big Oil, Poison Air, and Margie Richard's Fight to Save Her Town (New York: Amistad, 2008); Steve Lerner, Diamond: A Struggle for Justice in Louisiana's Chemical Corridor (Cambridge: MIT Press, 2006); Debra Weiss-Randall, "Cultivating Environmental Justice", Utilizing Innovative Technologies to Address the Public Health Impact of Climate Change (Hershey, PA, IGI Global, 2018), chapter 4.
- **9** JoAnna Poblete, "Women Community Warriors of St. Croix", *Women, Gender and Families of Color*, vol. 9, n° 1, 2021, 83-101.

their ancestors originally worked on as slaves, then lived on independently after emancipation, was bought out by the Royal Dutch/Shell corporation in 1953. After decades of suffering from explosions, flares, and fumes from the petrochemical refinery, Richard and other community members (mostly churchgoing women) formed a committee in 1990 to sue Shell and demand the relocation of Diamond residents away from that pollutive environment. Such long-term exposure of residents to harmful emissions reflects similar experiences of communities living downwind from the St. Croix refinery. In the context of the first publicized research showing the impact of greenhouse gases in 1988 and the massive Exxon Valdez spill in 1989, as well as the environmentally-supportive administration of President Bill Clinton from 1993 to 2001, the hard-fought and eventually successful efforts of Richard and her community to make Shell address their needs and concerns can provide additional strategies for St. Croix environmental justice advocates to utilize and incorporate.10

7 After providing a brief background on the USVI refinery's history, this essay will detail the social mobilization led by women on St. Croix in 2021 to question the feasibility of a facility restart that did not prioritize the well-being of residents. Community love and care were central to this success. The next sections of this article suggests connective possibilities with other environmental justice movements, particularly in the Louisiana petrochemical corridor, as well as potential collaborative partnerships for social mobilization against exploitative extractive energy processes across wider

10 See Philip Shabecoff, "Global Warming Has Begun, Expert Tells Senate", New York Times, 24/6/1988. Url: https://www.nytimes.com/1988/06/24/us/global-warming-has-begun-expert-tells-senate.html (accessed 10/7/2023), "Exxon Valdez, Oil Spill, Prince William Sound, Alaska, March 1989". Url: https://darrp.noaa.gov/oil-spills/exxon-valdez (accessed 10/7/2023), and "The Clinton Presidency: Protecting Our Environment and Public Health", Url: https://clintonwhitehouse5.archives.gov/WH/Accomplishments/eightyears-08.html#:~:text=The%20Clinton%20Administration%20accelerated%20 the,cleaned%20in%20the%20past%20eight. (accessed 10/7/2023).

national, Caribbean, and global contexts. A focus on imaginative kinship and socio-environmental rights can lead to wider coalitions and more effective relations moving forward.

FOUNDATIONAL REFINERY INCENTIVES AND FEDERAL REGULATIONS IN THE USVI

The USVI is located in the Lower Antilles of the Caribbean, about 112 miles east of Puerto Rico and about 1,165 miles southeast of the Florida Keys. There are three main islands: St. Croix (the largest), St. Thomas (the seat of the territorial government), and St. John (the location of the National Park).

The first inhabitants of these islands were Taino, with people of Island-Carib Indian backgrounds also arriving early on. 11 Descendants of enslaved Africans under Danish rule from 1672 to 1917 make up the majority of the territory's population today.

Since the sale of the Danish West Indies to the United States for \$25 million during World War I for American national security purposes, US Virgin Islanders have struggled for representation under the US federal government due to their status as members of an unincorporated territory. To this day, these US colonials do not have a constitution. According to Allen Stayman, US Senate, Department of Interior, and State Department staff member, "how federal laws are modified to apply in each of the Islands is understood by few federal or local officials, and their complex interaction and impacts within each of these communities is often less understood."12 My past research on unincorporated territories has closely analyzed federal regulations in these

11 For more information on original inhabitants, see Louis Allaire, "The Lesser Antilles Before Columbus", in Samuel M. Wilson (eds.), The Indigenous People of the Caribbean (Gainesville: University Press of Florida, 1997), 20–28. Elizabeth Righter et al., "Late Ceramic Age Development in the Virgin Archipelago: The Puerto Rican Connection", in Andre Deluech and Corinne L. Hofman (eds), Late Ceramic Age Societies in the Eastern Caribbean (Oxford, England: Archaeopress, 2004), 101–118.

12 Allen Stayman, US Territorial Policy: Trends and Current Challenges, Pacific Islands Policy, vol. 5, 2009, 10.

3

 \cap



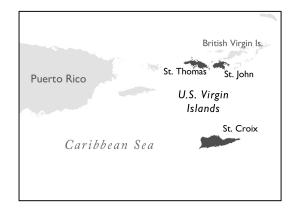




Figure 1: Map of St. Croix and surrounding area. Created by Michael Pesses.

liminal spaces and investigated the influences of these policies on people living in these colonized places. Overall, the main benefactors of US colonialism have been US businesses. Special tariff and tax breaks have occurred throughout various territories of US empire, usually focused on a mono-crop export industry. *Islanders in the Empire* examined sugar production in Hawai'i, the Philippines, and Puerto Rico during the first half of the 20th century. *Balancing the Tides* analyzed the global tuna industry and tuna canning in American Sāmoa from the mid-20th century to the present. My current research looks at oil refining in the USVI from the 1960s to the present.

11 Stayman also discussed how territorial status encouraged corporate development in these colonial spaces. He stated that "the United States has embraced a pragmatic and flexible approach to building stable relations" in US territories which included "extended special

trade, tax, wage, financial assistance, and other privileges to support the growth of the Islands' less-competitive market economies." For example, on September 1, 1965, the USVI government and Hess Oil Virgin Islands Corporation (HOVIC) agreed to the construction of an oil refinery on St. Croix. Territorial legislation gave Hess a 16-year exemption from "payment of all taxes, excise & duties....The company would also receive a subsidy in the form of a refund of 75% of income taxes it paid into the Treasury of the Virgin Islands" for a period of 16 years from the completion date of the oil refinery.14

¹³ Ibid., 1.

¹⁴ For more details on these incentives, see Johnson, "Black Gold", 771-5, and Boyer, 271-2. For the original agreement, see US Virgin Islands Legislature, "To Authorize the Governor of the Virgin Islands to Execute a Certain Agreement Relating to the Construction of an Oil Refinery and Other Related Facilities in the Island of St. Croix, Virgin Islands, and for Other Purposes", 01/09/1965, Bill 2639, No. 1524, 1965 V.I. Session Laws, 487.

These multiple and profitable advantages provided many incentives for Hess Oil to establish a plant in what would become the Southshore Industrial Area of St. Croix.

- 12 People of color predominately live in the communities downwind from this heavy industry zone. This region "is located approximately midway along St. Croix's south shore, and about three miles across island from Christiansted... The shoreline and inland areas are the most heavily developed and altered coastal areas in the Territory."15 As for demographics, "Nearly 75 percent of the people living in the communities just north of the refinery are Black, about a third identify as Hispanic or Latino and over a quarter fall below the national poverty line."16 As research has shown about hazardous industry zones, such as the St. Croix Southshore Area and Louisiana's petrochemical corridor, low-income communities of color endure the highest risks for health problems and environmental degradation from refinery emissions.17
- 13 EPA regulations of the plant started in 1970 and has evolved through today. The regulation of plant emissions became federal law with the Clean Air Act of 1970. 18 EPA efforts to control

"toxic air pollution from petroleum refineries" was announced on July 28, 1995.19 By August 18, 1995, the EPA Administrator found that "petroleum refineries emit organic hazardous air pollutants (HAPs)....the health effects of exposure to HAPs can include cancer, respiratory irritation and damage to the nervous system."20 On June 20, 2013, the EPA claimed that The National Emission Standards for Hazardous Air Pollutants (NESHAP) would "reduce emissions of eleven air toxics, including benzene---a human carcinogen, by 53,000 tons annually, representing a 59 percent reduction from current levels. Air toxics are those pollutants known or suspected of causing cancer or other serious health effects (e.g., reproductive effects or birth defects)."21 Until these regulations were put into place, the EPA had no formal regulations for refinery-related air emissions. These rules have continued to develop over time, most recently in 2020.22

From the 1970s until 2012, refinery efforts to address groundwater and air pollution followed guidelines set by the EPA.²³ During the refinery era, members of the community typically looked to the USVI Department of Planning and Natural Resources (DPNR) and the EPA to investigate and discipline the facility. While the EPA documented

- 15 Island Resources Foundation, "Southshore Industrial Area Area of Particular Concern (APC): A Comprehensive Study", V.I. Department of Planning and Natural Resources, Coastal Zone Management Program, 21/09/1993.
- 16 Kristoffer Tigue, "The Biden EPA Withdraws a Key Permit for an Oil Refinery on St. Croix, Citing 'Environmental Justice' Concern", Inside Climate News, 25/03/2021. Url: https://insideclimatenews.org/news/25032021/biden-epa-limetree-oil-refinery-virgin-islands-permit/(accessed 25/03/2022).
- 17 See Phil Brown, "Race, Class, and Environmental Health: A Review and Systematization of the Literature", Environmental Research, vol. 69, n° 1, 1995, 15-30; Rachel Morello-Frosch et al., "Environmental justice and Southern California's "riskscape': The distribution of air toxics exposures and health risks among diverse communities", Urban Affairs Review, vol. 36, n° 4, 2001, 551-578; and Ken Sexton, et al., "Air Pollution Health Risks: Do Class and Race Matter?", Toxicology and Industrial Health, vol. 9, n° 5, 1993, 843-878, and the many works by Robert Bullard, such as In search of the new South: the Black urban experience in the 1970s and 1980s (Tuscaloosa: University of Alabama Press, 1989).

 18 EPA, "Evolution of the Clean Air Act". Url: https://www.epa.gov/clean-air-act-overview/evolution-clean-airact#:~:text=The%20enactment%20of%20the%20
- Clean,industrial)%20sources%20and%20mobile%20 sources (accessed 06/04/2022).
- 19 EPA, "EPA Protects Millions of Americans From Petroleum Refinery Air Toxics", 28/07/1995. Url: https://archive.epa.gov/epa/aboutepa/epa-protects-millions-americans-petroleum-refinery-air-toxics.html (accessed 06/04/2022).
- 20 U.S. Government Publishing Office, "National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries", Federal Register, Rules and Regulations, vol. 60, no 160, 1995, 43244-43297. Url: https://www.govinfo.gov/content/pkg/FR-1995-08-18/pdf/95-20252.pdf (accessed 06/04/2022).
- 21 EPA, "Petroleum Refineries: National Emission Standards for Hazardous Air Pollutants (NESHAP)". Url: https://www.epa.gov/stationary-sources-air-pollution/petroleum-refineries-national-emission-standards-hazardous-air (accessed 06/04/2022).
- 22 U.S. Government Publishing Office, "Environmental Protection Agency, 40 CFR Part 63", Federal Register, Rules and Regulations, vol. 85, n° 23, 2020, 6064-6087. Url: https://www.govinfo.gov/content/pkg/FR-2020-02-04/pdf/2020-01108.pdf (accessed 06/04/2022).
- 23 For more details, see Johnson, "Black Gold", 779-783.

twelve emission releases between 2009 and 2011 attributed to the refinery, historic and longterm health data that connects community illnesses to industry emissions on St. Croix has not been collected consistently.24 Recorded information is also not easily accessible to the public. In moments of extreme emissions with highly visible community impact, local health care providers have provided one-off data sets on symptoms experienced by those downwind from the refinery to the EPA. However, these statistics were not gathered on a regular basis and most information about health impacts and refinery emissions is neither easily found nor readily communicated to the public. This lack of consistent and accessible data severely limited community activism efforts to connect industrial pollution to health issues and mobilize community members against the continuation of heavy industries on island. Even though Hess had only provided economic benefits totaling \$97.5 million from 1965-1980, the presumed monetary influx that the refinery provided for the territory also made some community members hesitant to protest against the refinery.25 This perceived economic benefit from the facility was also present in 2021. While some politicians spoke out against the low standards for EPA regulation and some efforts were made to have citizens monitor air quality for themselves, both led by women, no steady protest effort occurred during the HOVENSA refinery period from 1966-2012.26

24 US EPA Region 2, "Administrative Order Index No. CAA-02-2011-1012, 4-5.

Once HOVENSA closed, many residents believed oil refinery issues were a vestige of their past. Several people I spoke with explained how they did not realize the level of pollution they were exposed to on a regular basis until after the plant stopped operating. For example, Jennifer Valiulis, Executive Director of the St. Croix Environmental Association (SEA), stated how before 2021 "a lot of environmental effects were not acknowledged. People were used to there being a smell. People were used to going into the water at south shore and coming out feeling oily."27 When Limetree Bay Energy restarted the refinery in 2021, the impacts of the refinery's pollution once again became very real and led the Environmental Sector of the St. Croix Foundation for Community Development to act, as will be discussed in the next section.28

WOMEN-LED COMMUNITY ACTIVISM AND SOCIAL MOBILIZATION ON ST. CROIX IN 2021

On February 1, 2021, the St. Croix plant reopened for petroleum refining with approval from the Trump Presidential administration. Similar to community stories of difficulty breathing, feeling nauseous, and finding oil on their properties during the earlier refinery era, three days after the 21st century factory restart, "a fine mist of oil and water from Limetree Bay Refining rained on the community of Clifton Hill, showering the slick mix onto cars, gardens, rooftops and cisterns filled with rainwater that residents use for daily tasks."²⁹ According to Armando Muñoz, who lives three miles from the refinery, "When it rains it doesn't wash out....It's in all the plants we have,

27 Jennifer Valiulis, Interview with author, April 15, 2022, Gallows Bay, St. Croix, US Virgin Islands.

28 The Environmental Sector is a division of the Non-Profit Consortium of the St. Croix Foundation for Community Development. This sector was established in 2019 as a community-based and community-led working group to proactively think about strategies related to future environmental policy development, such as the potential reopening of the refinery.

29 Juliet Eilperin et al, "The Island Where It Rained Oil", The Washington Post, 24/03/2021. Url: https://www.washingtonpost.com/climate-environment/interactive/2021/biden-environmental-justice-refinery-st-croix/?fb-clid=lwAROYlam17EMJZb4_9rYPFqANpq2lBwiOuzkkz6B-km-EPNKMi-45CcNzaiTU (accessed 30/03/2021)

²⁵ Boyer, 355.

²⁶ One notable exception was the work of the St. Croix Environmental Association. Women leader activists such as Liz Wilson and Yvonne Petersen spearheaded efforts for environmental justice issues during this period. Congressional Delegate Donna Christensen also stated in 2011, "there is still a clear need for more stringent emission control and improved monitoring and we cannot ignore that there are health issues affecting the communities in close proximity to these industrial facilities," Susan Ellis, "EPA: Air quality safe at Hovensa", St. Croix Avis, 19/08/2011, 4. Air monitoring training for residents downwind from the refinery occurred in March 1999 and October 2000. See KC Burgard, "Device allows home air tests", St. Croix Avis, 27/03/1999, 2 and KC Burgard, "From Thin Air", St. Croix Avis, 28/10/2000, 1. For more information, see footnote 41.

avocado trees, and breadfruit trees, and fruit trees and regular household plants."30 A group of local women leaders, who had already gathered as part of the Environmental Sector of the St. Croix Foundation since 2019, acted quickly to address the environmental and health impacts facing the "Approximately 20,000 people [who] live or work downwind of the refinery" in 2021.31

- 17 Prior to the factory restart, the Environmental Sector started to think about ways to address the forthcoming refinery opening.32 The main organizations involved were the St. Croix Foundation, led by Deanna James, Crucian Heritage & Nature Tourism (CHANT), led by Frandelle Gerard, the St. Croix Environmental Association (SEA), led by Jennifer Valiulis, and the Virgin Islands Good Food Coalition, led by Sommer Sibilly-Brown. Miss Valiulis explained how "we started asking around, what can be done, is this [refinery restart] even legal? Doesn't feel like it."33 When the first emission occurred soon after the facility reopened, this group had already been strategizing about possible scenarios and wanted to respond immediately.
- With support and involvement from national organizations, St. Croix activists gained high exposure and media coverage for their plight. On February 3, 2021, one day before the first facility emission, SEA, the Center for Biological Diversity, the Natural Resources Defense Council, and the Sierra Club filed a petition to review the Limetree Bay Plantwide Applicability Limit Permit (PAL).34 The appeal, filed by attorney and former

St. Croix resident Elizabeth Neville, claimed that the restart of the refinery should have evaluated the facility as a new entity with stricter standards and that emission caps were too high for the region. The document also claimed that environmental justice issues were not addressed sufficiently, including the lack of language and translation access for the community, as well as impacts on species protected under the Endangered Species Act. In addition to this lawsuit, SEA and Miss Valiulis started a community petition to "Hold Limetree Accountable for its Impact on the St. Croix Community and the Environment," which garnered 118 signatures by April 2021.35 Social mobilization was growing in the context of several emissions after the restart, as well as eight years of living in a cleaner environment and economically surviving without a refinery functioning on island.

Another factor that helped facilitate environ- 19 mental activism in 2021 involved President Joe Biden's directive for the EPA to focus on environmental justice issues.36 Miss Gerard remarked how "we are at the top of the [EPA] environmental justice list. The director is making it a priority. The EPA responds quickly to us. When we have a meeting, there's an average of 40 [EPA] people per call. I think it's because of the lawsuit."37 Miss Sibilly-Brown also talked about the more supportive Presidential administration and "why now is important and significant." She

30 Ibid.

Bennington College, "Survey Finds Significant Injuries and Damages Associated With Limetree Refinery", 1. Url: https://www.bennington.edu/sites/default/files/ sources/docs/NEWS%20RELEASE%20%5Bresults%20 of%20survey%20July%2014%20%28FINAL%29%5D.pdf (accessed 30/03/2022).

32 This sector, discussed in footnote 28, held its first community town hall in November 2019.

33 Interview with author.

34 EPA et al, "Petition for Review of the Limetree Bay Terminals and Limetree Bay Refining Plantwide Applicability Limit Permit", Appeal No. CAA 20-02M, Environmental Appeal Board, United States Environmental Protection Agency. Url: https://yosemite.epa.gov/oa/ eab_web_docket.nsf/Filings%20By%20Appeal%20

Number/0697A2BC297D5B7C8525867100645361/\$File/ CAA%2020-02M%20Petition%20for%20Review.pdf (accessed 31/03/2022).

35 St. Croix Environmental Association, "Hold Limetree Accountable for its Impact on the St. Croix Community and the Environment", Change.org. Url: https:// www.change.org/p/environmental-protection-agency-hold-limetree-bay-accountable-for-st-croix-s environment?utm_source=share_petition&utm_medium=custom_Url :&recruited_by_id=dfbd15d0-81ef-11eb-b5efc13a00c62e9a (accessed 31/03/2022)

36 For the 2022 iteration of this policy, see EPA, "New Enforcement Strategy Advances President Biden's Environmental Justice Agenda", 05/05/2022. Url: https:// www.epa.gov/newsreleases/new-enforcement-strategy-advances-president-bidens-environmental-justice-agenda (accessed 12/05/2022)

37 Frandelle Gerard, Interview with author, April 13. 2022, Frederiksted, US Virgin Islands.

explained how this administration said that it "will move forward and think about righting some of the existing systemic wrongs to people of color." With such executive-level support, which was the opposite during the Trump administration, the EPA paid high attention to the refinery situation being highlighted by the women-led Environmental Sector on St. Croix.

- 20 On March 25, 2021, the EPA withdrew the PAL permit and started investigating the reported emissions. On May 12, 2021, all petroleum refining and processing operations were temporarily suspended "following a serious incident that led to exceedance of the emission limit for sulfur dioxide (SO₂), a potent toxic gas, endangering the health of nearby communities. Under this order, Limetree is required to pause all refining operations at the facility, arrange for an independent audit of the facility operations, and submit a plan for EPA's review and approval that addresses the auditors' recommendations for corrective measures at the refinery."39 Despite these EPA actions, two more emission releases occurred on April 23, 2021 and May 17, 2021.
- 21 In reaction to this series of chemical releases, community members gathered for three community town hall meetings, organized and led by the Environmental Sector women leaders, to discuss the immediate health and environmental impacts of the refinery restart. During these online zoom meetings, streamed on Facebook on May 13, June 10, and July 29, these women leaders shared passionate testimonies for themselves and their community members. At the first townhall, Miss James stated

"We actually began planning this event over a month ago in response to the first oil release

38 Sommer Sibilly-Brown, Interview with author, April 14, 2021, Lagoon Park, St. Croix, US Virgin Islands.

event back in February which many if not most in our community only learned about in a Washington Post article that was published almost a month after the actual event. Since that time...we were all quietly waiting for someone, anyone to do what we are doing tonight. No one stepped up to the plate even as additional incidents and releases continued, and people suffered and endured incredible hardships over the last several months. So make no mistake, tonight's community town hall is about people. It's about empowering people, it's about getting answers for people, and it's about giving voice to people. But more than anything else we hope that rank-and-file community stakeholders will walk away with a greater level of confidence to demand responsive courageous leadership from all of our leaders in our community because our people deserve no less and because open forums like this should be a natural response for real leaders during times of crisis."40

Miss James highlighted the historic and long- 22 term lack of advocates against environmental and health impacts of the oil refinery on St. Croix. 41 Beyond the EPA petition filed by SEA and EPA's two directives for Limetree, no other action had been taken by local government officials at that point. Consequently, during these townhalls event moderator Miss Gerard asked pointed questions prepared by the women leaders of the Environmental Sector, as well as those

- **40** Deanna James, "Engage VI, Environmental Townhall", 13/05/2021, St. Croix Foundation Facebook page. **Url: https://www.facebook.com/stcroix.fnd.1/videos/495561381639832** (accessed 24/3/2022)
- 41 When the refinery was functioning from 1966-2012, community protests against factory emissions were few and far between. One of the most vocal protests occurred around a series of emissions in May 2011, with protestors attending the VI Senate Committee hearing about the incidents. Six articles and three editorials were published by the St. Croix Avis between May 11 and May 19, including Kenichi Serino, "DPNR: Hovensa and Diageo responsible for sickening fumes", St. Croix Avis, 19/05/2011, 1. An environmental health study was also conducted: Eastern Caribbean Center, "A Study of Environmental Health of the Industrial Area of St Croix, University of the Virgin Islands", 2014. Url: https:// context-cdn.washingtonpost.com/notes/prod/default/ documents/aeb67a07-4c39-48ce-b8b4-ee616c183dea/ note/76f8a9ao-b846-46a6-b493-f3d5f648a9ee (accessed 27/11/2022)

³⁹ EPA, "EPA Uses Emergency Powers to Protect St. Croix Communities and Orders Limetree Bay Refinery to Pause Operations", 14/05/2021. Url: https://www.epa.gov/newsreleases/epa-uses-emergency-powers-protect-st-croix-communities-and-orders-limetree-bay-refinery#:~:text=On%20May%2012%2C%20Limetree%20 temporarily,the%20health%20of%20nearby%20communities (accessed 24/03/2022)

submitted by webinar attendees. While Limetree responded via letter, representatives for territorial and US federal leadership such as DPNR, the Department of Health, Virgin Islands Territorial Emergency Management, members of the 34th legislature, EPA, and the Center for Disease Control, attended these meetings and generally promised to provide information to the public as it became available.

23 The women-led community organizations of the Environmental Sector also worked with Professor David Bond to conduct a community survey "on the environmental and health impacts of the troubled restart of the Limetree (HOVENSA) refinery."42 The survey, which ran from June 17 to July 9, 2021, gathered 681 responses from 120 different neighborhoods on St. Croix. According to the survey's summary

"95% of responses from frontline neighborhoods reported **frequent noxious smells** from Limetree Refinery. Over 70% of responses from downwind neighborhoods reported trouble breathing during Limetree emission episodes. 143 households reported cisterns contaminated by Limetree emissions. Over 100 households reported gardens and farms damaged by emissions. 67 residents sought medical assis**tance** during emission episodes. This survey also uncovered 3 untimely deaths that family members attribute to toxic emissions from Limetree. 97% of responses believe the refinery should be required to operate a state-of-the-art air monitoring system before restarting. 90% of residents polled believe EPA should have a fulltime employee at Limetree. 80% of residents polled do not trust Limetree to disclose environmental problems."43

In addition to online responses, in-person survey stations were set up in front of grocery stores, bakeries, and the Farmers Market. Led by the women leaders of the Environmental Sector, surveyors also went door-to-door in the downwind communities of Clifton Hill, Profit, and Whim. Through this effort, concrete information was gathered from the community to document specific experiences with recent emissions.

As a result of these collected stories, the coa- 25 lition of women-led community organizations developed several social and environmental demands for territorial and US federal leaders. This statement asked government officials:

"to recognize the tremendous harm this refinery has inflicted on St. Croix, to pursue justice for the people of St. Croix, and to bring resources adequate to the immense task of cleaning up St. Croix and building a more sustainable economy....calling on the EPA, first and foremost, to provide immediate and substantial assistance to environmental justice neighborhoods negatively impacted by Limetree emissions.... In addition, we are calling on EPA Administrator Regan to launch a comprehensive criminal and civil investigation into Limetree....we are calling on... elected VI leaders to formally request the Limetree/HOVENSA site be added to the federal Superfund list."44

Within the context of such vocal community advocacy, on June 21, 2021 Limetree Bay Energy "announced that it is suspending its plans to restart the refinery indefinitely, due to severe financial constraints." 45 September 17, 2021 was the last day of work for refinery workers. The coming together of women-led local community organizations to protest the plant placed high amounts of pressure on territorial and US federal leaders to act against refinery mis-steps and

⁴² Bennington College, "New Survey to Gather Information from Residents Impacted by Limetree Oil Refinery". Url: https://www.bennington.edu/sites/default/files/sources/docs/Limetree%20Press%20Release.pdf (accessed 30/03/2022).

⁴³ Bennington College, "Environmental Justice Begins in St. Croix". Url: https://www.bennington.edu/center-advance-ment-of-public-action/environment-and-public-action/environmental-justice-begins-st (accessed 07/04/2022). The bolded sections are part of the original document.

⁴⁴ Bennington College, "Survey Finds Significant Injuries and Damages", 5.

⁴⁵ Limetree Bay Terminals, LLC, "Limetree Bay Announces Extension of Refinery Shutdown", 21/06/2021. Url: https://www.limetreebayenergy.com/limetree-bay-announces-extension-of-refinery-shutdown/ (accessed 24/03/2022)

closely investigate reported environmental violations. The community survey collected much needed data to support social demands for environmental justice for the predominantly low-income Black and Brown neighborhoods impacted by refinery emissions.

27 Like the refinery shutdown in 2012, bankruptcy was used to avoid lawsuits filed on behalf of the community and local farmers.46 Bankruptcy protections and proceedings for Limetree have also resulted in the re-sale of the refinery in 2022 to Jamaica-based West Indies Petroleum (WIP). WIP purchased Limetree Bay Refinery with Port Hamilton Refining and Transportation (PHRT), LLLP for \$62 million cash in January 2022. "WIP Limited reports that at in its current state, the refinery has an operational capacity of around 220,000 barrels per day of refined oil and the Company has plans of increasing the capacity to around 450,000 barrels per day."47 On March 22, 2022, the EPA contacted the new owners

> "informing them that, based on the information currently available to EPA, there are strong indicators to suggest that the refinery must obtain a Prevention of Significant Deterioration (PSD) permit prior to any potential startup of refinery operations. In the letter, EPA asks for additional information from WIP Limetree and PHRT regarding past and future changes to process and emission units at the refinery to enable the Agency to evaluate this issue further before making a final determination regarding the need for a PSD permit."48

The hope is that these EPA requests for data 28 from the new refinery owners will help make another refinery restart less harmful to the community.

With the advent of the most vocal and impact- 29 ful actions by the St. Croix community on environmental justice issues in 2021, some believe attitudes are shifting. According to local woman attorney Lee Rohn, who represents three active lawsuits against the refinery, "we survived the shutdown [in 2012] and a second shutdown" in 2021. She believes there is more understanding in the community that "we can't put money over health. If you are going to have a refinery here, it has to be safe."49 Miss Gerard expanded on the idea of different attitudes after the refinery closure, explaining how "people forgot what living under a refinery is like."50 These women believed the absence of a refinery between 2012 and 2021 reset community members baseline of what kinds of future environmental experiences were acceptable. Such shifts in attitude could have contributed to the greater willingness on island to resist the restart of the plant.51

While Attorney Rohn's clients and others are 30 "rising up and fighting these injustices," the specter of another factory restart remains a looming possibility.52 This continued prospect of a refinery reopening is likely due to the fact that, as one informant lamented, USVI politicians "want their \$7 million a quarter" that comes from refinery agreements with the territorial government.53 Miss Sibilly-Brown also stated that the "EPA has not said that the refinery can't open...EPA has

⁴⁶ For information on the 2012 shutdown, see Collin Eaton, "St. Croix oil refinery gets \$1.4 billion investment, plans to restart", Reuters, 02/07/2018. Url: https:// www.reuters.com/article/us-refinery-virginislands/ st-croix-oil-refinery-gets-1-4-billion-investment-plansto-restart-idUSKBN1JS1TZ (accessed 24/03/2022)

⁴⁷ Mayberry Investments Limited, "West Indies Petroleum Limited won the auction for the mega-capacity Limetree Bay Refinery", 01/02/2022. Url: https:// www.mayberryinv.com/west-indies-petroleum-limited-won-the-auction-for-the-mega-capacity-limetree-bay-refinery/ (accessed 24/03/2022)

⁴⁸ EPA, "Refinery on St. Croix, US Virgin Islands". Url: https://www.epa.gov/vi/refinery-st-croix-us-virgin-islands (accessed 24/03/2022)

⁴⁹ Lee Rohn, Interview with author, April 4, 2022, Christiansted, US Virgin Islands.

⁵⁰ Interview with author.

Heightened concerns about the rate of climate change in general also provides a different social and political environment in the 21st century in comparison to the refinery era. For info on the recent findings on climate change, see United Nations, "Keep the 1.5 degree Celsius goal alive, experts and civil society urge on 'Energy Day' at COP27", UN News, 15/11/2022. Url: https://news.un.org/en/ story/2022/11/1130622 (accessed 17/11/2022).

⁵² Interview with author.

⁵³ Anonymous, Interview with author, 05/04/2022, Christiansted, US Virgin Islands.

said that for the refinery to open these are the guidelines to insure a healthy restart so they can still create oil. And they have said please provide me with these documents. Should the new purchasers choose to do that then we're good to go....It does not seem wholly beneficial to the people of the Virgin Islands."54 Historically, the economic benefits of the refinery has generally been prioritized over environmental and community health issues in the region.55

31 When reflecting on community activism and social mobilization efforts in 2021, Miss Valiulis stated that "we knew we needed to do something, we just did not know what to do." She described her involvement as "jumping in and trying to figure it out...a real way to make a difference." She highlighted how the group of women leaders who came together for this effort knew it was "going to be some challenge...it was a steep learning curve of what to do." Miss Valiulis believes there is a "new memory after last year" and an "envisioning of St. Croix in a different way." 56 Miss Sibilly-Brown echoed such sentiments, explaining how

"It was just like this whirlwind. I didn't sign up to be superhero environmental advocate....knowing when you're doing something that maybe to other people is nothing but to you calls on all your courage. Having a person with you is meaningful. And so I said yes...wanting to be in support of her [Miss Valiulis] because this was meaningful. She was stepping into all her courage. I had no idea it would call on my courage. I was just like ok. Frandelle is a fierce, elder warrior queen mother. She was like, 'What are they going to take from me? I've lived here, this is my home. I'm ready.' Her boldness and her courage, we're just going to name it, let's go."57

Miss Sibilly-Brown drew her strength and confidence to participate in this activism from the examples provided by both Miss Valiulis and Miss Gerard. This specific coalition of women leaders connected in positive and generative ways to effectively push for the refinery shutdown within four months. Each of these women have deep care for their community. Their words and actions demonstrate their immense love and dedication to the well-being of those on island.

Almost a year after their community advo- 33 cacy, both Miss Valiulis and Miss Sibilly-Brown acknowledged their exhaustion and fatigue from months of social mobilization. According to Miss Sibilly-Brown,

"Advocacy fatigue is experienced when a small group of people take up a really big charge with other people, but with other people whose voices have to be silenced because they work for the government...because they don't have the muster so they'll talk to you one on one and they'll feed you stories. But they cannot for whatever reason feel like they can stand beside you. So even though we were three, it begins to feel very lonely and very hard, right? Because the dominant system that we are working against has the opportunity to be very loud. We are all very small organizations....This is all consuming. It's not just mentally, spiritually taxing because you're [also] engaging with a deafening silence that we don't know how to interpret. And then there's care for the people who are also tired of hearing their situation repeated with no answers.... The level at which we had to work at, we kind of had to pull back in order to sustain what we understood to be a much longer conversation."58

Miss Sibilly-Brown, Miss Valiulis, and Miss Gerard spearheaded advocacy efforts for disenfranchised members of their community who have been ignored or silenced since the HOVENSA refinery period. Some community members also relied heavily on the economic benefits of the refinery in the past and felt that a facility restart

⁵⁴ Interview with author.

⁵⁵ For a recent example, see Mat Probasco, "Bryan Urges Quick Refinery Restart Despite Grave Health Concerns", St. Thomas Source, 13/04/2022. Url: https://stthomassource.com/content/2022/04/13/bryan-urges-quick-refinery-restart-despite-grave-health-concerns/(accessed 17/11/2022).

⁵⁶ Interview with author.

⁵⁷ Interview with author.

in the 21st century is the best path to future subsistence and success in the USVI.⁵⁹ This diversity of opinion and experience necessitates a wider long-term strategy for social mobilization on island.

35 As Allen, Green and Lerner have detailed in their previously mentioned studies, communities of color in the continental United States have also long-suffered from refinery-related health issues and environmental degradation with little acknowledgement, sparse support, or few solutions. Frustration similar to those expressed on St. Croix was also documented in petrochemical corridor communities such as Ascension, Louisiana. Scholar Merrill Singer explained how residents living near toxic plants "believe there is not much they can do about it [environmental suffering] given their socioeconomic status and the unresponsiveness of the local or state government," known as toxic frustration.60 Similar aggravations and divergent perspectives of community members on St. Croix has led the coalition of women leaders on island to engage in smaller, internal community conversations to strategize for the future. At the center of these efforts has been love, care, and dedication. The next section of this essay will discuss strategies used for environmental justice efforts in the petrochemical corridor of Louisiana that could also be helpful for continued community activist work on St. Croix.

CONNECTIONS TO LOUISIANA'S PETROCHEMICAL CORRIDOR

36 Beyond the great work that the Environmental Sector has already done to gather information, hold territorial and federal leadership accountable to values of environmental and social justice in the 21st century, and engage in community conversations about future strategies for sustainability and success, how else can social

mobilization connected to the oil refinery be addressed long-term on St. Croix? Miss Sibilly-Brown hopes that "there are other people who are stepping up in different ways while we seek respite because it also feels like it is unfairly women's work. How many things do you want a woman to do? And again, ironically in this space it's this core group of women supporting the strategy, supporting the thinking."61 The leadership exhibited by these Environmental Sector women was arduous and not compensated. Such typical experiences of women's work is a critical reason I focus on the gender component of community advocacy in my research. Women have been central to community leadership and support and should occupy a central place in analyses of environmental justice movements. Additionally, as scholar Chelsea Frazier has discussed, a "focus on female subjectivity" can "construct alternative conceptions of ecological ethics" and ways to develop decolonial strategies. 62 Sandra Harding has also studied how feminist approaches to science can lead to new and more nuanced methodologies and approaches. 63 Centering women's leadership and actions can lead to fresh, innovative and diverse ways of thinking and being in the world, such as a focus on love and care.

Like the Environmental Sector on St. Croix, the majority of the community activists in Diamond, Louisiana were women. Progress for environmental justice efforts in Diamond required long-term perseverance and shifts in strategies by individuals like Margie Richard. 64 Richard focused her work on the well-being of her tight-knit

61 Interview with author.

- **62** Chelsea Frazier, "Troubling Ecology: Wangechi Mutu, Octavia Butler, and Black Feminist Interventions in Environmentalism", *Critical Ethnic Studies*, vol. 2, n° 1, 2016, 40-41.
- **63** Sandra Harding, *Whose Science? Whose Knowledge?* (Ithaca: Cornell University, 1991).
- Other notable community leaders included but were not limited to Margie Richard's "mother, her father, an aunt, and an uncle. Also involved were Gaynel Johnson, Hazel Johnson, Doris Pollard, Rosemary Brown, Roberta Johnson, Percy and Mary Hollins, and Deborah Scott. Later they were joined by Angela and Thomas Dewey, Josephine Bering, Eloise and Bazille Williams, and others." Lerner, *Diamond*, 68 (cf. note 8).

⁵⁹ Some worked at the refinery and others provided support services for the refinery and its workers.

⁶⁰ Merrill Singer, "Down Cancer Alley: The Lived Experience of Health and Environmental Suffering in Louisiana's Chemical Corridor", *Medical Anthropology Quarterly*, vol. 25/2, 2011, 158.

community, taking strength from the long history of leadership in her family, as well as her faith. Her love and care for Diamond residents motivated her enduring dedication to and work for this cause. Success ultimately came from a combination of factors including resident-based testing of air quality, a whistle-blower employee from Shell, and the dedicated continuous work in the community by environmental researchers, such as chemist Wilma Subra and Beverly Wright, and environmental justice activists, like Anne Rolfes and Denny Larson. 65 Lawsuits against several of Shell's facilities at the time also weakened the company's historic position of dismissing environmental and health issues.66

38 Facing hard evidence of excessive pollution levels and mounting public pressures on a national scale, Shell could no longer deny the negative impacts that living near the refinery had on Diamond residents. In 2000, the company agreed to relocate the residents closest to the refinery using comparable prices for a similar residence in the mostly white neighborhoods of Norco. After two more years of publicizing the plight of Diamond residents across the globe, continuing to document air pollution in the neighborhood and gaining more support from both Shell investors and environmental justice groups, a compensation plan for all Diamond residents was offered on May 30, 2002 and accepted by residents the next month.

39 In similar ways, future efforts on St. Croix could also benefit from the consistent gathering of concrete scientific data to evaluate the air and water quality of communities downwind from the refinery, as well as long-term scientific and activist allies. In fact, scholar Barbara Allen found that "the most successful activist strategies typically involved alliances: 1) between local citizens and expert-activists, 2) across lines of race and

65 Denny Larson came to St. Croix in March 1999 and October 2000 to train community members on how to use bucket monitors, a connection for future study. Also see footnote 26.

66 For more on Shell's history of pollution, see Jack Doyle, Riding the dragon: Royal Dutch Shell & the fossil fire (Monroe: Common Courage Press, 2004).

class, and 3) between local and national organizations. 67 In 2021, St. Croix activists engaged in activism across race and class, as well as local and national organizations. In addition to love and care-driven work, collaboration with expert-activists that was central for the environmental justice efforts of Diamond residents could also help support and sustain community activism around any future St. Croix refinery restart.

Overall, community advocacy against the plant in 40 Diamond involved the need for someone to keep neighborhood members motivated to act, constant coverage in the media, international and national support, a good lawyer, a good scientist to explain data to the community, someone to help with pollution information gathering, as well as people with experience in community organizing. The women of the Environmental Sector are strong leaders on St. Croix. Lee Rohn and Elizabeth Neville are lawyers committed to this cause. In summer 2022, community organizer Jade Alagrín Corcino conducted advocacy training workshops and is currently coordinating a community coalition on island focused on environmental justice. In fall 2022, this newly formed group canvassed two neighborhoods near the refinery to provide them with EPA contact information to use whenever they witness or experience environmental problems. Based on the experiences of those in Louisiana's petrochemical corridor, more consistent media coverage, increased support at national and international levels, as well as the stable involvement of scientific researchers could strengthen these existing endeavors of love and care in the St. Croix community.

In fact, Gary Cohen of the Environmental Health 41 Fund believed "To win in Diamond required bringing in outside forces...There just was not enough power in the grassroots group in Diamond or for that matter among toxics activists in Louisiana to force Shell to relocate the residents of Diamond so national and international activists

67 Barbara L. Allen, Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes (Cambridge: MIT Press, 2003), 2.

had to be mobilized to catch Shell's attention."68 CHANT is working with the Deep South Center for Environmental Justice, the same organization that helped Diamond residents in their fight. As part of the Deep South Center's Southeast and Caribbean Environmental Justice community of practice working group, initiated by the National Oceanic and Atmospheric Administration (NOAA), CHANT has an important connection to this environmental justice advocacy organization that has successfully supported others in their struggles for community care and love in the face of pollutive industries.

42 While St. Croix residents are not requesting money for relocation like those in Diamond, one aspect that leaders of the Environmental Sector have emphasized is that any refinery restart should be properly conducted according to EPA regulations and monitored consistently. 69 Open and timely communication with the community during emission incidents has also been stressed as an important aspect for any future refinery to build a positive relationship with the community. In fact, Gwen Ottinger has studied how scientific experts successfully convinced community members in New Sarpy, Louisiana to accept their local plant's buy out and work directly with the company rather than continue protests. At the center of this shift in community attitude involved the more respectful and open communications of the refinery with residents. When scientific experts became trusted allies in the community, claims that these professionals would work with the refinery to act when pollution was reported were accepted as

a satisfactory resolution by New Sarpy community members. 70 This more loving and caring approach could also work if such trust could be built between the community and refinery leadership on St. Croix.

Singer also provides a set of four considerations 43 to take into account for future studies of downwind communities. Moving forward, research should include "acquiring a better understanding of (1) the range of responses found in low-income and marginalized communities that commonly are selected for the production and dumping of environmental toxins; (2) the set of social or other factors that contribute local acceptance or rejection of particular community responses to industrial pollution; (3) why community responses change (e.g., to or away from acquiescence) over time; and (4) what factors contribute to the emergence and growth of movements for environmental justice."71 Such evaluations and careful thinking about the specific set of circumstances and experiences facing the St. Croix community in particular could also be useful for future social mobilization on island.

Long-term Lerner believes "What is needed is 44 new legislation that will protect residents of settlements adjacent to highly toxic and explosive industrial facilities." 72 Ken Sexton and his colleagues also laid out 16 recommendations for future research to address potentially higher environmental exposures for disadvantaged and minority populations, such as socioeconomic based measures for data collection, more open communication and sharing of information by experts, and focused studies on disenfranchised groups. 73 All of these authors provide key suggestions for future, long-term environmental equity research and endeavors.

⁶⁸ Lerner, Diamond, 264 (cf. note 8).

ds on the agenda of the Environmental Sector. According to the EPA, the "Superfund program is responsible for cleaning up some of the nation's most contaminated land and responding to environmental emergencies, oil spills and natural disasters. To protect public health and the environment, the Superfund program focuses on making a visible and lasting difference in communities, ensuring that people can live and work in healthy, vibrant places." EPA, "Superfund". Url: https://www.epa.gov/superfund (accessed 17/11/2022).

⁷⁰ Gwen Ottinger, Refining Expertise: How Responsible Engineers Subvert Environmental Justice Challenges (New York: NYU Press, 2013).

⁷¹ Singer, "Down Cancer Alley", 159 (cf. note 63).

⁷² Lerner, *Diamond*, 267 (cf. note 8).

⁷³ Sexton et al, "Air Pollution Health Risks", 871-872 (cf. note 17).

45 Overall, this section has discussed ways residents of the Louisiana petrochemical corridor and St. Croix have worked within western scientific and U.S. governmental systems to push for environmental justice. The next section will consider approaches beyond conventional legal and other existing systemic structures for alternative future possibilities for community activism and change.

DECOLONIAL FUTURITIES: SOCIAL MOBILIZATION POSSIBILITIES ACROSS EXTRACTIVE ENERGY SPACES

- 46 Beyond Sun and Sand, edited by Sherrie Baker and Barbara Lynch, outlines the history of environmental movements in the Caribbean that can provide additional inspiration for ways to think about future creative actions and partnerships across this space, among US colonials, and beyond. According to Baker and Lynch, "All too often, where [environmental] regulations and structures for enforcement have been put into place, they serve the interests of resource, tourism, and real estate developers at the expense of ordinary citizens. Similarly, even where they are included in stake-holder dialogues, residents of poor urban settlements have little input into problem definition."74 Western priorities, practices, and policies taking precedence over the needs and interests of native peoples have occurred in the management of natural resources in several other spaces, such the US island empire locations of Hawaiii and American Sāmoa.75
- 47 One way to approach decolonial strategies for groups embattled by the petroleum industry is to look for and study the convergences and underlying connections of these subjected groups. Seminal scholar of the Caribbean, Édouard Glissant, explains how we should think about "subterranean convergence," or transversality,

emphasizes the connective experiences and identities of islanders that is fluid and malleable, but also significant and powerful. Understanding these convergences can lead to re-analysis of one's situation and new ways to think about one's positionality in the world, potentials for action, as well as how to move forward in more related and respectful ways.

a "site of multiple converging paths." 76 Glissant

In addition to communities along the petrochem- 48 ical corridor of Louisiana, other islanders in the Caribbean have been subjected to petroleum refining such as Cuba, Curação, the Dominican Republic, Barbados, Puerto Rico, and Trinidad and Tobago. Highlighting the distinct and particular experiences that link these groups could result in innovative ways of relating to each other and possibilities for joint action and activism. Island environments present their own set of challenges from variable sea levels due to climate change, high import costs, and limited land for production and subsistence, to hurricanes, flooding, and tsunamis. Despite being categorized as small, isolated, and insignificant by many academics, island peoples have a long history of traditional ecological knowledge about the cycles of their specific bioregion over time. 77 Moving beyond negative rhetoric and narrow perspectives can empower island peoples to "imagine and sustain new forms of alliance and collaboration" with other islanders, particularly in oil producing regions. 78 According to scholar Otto Heim "island-based" knowledge and practice is capable of countering, if not altering, the operation of these systems, making them livable."79 In fact, native groups living in archipelagos have their own vast knowledge of how to nurture and care for their indigenous environment. Islanders, by necessity, are resilient and adaptable because they are fundamentally tied to the health and well-being of their island spaces and close-knit communities.

⁷⁴ Sherrie Baker, Barbara Lynch, *Beyond Sun and Sand:* Caribbean Environmentalists (New Brunswick: Rutgers University Press, 2006), 5.

⁷⁵ See Poblete, *Islanders in the Empire*, (cf. note 1) and JoAnna Poblete, *Balancing the Tides: Marine Policies in American Sāmoa* (Honolulu: University of Hawaii Press, 2020).

⁷⁶ Édouard Glissant, *Caribbean discourse: Selected essays.* Trans. Michael Dash (Charlottesville: University Press of Virginia, 1989), 66.

⁷⁷ Fikret Berkes. *Sacred Ecology* (New York: Routledge, 2018).

⁷⁸ Otto Heim, "Island logic and the Decolonization of the Pacific", *Interventions*, vol. 19/7, 2017, 922.

⁷⁹ Ibid., 924.

- 49 Beyond the environmental justice campaigns around Louisiana's petrochemical corridor, lessons can also be learned from the culmination of ground-level pressure and action from a critical mass of community members inspired and united around a specific issue across the globe, as seen with the expansion of Black Lives Matter protests and race-based dialogues for change that spread across the world in 2020. Tapping into inter-regional and cross-group resistance and empowerment around oil refineries within the United States empire, the Caribbean, and across the world, could create similar fruitful and generative paths for future efforts in environmental protection, more equitable economic development, social justice issues, and self-governance across the globe.
- 50 Moving forward, coalition movements could focus on "social measures such as reducing poverty, enhancing women's participation, and strengthening institutions" as methods to combat environmental and systemic racism. 80 In a previous article, I discussed the women-focused economic initiatives of the Women's Business Center (WBC) on St. Croix that combats "asymmetrical power structures built into both capitalistic financial systems and colonial government systems, which have long favored male participants."81 As Yvette de la Banque, the first director of the WBC, stated "research indicates when women are intimately involved in the economy, the economy does better."82 Women-centered and women-led initiatives have been and continue to be important aspects of St. Croix and other communities leadership, as well as neighborhood love and care.
- 50 In fact, Lynch encourages moving beyond the idea of citizen and human rights towards socio-environmental rights. This "redefinition of citizenship to include socio-environmental rights [involves] the right to a healthy environment both in the

community and in the workplace, the right of access to land and marine resources for food and shelter, and the political right to organize in defense of these rights...[in essence, an] amplified definition of citizenship."83 The socio-environmental perspective takes both ecological and social justice into consideration. From this approach, we can develop more inter-connections and foundations for local, regional and international campaigns for greater social equity in the 21st century.

Miss Valiulis and Miss Sibilly-Brown have already worked across regions to collaborate with national groups who align with and want to support their local community justice and equity efforts. Miss Sibilly-Brown is working with the National Farm to School Network, Iowa State University Outreach and Education, and the Big Green DAO (Decentralized Autonomous Organization) on issues of food security, food sovereignty and agro-sustainability. In addition to successfully partnering with the Center for Biological Diversity, the Natural Resources Defense Council, and the Sierra Club for the organization's environmental advocacy efforts in 2021, SEA, under the leadership of Miss Valiulis, has made presentations at regional conferences such as Climate Change in the Caribbean and the Symposium of Environmental Justice, as well as testified at the White House Environmental Justice Advisory Council. SEA is also working with Climate Strong Islands Network to develop federal policy recommendations and connect with activists from around the US and its territories.84 These examples demonstrate a few of the many possibilities for and feasibility of careful and intentional cross-regional coalitions. Leaders like Miss Sibilly-Brown and Miss Valiulis are building bridges across seas and states to work for socio-environmental rights as love and care for their community.

⁸⁰ Baker and Lynch, Beyond Sun, 4 (cf. note 74).

⁸¹ JoAnna Poblete, "Women Community Warriors of St. Croix", *Women, Gender and Families of Color*, vol. 9, n° 1, 2021, n6

⁸² Interview with author, Christiansted, St. Croix, US Virgin Islands. 06/04/2022.

⁸³ Baker and Lynch, Beyond Sun, 169 (cf. note 74).

⁸⁴ For more information on SEA's 2022 activities, see St. Croix Environmental Association, "SEA Annual Meeting Presentation", St. Croix Environmental Association, facebook.com, 17/11/2022. **Url: https://www.facebook.com/stxenvironmental/videos/686345782838198** (accessed 17/11/2022).

- 52 The centrality of love and care among collaborators is mentioned by several women leaders I spoke with on St. Croix, and echoed in women's leadership in Diamond. One way to foster loving relations is through ideas of kinship. Indigenous scholar Andrew Jolivette explained how "kinship is cultural and relational while citizenship is legal and restrictive." They discussed how "To thrive or enact thrivance means to turn our traumas into moments and possibilities to change our lives." Consequently, Jolivette argues for a focus on kinship as medicine and the treatment of inter-relations as spatial and relational, not temporal. They state that "I need you to be medicine. We need you to act like a relative. That care is every day." So if we view our relationships as sacred ones that should not be cut off, we could work towards a future of thrivance. Jolivette hopes that "What we are doing is creating community and building solidarity and kinship ties so that we can all thrive."85 We need to treat and respect each other as family. Relatives do not always get along. But there is an underlying level of love, care and dedication for the ultimate well-being and success of kin that can be transformative in future relationship and coalition building.
- 53 Miss Sibilly-Brown also explained the importance of care, family and inspiring others to act by inviting them to the "dance party." She believes in the importance of pointing "to the things that make life worth living, that people find joy in being here in the Virgin Islands, that connect humans back to humans." In fact, she categorized the 2021 community survey as community advocacy and care. For Miss Sibilly-Brown, care also includes personal nurturing. She described how she needs to be "grounded in what is worth fighting for and the joy that I can experience. And so does my family. My family needs to engage with the part of me that is not just a warrior but the part of me that is filled with love and light and joy."86 For decolonial social mobilization and community activism, self-care, kinship,

85 Andrew Jolivette, "Indigenous Thrivance Circuitry with Global Precarity", Keynote Speech, 2020 Annual National Conference on Race and Ethnicity in American Higher Education, 30/06/2020.

86 Interview with author.

and joy are key components to the leadership of Miss Sibilly-Brown and other women on St. Croix and beyond.

Indigenous scholar Deborah McGregor also high- 54 lights how native elders often speak of love for their lands, waters, and future generations as a major part of their practices, as well as hopes and goals for the future. She believes allowing native groups to take the lead in future projects and policy-making is vital. In fact, without true and genuine incorporation and integration of ancestral knowledges, studies of and policies created for native spaces, like islands, will remain incomplete. And as McGregor has encouraged us to ask "What kind of ancestors will we be? What choices will we make for our future generations...at least seven generations ahead?"87 These choices are ours to make and can take on radical, transformative, and generative forms for decolonial efforts.

CONCLUSION

On October 21, 2022, the EPA released an inspection report of the St. Croix refinery facilities after a fire broke out at the plant in August 2022. Inspectors found that "numerous examples of corrosion, including extreme corrosion and in many cases to a degree resulting in extreme deterioration (exfoliation), were observed....These conditions demonstrate a risk of imminent release of extremely hazardous substances. Because of this degree of corrosion, the vessels, piping, and/or valves may fail, resulting in a catastrophic release."88 Five days later, the facility owners (Port Hamilton Refining and Transportation) stated that "despite recent reports of concerns about the safety of

87 Deborah McGregor, "Indigenous Peoples, Colonialism, and Climate Justice", Zoryan Institute Zoom webinar, 09/03/2022.

88 Dwayne Harrington, Karl Lindberg, "Port Hamilton Refining and Transportation LLLP 112(r) CAA General Duty Clause Inspection," 6. Url: https://www.epa.gov/system/files/documents/2022-10/NEW%20EPA%E2%80%99\$%20 Sept.%202022%2C%20Inspection%20Report%20Port%20 Hamilton%20Refining%20and%20Transportation%20 LLLP%2C%20CAA%20General%20Duty%20Clause%20.pdf (accessed 27/11/22)

the facility, the company continues maintaining the facility it purchased in January of this year in preparation for a safe start up."89 Clearly, the fight against the refinery restart is still an important issue facing the St. Croix community.

56 On November 16, 2022, the EPA issued a letter that requires the St. Croix refinery to apply for and receive a new Prevention of Significant Deterioration Permit (PSD) before restarting or beginning actual construction. This ruling is significant because the previous plant restart in 2021 was based on permits approved for the original HOVENSA refinery. According to EPA Principal Deputy Assistant Administrator Joseph Goffman, the "permit application should include, among other information, analyses of air quality impacts, environmental justice, and Best Available Control Technology."90 An attachment to the EPA letter explained how issues with the last refinery restart "demonstrates that emissions from the restarted Refinery will exceed the PSD applicability thresholds for multiple New Source Review-regulated pollutants."91 This PSD ruling and the October data about current facility conditions has demonstrated the EPA's continued prioritization of environmental justice needs on St. Croix. With this support, existing endeavors on island, lessons learned from the petrochemical corridor, potential connections across regions, and ideas about fostering fundamental relations of love and kinship, St. Croix community activists have several promising directions for their future efforts.

Overall, the St. Croix refinery provides one case 57 study to understand the human element of oil operations by focusing on women-led community activism and social mobilization against petrochemical companies. As demonstrated in this article, in 2021 women-led local activism on St. Croix pressured government entities and the oil company to react to their questioning and act extensively to community demands. Love and care were central to these endeavors. Long-term, partnerships with scientific experts to gather more consistent data, as well as coalitions with other exploited communities seeking environmental justice in the 21st century have the potential to invigorate even more community activism, social mobilization, and positive human relations centered around practices of kinship, care, love, and socio-environmental rights.

In addition to fostering love and care for one's 58 community, like Jolivette, Baker, and Lynch, I believe in the power of both socio-environmental rights and expansive kinship relations to connect communities across space and time. These approaches can be critical components for decolonization endeavors and generative alternative futures. These are also perspectives we all can and should strive for, particularly in connection to future petroleum industry developments and processes, environmental protections, economic developments, social justice issues, local and global environmental equity, and self-governance throughout the globe.

⁸⁹ Ernice Gilbert, "Port Hamilton Says it is Moving Ahead With Safe Restart of Oil Refining on St. Croix, Will Seek Third-Party Inspection Following Scathing EPA Report", The Virgin Islands Consortium, 27/10/2022. Url: https://viconsortium.com/vi-business/virgin-islands-port-hamilton-says-it-is-moving-ahead-with-safe-restart-of-oil-refining-on-st-croix-will-seek-third-party-inspection-following-scathing-epa-report. (accessed 27/11/2022)
90 Joseph Goffman to Julie Domike and Thomas Eagan, 16/11/2022, 4. Url: https://www.epa.gov/system/files/

Joseph Goffman to Julie Domike and Thomas Eagan, 16/11/2022, 4. Url: https://www.epa.gov/system/files/documents/2022-11/PSD%20Letter%20to%20PHRT%201.16.22_0.pdf (accessed 17/11/2022).

⁹¹ Goffman to Domike and Eagan, 3. Attachment is available at https://www.epa.gov/system/files/documents/2022-11/PHRT%20PSD%20Determination%20 Attachment%201%20_11-16-22.pdf (accessed 17/11/2022).

Bibliographie

Allen Barbara L.

Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes (Cambridge: MIT Press, 2003).

Allaire Louis

"The Lesser Antilles Before Columbus", in Samuel M. Wilson (eds.), The Indigenous People of the Caribbean (Gainesville: University Press of Florida, 1997), 20-28.

Anon.

Conversation with author, 29/03/2022.

Interview with author, Christiansted, St. Croix, US Virgin Islands, 05/04/2022.

Associated Press business staff

"Major oil refinery to close in US Virgin Islands", *Cleveland.com*, 18/01/2012, **Url: https://www.** cleveland.com/business/index. ssf/2012/01/major_oil_refinery_to_ close_in.html (accessed 24/03/2022)

Baker Sherrie, Lynch Barbara

Beyond Sun and Sand: Caribbean Environmentalists (New Brunswick: Rutgers University Press, 2006).

Bennington College

"Environmental Justice Begins in St. Croix". Url: https://www.bennington.edu/center-advancement-of-public-action/environment-and-public-action/environmental-justice-begins-st (accessed 07/04/2022).

"New Survey to Gather Information from Residents Impacted by Limetree Oil Refinery". Url: https://www.bennington.edu/ sites/default/files/sources/docs/ Limetree%20Press%20Release.pdf (accessed 30/03/2022). "Survey Finds Significant Injuries and Damages Associated With Limetree Refinery". Url: https://www.bennington.edu/sites/default/files/sources/docs/NEWS%20RELEASE%20%5Bresults%20of%20survey%20July%2014%20%28FINAL%29%5D.pdf (accessed 30/03/2022).

Berkes Fikret

Sacred Ecology (New York: Routledge, 2018).

Bond David

"Crude Prosperity: Hess Oil on St. Croix (part Five)", St. Croix Source, 05/06/2021. Url: https:// stcroixsource.com/2021/06/05/ crude-prosperity-hess-oil-onst-croix-part-five/ (accessed 27/11/2022).

"Crude Prosperity: Hess Oil on St. Croix (part Six)", St. Croix Source, 15/06/2021. Url: https://stcroixsource.com/2021/06/15/crude-prosperity-hess-oil-on-st-croix-part-six/ (accessed 27/11/2022).

"Oil in the Caribbean: Refineries, Mangroves, and the Negative Ecologies of Crude Oil", Comparative Studies in Society and History, vol. 59/3, 2017, 600-628.

Boyer William

America's Virgin Islands: A History of Human Rights and Wrongs (Durham: Carolina Academic Press, 1983).

Brown Phil

"Race, Class, and Environmental Health: A Review and Systematization of the Literature", *Environmental Research*, vol. 69, n°1, 1995, 15-30.

Bullard Robert

In search of the new South: the Black urban experience in the 1970s and 1980s (Tuscaloosa: University of Alabama Press, 1989).

Burgard KC

"Device allows home air tests", *St. Croix Avis*, 27/03/1999, 2.

"From Thin Air", *St. Croix Avis*, 28/10/2000. 1.

Business Week

"Why Leon Hess is Oil's Quiet Man: Profit From the Best of All Worlds", Business Week, vol. 64/6, 1979, 64.

Clinton White House Archives

"The Clinton Presidency: Protecting Our Environment and Public Health", Url: https://clinton-whitehouse5.archives.gov/WH/Accomplishments/eightyears-08.html#:~:text=The%20Clinton%20Administration%20accelerated%20the,cleaned%20in%20the%20past%20eight. (accessed 10/7/2023).

Commissioner of the Department of Planning and Natural Resources, Robert S. Mathes v. Century Alumnia Company, LLC *et al*

No. 05-0062, Memorandum, 13/07/2010, District Court of the Virgin Islands Division of St. Croix. Url: https://www.govinfo.gov/content/pkg/USCOURTS-vid-1_05-cv-00062/pdf/USCOURTS-vid-1_05-cv-00062-6.pdf (accessed 24/03/2022)

de la Banque Yvette

Interview with author, Christiansted, St. Croix, US Virgin Islands, 06/04/2022.

Doyle Jack

Riding the dragon: Royal Dutch Shell & the fossil fire (Monroe: Common Courage Press, 2004).

FΡΔ

- "ATTACHMENT 1: Application of EPA's Reactivation Policy Permanent Shutdown Factors to the Port Hamilton Refining and Transportation LLLP Refinery". Url: https://www.epa.gov/system/files/documents/2022-11/PHRT%20 PSD%20Determination%20 Attachment%201%20_11-16-22.pdf (accessed 17/11/2022). "Administrative Order Index No. CAA-02-2011-1012". Url: https://www3.epa.gov/region02/waste/hovensa/hovensa-adminorder.pdf (accessed 27/11/2022)
- "Cisterns in the US Virgin Islands", 11/08/2021. Url: https://www.epa.gov/system/files/documents/2021-08/cisterns-fact-sheet.pdf (accessed 31/03/2022).
- "EPA Protects Millions of Americans From Petroleum Refinery Air Toxics", 28/07/1995. Url: https://archive. epa.gov/epa/aboutepa/epa-protects-millions-americans-petroleum-refinery-air-toxics.html (accessed 06/04/2022)
- "EPA Uses Emergency Powers to Protect St. Croix Communities and Orders Limetree Bay Refinery to Pause Operations", 14/05/2021. Url: https://www.epa.gov/newsreleases/epa-uses-emergency-powers-protect-st-croix-communities-and-orders-limetree-bay-refinery#:~:text=On%20 May%2012%2C%20Limetree%20 temporarily,the%20health%20 of%20nearby%20communities (accessed 24/03/2022)
- "Evolution of the Clean Air Act".

 Url: https://www.epa.gov/
 clean-air-act-overview/evolutionclean-air-act (accessed 27/11/2022)

- "Hazardous Waste Cleanup:
 HOVENSA Environmental Response
 Trust, in Christiansted, US Virgin
 Islands". Url: https://www.epa.gov/
 hwcorrectiveactionsites/hazardous-waste-cleanup-hovensa-environmental-response-trust-christiansted (accessed 07/04/2022)
- "New Enforcement Strategy
 Advances President Biden's
 Environmental Justice Agenda",
 05/05/2022. Url: https://
 www.epa.gov/newsreleases/
 new-enforcement-strategy-advances-president-bidens-environmental-justice-agenda (accessed
 12/05/2022)
- "Petroleum Refineries: National Emission Standards for Hazardous Air Pollutants (NESHAP)". Url: https://www.epa.gov/station-ary-sources-air-pollution/petroleum-refineries-nation-al-emission-standards-hazard-ous-air (accessed 06/04/2022)
- "Refinery on St. Croix, US Virgin Islands". Url: https://www.epa.gov/vi/refinery-st-croix-us-virgin-is-lands (accessed 24/03/2022)
- "Superfund". Url: https://www.epa.gov/superfund (accessed 17/11/2022).

EPA Region 2

"Administrative Order Index No. CAA-02-2011-1012.

Eastern Caribbean Center

"A Study of Environmental Health of the Industrial Area of St Croix, University of the Virgin Islands", University of the Virgin Islands, 2014. Url: https://context-cdn. washingtonpost.com/notes/prod/default/documents/aeb67a07-4c39-48ce-b8b4-ee616c183dea/note/76f8a9a0-b846-46a6-b493-f3d5f648a9ee (accessed 27/11/2022)

Eaton Collin

"St. Croix oil refinery gets \$1.4 billion investment, plans to restart", Reuters, 02/07/2018.

Url: https://www.reuters.com/article/us-refinery-virginislands/st-croix-oil-refinery-gets-1-4-billion-investment-plans-to-restart-idUSKBN1JS1TZ (accessed 24/03/2022)

Eilperin Juliet Fears Darryl, and Georges Salwan

"The Island Where It Rained Oil", The Washington Post, 24/03/2021. Url: https://www.washington-post.com/climate-environment/interactive/2021/biden-environmental-justice-refinery-st-croix/?fbclid=IwAROYlam17EMJZ-b4_9rYPFqANpq2lBwiOuzk-kz6Bkm-EPNKMi-45CcNzaiTU (accessed 30/03/2021)

Ellis Susan

- "EPA: Air quality safe at Hovensa", St. Croix Avis, 19/08/2011, 4.
- "Odor Closes school again", *St. Croix Avis*, 12/05/2011.
- "Strong odor closes CHS", St. Croix Avis, 11/05/2011.

Frazier Chelsea

"Troubling Ecology: Wangechi Mutu, Octavia Butler, and Black Feminist Interventions in Environmentalism", *Critical Ethnic Studies*, vol. 2, n° 1, 2016, 40-72.

Gerard Frandelle

Interview with author, Frederiksted, US Virgin Islands, 13/04/2022.

Gilbert Ernice

"Port Hamilton Says it is Moving Ahead With Safe Restart of Oil Refining on St. Croix, Will Seek Third-Party Inspection Following Scathing EPA Report", The Virgin Islands Consortium, 27/10/2022. Url: https://viconsortium.com/vi-business/virgin-islands-port-hamilton-says-it-is-moving-ahead-with-safe-restart-of-oil-refining-on-st-croix-will-seek-third-party-inspection-following-scathing-epa-report. (accessed 27/11/2022)

Glissant Édouard

Caribbean discourse: Selected essays. Trans. Michael Dash (Charlottesville: University Press of Virginia, 1989).

Goffman Joseph

"Letter to Julie Domike and Thomas Eagan," 16/11/2022. Url: https://www.epa.gov/system/files/documents/2022-11/PSD%20Letter%20to%20PHRT%2011.16.22_0.pdf (accessed 17/11/2022)

Green Ronnie

Night Fire: Big Oil, Poison Air, and Margie Richard's Fight to Save Her Town (New York: Amistad, 2008). Harding Sandra, Whose Science? Whose Knowledge? (Ithaca: Cornell University, 1991).

Harrington Dwayne and Lindberg Karl

"Port Hamilton Refining and
Transportation LLLP 112(r) CAA
General Duty Clause Inspection".
Url: https://www.epa.gov/
system/files/documents/2022-10/
NEW%20EPA%E2%80%99s%20
Sept.%202022%2C%20
Inspection%20Report%20Port%20
Hamilton%20Refining%20and%20
Transportation%20LLLP%2C%20
CAA%20General%20Duty%20Clause%20.pdf (accessed 27/11/22)

Heim Otto

"Island logic and the Decolonization of the Pacific", *Interventions*, vol. 19/7, 2017, 914-929.

Highfield Arnold R.

Crucian Recollections: From the Compelling Past of a Storied Island (Christiansted, US Virgin Islands: Antilles Press, 2014).

Island Resources Foundation

"Southshore Industrial Area Area of Particular Concern (APC): A Comprehensive Study", V.I. Department of Planning and Natural Resources, Coastal Zone Management Program, 21/09/1993.

James Deanna

"Engage VI, Environmental Townhall", 13/05/2021, St. Croix Foundation Facebook page. Url: https://www.facebook.com/stcroix.fnd.1/videos/495561381639832 (accessed 24/3/2022)

Johnson Matthew P.

"Black Gold of Paradise: Negotiating Oil Pollution in the US Virgin Islands, 1966-2012", *Environmental History*, vol. 24, n° 4, 2019, 766-792.

Jolivette Andrew

"Indigenous Thrivance Circuitry with Global Precarity", Keynote Speech, 2020 Annual National Conference on Race and Ethnicity in American Higher Education 30/06/2020.

Jones Christopher

Routes of Power: Energy and
Modern America (Cambridge, MA:
Harvard University Press, 2014).

Jones Dow

"Company News: Amerada Hess to sell 50% of Virgin Islands Refinery", The New York Times, 04/02/1998.

Url: https://www.nytimes.
com/1998/02/04/business/
company-news-amerada-hess-to-sell-50-of-virgin-islands-refinery.
html (accessed 27/11/2022)

Lerner Steve

Diamond: A Struggle for Justice in Louisiana's Chemical Corridor (Cambridge: MIT Press, 2006).

Lett Christine

"HOVENSA marks 40 yrs, Refinery's exponential growth & tech innovations have changed the face of STX & the economy of the VI", *The Virgin Islands Daily News*, 23/10/2009.

Limetree Bay Terminals, LLC

"Limetree Bay Announces
Extension of Refinery Shutdown",
21/06/2021. Url: https://www.
limetreebayenergy.com/
limetree-bay-announces-extension-of-refinery-shutdown/
(accessed 24/03/2022)

Lockey-Carlson Linda

"Social Capital for Working Class Latino Adolescents: Social and Informational Network Development in a Pre-College Program" (Ph.D Diss., San Diego State University and Claremont Graduate University, 2005).

Lutz Raechel

"Crude Conservation: Nature, Pollution, and Technology at Standard Oil's New Jersey Refineries, 1870-2000" (Ph.D diss., Rutgers University, 2018).

Mayberry Investments Limited

"West Indies Petroleum Limited won the auction for the mega-capacity Limetree Bay Refinery", 01/02/2022. Url: https://www.mayberryinv.com/west-indies-petroleum-limit-ed-won-the-auction-for-the-mega-capacity-limetree-bay-refinery/(accessed 24/03/2022)

McGregor Deborah

"Indigenous Peoples, Colonialism, and Climate Justice", Zoryan Institute Zoom webinar, 09/03/2022.

Morello-Frosch Rachel et al.

"Environmental justice and Southern California's 'riskscape': The distribution of air toxics exposures and health risks among diverse communities", *Urban Affairs Review*, vol. 36, n° 4, 2001, 551-578.

National Oceanic and Atmospheric Administration

"Exxon Valdez, Oil Spill, Prince William Sound, Alaska, March 1989". Url: https://darrp.noaa.gov/oil-spills/exxon-valdez (accessed 10/7/2023).

Office of Public Affairs

"Nation's Second Largest Refinery to Pay \$700 Million to Upgrade Pollution Controls at US Virgin Islands Facility", The United States Department of Justice, 26/01/2011.

Url: https://www.justice.gov/opa/pr/nation-s-second-largest-refinery-pay-700-million-upgrade-pollution-controls-us-virgin-islands#:~:text=WASHINGTON%20 %E2%80%93%20HOVENSA%20 LLC%2C%20owner%20of,Act%20 violations%20at%20its%20St (accessed 24/03/2022)

Ottinger Gwen

Refining Expertise: How Responsible Engineers Subvert Environmental Justice Challenges (New York: NYU Press, 2013).

Poblete JoAnna

"Bridging Indigenous and Immigrant Struggles: A Case Study of American Sāmoa", *American Quarterly*, vol. 62, n° 3, 2010, 501-522.

Islanders in the Empire: Filipino and Puerto Ricans Laborers in Hawai'i (Chicago: University of Illinois Press, 2014).

Balancing the Tides: Marine Policies in American Sāmoa (Honolulu: University of Hawaii Press, 2020). "Women Community Warriors of St. Croix", Women, Gender and Families of Color, vol. 9, no 1, 2021, 83-101.

Pratt Joseph A.

"Growth or a Clean Environment? Responses to Petroleum-Related Pollution in the Gulf Coast Refining Region", *The Business History* Review, vol. 52, n° 1, 1978, 1-29.

Probasco Mat

"Bryan Urges Quick Refinery Restart
Despite Grave Health Concerns",
St. Thomas Source, 13/04/2022.
Url: https://stthomassource.com/
content/2022/04/13/bryan-urgesquick-refinery-restart-despitegrave-health-concerns/ (accessed
17/11/2022)

Quam-Wickham Nancy

"'Cities Sacrificed on the Altar of Oil': Popular Opposition to Oil Development in 1920s Los Angeles", *Environmental History*, vol. 3, n° 2, 1998, 189-209.

Righter Elizabeth et al.

"Late Ceramic Age Development in the Virgin Archipelago: The Puerto Rican Connection", in Deluech Andre, Hofman Corinne L. (eds.), Late Ceramic Age Societies in the Eastern Caribbean (Oxford, England: Archaeopress, 2004), 101-118.

Rohn Lee

Interview with author, Christiansted, US Virgin Islands, 04/04/2022.

Shabecoff Philip

"Global Warming Has Begun, Expert Tells Senate", New York Times, 24/6/1988. Url: https://www.nytimes.com/1988/06/24/us/global-warming-has-begun-expert-tells-senate.html (accessed 10/7/2023).

Sellers Christopher

"Petropolis and Environmental Protest in Cross-National Perspective: Beaumont-Port Arthur, Texas versus Minatitlan-Coatzacoalcos, Veracruz", *Journal* of American History, vol. 99, n° 1, 2012, 111-123.

Serino Kenichi

"DPNR: Hovensa and Diageo responsible for sickening fumes", *St. Croix Avis*, 19/05/2011.

"Hovensa in the hot Seat", 28/05/2011.

Sexton Ken et al.

"Air Pollution Health Risks: Do Class and Race Matter?", *Toxicology and Industrial Health*, vol. 9, n° 5, 1993, 843-878.

Sibilly-Brown Sommer

Interview with Author, Lagoon Park, St. Croix, US Virgin Islands, 14/04/2021.

Sider Alison

"St. Croix Refinery to Stay Closed After Vote: Senators Voice Concerns Over Financing, Tax Dispute", *The Wall Street Journal*, 19/12/2014. Url: https://www.wsj.com/articles/st-croix-refinery-to-stay-closed-after-vote-1419037312 (accessed 24/03/2022)

Singer Merrill

"Down Cancer Alley: The Lived Experience of Health and Environmental Suffering in Louisiana's Chemical Corridor", Medical Anthropology Quarterly, vol. 25/2, 2011, 141-63.

St. Croix Environmental Association

"Hold Limetree Accountable for its Impact on the St. Croix Community and the Environment", Change.org. Url: https://www.change.org/p/environmental-protection-agen-cy-hold-limetree-bay-accountable-for-st-croix-s-environment?utm_source=share_petition&utm_medium=custom_Url:&recruited_by_id=dfbd15do-81ef-11eb-b5ef-c13a00c62e9a
(accessed 31/03/2022)

"SEA Annual Meeting Presentation", St. Croix Environmental Association, facebook.com, 17/11/2022. Url: https://www. facebook.com/stxenvironmental/videos/686345782838198 (accessed 17/11/2022)

St. Croix Environmental Association, Center for Biological Diversity, Sierra Club, and Elizabeth Neville

"Petition for Review of the
Limetree Bay Terminals and
Limetree Bay Refining Plantwide
Applicability Limit Permit", Appeal
No. CAA 20-02M, Environmental
Appeal Board, United States
Environmental Protection Agency.
Url: https://yosemite.epa.
gov/oa/eab_web_docket.nsf/
Filings%20By%20Appeal%20
Number/0697A2BC297D5B7C8525867100645361/\$File/CAA%20
20-02M%20Petition%20for%20
Review.pdf (accessed 31/03/2022)

Stayman Allen

US Territorial Policy: Trends and Current Challenges, Pacific Islands Policy, vol. 5 (Honolulu Hi: East-West Center, 2009).

Taylor, Dorceta E.

Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility (New York: New York University Press, 2014).

Tigue Kristoffer

"The Biden EPA Withdraws a Key Permit for an Oil Refinery on St. Croix, Citing 'Environmental Justice' Concern", Inside Climate News, 25/03/2021. Url: https://insideclimatenews.org/news/25032021/biden-epa-limetree-oil-refinery-virgin-islands-permit/ (accessed 25/03/2022)

U.S. Congress

United States Code: Merchant
Marine Act, 1920, 46 USC. §§
883 (1958). Url: https://tile.loc.
gov/storage-services/service/
Il/uscode/uscode1958-00904/
uscode1958-009046024/
uscode1958-009046024.pdf

U.S. Government Publishing Office

"Environmental Protection Agency, 40 CFR Part 63", Federal Register, Rules and Regulations, vol. 85, n°23, 2020, 6064-6087. Url: https://www.govinfo.gov/content/pkg/FR-2020-02-04/pdf/2020-01108.pdf (accessed 06/04/2022)
"National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries", Federal Register, Rules and Regulations, vol. 60, n° 160, 1995, 43244-43297. Url: https://www.govinfo.gov/content/pkg/FR-1995-08-18/pdf/95-20252.pdf (accessed 06/04/2022)

U.S. Securities and Exchange Commission

"Section 13, Guarantees and Contingencies", SEC.com., 30/09/2015. Url: https://www.sec.gov/Archives/edgar/data/4447/0001564590-15009662/R20.htm (accessed 24/03/2022)

US Virgin Islands Legislature

"To Authorize the Governor of the Virgin Islands to Execute a Certain Agreement Relating to the Construction of an Oil Refinery and Other Related Facilities in the Island of St. Croix, Virgin Islands, and for Other Purposes", 01/09/1965, Bill 2639, No. 1524, 1965 V.I. Session Laws, 487.

United Nations

"Keep the 1.5 degree Celsius goal alive, experts and civil society urge on 'Energy Day' at COP27", UN News, 15/11/2022. Url: https://news.un.org/en/story/2022/11/1130622 (accessed 17/11/2022)

Valiulis Jennifer

Interview with author, Gallows Bay, St. Croix, US Virgin Islands, 15/04/2022.

Weiss-Randall Debra

Utilizing Innovative Technologies to Address the Public Health Impact of Climate Change (Hershey, PA, IGI Global, 2018).

Wlasiuk Jonathan

Refining Nature: Standard Oil and the Limits of Efficiency (Pittsburgh: University of Pittsburgh Press, 2017).

Woolf Chris

"How a violent history created the US Virgin Islands as we know them", The World, 13/09/2017. Url: https://www.pri.org/stories/2017-09-13/how-violent-history-created-us-virgin-islands-we-know-them (accessed 24/03/2022)