Winding Down River Road

Gillian Harper
Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://repository.lsu.edu/gradschool_theses

Part of the Art Practice Commons, Ceramic Arts Commons, Environmental Studies Commons, Fiber, Textile, and Weaving Arts Commons, Fine Arts Commons, Metal and Jewelry Arts Commons, Other Arts and Humanities Commons, Photography Commons, Physical and Environmental Geography Commons, Sculpture Commons, and the Social Justice Commons

Recommended Citation
https://repository.lsu.edu/gradschool_theses/5638

This Thesis is brought to you for free and open access by the Graduate School at LSU Scholarly Repository. It has been accepted for inclusion in LSU Master's Theses by an authorized graduate school editor of LSU Scholarly Repository. For more information, please contact gradetd@lsu.edu.
WINDING DOWN RIVER ROAD

A Thesis

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Master of Fine Arts in The School of Art

by

Gillian Harper
B.F.A., University of North Florida, 2017
August 2022
Dedicated to the people and land of Louisiana, the Mississippi River, and the marshes and bayous of the Third Coast
Acknowledgments

I would like to express my sincere gratitude for the abundance of support from friends, family, colleagues, and even strangers for your contributions to make this exhibition possible.

To my partner, Mark Makins, thank you just doesn’t cut it. I’m not sure what I would’ve done without you. Your sacrifice, patience, and genuine support has helped me ‘just do it’ even when I didn’t believe I could. I am also extremely grateful to my family for their endless support. Mom, Dad, Paige, Rory, Opie, and Irie, I love you all more than words can describe.

Mary Ratcliff, my sculpture wife, I can’t imagine making art without you! Thank you for all that you do. Thrasyvoulos Kalaitzidis, Thras, thank you for always bringing a smile to my face and so many compelling conversations. Many heartfelt thanks to my peers, Cecelia Moseley, Paul Acevedo Gomez, Lauren Saunders, Matt Jones, and many others for your support and efforts to help me achieve more than I ever could have alone. Thank you to my fantastic undergrad support team for your volunteered time: Adri Hawkins, Kathy Guidry, Sophia Greeson, and Zachary Donze. I appreciate you all more than you can know!

Dot and Donny, the very first people I met in Louisiana, thank you for your kindness and support. Mark and I have been so lucky to have you next door through hurricanes, ice storms, and the occasional trespasser. Whitney Hogan, I am so grateful to have you in my life. Your native Louisianan insight had been so incredibly insightful.

I would like to express my deepest appreciation to my committee. Andy Shaw, who always seems to ask the right questions, your feedback throughout my time at LSU has been so thoughtful, supportive, and imperative to my growth as an artist. Thank you for being the chair of my committee and for the trust you’ve had in my process of artmaking. Loren Schwerd, my co-chair, I really couldn’t have done it without you. Your knowledge, selfless support, energy, and commitment to my success is so appreciated. Thank you to Allison Young, Kristine Thompson, and Jeremiah Ariaz for your insightful direction throughout my time at LSU. I also want to thank Mark Shumake for the endless support and knowledge shared. I wouldn’t be here without the support and wisdom of my undergraduate professors and mentors, Jenny Hager and Lance Vickery. Thank you for allowing me to be your forever student.

Lastly, I’d like to extend my deepest gratitude to Sharon Lavigne for all that you do in this corner of the world. Your persistence and determination through Rise St. James have been so inspiring. Thank you for welcoming me, educating me, and encouraging me to fight for environmental justice.
Table of Contents

Acknowledgments ............................................................................................................................... ii
List of Artworks ................................................................................................................................ iv
Abstract .............................................................................................................................................. vi
Preface ................................................................................................................................................ vii
Temporality of place: Home ............................................................................................................... 1
Temporality of Place: The Hidden Costs of Evolution ....................................................................... 4
Winding Down River Road .................................................................................................................. 7
   Methodologies and Research ........................................................................................................... 7
   Convoluted Patterns ...................................................................................................................... 10
   Series of Constructed Canals ......................................................................................................... 20
   Louisiana Coast Pipelines ............................................................................................................... 23
   Vanishing Worlds .......................................................................................................................... 26
   Muddy Migration ........................................................................................................................... 27
   727 ................................................................................................................................................ 32
   Legacies of Exploitation ............................................................................................................... 35
   Petroflower Project ....................................................................................................................... 41

Temporality of Place: Conclusion ...................................................................................................... 44
Bibliography ......................................................................................................................................... 45
Vita ....................................................................................................................................................... 47
List of Figures

Figure 1. Benzene Pipeline on River Road, St. Gabriel, LA .......................................................... 10
Figure 2. Sunset on the Mississippi, St. Gabriel, LA ........................................................................ 11
Figure 3. River Road Tire .................................................................................................................... 12
Figure 4. Refinery Deconstruction in Cancer Alley ............................................................................. 13
Figure 5. Pipeline Evacuation A, Cancer Alley ................................................................................... 14
Figure 6. Island Road Fishing Pier, Terrebonne Parish, LA ................................................................. 15
Figure 7. Don’t Anchor, Island Road, Terrebonne Parish, LA ............................................................... 15
Figure 8. Pointe Aux Chene Marina Fishing Net ................................................................................ 16
Figure 9. Convoluted Patterns ............................................................................................................ 17
Figure 10. Convoluted Patterns – pipe detail ...................................................................................... 17
Figure 11. Convoluted Patterns – truss detail ....................................................................................... 18
Figure 12. Constructed Canal, Map 1 of 4 ........................................................................................... 20
Figure 13. Constructed Canal, Map 1 of 4, shadow detail .................................................................... 21
Figure 14. Louisiana Coast Pipelines .................................................................................................... 23
Figure 15. Detail of Lighting Installation .............................................................................................. 24
Figure 16. Vanishing Worlds ............................................................................................................... 26
Figure 17. Muddy Migration .............................................................................................................. 27
Figure 18. Muddy Migration - detail .................................................................................................... 28
Figure 19. Hurricane Safety .............................................................................................................. 30
Figure 20. 727 .................................................................................................................................. 32
Figure 21. 727 - detail ......................................................................................................................... 33
Figure 22. Legacies of Exploitation .......................................................... 35
Figure 23. Legacies of Exploitation – detail natural sunflowers ............................................. 36
Figure 24. Legacies of Exploitation – detail cast iron .......................................................... 36
Figure 25. Legacies of Exploitation – detail plastic ............................................................. 37
Figure 26. The Anatomy Lesson of Dr. Nicolaes Tulp, Rembrandt, 1632 .................................. 39
Figure 27. Hurricane Spiral with Golden Ratio ........................................................................ 40
Figure 28. Dried Sunflower Installation .................................................................................. 41
Figure 29. Dried Sunflower Installation - detail ...................................................................... 41
Abstract

As a mechanism to explore my temporary home in Louisiana, *Winding Down River Road* is a collection of artworks that integrates natural materials collected from landscapes in southern Louisiana with steel and petroleum-based products. My interest in researching environmental issues, ecology, and industry has shaped my vehicles for observation and how I generate data. Through a variety of methodologies, I am considering how climate change is forcing many of us to recontextualize how our home can be affected by the very industries we rely on. Personal engagement with residents living in the dystopian atmosphere of southern Louisiana’s industrial corridor and the rapidly disappearing coastal communities shaped my understanding of rooted connection to place. What began as a class field trip along an infamous byway between Baton Rouge and New Orleans sparked a multi-year study of this unique environment impacted by industrial infrastructure and systems that ultimately disrupt the landscape.
Preface

It was February. Quite possibly, the most miserable winter month. Overnight, we received just over a foot of snow. In Steamboat Springs, Colorado, the fresh layer of white is undeniably beautiful especially against the deep, rich blue skies. When you fall snowboarding, it’s like descending into a cloud; a wet, cold, slippery cloud that might be just fine for others, but it is not for me. I spent much of my childhood on the coast of northeast Florida, and I would much rather fall off a surfboard in the salty, lukewarm bathwater of a midsummer Atlantic Ocean before Steamboat’s “champagne powder” (the nickname for snow in the region). So, while my neighbors and new friends were ecstatic over the fresh, crisp snowfall... I was cold.

Before Colorado, my partner who is a lifelong Floridian, and I were living and working the summer season in Glacier National Park, Montana. It was magnificent. A breathtaking, genuinely jaw-dropping environment to explore with dazed wonder as we packed away our sea-legs and laced up our hiking boots. The beauty of summer in the mountains had us both eager to spend more time in this unfamiliar landscape even though we knew it would be temporary due to the fact that I had planned to return to school the following year. The profoundly satisfying Coloradan fall season blanketed the mountains with fiery reds, burnt oranges and gooey yellows that we didn’t see in Florida. A palm leaf only has two colors – green: alive or, brown: dead. But the brilliant autumn leaves quickly fell away leaving us with a forest of skeletal trees ready to bear inconceivable heaps of snow. What felt like a sudden seasonal change quickly led to the realization that maybe we weren’t quite prepared for truly wintry weather. Seventy degrees at
night was sweater weather in our eyes. As winter dredged on, we were counting down the days to return south like the annual migration of egrets, gulls, and pelicans.

It was during the midst of winter that I was contemplating where to attend graduate school. Colorado and Montana are wonderful in so many ways but for me, they are places to visit. Not home. Whenever I’d travel from the west back to Florida, it always began with a deep satisfying breath as I stepped off the plane and felt the weight of the muggy air settle on my shoulders. My hair would double in size during the walk from the plane to the car as humidity curled its fingers tightly around strands coiling them in the way an earthworm wriggles and writhes when pulled out of soil. As soon as I reached the coast, my mind always seemed to settle with the soothing sounds of the ebb and flow of the tide. I had a few choices in vastly different areas of the country, but the decision was easily narrowed down. I needed to return to the south.
Temporality of Place: Home

We moved around quite a bit when I was young which had profound effects on how I understood the perception of home relating to a specific place or environment. When my family relocated to Jacksonville, Florida, I believed it also to be temporary. There was no reason to grow attached to a place after having my young heart broken with another inescapable move. I explicitly did not see myself ever being interested in Florida. During our first week in our new ‘home’ I sobbed to my parents about how I could not breathe because the air felt so thick and how could we possibly have Christmas with no snow?! I refused to care about Florida, I refused to even try. However, I was only 10 years old. As the years passed, Florida inevitably became home unbeknownst to me. It wasn’t until I had gotten comfortable and was forced to move midway through high school that I realized how fond of Florida I had grown. Just as the roots were finally gripping to soil, I was transplanted to a new place. The concept of temporality when regarding the idea of home was dusted off and further ingrained in my heart as I miserably unpacked boxes in Texas.

In the years that I grieved for the previous temporary place that I believed could finally be called home, I turned to nature to find solace. As children, my siblings and I spent most of our time outdoors making mud pies, riding bikes, climbing trees, and engaging in some minor trespassing as we explored. One of the neighborhoods we terrorized in northeast Florida was built on a marsh that branched off the St. John’s River as it flowed towards the Atlantic Ocean. We would ride our bikes on the bridge over the lock that separated the lagoon from the marsh, sometimes hanging around to watch boats rise or fall as the water equalized. We played in the
new home construction sites and planted ‘treasures’ from in the marsh in the walls of wooden frames. Occasionally using left-behind sharpies, we’d sketch our vision of the space on the drywall (much to the construction workers dismay, I suspect). We’d decide where appliances in the kitchen would go and outline things like bunk beds in the living room to be closer to the backyard. Drawing on the walls and concealing found objects in the framing was a way for me to feel forever connected even after a door with a lock was installed. These camps were yet another interim territory for me that encapsulated my idea of what home was: a place for a little while that will inevitably change or be taken away forever.

It took me years to grow out of the envy I felt towards others that lived their entire existence somewhere. How could someone spend their whole lives in one place? To be surrounded by grandparents, aunts, uncles, and cousins that had regular barbeques and sleepovers was so foreign to me. A close friend had such intimate ties to home that she could point out the house where her mother was born and the church where her grandparents married. Her great-grandparents’ home was a short drive away and yet I had never thought to ask where my grandparents married on either my paternal or maternal side. Place had no solidity for me. My entire existence felt like a feather floating along with the current, ebbing and flowing with the tide. I’d wash up somewhere temporarily until a larger swell crashed onto the sand and pulled me out again. Eventually, the envy I felt towards those unaffected by the tide turned to curiosity about roots to a place. I began to wonder how it felt to be so confidently anchored to a region.

My desire to return to the south for graduate school was the beginning of my exploration of the concept of home. Although I don’t have a distinct city with decades of family history, it’s
clear that my roots are best fertilized with marsh mud, salty breezes, and oppressive humidity. It was nostalgia that drew me towards a place where alligators sunbathe on the edge of retention ponds, where windows are fogged with condensation, and nights are momentarily illuminated by flashes of heat lightning. Louisiana’s subtropical climate and lush landscape of oaks draped with moss, palmetto fans, and meandering streams through vast, patchy marshes felt simultaneously familiar and peculiar. In Baton Rouge, the ocean isn’t close enough to saturate the breeze with salt, but the Mississippi River was a body of water I found myself curious to understand further. I recognized many southern comfort foods but now with added Creole seasoning. I relished in the familiarity of straight, flat roads but had to learn how to pronounce their French names. I was surrounded by the familiar but in a completely new world.

I began graduate school questioning what it means to call a place home but found myself deeply entranced in the mystical magnetism that had pulled me south. Like the moons gravitational pull effecting the tides, how does the south move and pull me? What about this region do I rely on for comfort? How have my comforts effected the landscape I care so deeply for? What began as a class field trip along an infamous byway between Baton Rouge and New Orleans sparked a multi-year study of this unique environment impacted by industrial structures and systems that ultimately disrupt the landscape of a region that I call home. *Winding Down River Road* integrates natural materials collected from landscapes in southern Louisiana with steel and petroleum-based materials as a mechanism to explore temporality of place in Louisiana and consider how climate change is forcing many of us to re-contextualize how our home can be affected by the industries we rely on.
Temporality of Place: The Hidden Costs of Evolution

We are bombarded with images from the media of the looming climate crisis that is swiftly underway in a variety of regions around the world. For seaside dwellers, photographic images of natural disasters and maps reveal coastal erosion and higher flood lines as stronger and stronger storms wipe away homes and important cultural landscapes. These images shared by the media may evoke a sense of concern or awe in a viewer, but it does little to convey the complexities of such tremendous environmental shifts. An audience, if unaffected by the storm directly, can simply disassociate from the captured scene and return to their lifestyle, a lifestyle that contributes to the cause of the weather event in the first place. Uncaptured are the emotional connections residents have to the afflicted environment.

As hurricane season begins, we watch for the first signs of a developing storm over the warm waters of the Gulf of Mexico. Once its path is predicted towards home, we stock up on water and nonperishable foods, fill sandbags to help fend off the floodwaters, search for wood to board up windows, batteries for flashlights, or matches for candles. Lines at gas stations are long and you begin to check in with neighbors to see who is evacuating and who is hunkering down next door because once the cell towers are down, it’s best to know who is there for help if needed. As the shelves are cleared due to panic buying, you question whether to stay or go. But many of us don’t have somewhere to go or can’t afford to leave. This is our home. Our families and friends. Our businesses, schools, and livelihoods. Gridlock develops and the local government warns – there is no help once that storm touches land. Board games, cards, puzzles, and paperbacks are at the ready.
The meteorologist on TV stands gripping onto anything nearby to stay upright as they warn of the storms immense power. The rain begins with slow tapping increasing to a rhythmic pitter-patter until it intensifies to boisterous pummeling on the roof above. The wind starts slowly too, rustling leaves and convincing birds to flee. Before long, it is unyielding and savage with raw power, howling as it grips onto trees in an effort to uproot them. The trees creak and occasionally scream as they crack under the onslaught of force. The lights go out, candles are lit, or flashlights illuminated, and the sound of generators whirring nearby joins in the symphony of the storm. Eyes glance towards the ceiling as hushed prayers for the roof to hold are expressed. Finally, a silence quieter than that of pre-dawn hovers. The humid air is calm and fragrant with ocean and rain. Neighbors slowly emerge and fan out to explore the wreckage. The silence is pierced with the growling of chainsaws as people begin to make piles of debris. Tree limbs and leaves, metal twisted and crumpled like old receipts, and household items for those whose roofs need to be replaced. A storm may pass through quickly but the damage it leaves behind takes months and sometimes years to repair.

In my short time here in Louisiana, the 2020 hurricane season stands out for its relentless devastation. An already difficult year battling coronavirus, the season set a record for the most hurricanes to make landfall in a single season in the state. Five storms ceaselessly pummeled the Louisiana coast devastating the region1. The following year, as residents were still trying to recover, powerful hurricanes returned to damage homes and livelihoods. Through my explorations of the Louisiana landscape, it was impossible to avoid the issue of land loss along

the coast and the heightened intensity of storms on the landscape. I began to question the causes of land loss and explore how the petrochemical corridor, nicknamed Cancer Alley, related to the severity of hurricanes. It became clear that although the storms themselves develop in a matter of days, their impacts are decades in the making. The years of extraction and exploitation pursued by the pervasive fossil fuel industry in southern Louisiana has paved the way for catastrophic damage. As natural barriers for storm surges, wetlands have historically had the ability to contain excess floodwaters and act as a buffer for the mainland. Oil and gas companies have permanently scarred Louisiana’s coastal marshes to dig channels for pipelines. These man-made canals allow for saltwater intrusion that erodes a valuable habitat eventually becoming open water. As the sea becomes warmer, the new areas of open water create more space for a hurricane to gain strength. 

Hanusik, V. *Ida showed the fossil fuel industry has left Louisiana defenseless.* (n.d.). Retrieved April 27, 2022, from https://www.virginiahanusik.com/new-page
Methodologies and Research

Throughout my exploration of Louisiana’s chemical corridor and coastal region, there were times I felt overwhelmed. The daunting statistics and heart-wrenching images I came across in my research weighed on me. I started to wonder if I could handle the depth of the information. As an outsider, I questioned if I was the right person to confront the challenges facing the state. Instead, I could focus on the beauty of the natural world and purposefully ignore the exceedingly alarming reality of climate change. Avoid recognizing the transformation of ecosystems and decline of biodiversity. Disregard changes to the physical landscape due to industrialization and infrastructure. Neglect the interrelated challenges we face socially and physically due to petrochemical-consuming machines we have become. Ultimately, I realized the power I have as an artist to translate these issues of concern visually. Each piece in this collection is entrenched with statistical information, oral histories gathered through interviews, and site-specific references.

At the time that I began my research, I came across a book titled Petrochemical America by Richard Misrach and Kate Orff. The striking photography of the industrial sectors of southern Louisiana captured by Misrach paired with writing and graphs created by Kate Orff were a primary source as I began visiting sites along the lower Mississippi River known as Cancer Alley, the industrial corridor, or the chemical corridor. Understanding the layers of history of the region was an important element for me. I sought out historical maps through LSU’s Cartographic Information Center which led me to the Special Collections department of LSU’s Hill Memorial Library. It was through these maps I observed how the land had been developed over time. Once
“lush fishing grounds for Native Americans to thriving indigo and sugarcane plantations worked by African slaves, to a startling conflation of petrochemical factories” the lower Mississippi was irrevocably transformed. This is not the only area of America that has considerable petro-industry. Alaska produces more oil than Louisiana and there are facilities in Texas that ‘refine larger volumes, but neither lies in such proximity to residential areas\(^3\).

It was this proximity of industry to neighborhoods that struck me during my first drive down River Road for a class field trip. The winding road follows the shape of the Mississippi River that twists and turns as the water flows towards the sea. At the beginning of the drive, I was reminded of Florida because of the similar vegetation. What stood out were things I hadn’t seen before. I observed plantation ruins and levees, as well as large refineries hovering over homes, schools, and playgrounds. My fond memories are what pulled me back to the south but inspecting this dystopian landscape of familiar vegetation juxtaposed with ominous factories sparked a new line of inquiry. I began to question not only how I was connected to the environment but also my connection to the invading industry effectively transforming this place into wasteland.

My first visit down River Road was two weeks before the global lockdown for Covid-19. I spent the first few months of quarantine reading about the history of Cancer Alley, watching interviews of residents, learning about the types of chemicals produced, researching environmental laws, political histories of Louisiana, and developing ideas on how to create art to portray my findings. The information I compiled became overwhelming but also felt as if it was missing something. The pandemic prevented me from meeting residents in person at first, but it

was apparent that meeting with local communities to learn about how industry was affecting them was vital. As the work developed and pandemic restrictions loosened, I began meeting with community members, environmental scientists, coastal restoration groups, environmental activist leaders, and artists also studying the region. The warmth of southerners has always been a characteristic I cherish and was greatly appreciated in my moments of self-doubt. Connection to the environment through its people was a fundamental element for the development of each artwork.

As I learned of the negative impacts of the industrial corridor, I began to investigate my personal art practice. The tools and techniques I employ as a sculptor are heavily influenced by industry. My specialties lie in casting metals such as iron, bronze, and aluminum into molds bonded with dangerous chemicals. I’ve created multiple large-scale public artworks by welding and fabricating steel. These practices are what influenced me to become a sculptor, but this research and self-examination pushed me to develop new methods of creation. My curiosity about the concept of home is why I returned south. The desire to understand what it means to have deep roots to a place is what led me to interview residents fighting against overbearing industries and climate change. Ultimately, this line of inquiry led to new developments in my creative process. Just as participating in the community became an important aspect of this work, so did site-specific excursions to collect organic matter to apply as material for making art. Taking photographs and learning to develop film also became a form of research that I inaugurated as I cultivated new ways of creating. The ability to capture the landscape in a moment of time is the power of photography. The concept of temporality in an environment
rapidly changing was at the forefront of my mind as I photographed River Road and coastal regions of southern Louisiana (Figures 1-8).

Figure 1. Benzene Pipeline on River Road, St. Gabriel, LA

Gillian Harper, 2022, Photograph
Figure 2. Sunset on the Mississippi, St. Gabriel, LA

Gillian Harper, 2022, Photograph
Figure 3. River Road Tire

Gillian Harper, 2022, Photograph
Figure 4. Refinery Deconstruction in Cancer Alley

Gillian Harper, 2022, Photograph
Figure 5. Pipeline Evacuation A, Cancer Alley

Gillian Harper, 2022, Photograph
Figure 6. Island Road Fishing Pier, Terrebonne Parish, LA
Gillian Harper, 2022, Photograph

Figure 7. Don’t Anchor, Island Road, Terrebonne Parish, LA
Gillian Harper, 2022, Photograph
Figure 8. Pointe Aux Chene Marina Fishing Net

Gillian Harper, 2022, Photograph
Convoluted Patterns

Figure 9. Convoluted Patterns
Gillian Harper, 2022, Steel, Soil, Smooth Cordgrass

Figure 10. Convoluted Patterns – pipe detail
Gillian Harper, 2022, Steel, Soil, Smooth Cordgrass
Figure 11. Convoluted Patterns – truss detail

Gillian Harper, 2022, Steel, Soil, Smooth Cordgrass
Within industrial infrastructure, there is a hybrid network that connects visible and invisible systems. Pipelines hidden underneath the sea, emerging over levees and through swamps, define the landscape here in southern Louisiana. While researching the coastal land loss and the systems that connect to Cancer Alley, I focused on the thousands of miles of pipelines, active and inactive, to create *Convoluted Patterns* (Figure 9). This is a large-scale steel sculpture made up of a variety of sizes of pipe that descend like spider legs from a metal platform (Figure 10). The platform holds clear plexiglass planter boxes of smooth cordgrass, the most common marsh grass found in Louisiana. A metal frame, designed to mimic the trusses on deep water oil rigs, allows the viewer to see the roots of the cordgrass (Figure 11).

Our reliance on petroleum and its products have altered the landscape over the last century which consequentially amplifies the intensity of hurricanes. Wetlands have served as a natural hurricane protection system for centuries. They contain floodwaters and work as a barrier protecting the mainland. By digging canals through coastal marshes to build and service pipelines, oil and gas companies have accelerated saltwater intrusion. The saltwater erodes the habitat, deteriorating the grassy landscape which then becomes open water. Hurricanes gain strength over warm water which is why our wetlands are so vital. Climate change is causing oceans to become warmer which is another detrimental effect of large industries. *Convoluted Patterns* is an investigation on how man-made patterns that attempt to hide industrial infrastructure are affecting the natural landscape.
Figure 12. Constructed Canal, Map 1 of 4
Gillian Harper, 2022, Acrylic, Styrofoam, Nylon, Steel Cable
Figure 13. Constructed Canal, Map 1 of 4, shadow detail
Gillian Harper, 2022, Acrylic, Styrofoam, Nylon, Steel Cable
I examined countless maps and satellite images of Louisiana’s rapidly deteriorating coasts to create *Constructed Canals* (Figures 12-13). Once I learned of the dredging of marshes to construct canals for pipelines that service refineries lining the lower Mississippi River, I focused on areas that had obvious signs of mankind’s intrusion. Straight lines are a rare find in nature, so it was clear to see where pipelines existed when observing satellite images. There are areas of wetlands that resemble graph paper with perfect squares of marsh lined neatly in a row. The stark contrast to organic curves was discernible on Apple maps as I kayaked areas such as Pointe Aux Chene, Louisiana.

On the computer, I traced maps of Louisiana’s coastal marshes with abrupt canals slashed through them. I laser etched the maps onto transparent black acrylic which I framed with recycled Styrofoam. I used black spray paint on the Styrofoam to allow for the chemicals to deteriorate the material creating a more fragile structure. Once the material is disintegrated, it is impossible to mend the lost areas to its original form. This was intentional in relation to how the marshes have been altered and the habitats heightened fragility. The maps were hung with steel cable, an industrial material, at a distance from the wall to allow light and shadow to play a role in the viewing. Light illuminates the map and reflects shadows on the wall behind. If viewers stepped in front of the light source, the image disappears similar to the effects of our extraction of the environment. Styrofoam and acrylic are petroleum-based products I recycled with the intention of repurposing waste. I also chose to use nylon nuts and bolts to attach the map to the frame to further examine the use of synthetic materials as a form of connection.
Figure 14. Louisiana Coast Pipelines

Gillian Harper, 2022, Acrylic, Oil Barrel Lid, Steel Cable
Figure 15. Detail of Lighting Installation
Gillian Harper, 2022, Clamp lights, Extension Cords, Steel
Displayed alongside *Constructed Canals* is a transparent black acrylic map of the pipeline network in the Gulf of Mexico directly below the coastline of Louisiana. This map, titled *Louisiana Coast Pipelines* (Figure 14), was CNC milled and is framed within the lid of a fifty-five-gallon oil drum. This piece is also hung by steel cabling at a distance from the wall to allow for light and shadow to illuminate the image on the wall behind the work. My material choices intentionally confront the hidden costs of evolution. Our standard of living has fully encompassed petrochemical products making the scale of its consequences difficult to grasp. When creating the works based on maps, I returned to information I found in *Petrochemical America*:

Over twenty-five thousand miles of underwater oil and natural gas pipelines are buried beneath the seabed and connect offshore drilling platforms to Gulf state refineries and chemical industries. These offshore platforms traverse vast spans of land and water, merging infrastructural, ecological, and political imperatives in a new geography. The consequences of ever deeper water drilling include the risk of uncontrollable oil spills, where, unlike the defined surface extents of a tanker spill, deep holes in the earth can release unknown quantities of oil into the water column. The Deepwater Horizon explosion of April 20, 2010, released approximately five million barrels of crude oil into Gulf waters⁴.

The light sources for these maps are hidden in an installation of extension cords, clamp lights, and metal stands (Figure 15). This aimed to portray the excessive amount of drilling platforms and the industrial infrastructure hidden from our everyday view. This area becomes viewer-activated that changes how the work is observed.

---

In a different area of the gallery, there are three small-scales maps held together in a single Styrofoam frame. Also corroded with black paint, the frame for *Vanishing Worlds* (Figure 16) displays maps of natural coastal regions that are under severe threat due to a combination of accelerating climate change, human activity, and natural processes causing rapid land loss in coastal communities. Although there are no man-made canals in these regions, the peril is ever-present.
Muddy Migration

Figure 17. Muddy Migration
Gillian Harper, 2022, Cotton Fabric, Steel, Louisiana Marsh Mud
The physical toll that our petrochemical-fueled lifestyles have on the river parishes and coastal marshes is clear. But my investigations were originally inspired by the exploration of the concept of home. My childhood on the coast of northeast Florida shaped how I empathize with coastal communities, but the marshes I grew up with have changed minimally over time. The astonishing rate of land disappearing from coastal Louisiana and the Mississippi River Delta is predicted as the size of a football field of wetlands vanishing every 100 minutes\(^5\).

When visiting Pointe Aux Chene, I met with PAC Kayak Rental owner, Eddie Mullen, briefly to discuss the changes he’s seen with climate change. He first pointed out that his entire business was on wheels, based out of trailers so that he and his wife can tow to higher ground when hurricanes approach. He showed me the ruins of where his business once existed before it was wiped away by a previous hurricane and we discussed the adaptation he had to make to continue his livelihood. Eddie was kind enough to show me areas of open water that used to be wetlands. He wanted me to see the graveyard of dead oak trees that once created a canopy for fishermen as they left the mainland to head towards open water. The oaks, killed by saltwater intrusion, now haunt the region with the reminder that sea levels are rising. When I asked Eddie why he stayed, his answer was quick and his eyes sparkled as he smiled and said, “this is my paradise. I’ll never abandon my home.”

The neighboring region of Isle de Jean Charles is now a narrow strip of land in Terrebonne Parish, Louisiana that has lost 98 percent of its landmass since 1955. This island was once 22,000 acres but is now only 320 acres. Home to the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw for generations, the region is sadly now home to the first federally funded climate migrant program\(^6\). Inaction on climate change by the government and industry has resulted in communities such as this to be broken apart and forced to abandon their ancestral homelands, sacred burial sites, cultural traditions, heritage, and livelihoods.

---

Figure 19. Hurricane Safety

Gillian Harper, 2022, Photograph
The sensitivities involved when Indigenous people and coastal communities are encouraged to leave their homelands is what guided the artwork, *Muddy Migration* (Figure 17). Through interviews with residents in Isle de Jean Charles and Pointe Aux Chene, I learned of the rapid change in landscape they have witnessed. Older tribal members spoke of oak tree canopies that no longer exist and the responsibility they feel towards protecting their native marshland. Residents live in trailers next to destroyed homes they are committed to rebuilding. Generators are still whirring months after Hurricane Ida had departed because no one is coming to restore downed powerlines. Bright orange submarine-like structures dot the road and are used as hurricane shelters (Figure 19). When passing one home, I stopped to read a bright yellow sign planted in the front yard that read “Isle de Jean Charles is Not Dead. Climate Change Sucks.” These residents are still fighting for their home, but what happens when the land becomes completely engulfed by the sea?

In this work, I was responding to the unimaginable emotional trauma created by climate-forced migration. *Muddy Migration* is made up of five thirty-inch-wide panels of white fabric that hang down ten and half feet in length. The image of the Louisiana coastline is created by mud collected at a coastal marsh. By stepping in the mud and walking away from the coastline at the bottom of the panels, the footprints gradually disappear as I walk towards what would be considered north on a map (Figure 18). I was thinking about the cultural landmarks and ancestral histories that will ultimately disappear along with the land.
Figure 20. 727
Gillian Harper, 2022, Steel, Salt, Oil Drum
Figure 21. 727 - detail

Gillian Harper, 2022, Steel, Salt, Oil Drum
The oil industry in Louisiana began in 1901 in Jennings, Louisiana and has shaped the state’s social, political, economic, and environmental landscape\(^7\). At one point in time, all sixty-four parishes in Louisiana have produced oil and gas\(^8\). I referenced historic photographs of oilfields in Jennings and Leeville, Louisiana to create 727 (Figure 20). I fabricated a metal stand to represent a derrick which is the support structure that holds the drilling apparatus. The stand bears a black fifty-five-gallon oil drum that I sanded to resemble the pattern of river run-off. I chose to scratch away the surface to allow the metal drum to rust and corrode in the areas unprotected by paint. The pattern can also represent roots which relates to climate-forced migration due to industrial impacts of drilling.

The mound of salt placed beneath 727 is a reference to the saltwater intrusion created by the canals dug for pipelines to transport oil and gas (Figure 21). The salt is also an allusion to the ancient geological features known as salt domes that are prime locations to drill for oil and gas:

These subterranean deposits of salt penetrate the bedrock layer to create columns that extend below the surface for miles. After space is hollowed out through injection of water and extraction of salty brine, these invisible caverns are used to house waste, ethylene, and massive quantities of oil, including a portion of the 727-million-barrel United States Strategic Petroleum Reserve\(^9\).


Legacies of Exploitation

Figure 22. Legacies of Exploitation

Gillian Harper, 2021-22, Dried Sunflowers, Cast Iron, Polypropylene Plastic, Hardware
Figure 23. Legacies of Exploitation – detail natural sunflowers

Gillian Harper, 2021-22, Dried Sunflowers, Cast Iron, Polypropylene Plastic, Hardware

Figure 24. Legacies of Exploitation – detail cast iron

Gillian Harper, 2021-22, Dried Sunflowers, Cast Iron, Polypropylene Plastic, Hardware
Legacies of Exploitation (Figure 25) is a visual representation of how industry production has evolved. The work is a wall installation that parallels the natural spiral pattern of seeds that occur in a sunflower. The center is composed of dried natural sunflowers (Figure 23). I am referencing how civilization began by exploiting natural materials. As humanity progressed, we excelled by refining natural materials further during the Industrial Revolution, represented by the use of cast iron sunflowers (Figure 24). Vacuum-formed polypropylene plastic sunflowers are at the end of each ‘arm’ of the spiral to approach the age of synthetics we are currently living in (Figure 25). Although refining natural materials comes with significant concerns, I also worry about the problems we face in this age of single-use plastics. With the buildup of plastic waste...
and constant air pollution, where do we as a society draw the line? At what point do we stop blaming the consumer and start looking at how corporations can create less waste? Can governmental policies and regulations help? How is our consumption spiraling out of control?

The pattern I mimicked for the work is found in the arrangement of sunflower seeds which is known in mathematics as the Fibonacci sequence. In this sequence, every number is generated by adding together the two previous numbers. Hidden inside this never-ending sequence is the golden ratio, sometimes called the “divine proportion” because of its frequency in the natural world\textsuperscript{10}. Some of the most easily recognized examples of the golden ratio are petals of flowers such as lilies or daisies, nautilus shells, Romanesco broccoli, and the Milky Way galaxy. The seeds of a sunflower and pinecones twist in opposing spirals of Fibonacci numbers. Often depicted within a rectangle, the golden spiral can also be applied to works from art history such as Rembrandt’s \textit{The Anatomy Lesson of Dr. Nicolaes Tulp}, 1632 (Figure 26). Like Rembrandt, I am also using a representation of the golden spiral as a compositional tool to enhance the history of exploitation.

Figure 26. The Anatomy Lesson of Dr. Nicolaes Tulp, Rembrandt, 1632

While the result is technically not a truly logarithmic, or “golden” spiral, it is a close approximation. More importantly, this is the type of process artists have used to visualize and apply the divine proportion to their paintings throughout the centuries. The most evident manifestation of the ratio lies in the composition of paintings and cutting of canvases. This Rembrandt painting is a particularly stunning example of the spiral’s manifestation as it is not only shown through a complex yet clear layout of figures and background. The compositional tool has also been used to enhance the story. For example, an unbreakable connection is created between the text in the lower right corner and the students.

---

The first time I installed *Legacies of Exploitation* in my studio, the spiral pattern reminded me of the swirl of a hurricane seen in satellite images (Figure 27). Although not technically considered a golden spiral in mathematical terms, the parallels were palpable. Hurricanes have had such a presence in my childhood and my recent return to the south. Although it was accidental that I created a pattern linking the form of a hurricane with how industry has caused storms to intensify, the golden spiral became an important compositional element.

![Figure 27. Hurricane Spiral with Golden Ratio](image-url)
Petroflower Project

Figure 28. Dried Sunflower Installation
Gillian Harper, 2022, Clay, Fishing Wire, Dried Sunflowers

Figure 29. Dried Sunflower Installation - detail
Gillian Harper, 2022, Clay, Fishing Wire, Dried Sunflowers
The path of inquiry I found myself pursuing in graduate school shifted and morphed as new discoveries were made. I arrived questioning the concept of home when I drove down River Road and witnessed Cancer Alley for the first time. The nostalgia I hold for Florida remained with me as I explored the effects of industry on the river parishes and coastal communities. My empathy for the residents of these areas led me to volunteer with the environmental justice activist group, Rise St. James. The founder, Sharon Lavigne, welcomed me with open arms to multiple events and has sat down with me for several interviews. I learned of the power of organized people to defeat plastic companies such as Formosa that she and her team successfully stopped from building a facility in their parish. She taught me the value of participation in community matters as a method to connect deeper to a place. I initially was worried about how I could contribute as an outside. When I asked Sharon what I could do, her request was for me to spread awareness which I believe art has the immense power to do.

Learning about the pollution and health risks effecting the people and land along Cancer Alley reminded me of the sunflower fields planted to absorb radiation among sites of nuclear disasters in areas such as Hiroshima, Chernobyl, and Fukushima. Known as an iconic symbol of happiness, positivity, and joy, the sunflower is also a hyperaccumulator due to their ability to pull contaminates from the ground. The process is called phytoextraction and is popular among ecologists in bioremediation efforts. The symbolic connotation and scientific properties of the sunflower makes it an ideal symbol of unity among river parish community members fighting for

---

environmental justice. The pandemic only heightened the importance of seeking justice and spreading awareness. With the loosest air pollution standards allowed by the EPA, these Louisianans have been plagued with pollution-induced illnesses putting them at greater risk of death by Covid-19\(^\text{13}\).

The *Petroflower Project* is a community-involved project where I will work with Rise St. James members and river parish residents to plant sunflowers as a symbol of unity, bioremediation, and collaboration to raise awareness towards environmental justice. The project goal is not to ‘fix’ pollution but rather to compose a critical inspection of the government’s lack of restrictions on an overabundance of petrochemical companies among Black and impoverished neighborhoods in southern Louisiana. In reference to this work, I created an installation of dried sunflowers held up with red clay and hanging from fishing line (Figure 28 & 29). I chose to use dried sunflowers for the installation to reference neglect of the river parishes and the deaths pollution from refineries has expedited. The shadows created on the wall behind the sunflowers reference the ancestors of these communities who have been disadvantaged since the beginning of America. The act of planting a sunflower seed illustrates hope. Hope for change, community, and the manifestation of a new landscape post-petrochemical industry.

Temporality of Place: Conclusion

I came to Louisiana knowing that my time here would be temporary. I craved the familiarity of humidity, southern hospitality, large oak trees, palm leaves, and egrets gliding across sherbet-colored sunsets. I aimed to find what pulled me south believing it to be something other than nostalgia. Through countless drives winding down River Road, I contemplated how a place, even if temporary, can become home. I questioned others on what tied them to a place and listened to answers that were simultaneously stubborn and hopeful. Often there weren’t explanations for what home is, I was told, “it’s just home. You can feel it.” There is something sacred about the connection one can feel to a region or specific place. It’s an unbreakable bond that even the worst of natural disasters can’t crack. Industries poisoning the air, soil, and water won’t push everyone away. Instead, it motivates a community to come together and fight to save their homes.

In my explorations of southern Louisiana, I cultivated relationships, new methods of creation, and reconnected to the south, a region I will forever call home. The definition of home that I’ve always had has been that it is a place for a little while that will inevitably change or be taken away forever but my recent investigations of industry has changed that. I realized that a place should only be considered temporary if one chooses it to be. Rapid climate change is forcing many of us to recontextualize how our home can be affected by the very industries we rely on. It is my goal to portray the effects of extraction on environment and people whilst educating and (hopefully) inspiring action.
Bibliography


*How many times have you spotted fibonacci in nature? here are 7 examples for you...* The Stemettes Zine. (2022, April 8). Retrieved April 22, 2022, from https://stemettes.org/zine/articles/fibonacci-in-nature/


Vita

Gillian Harper is a mixed-media artist born in Georgia but raised primarily in northeast Florida. She received her Bachelor of Fine Arts with a concentration in sculpture from the University of North Florida in 2017. Through repetition, tangled lines, organic matter, and texture, Gillian constructs artwork to connect with environment and people. She will receive her Master of Fine Arts from Louisiana State University in August of 2022. Upon graduation, Gillian will be teaching sculpture and 3D design as an adjunct professor at LSU.