#NotIowaNice: Guerrilla design tactics and addressing nitrate pollution

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#NotIowaNice: Guerrilla design tactics and addressing nitrate pollution

by

Heather Sumners-Purdy

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

Major: Graphic Design

Program of Study Committee:
Paul Bruski, Major Professor
Alex Braidwood
Mimi Wagner

Iowa State University

Ames, Iowa

2017

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DEDICATION

This is dedicated to my parents, Harold and Sharon Sumners, to whom I am grateful for teaching me of the importance of education no matter one’s age; for pushing me to continue to pursue my dreams long after I thought they were possible. To my sons, Finn and Jackson, the two of you have taught me more since you arrived, than a lifetime did before you existed. At the tender age of five you gave me the best advice to keep me motivated, “just keep swimming.”

And to my husband, David, for encouragement and support through graduate school; three years that seemed they might never end.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>iv</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>vii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>viii</td>
</tr>
<tr>
<td>CHAPTER 1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2 LITERATURE REVIEW</td>
<td>4</td>
</tr>
<tr>
<td>CHAPTER 3 PRECEDENT WORKS</td>
<td>11</td>
</tr>
<tr>
<td>CHAPTER 4 CREATIVE PROCESS</td>
<td>16</td>
</tr>
<tr>
<td>CHAPTER 5 CREATIVE CONCEPTS</td>
<td>26</td>
</tr>
<tr>
<td>CHAPTER 6 PRESENTATIONS OF DESIGN EXPERIMENTS</td>
<td>40</td>
</tr>
<tr>
<td>CHAPTER 7 SUMMARY AND CONCLUSION</td>
<td>64</td>
</tr>
<tr>
<td>WORKS CITED</td>
<td>68</td>
</tr>
<tr>
<td>APPENDIX A DOCUMENTATION OF STICKER CAMPAIGN</td>
<td>71</td>
</tr>
<tr>
<td>APPENDIX B DOCUMENTATION OF GRAFFITI CAMPAIGN</td>
<td>73</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poster series about negative effects of nitrate pollution</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Broken City Lab’s, “Bay Area’s Emergencies” (Broken City Lab, 2012)</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Illuminator’s “Wheel of Justice” (The Illuminator, 2014)</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>Greenpeace’s graffiti campaign</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>A photograph “So Much Water So Close to Home”</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Panelists</td>
<td>17</td>
</tr>
<tr>
<td>7</td>
<td>Concept for new mythology surrounding Iowa’s agriculture</td>
<td>19</td>
</tr>
<tr>
<td>8</td>
<td>Conceptual imagery for data animation</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>Series of conceptual designs for animated gifs</td>
<td>21</td>
</tr>
<tr>
<td>10</td>
<td>Conceptual design of emotional plea poster</td>
<td>22</td>
</tr>
<tr>
<td>11</td>
<td>Convergence between the viewer and the location of the media in time</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>Photos taken around Des Moines, Iowa</td>
<td>27</td>
</tr>
<tr>
<td>13</td>
<td>Recording ink dropping into the water</td>
<td>28</td>
</tr>
<tr>
<td>14</td>
<td>Video sequence test option 1</td>
<td>29</td>
</tr>
<tr>
<td>15</td>
<td>Video sequence test option 2</td>
<td>29</td>
</tr>
<tr>
<td>16</td>
<td>Video sequence test option 3</td>
<td>29</td>
</tr>
<tr>
<td>17</td>
<td>Map of scouted locations in downtown Des Moines, Iowa</td>
<td>31</td>
</tr>
<tr>
<td>18</td>
<td>Above images of scouted locations in Figure 17</td>
<td>31</td>
</tr>
<tr>
<td>19</td>
<td>Scouted locations for video projection on Iowa State University campus</td>
<td>32</td>
</tr>
<tr>
<td>20</td>
<td>Images of scouted locations in Figure 19</td>
<td>32</td>
</tr>
</tbody>
</table>
Figure 21. Scouted locations for video projections in Ames, Iowa. ........................................ 33
Figure 22. Photos of locations on map in Figure 21 ................................................................. 33
Figure 23. Technical equipment needed for video projections .................................................. 35
Figure 24. Design for stickers ..................................................................................................... 36
Figure 25. Design for graffiti stencil .......................................................................................... 37
Figure 26. Initial testing in my backyard for visibility and distance. .......................................... 41
Figure 27. Testing projections of two video concepts ................................................................. 42
Figure 28. Editing final video projection ..................................................................................... 43
Figure 29. Final video for projections ......................................................................................... 44
Figure 30. Video projection locations in Des Moines, Iowa ....................................................... 45
Figure 31. Projections at Fitch Building (left) and Wallace Building (right) .............................. 45
Figure 32. Final locations for ISU campus projections .............................................................. 46
Figure 33. Projection at Parks Library (left) and Curtiss Hall (right) ........................................ 46
Figure 34. View of the Fitch Building rooftop ............................................................................ 47
Figure 35. Locations, duration and views per video projection .................................................. 48
Figure 36. Designing stickers ..................................................................................................... 49
Figure 37. Placement of sticker on parking around Des Moines, Iowa ..................................... 50
Figure 38. Sticker before and after attempted removal .............................................................. 51
Figure 38. Final logo design, cardstock template and laser cutting acrylic stencil ................... 52
Figure 40. Acrylic stencil used for spray-chalk graffiti .............................................................. 53
Figure 41. Stenciled logo on concrete sidewalks ....................................................................... 53
Figure 42. Screen capture of a post from social media .............................................................. 57
Figure 43. Pennies displaying safe and unsafe nitrate levels ...................................................... 58
Figure 44. Sample of Twitter feed for @NotIowaNice ..................................................................... 60

Figure 45. Website for www.notiowanice.org ................................................................................. 61

Figure 46. Example article from www.notiowanice.org ................................................................. 62

Figure 47. Dialogue on twitter ........................................................................................................ 63

Figure 48. Sticker locations around Des Moines, Iowa ................................................................. 71

Figure 49. Stencil graffiti locations around Des Moines, Iowa ....................................................... 73
I would like to thank my committee chair, Paul Bruski, and my committee members, Alex Braidwood, and Mimi Wagner, for their guidance and support throughout the course of this research. I would also like to thank each of them for the examples they set with their own works and research; I was humbled to have each of them on my committee.

In addition, I would like to thank Gretchen Zdorkowski, Lecturer in the Agronomy Department; as this adventure would have been misguided without her early counsel. I would also like to thank my friends, colleagues, the department faculty and staff for making my time at Iowa State University an exhilarating and exhaustive experience.
Calling attention to the issue of nitrate pollution in Iowa’s waterways as a result of current agricultural practices, my goal was to initiate a dialogue on social media prompted by guerrilla tactics. The issue of nitrate pollution has been steadily increasing over the past decade as a result of Iowa’s lack of environmental mandates to maintain and monitor nitrate leeching from the soil into the watersheds. In 2015, this issue initiated a lawsuit by the Des Moines Water Works against three northern farming counties, citing runoff into ditches that feed into the Raccoon River as source points of the pollution.

I wanted to be disruptive in a constructive manner to see if Iowan’s would respond on social media. There are common assumptions that people will post things to the internet that they would not have the courage to say out loud in person.

The hashtag #NotIowaNice was utilized as a brand and for social media context. Utilizing a campaign with video imaging, stickers, stenciled graffiti, a branded social media platform on twitter and a website carried this hashtag. Video projections were broadcast in selected areas of the downtown Des Moines metro and in Ames, Iowa. Stickers and spray-chalk graffiti messaging with “Nitrate Pollution #NotIowaNice” was placed along pedestrian walkways near the Des Moines and Raccoon Rivers.

The goal was to see if the imagery and messaging moved the audience to utilize or mention #NotIowaNice in social media. While several people filmed the video projections, there were ultimately no responses on social media utilizing the assigned hashtag.
CHAPTER 1

NITRATE POLLUTION

1.1 Introduction

Nitrate pollution as a result of agricultural runoff of excessive nitrogen has reached record highs in the past few years. Specifically, in the state of Iowa, many municipalities are struggling to keep up with the issue of filtering nitrates out of the water to reach a safe drinking level. The concept of accepting pollution as a necessary means to an end for farming yield was something I could not resolve intellectually. I wanted to evaluate and understand the reason that this pollution continues to be allowed, and how it came to be a socially accepted practice.

1.2 The project catalyst

The catalyst for this thesis project began as a result of a project assignment my first year of graduate school in the fall of 2014. The project asked students to tackle a “wicked” problem; defined as “problems of social policy, an arena in which a purely scientific-rational approach cannot be applied because of the lack of a clear problem definition and differing perspectives of stakeholders”. (Rittel & Webber, 1973) I readily chose the issue of hypoxia in the Gulf of Mexico, and explored design methods to create an empathetic connection on a human scale about the issue.

The final concept was to create sister-cities between Iowa farming communities and Louisiana shrimping communities. I hypothesized by creating a peer network of occupations that both relied on the bounty of natural resources, that farmers may begin to understand their impact on the shrimping and fishing communities of the South.
Agriculture Creates 60% of River Water Quality Pollution in the United States

Ninety percent of the nitrogen delivered to the Gulf of Mexico originates from agricultural runoff and atmospheric deposition. Visit our website to meet Gulf Coast fishermen that depend on you to help protect their livelihood. www.neteffect.org

Figure 1. Poster series about negative effects of nitrate pollution
1.3 A perspective on the issue

I grew up on the Mississippi Gulf Coast; a community rooted in fishing and shrimping industries. As I attended school with classmates who’s parents daily worked on the boats themselves, I noticed as we grew older that many of them did not follow in their family tradition of continuing to farm the Gulf. Initially, I thought nothing more of this than one generation’s sacrifice to give the next a step up. As the blue-collar fishing industry is not glamorous, I thought these families preferred for their children to pursue white-collar vocations. It wasn’t until many years later that I would come to realize that many former classmates chose not pursue the vocation of their preceding family because the supply and source of fish and shrimp was continuing to decline as the hypoxic zone in the Gulf grew larger through the decades.
CHAPTER 2

LITERATURE REVIEW

2.1 An introduction to sustainable agriculture

In the fall of 2015, Iowa State University offered Agroecosystems Analysis with lecturers Gretchen Zwdorkski and Matthew Liebman; a course described as an, “experiential, interdisciplinary examination of Midwestern agricultural and food systems.” (Iowa State University, 2016) Attending the course, the primary focus was to explore agronomic, economic and ecological perspectives as they were influenced by the scale of operation and social spheres. The course provided trips to meet many individual agricultural producers in various fields, as well as guest speakers whom discussed the ecological aspects of sustainable agriculture. One such speaker was Joshua Farley, PhD, an author and leading expert in the field of ecological economics.

Farley is currently a Professor in the Community Development and Applied Economics department in the College of Agriculture and Life Sciences at the University of Vermont. Farley, and co-authors Jon Erickson and Herman Daly, reveal a new “trans-discipline” in their book, Ecological Economics: Principles and Applications; where social, physical and biological sciences are used to evaluate and examine the ecological costs of modern economics. (Daly, Erickson, & Farley, 2011) While speaking to our class in 2015, Farley touched on agricultural economics, stating that costs issues, those of polluted waterways or the loss of soil each year, are not shown in economic data about each season’s crop.

There is plentiful data documenting water pollution (in the form of nitrates and phosphates) and soil loss each year; however, there are no costs currently tied to those issues. And while it
would be difficult to assign the economic resources, to evaluate worth in the process of producing
agricultural product, it is evident that these are big issues that need immediate attention. Farley
explains, “scientists are bad storytellers.”

What Farley means by this, and went on to explain, is that scientists look at data to
understand what has happened, and to evaluate and postulate what may occur in the future. The
average individual or group may not fully understand the severity of the issues without
understanding the implications of the data.

Access to clean water should be a public right in a first world country, and understanding
the long term effects of soil loss should ring alarm bells. Currently, these issues are not being
addressed by the majority in the agricultural industry; nor is there a large public outcry against
these practices of pollution and lack of action for soil conservation.

2.2 What’s the big deal?

“...this situation is likely to get worse as agricultural productivity
in the food and energy sectors of our economy takes precedence over
environmental sustainability.” (Thorson, 2011)

Currently, the largest human-caused hypoxic zone in the United States is the northern Gulf
of Mexico, south of the Louisiana and Texas continental shelves. The Gulf is the second largest
human-caused hypoxic zone worldwide (Louisiana Universities Marine Consortium, 2015); second only to the Black Sea (which has seen a reduction in size over the last two decades). Since
the introduction of reactive nitrogen (N2) after World War II as an agricultural intervention, the
rates of nitrogen, nitrates and phosphate pollutants in the Mississippi River watershed has
continued to increase at a steady rate. Intense land-use changes have affected downstream shorelines, ecosystems and coastal waters. (Prouty, et al., 2014)

As pressures and demand for higher agricultural yields increase each year, so does the needed nitrogen level for each particular crop; specifically, for corn and soybeans. Iowa’s (and other states’) mono-culture in growing corn and soybeans has meant that our state uses more nitrogen per acre than farms producing other crops. As years have passed, advancements in plowing, soil drainage, and irrigation techniques have had significant impact on the way water interacts with soil (Prouty, 2014, PG 31). During precipitation events, nitrogen that has not be absorbed by plants moves along the soil’s surface, running off into water culverts and ditches. At this point, the nitrates are swept into the water supply until they are subsequently absorbed by plant life, removed chemically at water treatment facilities or continue to run downstream.

The question to pose here is, do farmers and industries have the right to pollute and impact the drinking water for those downstream simply as by-product of the “cost of business.” This issue is complex and won’t go away with wishful thinking. It will take changing public policies and addressing current practices at a national level to implement change.

2.3 Iowa’s contribution

Living in the Midwest, with ample food supplies and surrounded by farmland, it is easy to assume that everyone benefits from the labor of agricultural production here in Iowa. While Iowa does contribute significantly to the nations overall production of corn and soybeans, the state also contributes a significant amount of pollutants to the waterways as a result of current farming
practices. Iowa is the third leading agricultural producer in the nation. (United States Department of Agriculture, 2015)

The state of Iowa is a top performer nationally in crop and livestock production. (Jarchowa, et al., 2012) Additionally, Iowa is also progressive in terms of utilizing new technologies in agricultural endeavors. Iowa has the capability to set an example of stewardship for future generations in means of soil security and ecological preservation, without sacrificing productivity.

2.4 How did we get here?

Many complex issues arose in tandem, thus giving rise to nitrogen as a key component in modern agriculture. One issue during the 1920’s had seen famine resulting from agricultural decline, which gave way to economic turmoil throughout the 1930s. (Schideler, 1957) A common practice at the time, most farmers did not utilize fertilizer beyond what was available to them in the form of manure; simply because low farm incomes made fertilizers a potential financial risk. (Anderson, 2009) Research and trials had not yet demonstrated the successful yield boosts that fertilizers were able to give to some crops; specifically corn, soybeans and small grains.

As the end of World War II approached, the United States government was keenly aware that to continue to feed a growing population, farmers needed to be able to boost yields and profits per acre. Many farmers in the Midwest were already using nitrogen (in the form of manure), potash and phosphates on lands that needed amendments to grow anything successfully. Researchers and farmers began utilizing these methods of soil enhancement on soil that was well adapted for farming by it’s own organic content.
From a government perspective, there was an abundance of ammunition plants that had been heavily utilized during the war as well as a labor force to work these facilities. Ammunition companies had access to ammonia based chemicals, and transitioning them from making weapons to producing reactive nitrogen was an easy adaptation. With a skilled labor force, and an emerging need, the production of nitrogen fertilizer was throttled into high gear by the mid-1950s. The usage of commercial nitrogen became commonplace, and grew so quickly that it increased to 7,459 million tons in 1970 from 419 million tons in 1945 on farms across North America (Anderson, 2009, pg 51).

2.5 Nitrogen is the not the (entire) issue

“Nitrate is considered as the most prevalent chemical contaminant in the world’s groundwater. The growing contamination of public and private well drinking water by nitrate is mostly because of the widespread use of commercial fertilizers and waste. Groundwater is used for agricultural and industrial consumption as well as for drinking water. Humans have altered the nitrogen cycle dramatically over the last decades, and as a result, nitrate is increasingly accumulating in water resources.” (Samaneh, 2013)

The production of reactive nitrogen since 1950 has increased our ability to feed a growing population. (Fields, 2004) At the same time humans have harnessed the power to create reactive nitrogen to produce more agricultural needs, we have not figured out a way to store the nitrogen efficiently to prevent the mobile solution from polluting ground and surface water supplies. Plants can only store so much nitrogen before they reach a saturation point. After that, the rest is leached into the surrounding soil. Nitrogen in a solvent state easily
penetrates the soil, gaining access to groundwater, as well as becoming runoff during precipitation events.

The Safe Water Drinking Act was passed in 1974. At the time the US Environmental Protection Agency (EPA) set a standard for water supplies to have less than 10 milligrams per liter (measured as nitrogen). In recent years, many water treatment municipalities have struggled to provide water within the specified levels of the EPA’s standards. Recently, this has been a contentious issue in Iowa. The Des Moines Water Works took the first steps in legal action against farmers in three counties due to pollution of the Raccoon River; a main source of water for the Des Moines Metro area. (Eller, 2016)

2.6 Minor changes, big impacts

Many opportunities currently exist for farmers to reduce runoff from their land with proven multi-functional conservation systems. (McGranahn, 2014) Currently, Iowa has a voluntary program that encourages farmers to reduce runoff. It has been argued that this program does not have established benchmarks or time frames and does not create a paradigm shift for farmers to think about the land beyond its seasonal crop production, focusing on long term strategies around ecological principles. (Associated Press, 2015)

Nearly immediate remedies are available to implement that can be utilized with initial financial investment that provide long-term results. The practice of planting cover crops, installing subsurface drainage bio-reactors (wood chip trenches), and providing space for prairie strips within crop fields all have documented success in slowing runoff of nitrates into the adjacent waterways. Even simple perennial vegetation on the borders of intensively-farmed landscapes has been shown
to keep nitrates and phosphates from entering waterways better than utilizing that land as row-crop areas.

2.7 What’s next?

Multi-functional agriculture, as Broody describes it, is the implementation of changes without increasing public costs (2005, page 27). While studies have shown what works to reduce nitrogen loss from soil, the paramount issue facing agricultural changes in land-use are the farming and agribusiness corporation decision makers left to decide how their land is best utilized to create a profit. Expecting altruism and long-range planning spanning the next generation of farmers (and even fishermen in the Gulf of Mexico) is a tough concept to wrestle with when you have millions of dollars riding on the successful yield of this year’s crop. While farmers are given subsidies for corn and soybean crops, the argument is continually made, that more incentives need to be provided – or, mandates and laws written, to persuade decision makers and land owners to action.

Initiating a national dialogue, one that has been discussed previously, dating back to the initial Clean Water Act of 1974, is the first step in changing current farming practices. I believe that dialogue is first started by educating the public about the complex adaptive system in place with this “wicked” problem. The next is by demonstrating successful farms that have implemented changes to their lands, while still boosting annual yields. Beyond that is, addressing the crisis situation in the Gulf of Mexico as a result of current agricultural practices. Finally, creating graphic presentations that I hope will incite a call to action and makes individuals feel they have a voice against current agricultural practices.
CHAPTER 3

PRECEDENT WORKS

3.1 Guerrilla tactics for social change

Defining guerrilla

The Oxford Dictionary defines the word guerrilla as, “referring to actions or activities performed in an impromptu way, often without authorization.” As the goal of this project is to initiate a dialogue about a topic that is not often considered polite in conversation, a conventional approach in design was not warranted. Instead, a decision was made to design work that would appear in unexpected places. The focus was to create messaging meant to intrigue and invite further investigation.

Guerrilla tactics are often temporary measures as well. While the dictionary doesn’t capture this aspect, and there are always exceptions to the rule, I really liked the idea of creating ephemeral designs. From graffiti, wheat pasted posters, stickers and now even digitally, guerrilla art forms are usually meant to be raw, specific about a statement or issue and visually compelling.
**Broken City Lab**

Located in Ontario, Canada, this artist-led non-profit organization has experimented with creative work that leads to civic change. Their interdisciplinary approach focuses on events and issues happening locally, as well as larger topics such as infrastructure and education. In 2012, a three-person group led a week long series of discussions with residents around town, asking individuals what they thought were “emergencies” for the area to prioritize. The result was a series of projected bullet points identified as important issues for the North Bay Area to address. (Broken City Lab, 2012)

![Image: Broken City Lab's, "Bay Area's Emergencies" (Broken City Lab, 2012)](image-url)
The Illuminator

An “art-activist collective” in New York City, NY, the Illuminator members strive to represent issues that face the average person. (The Illuminator, 2014) One projection-intervention titled the “Wheel of Justice” demonstrates New York City’s failing justice system. The Illuminator website explains that the NYC justice system routinely fails poor or disadvantaged accused individuals. Many do not have access to appointed legal representation due to a long-standing lack of funding for public defense, resulting in a large number of un-convicted citizens remaining in jails without due process.

The projection utilizes a game based approach to engage audience participation. An audience member approaches a kiosk with a button to “spin the wheel” of justice, and the video will respond with an explanation of whether or not the viewer was sent to jail. With each spin, an explanation and fact based on statistics is presented to tell the audience member why they are going to jail without legal representation.

Figure 3. Illuminator’s “Wheel of Justice” (The Illuminator, 2014)
Green Peace / Save the Arctic

From 2013 to 2015, Greenpeace used multiple guerrilla tactics to raise awareness of drilling for oil in the Alaskan Arctic. This campaign had multiple levels of engagement, and one of the smaller protest pieces was spraying paint graffiti messages around the world in major cities where Shell Oil had operations and offices. In the United States that meant protests and guerrilla works in Portland Oregon and in Alaska. The spray paint graffiti, found on streets, walls and Shell Oil gas stations, tied their messaging visually and verbally to the rest of their campaign methods asking Shell Oil to stop drilling and for President Obama to intercede in the issue. (Greenpeace International, 2013)

Figure 4. Greenpeace’s graffiti campaign to stop artic drilling (Greenpeace International, 2013)
The Swimmer

Projected from a skylight in the Moberg Gallery rooftop onto the east side of 2925 Ingersoll Avenue in Des Moines, an animated video plays throughout the evening starting at dusk. (Morain, 2015) This animation, by Grinnell College associate professor Matthew Kluber is titled, “So Much Water So Close to Home.” It is casually referred to as simply, “The Swimmer” by locals. This work of black and white abstracted video is an animation of isolated frames that continuously runs without interruption. It is the City’s first animated projection and was issued a billboard permit specifically due to the size and lighting needed for it. (The City of Des Moines does not have regulations that require permits for artwork.)

Figure 5. A photograph “So Much Water So Close to Home”
CHAPTER 4

CREATIVE PROCESS

4.1 The wicked problem

Nitrate pollution is a wicked problem, because what happens in Iowa also happens throughout the entire Mississippi River watershed; contributing to an ever increasing hypoxic zone in the Gulf of Mexico. (Gibbons, 2014) While evaluating what the messaging and the call to action would be, I realized that I needed to take a step back and revisit this issue from a fresh perspective. The concept of agribusiness pollution in Iowa waters is something that I have been researching and reading for two years. As a non-farmer, it was important for me to learn more about the pressures and issues that farmers face on a day-to-day basis before I concluded assumptions about their business models and farming methods.

4.2 Understanding the issue

It took me a long time to even scratch the surface to learn about Iowa’s modern farming practices and how they had come to be over the past century. I became aware that a layperson outside of the agribusiness (like myself) may not understand what nitrate runoff is in the first place, or why it’s an issue tied to water quality in the state. Farming is part of a larger complex adaptive system, meaning that the actions of one farmer most likely do not impact or change the rate of pollution. Neither does one farmer’s conversion to sustainable farming techniques and land management change the minds of farmers that have been successful with current industrial farm practices.
The essential message of this campaign is to stop polluting the waterways with excessive nitrate runoff from farms. Wording to initiate a conversation without assigning blame to farmers directly for the pollution proved to be delicate. At the Iowa’s Water Crisis meeting in Ames hosted by the Story County Democrats, Bill Stowe, the CEO of Des Moines Water Works was asked whether a land owner or a renter that farmed the land should be held responsible for sustainable measures to reduce nitrate runoff. Stowe’s answer was simply, “I don’t care. Work that out amongst yourselves. Just get it [nitrates] out of my water.”

Stowe’s sentiment echoed in my mind for a few days. Since I am not a land-owner, renter or government official with any capacity to establish mandatory guidelines about nitrogen run-off, what place did I have in this conversation? I decided it’s not for me to tell a farmer or land-owner what to do with their business. It is my place, as a citizen and tax payer, to get involved in order to raise awareness of the situation to the point that momentum builds traction and new laws are implemented to stop the pollution. So the next question, is where to begin?

Figure 6. Panelists from left to right are Bill Stowe, the CEO of Des Moines Water Works, Dr. Rick Cruse, Iowa State University Professor of Agronomy, and Seth Watkins, Farmer and owner of Pinhook Farms.
4.3 Conceptual design iterations

I struggled with new concepts after my thesis committee members suggested creating something beyond an exhibit design for this project. Initial ideas surrounded a traveling exhibit with information about the hypoxia issue and relative causes from Iowa’s agricultural practices. Early ideas had this informational kiosk with interactive screens traveling to several public locations included a mall, and a hunting goods store. Evaluating different audiences at each location, the premise was to see which, if either, audience participated more with the exhibit; those that were interested in hunting and the outdoors, or the average mall consumer.

As the exhibit idea was dismissed as people tend to ignore pop-up displays, I need to reevaluate my strengths and skill sets to determine how I would communicate nitrate pollution as a very large and widely ignored wicked problem. I evaluated a number of possible approaches to the subject matter. The following paragraphs as a sampling of some of the potentially viable concepts examined.

Mother Earth: a photography series

Featuring the female form as a visual metaphor of “Mother Earth” was an initial concept considered. In this imagined series two photographs would be juxtaposed from each other; the first, a nude female would be featured standing in a corn field. A second image would be that of an elderly woman standing in a field after the harvest and the field has been tilled. Representing the bountiful harvest offered by earth as depicted in the first by a young woman, the second image would demonstrate what had been exhausted in exchange for the bounty; an aged exhausted “Mother Earth” standing defenseless in the wake of the harvest.
The complications with this use of imagery was that it did not specifically address the nitrate pollution issue. Additionally, the use of nude figures would limit the spaces the work could be viewed. Finding a willing septuagenarian to pose in the nude for this project, and a farmer that would allow me to feature their field with said model proved a task not viable for the time constraints of this thesis work. Finally, a Google search returned images similar to this concept that had previously been well executed.

**Iowa mythology**

Another concept explored involved creating a mythology about Iowa’s agriculture. Again, featuring a Mother Earth figure shown in drawings or paintings that presented her defenseless and taken advantage of by corporate greed. The figure of corporate greed would be shown as a human with the form of a pig. The issue with drawing or painting a series of “stories” depicted in this manner was the same as the photography concept; that the viewer would not recognize or relate these images to nitrate pollution.

![Figure 7. Concept for new mythology surrounding Iowa’s agriculture.](image-url)
Animated data imagery

Wanting to utilize data of current nitrate levels in the Raccoon and Des Moines rivers, one concept explored creating an animation to depicted those values. The visual was of fish in water with visible stream lines; the streaming lines reflecting the nitrate value of the river at a point in time while the fish swam around. As the nitrate level and the stream lines climbed to higher levels, the water would turn greener, indicating the rapid growth of algae; then the fish would be seen dying as a result.

This animation would be able to stand alone without the data sets as a representation of the impact of excessive nitrogen in waters and streams and their affect on the delicate balance of life. As the audience engaged further, they would be able to decipher the emphasis on the stream lines and notice their rising levels with notations of the nitrate content. I did not follow up with this concept due to the time constraints of the project; my skill set of animating an original drawing in Adobe After Effects was limited.

Figure 8. Conceptual imagery for data animation
Animated gifs and poster series

Examining the potential of printed posters that would also have an animated gif component for online use and led me to explore the visuals found in Figure 7. Using simplistic icons to represent the actual pollution that infiltrates our water was a means to educate the viewer utilizing a little text as possible.

Figure 9. Series of conceptual designs for animated gifs
In Figure 10, and exploration in graphic depiction of a child with a glass of water with the text “Would you let your child drink from Iowa’s rivers?” brings the weight and immediacy of this issue into light. Offering our most vulnerable populations, children and elderly, polluted water is not part of the ideal civilization many of us have in mind. Ultimately, both of these campaign ideas fell short of the goal of being unique enough from public service announcements and campaigns that have already been produced.

Figure 10. Conceptual design of emotional plea poster.
It’s not about being pretty

“The subtractions are the most valuable additions to your product.”

—Mike Davidson. (InVision, 2016)

As I was looking to make a large impact with memorable graphics, I felt I was losing the intention of my project. While I was adding graphics for the sake of visuals, they weren’t necessary; or simplistic enough to relate the message. So I took a step back and questioned the base purpose of this project. Clean water. That’s the core of this thesis project; simply wanting the state to have available clean water for residents to use, and to pass downstream.

This is where the concept of guerrilla tactics came into being. Stripping away superfluous imagery and traditional methods of targeting an audience; and getting back to my core message meant finding ways to display that message in a way that would surprise and disrupt someone’s daily routine.

4.5 Making it resonate

The next step was to examine where and how to introduce my work into someone’s field of vision unexpectedly. I concluded that there were four ways to do this: ephemeral, temporary, semi-permanent, and physical. Lastly, there was a digital component to this project as a standing reference for anyone that encountered the guerrilla pieces. These categories served to create delineations in messaging methods and delivery.
Figure 11. Convergence between the viewer and the location of the media in time.

**Ephemeral**

Video projection served ephemeral work that exists for a specific period of time in specific locations. The projection will only available to the audience if they happen upon the location during the presentation time. With this method, I want to explore the level of engagement with an audience; questioning whether seeing an projected message on the side of a building will create enough intrigue for a social media mention.

**Temporary**

Stenciled spray-chalk graffiti will be a vehicle for a temporary message in downtown Des Moines. The chalk spray paint typically lasts from a week to three months depending on environmental factors of the location used. This messaging was underfoot in the most
pedestrian areas of the metro. The intention is for it to remain in numerous locations as pedestrians walk past it for the lifespan of the chalk medium.

**Semi-permanent**

The use of stickers as a semi-permanent guerrilla tactic to be employed in the downtown Des Moines area. Adhesive backed stickers affixed to public infrastructure at a pedestrian scale such as light poles, parking meters and bike racks were small enough to go unnoticed by the average passerby, but visible enough to an individual paying attention to their surroundings. In theory, the sticker would remain in location long after the video projection or the stencil graffiti wore off. The opportunity for daily visibility of these items is higher than the two previous methods, even though the actual real estate of the sticker itself is considerably smaller in scale.

**Physical**

The other presentations being digital, I wanted a physical example to demonstrate the minute amount of nitrates that are dangerous in drinking water. I investigated and created a monetary analogy using coins as a means of showing the restrictive volume of nitrates per specific volume of water, using pennies to create a physical display.

**Social**

As an anchor to the presentations, I created a social media presence that consisted of a twitter account and a website with more information about the issue of nitrate pollution as a means to provide some perceived legitimacy.
CHAPTER 5

CREATIVE RESPONSES

5.1 Campaign materials

Once the concept of guerrilla tactics was decided upon, the measure of success for the campaign would be the response to it on social media. Avoiding the traditional methods of campaign messaging, I wanted to make my statement as succinct as possible. First to draw curiosity; secondly to accommodate the attention-span of consumption for individual posts. Based on the case studies demonstrated, as well as input from my committee members Paul Bruski and Alex Braidwood, I choose five differing methods for messaging. The tactics employed included video projections, stickers, stencil graffiti, and a physical display of the safe amount of pollution per a specific volume of liquid. Additionally, a social media presence on twitter and an anchoring website were also utilized.

A hashtag was created, #NotIowaNice. This hashtag is specific to the concept of polite conversation etiquette in Iowa. (Iowa Public Radio, 2016) There are unwritten social conventions in the state of Iowa that determine certain topics of dialogue to be considered rude, and anything targeting an aspect of farming is considered to be one of those topics.
5.2 Video Projections

Creative concepts

For the visual narrative of the projection, I focused on the properties of water itself and pondered how I could illustrate the pollution of it. I wanted to show various rivers around the Des Moines Metro (where I live) and the State as well; demonstrating through photography the polluted waters as evidenced by their green, murky appearance.

Figure 12. Photos taken around Raccoon River, Des Moines River and Grey’s Lake in Des Moines, Iowa

A second approach considered was the demonstration of river water shown in large laboratory beakers on an orbital rotator shaker would be of interest to show the organic matter in them. I saw a demonstration of this when I visited the Des Moines Water Works (DMWW) in 2015. DMWW takes several samples daily to visually inspect them as well as test them for various organic and chemical content.

Both concepts corresponded to the visual imagery I wanted to convey the messaging about water, however, I did not think they would provide a visceral reaction towards pollution. I ventured forward to find something that visually spoke to the soiling of clear water.
Choosing a direction

Reducing the visual imagery to the bare necessities, for simplicity of messaging and for visual impact, I shoot video of clear water with thick black ink solution being dropped into it. An oversimplification of the issues of nitrate pollution, certainly; but an image that was compelling to view. I slowed the video into slow motion, and concise enough to communicate the message.

Figure 13. Recording ink dropping into the water
Editing for effect

My next step was to take the video content into Adobe After Effects to add special effects and text. Not needing sound, a sensory aspect was eliminated for this presentation. I set a time limit for 15 seconds, deciding that was enough time to deliver the visual setup and following message, and yet not enough time for the audience to get bored. In a time of social media, I thought it best to make each second of the video purposeful. Additionally, this is a short enough amount of time for the video to be looped, and have the audience view it multiple times if desired.

Figure 14. Video sequence test option 1

Figure 15. Video sequence test option 2

Figure 16. Video sequence test option 3
Locations for placement

I spent a number of days scouting locations for the video projection in downtown Des Moines and Ames, Iowa and the campus of Iowa State University. Finding spaces with consistent pedestrian traffic and minimal vehicle traffic were ideal. Since this was a video projection, the time of day was restricted to evening hours. Keeping this in mind, I looked for spaces with adequate lighting for pedestrian traffic, but not so much ambient lighting that would dim my projection. Location choices would impact the type of projector and the total lumen (brightness) I would need for my work to be visible.

Concerns for my safety were also a factor. I wanted to be in areas of town that were safe enough for me to carry the needed equipment with me without feeling like my possessions or my person would be in danger. With these qualifications in mind, I chose a total of five final sites to project work; three in Des Moines and two in Ames.
Figure 17. Map of scouted locations for video projections in downtown Des Moines, Iowa

Figure 18. Above images of scouted locations in Figure 17: (1) Pappajohns sculpture park, (2) Arlington Heights Apartments, (3) Des Moines Radio Group building, (4) Fitch Building, (5) Mainframe Studios, (6) Hub Riverwalk at Court Ave and (7) Wallace Building
Figure 19. Scouted locations for video projection on Iowa State University campus in Ames, Iowa.

Figure 20. Images of scouted locations in Figure 19: (1) College of Design, south exterior wall, (2) College of Design, southeast exterior wall, (3) Elings Hall, south exterior wall, (4) Parks Library, south exterior entrance and (5) Curtiss Hall
Figure 21. Scouted locations for video projections on Welch Avenue in Ames, Iowa.

Figure 22. Photos of locations on map in Figure 21: (6) North facing wall adjacent to CVS Pharmacy, (7) Sips brick wall next to Ames Fire Department
Technical equipment

For video projection various equipment was necessary; a projector, computer and power supply. Commonly many of the locations scouted had street lamps and other ambient lighting; due to this I needed a projector with at least 4200 lumens to be bright enough to be seen through ambient light. Additionally, most of the locations did not have access to power. I realized I would need to power the projector and computer off of battery packs or a generator for the duration of the presentations, as I planned to be in each area from one to two hours at a time.

I borrowed a projector from Iowa State University for a test run. An issue with the process was that I could not reserve a specific projector, and the University had a limited number of machines bright enough for my specific needs. On occasions that the projector I needed isn’t available, I rented one from a local Des Moines business. I also rented a small generator and borrowed both extension cords and lithium batteries.

During the this testing phase, I also came to the realization that battery packs were not strong enough to run the projectors by themselves. While the battery packs I had access to could power strobe flash bulbs for still photography, the lithium packs were intended to only handle electricity bursts for a split second, and did not have the capability to power the projector for any length of time. This meant that I would need the generator or to find access to electricity for the future projections.
Figure 23. Technical equipment needed for video projections. (1) Honda EU2000i generator, (2) Buff Vagabond Mini Lithium battery current controlled 120VAC portable power sources, (3) Epson PowerLite 4750W projector, (4) extension cords and (5) Apple 15” Macbook Pro

Legal precedent

Since this was a thesis project, and it was tied to the established and respected College of Design at the Iowa State University, I hesitated to present my work in rogue guerrilla style. Instead I opted to gain permission from building owners and I spoke with the City of Des Moines zoning and permit department before proceeding with work to see if any forms or applications I needed to complete. For the projections, the video display at the Moberg Gallery was a precedent to put forth as an example.
5.3 Stickers

Creative Process

Once the graphics for the video projection were in place, designs for the rest of the campaign followed suite, with small exceptions. I used black and white for the stickers simply due to cost and visibility instead of using the colors presented in the video. Since the stickers were small, 3” width by 2” height, my concern was that the abstract water drop background might be too detailed to be recognized at a scaled down size. I chose to utilize the state of Iowa graphic with the #NotIowaNice hashtag, and simply produce the visuals in one color.

![Design for stickers](image)

Figure 24. Design for stickers

Locations for placement

Some stickers were placed by me, and others given to friends and colleagues to circulate and post in places of their choosing. I focused on the East Village and Court Avenue areas of
downtown Des Moines for distribution. As a general rule, stickers were placed only in public spaces, specifically on infrastructure.

5.4 Graffiti

Creative Process

Stencil graffiti has always fascinated me as a means of communicating and reaching an audience by unorthodox means. In today’s polite society, graffiti is often seen as an unwanted or disrespectful interruption. Dynamic graffiti artists such as Banksy and Blu have blurred the line between political commentary and street art. (Vimercati, 2016) Similarly, I will use stencil graffiti as a means for political messaging about nitrate pollution. I used chalk spray paint instead of traditional spray paint since it is temporary and environmentally more friendly.

Figure 25. Design for graffiti stencil
Locations, equipment and precedent

Graffiti was concentrated along the river walks in downtown Des Moines. While there was some stenciled work within the downtown building areas and the Western Gateway and even Grey’s Lake, the focus was concentrated alongside the rivers. The equipment for this aspect of the campaign is low-tech; I planned to custom make a stencil, use spray chalk and carry a paper bag to conceal the stencil while walking around the city.

The City has an established precedent for spray paint on Court Avenue, as messages are allowed to be painted every year during the Drake Relays. Those messages are specifically sponsored and authorized, however, a number of pop-up events such as various market events held in the area utilize the spray chalk technique for advertising without repercussions. Since these areas are often inundated with messaging on the sidewalks, I thought this would be an appropriate place to share my work.

5.5 Penny display

Creative Process

A means to physically demonstrate the amount of nitrates legally allowable in the public water supply, I will use pennies to show volume and sheer mass. An exhibit showcasing 10,000 pennies will allow the audience to understand the minute amount of nitrates in our drinking water that are monitored for our safety. Additionally, I will have a secondary display with the same amount of pennies demonstrating an unsafe amount of nitrates in the water.
Locations, equipment and precedent

The exhibit was held informally at the College of Design at Iowa State University in Ames, Iowa. Display cabinets were utilized to feature the 20,000 coins with signage for explanation. Traditionally, the College of Design has hosted many exhibits of student work, and I saw it as a valuable means to reach other graduate students, faculty and undergraduates.

5.6 Social media accounts

Creation and content

Accounts were created utilizing the #NotIowaNice as a hashtag and a user name where applicable. Twitter and a website were the final chosen media platforms share content and receive feedback from audience participants throughout the campaign.
CHAPTER SIX

PRESENTATIONS OF DESIGN EXPERIMENTS

6.1 Video Projection

The production of the video projections was the most complicated of all of the guerrilla tactics utilized in this thesis project. I inquired with the City of Des Moines as to the need of a permit for projection; since this was considered an art project the City did not require one. The difference between this projection and that at the Moberg Gallery on Ingersoll Avenue, is that the “Swimmer” (as the work is casually referred to), is a permanent installation requiring electricity. Electricity alone required a billboard permit for the work to be displayed. I also requested and was granted permission from each building owner for the time, date and length of time that I wanted to project in Des Moines. On campus at Iowa State, I followed protocol from the Facilities Planning and Management’s policy about signage display and the guidelines for non-commercial use of outdoor areas. (Iowa State University, 2016)

Testing the videos

The very first test projection was conducted at my house onto the side of my garage. This was to establish the brightness of the projector, the extension cords, and the connection to the computer. The subsequent first video versions were tested on the east side of Mainframe Studios located at the Intersection of Keosauqua Way and 10th Avenue in Des Moines. This building was formerly a data server hub, and is currently being renovated to become a host of artists’ studios. Coincidentally, this building is a sister floor plan to the College of Design at Iowa State University and was designed by the same architect, HLKB Architecture.
Figure 26. Initial testing in my backyard for visibility and distance.

**Expectations and outcome**

While the projector I had was bright enough to project the length and distance I needed at the Mainframe Studio location, the videos themselves were not bright enough. The black and white ink drop concept fell flat in the dark sky. What I thought would provide the highest possible contrast instead failed to engage the viewer, as it was instead quite boring to watch. The other edited version of the test video had great color, however it had a black background that seemed to absorb the vivid ink drop sequence instead of emphasizing it.

**Participation and feedback**

I stayed at the Mainframe Studios location for an hour. I wanted to see if there were any issues with the projector, computer or generator overheating or having any other technical difficulties for a duration of usage. Although this location was specifically chosen for testing because it had limited pedestrian and vehicular traffic, I had four cars stop in the street to
engage in conversation and ask about the imagery they were seeing. The feedback for the medium itself was positive, however, the comprehension and engagement of the subject matter were not clear to those that responded in dialogue with me.

Figure 27. Testing projections of two video concepts
6.2 Edits & Exhibits

The content and graphic illustrations of the videos were reworked based on the test results of the session at Mainframe Studios. The messaging was worked after a discussion with Molly Hanson of Iowa Rivers Revival, a non-profit that works to express the value and importance of Iowa’s rivers. (Iowa Rivers Revival, 2016) Initially, the messaging said “All Iowans deserve clean water.” While discussing the topic, Molly suggested the word, “deserve” sounded like a privilege, not a need. The revised text reads, “everyone needs clean water.”

Instead of black, a white background was employed to best compliment and feature the color added to the ink swirls in the water. Video layers of bubbles and abstract color swirls were edited in Adobe After Effects to create a dynamic visual experience.

Figure 28. Editing final video projection
Locations and challenges

Four final locations were chosen for projecting edited videos. Two in Des Moines and two on campus at Iowa State University in Ames. The locations were chosen based on pedestrian traffic and approval from building owners and campus demonstration guidelines.

In Des Moines, I chose locations in the East Village and the Western Gateway areas of downtown. Both areas have significant pedestrian traffic during evening hours. The Fitch Building is significant due to its proximity to the Pappajohns Sculpture Park near the intersection of 15th Street and Locust Avenue. The north side of the building is visible from the west side of the park. The Henry A. Wallace building was chosen as a projection site due to its visible proximity to the Capitol. Henry A. Wallace, the building’s namesake, held offices as both the Secretary of Agriculture and served as Vice President of the United States. (senate.gov, n.d.)
Figure 30. Video projection locations in Des Moines, Iowa

Figure 31. Projections at Fitch Building (left) and Wallace Building (right)
Projections in Ames

On the Iowa State campus, I projected on the Curtiss Building and the Parks Library. Curtiss Hall was chosen since it houses the College of Agriculture and Life Sciences deans’ offices, the Leopold Center for Sustainable Agriculture, and the Department of Agricultural Education and Studies. Parks Library was chosen as it is a central location for students to frequent at all hours of the day and evening.

Figure 32. Final locations for ISU campus projections

Figure 33. Projection at Parks Library (left) and Curtiss Hall (right).
Power Sources

I used the generator for all of the projections with the exception of the Fitch Building. As I needed rooftop access for this viewing, carrying a 47-pound generator up a twelve-foot ladder was not a viable solution. Instead, I secured access to an electrical outlet inside of one of the artist’s studios located on the 3rd floor. I connected three 20-foot extension cords to give me enough length to reach the projector and laptop.

Figure 34. View of the Fitch Building rooftop.
Audience and Feedback

<table>
<thead>
<tr>
<th>Location of projections</th>
<th>Date</th>
<th>Duration</th>
<th># of pedestrians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainframe Studio (testing)</td>
<td>10/7/2016</td>
<td>1 hour</td>
<td>4</td>
</tr>
<tr>
<td>Fitch Building</td>
<td>10/21/2016</td>
<td>2.5 hours</td>
<td>73</td>
</tr>
<tr>
<td>Wallace Building</td>
<td>10/22/2016</td>
<td>1.5 hours</td>
<td>11</td>
</tr>
<tr>
<td>Curtiss Hall</td>
<td>10/23/2016</td>
<td>1 hour</td>
<td>3</td>
</tr>
<tr>
<td>Parks Library</td>
<td>10/23/2016</td>
<td>2 hours</td>
<td>48</td>
</tr>
</tbody>
</table>

Figure 35. Locations, duration and views per video projection.

While no social media mentions were garnered using the hashtag, I noticed several people at both the Fitch Building and Parks Library locations taking video footage of the projection content itself. I have no means to know if these audience participants chose to share this content with others in the form of social media or private messaging. The fact that they took video or photos with their smartphones at least demonstrates an initial interest. Whether that interest was in the method of presentation, the graphics or the message, I cannot determine.

6.3 Messaging in public spaces

As many aspects of this campaign are temporary and ephemeral, the notion of stickers seemed more like breaking the rules of social convention, and upsetting what Millie refers to as, “approved aesthetic order” of individual expectations of social spaces. (Millie, 2016) While the adhesive made stickers more of a nuisance to remove, applying them around the City did not feel like vandalism. Perhaps that was simply due to the size of the stickers or the conviction of my
message; that pollution is a more important matter to worry about than this minor trespass of stickers on public property.

**Process**

The aspect of this part of the campaign held a different approach than the projections. The concept was simple, to utilize the #NotIowaNice hashtag and graphic logo established in the videos in a single color format and small area size. The placement and locations considered for the stickers was determined by the amount of pedestrian traffic I thought would be passing specific locations. I chose to put stickers on public infrastructure as a means of addressing this as a public issue, and not to include private property in the campaign.

![Designing stickers](image-url)

*Figure 36. Designing stickers*
Location placement

I worked downtown for six years, and felt I had an understanding of where pedestrians utilize and frequent the sidewalks most. I took to those areas with my stickers, and for good measure also handed out some to friends and family members to place at will.

Court Avenue is one of the busiest pedestrian areas west of the Des Moines River specifically during the typical lunch hour. This was another concern, that these stickers be visible mainly during the day. Additionally, 1st and 4th Street were also carpeted with stickers. In East Village, Locust Street and Grand were areas of concentration. I also walked along the Des Moines River, starting at the north end of the Principal Riverwalk, and continuing down to the Riverwalk Hub at Court Avenue, placing stickers in multiple locations along the route. A full map of the locations and documentation of this aspect of the thesis work is in Appendix B.

Figure 37. Placement of sticker on parking around Des Moines, Iowa.
Feedback

It should be noted that I monitored the stickers around Des Moines, and the City had a majority of those along the Riverwalk and East Village removed within three working days. I was impressed and intrigued with the City’s attention to these stickers, and yet disappointed that their lifespan to reach a public audience was cut so short. I didn’t receive any social media mentions with use of the hashtag on them.

I researched the City of Des Moines’ policy about graffiti. The Facilities Division and the Police Department’s Intelligence Unit administer the removal of graffiti. The Police are often involved due to gang-related tags. (City of Des Moines, Iowa, 2009) It is more likely that the street cleaning and sanitation crew that physically walk and sweep the downtown area took the time to remove the stickers, or called the Facilities Division for removal.

Figure 38. Sticker before and after attempted removal.
6.4 Temporary tagging for visual engagement

Graffiti has long been a staple of guerrilla tactics; it is legality is disputed, even with the use of chalk paint. I wanted to see if it would garner a reaction based on visual imagery and topic content; and what that reaction might be. I chose a temporary spray medium, wagering that if I was caught by authorities while in the process of tagging, I would dismiss the issue hoping not to be charged due to the temporary nature of the mark.

Process

I designed a stencil of the logo and printed on cardstock to cut one out, but that proved to be flimsy after a coat or two of chalk paint wet the surface. This led to me designing a vector template to cut acrylic with a laser. Not knowing what final size of the logo would work best, I cut out several sizes ranging from 5” width by 4” height to 10” width by 7” height.

Figure 39. Final logo design, cardstock template and laser cutting acrylic stencil
I tested spraying two of the template sizes and chose to go with the largest version, measuring 10” width by 7” height. The smaller of the two tested wasn’t legible with the chalk paint. I noticed a significant difference between spray paint and spray chalk at this point. The density of spray chalk did not allow for finer details that the liquid viscosity of spray point did.

![Figure 40. Acrylic stencil used for spray-chalk graffiti](image)

**Locations**

The targeted focus of the graffiti was concentrated around the river itself. I marked several of the bridges over the Des Moines River, and the corresponding river walk area. I also spray painted in some areas of Court Avenue, Walnut Street and areas closer to the Sculpture Park in Des Moines. I stenciled at night when there were less pedestrians around. While I was spraying directly on walls or sidewalks and alleyways I had a few people walk past me while I was working; however, no one stopped to inquire what I was doing.

![Figure 41. Stenciled logo on concrete sidewalks.](image)
Feedback

There were no social media mentions about the graffiti mentioned with use of the hashtag. I have received feedback in general conversation when discussing my project with people in public, and they respond that they saw the tag and name the location. Three different individuals stated that they saw the markings on 15th Avenue, an alley behind the BNIM Architects on 6th Street, as well as one on Court Avenue bridge sidewalk. None of these people thought to post a discussion to social media. When I asked, the response was largely a largely held belief that they didn’t know enough about the issue to initiate or prompt a discussion about it.
6.5 Physical representation as visual metaphor

In juxtaposition to the ephemeral and temporary nature of the projections, stickers and graffiti, I created a physical representation of the miniscule amount of nitrates that become dangerous in drinking water. I presented two exhibits that remained static in location for a number of days to test if it would receive a reaction on social media, or mention in person due to message and presence.

Process

I thought of several ways to demonstrate the 10ppm/L the EPA has mandated as the safe level of nitrates in the water. (United States Environmental Protection Agency, 2015) I chose to utilize pennies due to the spherical shape of the coin representing the two-dimensional shape of a molecule in a drawing. I felt the monetary value assigned to a nitrate particle in contrast to the volume of the water represented would help to bring this concept of water pollution into perspective. As nitrates aren’t visible pollution as are oil leaks; even if they were visible to the eye, they wouldn’t noticeable at the levels that are threatening to human health and marine biology ecosystems.

In discussion with Alex Braidwood, a committee member, about a project that would physically represent what was safe in drinking water, he suggested that perhaps there were two presentations; one that showed what was safe in drinking water next to one that showed what was not safe, giving context to the scale of the issue the small concentrations of nitrates at issue. I decided to show one set of pennies with the safe amount of drinking water next to an identical group of pennies with an example of an unsafe level of nitrates.
To design a visual metaphor of the EPA limit of 10ppm/L, one must understand that ppm means for parts per million. This terminology is used to explain a very low concentration of a solution. I decided to use 10,000 pennies to represent the as the volume of liquid. Ten thousand pennies are the equivalent of $100, and enough of one material to demonstrate the volume of liquid in a liter of water. I needed to figure out how many pennies out of 10,000 would demonstrate the 10ppm/L. During my research, I found that 10 parts per million was equal to 0.01 milliliter/liter. Since 10,000 milliliter is equal to 1 liter, 1ppm = 0.001ml/L, then .01ml/L = 10 ppm.

Locations

Instead of the downtown Des Moines public areas, I decided to place these exhibits in the College of Design at Iowa State University to attract a different audience. The students passing through the chosen landing area for the display are a combination of graphic design, education and urban planning majors. I wanted to see how the students in the College of Design responded to these presentations. I was curious to see if the students, many of whom are active in social media as generational conditioning, were apt to post about the project.

Feedback

The feedback I received from this work was that of it being posted in social media on individual Facebook pages, but no mentions of the hashtag. Instead, those that knew I was responsible for the work posted images that were tagged with my name. I had a number of undergraduate and graduate students speak to me in person about this exhibit; discussing the topic matter and the manner of presentation. Most mentioned that they had
no idea the small amount of nitrates that caused health concerns. The undergraduates I spoke with associated nitrate pollution as the cost of living in a state that had a long history of agricultural and agribusiness.

When I discussed the costs and efforts it takes to remove the nitrates, one student explained she had no idea that it was such a complex procedure. She said she simply expected that it was part of the normal water cleaning process at any municipal water district could do.

![Figure 42. Screen capture of a post from social media](image-url)
Figure 43. Pennies displaying safe and unsafe nitrate levels.

**Error in calculations**

After this exhibit was completed, I realized I had miscalculated the amount of ppm/L as demonstrated with the pennies. As I realized that 10 parts per million was equal to 0.01 milliliter/liter, and since 10,000 milliliters is equal to 1 liter, 1ppm = 0.001ml/L, then .01ml/L = 10 ppm, I erroneously mistook .01ml/L in my mind for .01¢. I switched the measurement of milliliters into monetary change. Instead, one penny is equal to 10ppm/L demonstrated in 100,000 pennies, not 10,000. I misplaced the decimal. The penny in these displays should’ve conveyed that one-tenth of the penny itself was equal to 10ppm/L of nitrates in a liter of water.

Below are the calculations used to decide the number of pennies to represent 10ppm/L.

If 1mg/L is 1 ppm, 10mg/L is 10ppm, then 10ppm/L (or ten parts per million/per Liter of liquid) could be calculated using the following equation:

\[
\frac{10}{1,000,000} = 0.0010\%
\]

10,000 x .0010 = 1 (This is where I made my error, I did not calculate by percentage.)

10,000 x .0010% = 0.1 (This calculation is correct; the total is one tenth of one.)
6.6 Social media presence

To make this campaign legitimate in the digital and online realm, I created a social media presence with a website and twitter account. These accounts allowed the #NotIowaNice hashtag to have a landing spot if anyone looked it up. I thought this would make the campaign seem more like a continuing effort of a group, than the work of a single individual.

Process

I evaluated the various social media platforms; twitter, Facebook, Instagram. Of those twitter seemed to be a good fit with the objectives of creating engagement with participants and allowing a dialogue between individuals. Facebook could have also allowed for a level of engagement, however, it is based on the audience finding and liking your page, whereas the hashtag for #NotIowaNice would lead to the account and a trail of postings by various search keywords. I considered Instagram might be potentially useful as the campaign grows beyond this thesis project. At the time of this research, I didn’t find it as valuable since it does not primarily focus on verbal context and relies on imagery for resonance.

I designed the website to provide a knowledge for anyone that might look up the hashtag and want to know more about the project itself. The website, www.notiowanice.org was created to present itself as a community driven activist group presenting fact based information and articles about both pollution. The website featured links to articles found from newspapers, magazines and online agricultural sites. Additionally, content was created written from my personal opinion and experiences researching the topic. Unless otherwise noted and linked, the photography and content on that site was expressly my images and text.
Figure 44. Sample of Twitter feed for @NotIowaNice
Figure 45. Website for www.notiowanice.org
Feedback

The twitter account actually gained the attention of some people, and initiated some tense dialogue. I tweeted that ethanol isn’t a clean source of energy if nitrate runoff is a by product. I include these interactions with caution, as they were not a response to the guerrilla tactics and artwork presented; but rather a response to my initiated dialogue about ethanol.
Beyond responses from an ethanol lobbyist and a farmer that joined in support of my statement, I had few other comments from individuals.

I think I could’ve gained more social media attention by utilizing the twitter account on a daily basis. If I had targeted and responded farmers those that rely on corn for ethanol production, I could’ve easily sparked debate and gained attention for the account. However, this was not my intent for this project. The entire thesis was based in whether or not I could get the average person engaged in dialogue about the topic based on imagery they encountered. The short-coming with using twitter in this instance is that I did not have a strong following, so reaching a potential audience was challenging.

Figure 47. Dialogue on twitter
7.1 Summary

Beyond the issue of pollution, is Iowa’s social convention known as being, “Iowa nice.” Conversations that delve beyond the basics of asking, “how are you?” can often be misinterpreted as being rude. A conjecture could be made that this mindset evolved as farmers became more competitive with one another. Asking about someone’s crop could have been deemed the same as imposing yourself into their business. One can imagine this does not make for a positive climate for a serious debate about pollution at the fault of the farmer.

Especially in Iowa, farmers tend to be revered as hard working, honest people. Any criticism of their work is met with stern opposition, even when a byproduct of their work is poisoning the water supply, not only for Iowan’s but also for those down river, as far as the Gulf of Mexico. The issue of nitrate pollution is one that is larger than any single farmer, and through my research it became difficult to assign blame to the individuals that are interlaced in a larger complex adaptive system.

Responses

The responses I received to the creative work was mostly in person, with only a few social media mentions. In hindsight, I believe I simply didn’t have the exposure and repetition of visual messaging needed to be effective in creating a desire for individuals to post to social media about the issue. I also believe that many in the public are simply unaware of the wicked problem of nitrates in Iowa’s water, and how it has an impact environmentally.
In marketing the phrase *effective frequency* is used to express the exposures to messaging required to achieve effective communication. Strategically determining the range below exposure that produces action, and the rate at which exposure is considered to oversaturate the audience is a difficult challenge. In this instance, I feel that a lack of social media network in place prior to these presentations left the campaign isolated and without context to the larger issue.

**Factors of low-engagement**

I think the timing of these presentations was affected by the presidential campaign that was occurring at the same time. Had this campaign been active during the Pokémon frenzy of late summer 2016, I think it would’ve gathered a lot more attention, simply due to the amount of people walking downtown. I think that Instagram, a popular photo-sharing social media may have been a better medium to share the messaging than twitter. Twitter relies heavily on written content restricted to 144 characters. While Instagram relies on the imagery utilized to gain attention. I think I could have created a lot more visual content to gain views through that directly related to my goal of getting an audience to respond to visual stimulus, rather than the content I pushed through Twitter.

I also think I would have skipped the sticker component of the project and focused on a few more video projection locations and dates. Currently, video projection as a means of social activism is not often used in the Des Moines and Ames metro areas. Perhaps a few additional evenings of projections, with mentions and
video repeated on Instagram would’ve attracted more attention to the issue of pollution being discussed.

**Overcomplicated branding**

The visual messaging finalized was possibly too complex for relaying a message in a few seconds. During the initial design phase, I had a simpler concept that I thought was too plain, however, sometimes clean design with essential messaging is best. Additionally, a few stencils with the Instagram handle or website address may serve to encourage the audience to seek out information.

![Image of NITRATE POLLUTION #NotIowaNice]

**7.2 Future Options**

I will be continuing the #NotIowaNice campaign as an individual effort. I believe the spring will offer another opportunity to reach a new audience. The bike trails and pedestrian bridges around the rivers will have a lot more pedestrian traffic in late April versus September, when the projects were originally presented. The experience I gained during this process has emboldened me to do much more in the areas of video projection and spray chalk graffiti.
Potential opportunities

There are a number of opportunities to present both the stencil and video projection work over the summer of 2017. RAGBRAI (Register’s Annual Great Bicycle Ride Across Iowa), a weeklong bike ride attended by over 10,000 people begins at the Missouri River on the west side of the state and travels to the Mississippi River on the east side. One consideration would be to ride the route ahead of the schedule and chalk-spray various roads throughout the weeklong ride. Another potential idea, suggested by Paul Bruski, would be to brand a bicycle with the #NotIowaNice logo and have materials ready to hand out during the trip. The reason this event would be important is because many of the riders are environmentally conscious, and the route itself already includes two of the major rivers that contribute to hypoxia in the Gulf of Mexico.

Another concept is to mark the paths of events such as the Dam to Dam race and walking paths of events like Relay for Life. These experiences gather a lot of people that otherwise may not be walking or running in the downtown area.

7.3 What I learned

I learned that social activism is at the crux of creating a momentum for involvement from the public. In the first world society we live in, it’s easy to forget the trade offs and the environmental costs of current agricultural practices in the monoculture we’ve created across the state of Iowa. If the issue is not brought to the forefront to be discussed, even in a manner considered outside of social conventions, it will not be resolved. This is an issue that the farmers cannot or will not solve until there is public pressure for mandates, incentives and penalties for the pollution that occurs at the expense of our water quality.
Works Cited


APPENDIX A

LOCATIONS AND DOCUMENTATION OF STICKERS

Figure 48. Sticker locations around Des Moines, Iowa
LOCATIONS AND DOCUMENTATION OF STICKERS
APPENDIX B

LOCATIONS AND DOCUMENTATION OF STENCIL GRAFFITI

Figure 49. Stencil graffiti locations around Des Moines, Iowa
LOCATIONS AND DOCUMENTATION OF STENCIL GRAFFITI