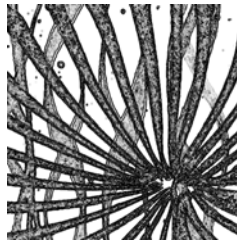


The  
Writing  
Anthology

2016



# The Writing Anthology



Edited by Elizabeth Koele and Hannah Marcum  
Advisors Walter Cannon and Joshua Dolezal

A Publication of the English Department and the Art Department

Central College Pella, Iowa 2016

Dear Readers,

Welcome to the 36th edition of *The Writing Anthology*.

We are very excited to share this year's publication with you. After reviewing nearly fifty submissions, we selected the following thirteen pieces to be featured in the anthology. The difficulty of this selection process is a testament to the excellent quality of student writing at Central College, and we are proud to see all the hard work put in by our peers.

Ideas have power. Each of the following essays was written with a unique goal to transform perspective. Through examining relevant questions and proposing solutions, the authors contribute to a broader global discourse. Considered as a whole, we believe this anthology develops a compelling statement concerning our present and future realities.

The first and last pieces in this anthology are natural complements. Both explore the association between humans and their health. Together, they build a framework for the progression of the collection. The first half of the anthology highlights human connection, both good and bad. Central to our arrangement is a philosophy essay that reminds readers of the origins of academic reasoning—a lens through which humans interpret their surroundings. Following this, the anthology's focus shifts toward meaningful interaction between humanity and the environment, reaching for a balance between the two elements.

Each year the John Allen Award is granted to the author or authors of the best student writing. This year, we are pleased to announce that Dana Wolthuizen and Elizabeth Koele will receive this honor. Dana's "A Scarlet Sea" threads together travel writing and historical perspective in a poignant memoir which highlights interpersonal connections. Similarly, Liz's "Learning the Loess Hills" displays an environmental awareness woven into a place essay with historical, scientific, and visual elements.

The editors would like to congratulate all of the student authors: thank you once more for your exceptional work. Additionally, we thank the professors who took notice and submitted these essays to *The Writing Anthology*. Thanks also to Professor Brian Roberts and all of the talented artists for their outstanding contributions. We would like to recognize all of the glass artists: Ashton Mayer, Sean Robbins, Whitney Sowers, and particularly Melissa Ketchum whose glass piece appears on the cover. Finally, we would like to thank Steffanie Bonnstetter and Lindsey Maurer in Central College Communications.

Most importantly, we acknowledge our faculty advisors, Dr. Walter Cannon, Dr. Joshua Dolezal, and Dr. Cynthia Mahmood. Dr. Cannon was the founding editor of *The Writing Anthology* in 1981 and has remained a keen and dedicated advisor ever since. His influence can be seen in every edition and will be missed. Walt, we salute you.

Again, thank you to all who made this year's publication possible. We simply couldn't do it without you.

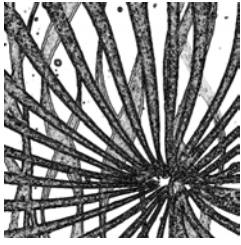
Enjoy the 2016 *Writing Anthology*!

Elizabeth Koele '16  
Hannah Marcum '18

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# Illness vs. Identity

Hannah Marcum

*ENGL 270: Illness and Health in Literature*

A bald woman in a pink t-shirt. A cane and sunglasses. A nervous tic, rocking back and forth. Eyes too close together. Eyes too far apart. Too messy. Too neat.

Many kinds of illnesses have physical characteristics that we can identify the moment we set eyes on them. Many of them will be the only thing we ever know about that person. Most of the time, we won't ever imagine what is beyond that one thing—the person's family, job, hobbies, or sense of humor. They have become their ailment.

Mental illness can do the same thing. Conditions like depression and post-traumatic stress disorder (PTSD) don't always have physical tells that would give them away in a grocery store. Once we do know they exist in a person, however, it gets harder to see anything about them in a separate light. Once again, their identity has been overshadowed by their illness.

Where does that leave them? Chances are, the illness has already pervaded their

“Illness vs. Identity” shows Hannah’s skill in animating critical writing with creative elements. Her opening uses imagery to clarify the problem her argument will resolve, and she drives the thesis forward with questions that a reader needs to resolve. Like a strong narrative, an original argument allows the reader to discover something new. Hannah’s closing thoughts on how social perceptions of mental illness (and the identities of those suffering from mental illness) are constructed through language changed the way I read the two texts she explores.

-Joshua Dolezal

own thought processes to the point of obsession. Letting it pervade their interactions with others will only make matters worse. If and when they find an effective treatment and can emerge from the shell of their malady, their healthy identity will be so lost to themselves and others that the difficulty of recovering multiplies. This is the norm, but an effective response to mental illness will combat the symptoms without wiping out the person's identity.

Losing one's self to sickness is a common theme throughout narratives of mental illness. In *Prozac Nation*, Elizabeth Wurtzel's national bestselling memoir relating her experience with chronic depression, she tells her friend Paris, “I'm the girl who is lost in space, the girl who is disappearing always, forever fading away and receding farther and farther into the background” (53-4). Later in the same conversation, she says she is “becoming more and more

invisible, getting covered over more thickly with darkness” (54). The darkness she describes is her depression, which, even at her young age of thirteen, has overtaken her sense of self. In *The Hundred Hearts*, a novel by William Kowalski, the protagonist Jeremy Merkin suffers from PTSD. He faces some of the same problems as Elizabeth—for instance, during his first panic attack he says, “I feel like I'm on Jupiter” (Ch. 1). Taken with Elizabeth's comment about being lost in space, this suggests that people with mental instabilities sometimes feel as if they don't relate to anyone in the human race. Towards the end of his story, Jeremy is reflecting on who he was before the explosion in Afghanistan that caused his disorder, saying, “that Jeremy doesn't exist anymore. He died five years ago...and the world is better off without him” (Ch. 19). In both cases, an identity is lost, not only to Elizabeth and Jeremy, but

seemingly to the world.

In that light, being or feeling lost to the world, especially to family and close friends, is another theme common in these two narratives. Elizabeth convinced herself that anytime she had a “freak-out” while she was with her friends, they got increasingly annoyed with her until they decided she “wasn’t worth the trouble” (108). Elizabeth is able to grasp when this is her fault, but it only perpetuates her guilt and causes her to retreat further away. Another time she faces that isolation is when Rafe, her college boyfriend, leaves her. She comes to terms with the fact that he was only attracted to her “emotional rawness,” in part because of his own savior complex, but more because that was all he ever knew of her. When he broke up with her, he left her “alone with [her] depression, having exhausted him and every other last resort [she] had” (217). Similarly, one of the most insightful lines about PTSD in *The Hundred Hearts* comes with a memory of Jeremy’s grandmother Helen. In a conversation about her husband Al’s deployment, she admits, “He wasn’t always like that. Before he went

away, he was a lot of fun. The Al I married went away to Vietnam and never came back” (Ch. 4). If someone had loved Jeremy as Helen loved Al, they likely could have made the same observation about him. However, even after being back from Afghanistan for five years, Jeremy hasn’t formed such bonds—his pot dealer is his best friend.



Whitney Sowers, 2015

Elizabeth Wurtzel, on the other hand, has several intimate relationships, yet she still can’t connect with anyone without centering the relationship on her depression. The bonds she does form act as shields from the rest of humanity rather than a step towards reintegration. In fact, she describes the worst part of her depression as “a sense

that all human connection was elusive, was the province of... the happy people on the other side of the glass wall” (215). Her feeling of alienation is as strong as a physical barrier. It is only after the failure of every romantic relationship, every *folie à deux*, Elizabeth initiates that she realizes individuals with depression

“cannot possibly be rescued through the power of anyone’s love” (215). Jeremy goes a step further in his belief that human interaction will ultimately lead to identity erasure. On a sidewalk in New York City, he stops and thinks, “Humanity is a river...and I am a rock. If I stand here long enough, they’ll just wear me away, and I’ll disappear” (Ch. 13).

How then do we, as a society of people at all points of the mental health spectrum, confront the problem at hand? How do we hang on to the identities at risk and revitalize them? Should we change our interactions during and after an experience with mental illness, or treat our friends and loved ones the same as ever? And how should one recovering from a debilitating ailment renew their own identity?

Naturally, these questions necessitate answers

on a case-by-case basis, but Wurtzel and Kowalski provide insight toward that end. One very obvious answer is the fact that *Prozac Nation* itself is a memoir. It was a way for Elizabeth, a born writer, to explore and express who she was before, during, and after the nadir of her depression. Near the end of the memoir, she recounts, “It took me a long time to get used to my contentedness. It was so hard for me to formulate a way of being and thinking in which the starting point was not depression...because depression is an addiction” (292). Like any addiction, depression was hard for Elizabeth to quit, but as her healing process dovetailed with the writing process, she discovered a renewed identity in authorship.

Jeremy Merkin’s answer to the question of identity is not so heartening. His therapist suggests that if he can remember what happened the day of the explosion, a day that has been erased from his memory, it will give him the closure he needs to recover from his disorder (Ch. 7). But then he does remember—“It was a crime. He’d tortured and executed an unarmed prisoner” (Ch. 19). Suddenly, Jeremy is faced with a new identity that perpetuates, rather than heals, his instability. He only did such a thing, he rationalizes, because “he’d given up any thought of ever going home again” (Ch. 19). Now he is home, and he

could be labeled and convicted as a war criminal. He wonders how he will ever go on from this point, how he will ever live a normal life while denying his ugly past.

One of the hardest parts of Elizabeth’s recovery process came when she realized, “I had fallen in love with my depression...I thought it was all I had” (289). She believes that the odd, often inappropriate effects of

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### **Even writing this, I have struggled to shake the “us and them” dichotomy that pervades the culture.**

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her illness were what people liked best about her. It comes as a shock to her when her friends admit “they excused this behavior as a sad flaw. It wasn’t what they liked about [her] at all” (290). Elizabeth is struggling here with the thought of returning to society as someone without depression for the first time in a decade. However, mightn’t the transition have been easier if her friends had come to her earlier with their affirmation? This is where the burden is divided. A person whose identity seemingly begins and ends with mental illness is easy for others to overlook. That is not to say they ignore them—instead, they refocus all interaction

on the *illness*, whether or not that is what the *person* needs. During the recovery process, then, outsiders may pressure someone, with a so long neglected sense of self, to the near-impossible feat of recovering their identity as it was ‘before.’ To address this paradigm, our society needs to change the way we think about those with mental illness. Even writing this, I have struggled to shake the “us and them” dichotomy that pervades the culture.

Jeremy Merkin is different. His inability to reenter the workaday lifestyle stems from sources much larger than himself. For one thing, the place he calls home—Elysium, California—is not somewhere he even wants to fit into again, as he observes, “there is no middle ground in Elysium, no one is just sort of anything” (Ch. 12). Compare this to Elizabeth, who finally finds solace “in-between...a life where the extremes are in check” (293). Without that comfortable middle ground to return to, Jeremy simply doesn’t return mentally. Another factor in Jeremy’s disorder is the army. In boot camp, groups of men are stripped of their individuality and built back up as a single unit. But when three members of the unit are “smithereened,” and others get shot, taken prisoner, or shipped off to a hospital, there is no ‘reboot camp,’ if you will (Ch. 1). There is no time for the men to adjust to life as an individual again—they just

get thrown in the middle of it, maybe with a family, maybe completely alone, and are expected to survive.

Just as Jeremy's search for identity isn't as successful as Elizabeth's, the conclusion of his story isn't as fulfilling. Shortly after he has uncovered the truth of his war crime, a brain aneurysm kills him. Even then, Jeremy has not escaped the war. In the novel's epilogue, we learn that his version of the afterlife starts back in Afghanistan, with villagers and fellow soldiers he knew in life. The novel ends without any closure between Jeremy and his family—many loose ends are left dangling—but the final moment where he joins his platoon at the Helmand River is reminiscent of an earlier scene. He had been drawn to that river while he was still alive, stationed in

Helmand, and realized, "in that moment with Smarty by the river, he hadn't wanted to be a soldier anymore; he just wanted to be Jeremy" (Ch. 14). Perhaps Kowalski's point in having him return to the river after his death is a wake-up call to society: there are people among us who will not regain their identity until they die. They will be called soldiers or criminals or some other lifelong label, and nothing else. What are we doing to help them?

There is a movement in the special education field for 'person-first language.' This is the simple act of saying, for example, "person with disabilities" instead of "disabled person." The American Speech-Language-Hearing Association claims, "to *have* may imply possession and to *be* may imply identity." By the same token, saying Elizabeth Wurtzel *is* depressed rather than saying she

has, deals with, or suffers from depression is at least part of what causes society to confuse mental illness and identity. Using person-first language is not only more respectful to people with mental illnesses, but also lessens the power of the illness itself in the context.

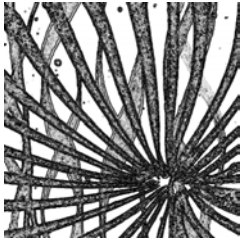
Of course, this simple change is not a panacea. On its own, it cannot heal mental illness or reaffirm the identity of every human being who suffers from it. But gradually, it would change a paradigm that plagues our society. The way those with mental illnesses think about themselves is affected by how society thinks about them, and the way society thinks is a result of language itself. In the end, the simplest individual changes, diffused throughout the population, are often the most powerful and enduring.

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# Ethical Perspectives of Stem Cell Research

Michaela Mathews

*LAS 110: Science and Society*

In the field of biological sciences controversy is quite common, but the use of embryonic stem cells in research proves to be one of the most controversial topics of the decade. Despite the debate, new discoveries on stem cells are made every day. Although embryonic stem cell research can be polemic, the benefits gained from this research undoubtedly outweigh the ethical and religious concerns.

There are two main types of embryonic stem cells: an embryonic stem cell and a somatic stem cell. A somatic stem cell is derived from an adult, whereas an embryonic stem cell is typically a three to five day old cell that is derived from a human embryo. Both types are capable of dividing and replicating. Embryonic stem cells, however, are unique because of their ability to differentiate into any specialized cell in the body. They can be specialized as muscle cells, bone cells, and even cartilage (Bethesda). Scientists are currently

Michaela wrote this for our Intersections class: *The Intersection of Science and Society*. Students had to write a research paper on a science topic of their choosing but not just focus in the technical aspects but instead delve into the impact it has on our society. I chose Michaela's paper because I thought she took an original and insightful approach to the controversial topic of the embryonic stem cell.

-Paulina Mena

working on ways to regenerate certain cells in the human body using stem cells to cure diseases such as Alzheimer's, ALS, Huntington's, and Parkinson's.

Without the use of stem cell research fifteen year old Paizley Carwell-Bowen's life would have never changed for the better. Paizley lived with sickle-cell disease her whole life. This is a blood disorder where red blood cells are not round but rather rigid and flat. As a result, the red blood cells are not able to deliver oxygen efficiently to all the tissues. People living with sickle cell disease usually have severe impairment and live shorter lives. The disease caused her to suffer from strokes and internal pain in various organs such as the brain and lungs, due to the lack of oxygen. At age six she had a severe stroke that left her left leg paralyzed. Her doctors told her parents it was likely she would not live to be eighteen (Lenzer).

Like many others living with sickle-cell disease,

Paizley's treatment consisted of blood transfusions in order to distribute normal blood cells throughout the body. Unfortunately, after a few years her body began to destroy the normal blood cells being transfused into her blood. The doctors suggested a stem cell transplant into the bone marrow and chemotherapy to destroy the bone marrow cells that produced the sickle cell. Four years later it was safe to say Paizley's life had changed. The blood flowing her body was one hundred percent healthy. She no longer had the sickle-cell disease. Paizley can live a full and pain free life because of stem cell therapy (Lenzer). Without stem cell research Paizley's miracle recovery would not have been possible.

Similarly to Paizley, an Australian rugby player's life was drastically changed with the use of stem cells. One day this man's life changed forever; he was severely paralyzed from a tragic rugby accident. Before the treatment he could not move from the

neck down and could not even breathe without the help of a ventilator. After the treatment the rugby player could function fully without a ventilator, for a maximum of twelve hours. He also had some movement in his arms, hands, neck, and shoulders. His sitting balance improved significantly. His deep sensation was increased up to the abdomen (Shroff). Overall, the Australian rugby player's life improved dramatically. He could feel a sense of independence and hope for the first time in years. Without stem cell therapy his recovery would not have been possible. Stem cell research still has a long way to go, but this proves it has great potential to significantly improve millions of lives.

With all of these possible advancements in medicine it can be hard to see why some want to stop this research. However, the issue comes from the fact that these embryonic cells are three to five day old fertilized eggs (Bethesda). These cells are the early stages of a blastocyst, which is a cluster of cells capable for the creation of a human being (Ruiz-Canela). To some these embryonic cells are considered human beings. However, an embryo is not officially considered a potential organism until it is 14 days old and the embryonic stem cell is typically cultured around day three or five (Bethesda).

For some the problem lies with the fact that the embryo is not yet an

organism. In other words, the embryo is "defenseless and unprotected." The fact that the embryo cannot defend itself is problematic. Without a voice it cannot determine its fate (Ruiz-Canela). At the same time an embryo is unaware of its own ability to improve lives and therefore, is unable to speak on behalf of those suffering from various debilitating and incurable diseases.

Some argue that embryonic stem cell research destroys lives because these cells will do develop into an organism. However, one can counter-argue that the female body also destroys lives. Bobrow brings up a good point. Women produce and shed eggs once a month. If these eggs were donated to science, they could be used for research. The unfertilized eggs have no other use (Bobrow). Instead of serving no purpose in life, these eggs could be used to change the lives of others through new developments in stem cell research.

The same irony occurs at fertility clinics across the world. The main overlying reason people disagree with embryonic stem cell research is because they believe the research destroys embryos, yet infertility clinics discard thousands of embryos every year merely because they are no longer needed ("Stem-cell Research"). These clinics are not commonly criticized or controversial for destroying embryos the way stem research is. If these embryos

are already created, they might as well be donated to science rather than destroyed. As Christopher Reeves put it, "Is it more ethical for a woman to donate unused embryos that will never become human beings, or to let them be tossed away as so much garbage when they could help save thousands of lives?" It should be a woman's choice to have her embryos donated to scientific research.

Other people disagree with stem cell research because there is a connection to the potential cloning of humans. Therapeutic cloning does occur during stem cell research. However, this is by no means the same as reproductive cloning. Reproductive cloning, as in creating an exact genetic copy of another individual is an ethical issue, but in order for it to achieve this an embryo would have to be placed back inside the womb for the complete development. Scientists working with embryonic research are not involved with reproductive cloning. Embryonic stem cells are not being used for this purpose. Instead scientists are working to find ways to differentiate these cells in ways that they can find cures for diseases that are currently affecting millions of people around the world (Waite).

Some would argue that society is "founded on an imperative- the need to preserve and maintain life" (Waite). But what about the need to preserve a happy life? With stem cell research lives

can be more than preserved, lives are saved and lives are improved. Every single day scientists are working on cures for diverse kinds of diseases. Chronic illnesses such as Alzheimer's, ALS, Huntington's, and Parkinson's cause many people to suffer everyday of their lives (Bestha). How is it ethical to let the people living with these diseases suffer every day of their lives?

Right now is a crucial time for stem cell research as President Obama has repealed President Bush's federal restrictions on the funding for stem cell research. Since then researchers have been working hard to discover the possibilities these stem cells contribute to science. Federal funding is crucial for the progression of stem cell research due to the nature of private investors. These tend to not consider stem cell research a viable investment because it would take too long for them to receive any returns. Therefore, the weight falls solely on the shoulders of the government. Consequently, it becomes extremely vital for the government to understand the positive effects of this research (Robertson).

According to "Facts and Myths - American Transplant Foundation" there are currently over 123,000 people on the waiting list for organ transplants for organs needed in order to survive in the United States alone. Every twelve minutes

another person is added to the list. Even more shockingly, an average of twenty-one people die each day due to the unavailability of organs ("Facts and Myths"). Imagine a world where organs could be readily available for anyone who needs one. If embryonic stem cells research is allowed to continue without hindrance, one day scientists will be able to regenerate organs from these cells. Currently, scientists are testing different ways to differentiate stem cells into specialized cells. This is a complex process but once scientists find a way to send the correct signals to produce specific cells, the possibilities are endless. A world where human bodies can regenerate themselves. Although this is a long way down the road, it is worth the time and effort and would completely change the medical field (Bethesda) and it starts with allowing the current research to further advance. Many professionals dream of "off the shelf organs", where stem cells will be the answer to the organ shortage (Darr).

The controversy of stem cell research may even be resolved by supporting it. This may not sound possible, but it was proven by a Japanese scientist, Shinya Yamanaka. Scientists are currently working on different ways to produce regenerating cells without the use of stem cells. Yamanaka found a way to regenerate cells by using skin cells. This discovery would have not been possible without

the support and funding of embryonic stem cell research. Controversy over embryonic stem cell research will always exist. However, the more time and funding put into the research the more efficient the research will become, and maybe one day in the future the use of human embryos will no longer be needed (Mahley).

Many studies are making advances toward finding cures already. At UCLA researchers discovered the genome map of embryonic stem cells. This is the first step to finding cures. "If we can understand the function of 5hmC, that will lead to greater understanding of how genes are turned on and off and that could lead to the development of methods for controlling gene regulation," Jacobsen stated (University of California - Los Angeles Health Sciences)."

In Thomsen's study recent discoveries were made for ALS disease. Pre-clinical animal trials proved that these new discoveries are safe for humans. It is only a matter of time before new stem cell therapies are tested on patients. In the animal model study the results showed the potential of stem cells slowing down the breakdown of motor neurons. This would lengthen the lives of ALS patients (Thomsen).

In a study conducted by Kim Seung, Hong Lee, and Yun Kim embryonic stem cell research was used to find different ways of regenerating

nerve cells. The common factor between the various diseases was the degeneration of neurological cells. The research for each of these diseases go hand-in-hand. The study claims that neurological cells can be regenerated with the use of the patient's own fibroblasts. This discovery is a major stepping stone on the path to a cure for these diseases (Seung, Lee, & Kim).

Christopher Reeves once again could not have said it better, "Countless amounts of research have already been done to find cures for diseases such as Alzheimer's, ALS, Huntington's and Parkinson's. Stem cells have potential to solve many questions in the medical, we just have to know

the research will be worth it in the end. If we can change our view on what stem cells can do for our society it opens up a whole new aspect of science... Now, 56 years ago, FDR dedicated new buildings for the National Institutes of Health. He said that 'The defense this nation seeks involves a great deal more than building airplanes, ships, guns and bombs. We cannot be a strong nation unless we are a healthy nation.' He could have said that today. President Roosevelt showed us that a man who could barely lift himself out of a wheelchair could still lift this nation out of despair... We are on our way to helping millions of people around the world,

millions of people around the world like me, up and out of these wheelchairs."

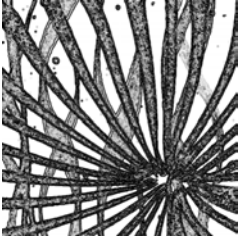
Researchers get closer to finding cures for various diseases every day. These diseases cause suffering to too many people to leave them feeling hopeless. Stem cell research has a potential to change people's lives for the better. Many people look at embryonic stem cell research as a negative, but it is the first step in the direction to change medicine forever. If we as a society saw what embryonic stem cell research could do for us it would open up endless possibilities to improve the lives of people.

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# A Comparative Analysis of the Foreign Policies of Egypt and Saudi Arabia after the Arab Spring

*POLS 231: The Middle East  
in World Affairs*

Elisabeth Callejón

## I Introduction

The Middle East is a region with more tension, violence, and instability than any other in the world. This has become evident since the uprisings of the Arab Spring that occurred all over the region in 2011 and removed several rulers from their position of power (Gause). This history of instability and a seeking of regional power by states in the region has led to a variety of foreign policies being formed by different states. Particularly interesting comparisons of foreign policies can be found between Middle Eastern states that are allies.

Egypt and Saudi Arabia have foreign policies that are uniquely their own and possess differences which could call into question the future of their relationship with one another depending on the form they take. As repercussions of the Arab Spring continue to arise, change in the region is inevitable, but the manner in which the new Middle East is formed will be heavily

I nominated this paper because it is an example of excellent writing paired with strong research and insightful comparative.  
-Jim Zaffiro

influenced by Egypt and Saudi Arabia. Together these states could single-handedly shape the Middle East within the next decade as long as they can maintain their partnership and reach a level of stability in each of their states that is yet to be seen in the MENA region. This paper will aim to analyze the effects of economic prosperity, religion, regional conflicts, and, for Saudi Arabia, regime survival and the roles in the development and objectives of the foreign policies of these states in a post-revolutionary region of the world.

## II The Role of Religion

Religion is an aspect of foreign policy that differs greatly between Saudi Arabia and Egypt. Saudi Arabia centers the foundation of their government on the royal family and Wahhabism, a strict form of Sunni Islam (Ayoob and Kosebalaban). The ideals of Wahhabism are

implemented into Sharia law by religious leaders and the royal family. These laws tell all citizens of the state how they should conduct their day to day lives and the religious standards which must be upheld by all individuals (Ayoob and Kosebalaban). Saudi Arabia is unique as a state when it comes to its goals of “legitimizing Wahhabism as an ideology” in its government because very few other states in the Middle East have or are still trying to do this (Winter). After the Arab Spring and the push for more equality and rights among individuals and a lessening in authoritarian style governments the idea of trying to implement ideological based governments has become very unpopular with many governments simply wishing to maintain regime stability. While Wahhabism helps the al-Saud family continue its rule in Saudi Arabia it also causes conflict and disagreement between the

royal family and religious leaders when it comes to modernization and new influence coming from the West. So far the al-Saud family has been able to appease the religious rulers by finding a balance between extreme Wahhabism and growing Western influence.

Saudi Arabia has also played a part in creating the instability caused by Islamic extremists. It is well known that the U.S. and Saudi Arabia trained and funded Osama bin-Laden, the former leader of Al-Qaeda and it is also thought that Saudi Arabia has been funding other extremist groups in the region (Al-Rasheed). Al-Qaeda and its extremist ideology became very popular among Saudi youth in the 1980s and led to many of them heading to Afghanistan (Al-Rasheed). As these radicalized Saudi youth have returned to the country there has been a growing separation between these religious extremist and other youth pushing for more western ideals and rights. However, both groups are seeking reforms from the regime making it even more difficult for the al-Saud family to find balance.

During the Arab Spring Saudi Arabia used Wahhabism and the fact that it is considered to be the “cradle of Islam” as a means of maintaining stability. As Shia minority groups in the east and groups of women throughout the country began small protests during the Arab Spring the government

was quick to quiet them by stating that the “uprisings in surrounding nations” and Saudi Arabia were “contrary to Islam” and the ideological practices of Saudi citizens (Winter). Saudi Arabia has used Wahhabism to build a nation and also to constrain the state as a means of regime stability since the al-Saud family came into power and have been using it even more in recent years. The role of religion in Saudi Arabia is far different from that of Egypt.

Egypt has been the center of attention in the world since the Arab Spring. The initial success of the uprisings had many believing that a democracy would emerge from turmoil in Egypt and for a while it did. After Mubarak was overthrown Egypt had elections and elected Mohammed Morsi, leader of the Muslim Brotherhood, to power in June 2012 (Haber and Ighani). This change from authoritarian regime to new democracy led to drastic changes in foreign policy as well as policy within the state itself.

Egypt varies greatly from Saudi Arabia when it comes to the religious makeup of their states with the vast majority of Saudi Arabia being Sunni Muslim, while Egypt on the other hand contains a mix of Muslims, Coptic Christians, and a very small population of Jews. This religious diversity creates a unique atmosphere in Egypt compared to many other states in the region. However, it also makes it harder for the ruling power

to keep everyone happy. As the Muslim Brotherhood took over and tried to implement Sharia law into the Egyptian constitution Coptic Christians and secularists began to protest once again. After a military coup Egypt’s government came full circle, going from a militarily created regime to a democracy only to go back to a militarily ruled government once more. General Al-Sisi has now come to power and has once again been faced with difficult changes to be made in foreign policy, as well as many domestic issues. He has thus far taken the side of the secularists and recently an Egyptian court has banned the Muslim Brotherhood from being a party and charges have been pressed against former president and Muslim Brotherhood leader, Morsi (BBC). The future of religious influence, or lack thereof, on Egyptian politics will help determine the final outcome of the Arab Spring and the future of the Middle East as a whole.

### **III The Economics of the Arab Spring**

The economic prosperity of states played a large role in uprisings throughout the Middle East. Egypt and Saudi Arabia had very different economic situations as the uprisings of the Arab Spring began. Saudi Arabia has generally always been able to keep its citizens at ease economically. Saudi

Arabia's large oil revenues lead it to "account for 20 percent of GDP of the MENA region" and "50 percent of the stock market capitalization" (Al Saud). These revenues have led the al-Saud family "to increase spending to \$130 billion on its citizens" after the uprisings of the Arab Spring (Gause). Saudi Arabia's economic strength and independence allow it to increase domestic stability by paying off or ridding of those who contest the government; this is a strategy that is often used (Winter).

The government's large oil revenues also allow it to spread its influence throughout the Middle East by providing aid to neighboring states as a way of forming good diplomatic relations and spread Wahhabism (Al Saud). However, if oil prices maintain low levels for a long period of time and demographic trends force a continuous rise in fiscal responsibilities, Saudi Arabia could face the uprisings caused by economic struggle in other Arab states. Overspending or corruption within the royal family could also lead to dissent among citizens of Saudi Arabia as it has in the past when some princes have had problems with overspending on lavish and extravagant items. The regime must also be wary of its dependence on other nations for water and food because of the lack of arable land in their state. The regime's ability to maintain economic stability, continue economic

development, and appeal to its citizens financial needs will be a factor in determining if the Arab Spring ever truly makes its way to Saudi Arabia.

Egypt has a very different economic situation compared to that of Saudi Arabia. Egypt's minimal amount of oil, large and growing population, and insufficient amount of arable land lead it to be extremely economically dependent on other states. Much of the tensions and discontent in Egypt before the uprisings of the Arab Spring were caused by economic struggles. During Mubarak's last few years in power Egypt's "national debt increased, GDP and economic growth rate shrunk by a significant amount, unemployment reached nearly 30 percent, and inflation also rose to around 30 percent" (Saikal). Economic growth simply could not keep up with a rapidly growing population and government corruption and unnecessary spending did not help the economic situation.

Every leader of Egypt, no matter what their other foreign policy positions were, took into account Egypt's dependence on foreign aid. Egypt receives billions of dollars from both the U.S. and Saudi Arabia in foreign aid annually. However, instead of most of this going directly to the people of Egypt, or their need for food and water, it goes to military and other types of government spending. This financial irresponsibility lead to the outcome of the

Arab Spring in Egypt. Even though Egypt is dependent on other regional powers, such as Saudi Arabia, as well as the U.S. and are still slightly unstable after the Arab Spring they continue to play a vital role in both regional and world affairs. If Egypt can develop an economy free of dependence on foreign aid their foreign policy options and role in the MENA region would change drastically. The economy will be the greatest foreign policy factor in whatever government structure is implemented in Egypt.

#### IV Regional Conflict

Regional conflict and the constant struggle between Sunni and Shi'a Islam in the Middle East is a concern of the foreign policies and state survival of both Egypt and Saudi Arabia. Egypt and Saudi Arabia both have populations that are majority Arab of ethnicity and Sunni Islam of religious background which causes them to be allies in the Middle East even though they may have other differences. Apart from the Israeli-Palestinian conflict Egypt and Saudi Arabia take similar stances on conflicts in the Middle East. One state in particular is the largest source of worry; Egypt and Saudi Arabia have stood united against Iran and its attempt to spread Shia influence in the Middle East as well as its aims at nuclear proliferation (Al Saud and Saikal).

Hezbollah in Lebanon and the Hadith rebels of Yemen are all Iranian backed militant groups that Saudi Arabia and Egypt are concerned about (Al Saud). The Hadith rebels in Yemen are seen by Saudi Arabia as a direct threat to Sunni Islam as well as the al-Saud regime which is why the recent military campaign of many Arab states has begun in Yemen (Winter). Neither Saudi Arabia and Egypt nor Iran are afraid of a conflict that could determine just exactly who the region's greatest power is and possibly put an end to the Shia/Sunni argument. Saudi Arabia's recent succession only make the situation more unpredictable by having a new king that seems to wish to take a far more aggressive foreign policy and military approach when it comes to Iran's meddlesome tactics (Al Saud). Egypt has recently been more focused on its domestic issues more than their regional conflicts apart from their military assistance to Saudi Arabia with the situation in Yemen. Egypt even though it is in turmoil is a pivotal Arab State that is often the deciding factor in times of conflict (Saikal). If rebels funded by Iran can manage to spread their influence into Saudi Arabia or Egypt it could cause the end of whatever government is in power in these states which would be catastrophic not only in the MENA region, but also have severe repercussions for Egypt and Saudi Arabia's

foreign allies.

## V

### Conclusion

Egypt and Saudi Arabia have foreign policies that are strikingly similar and different from one another. For Egypt their foreign policy has changed drastically in the years following the Arab Spring due to rapid changes in who was holding power. Saudi Arabia has not been affected by the Arab Spring in the same way Egypt was because they were able to maintain stability with oil revenues and by stating that protests were combative of Wahhabism ideology and Islam. Saudi Arabia still believes themselves to be very stable and due to this have stated that they should be a regional leader and therefore wish to influence other countries as a manner of spreading stability and Wahhabism ideology throughout the Middle East (Al Saud). The Arab Spring led to Saudi Arabia's government turning to Islam for an answer while Egypt rejected the Muslim Brotherhood party and has moved toward more secularist ideas. This change in religious position in Egypt has not affected the amount of foreign aid it receives from Saudi Arabia and other Arab and Sunni Islam states due to the fact that the need for alliances and regime support outweigh the wants of religious leaders.

The economic positions of Egypt and Saudi Arabia are also very different,

but both develop foreign policy goals that are centered around economic prosperity or lack thereof. Egypt's large population and slow rates of economic growth led to the discontent that fueled uprisings in 2011. If Egypt does manage to become a legitimate and successful democracy a more developed and stable economy that is not dependent on foreign aid must follow in order to ensure its success. Saudi Arabia also must continue to keep its citizens economically satisfied if the regime wishes to remain in power. In order for both states to maintain the influence they now have they must also slow down the instability that Iran is funding in the Middle East. If Saudi Arabia and Egypt can keep Iran in check and provide solutions to other regional conflicts both will emerge with more regional and international power and influence. The future of the Middle East lies in the changes and implementation of the foreign policies of Egypt and Saudi Arabia within the next decade. The final outcomes of the Arab Spring will change the way the world views the Middle East and Egypt and Saudi Arabia will be the *x* factor of whatever change arises, but for now the world simply waits, watching.



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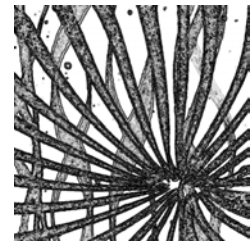
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Ashton Mayer, 2015

# A Scarlet Sea

Dana Wolthuizen



ENGL 343: Travel Writing

Recipient of the John Allen Award

*The blood swept lands and seas  
of red,  
Where angels dare to tread.  
As I put my hand to reach,  
As God cried a tear of pain as  
the angels fell,  
Again and again.*

- Stanza from "Blood Swept Lands and Seas of Red" a poem by a WWI unknown soldier

Scarlet poppies cascaded out of the Weeping Window, arched over the bridge way, and dotted the entire green space around the Tower of London. A river of blood seeped from the fortress, staining British soil, flooding into a moat of ceramic blooms with emerald stems. I rested my head against the wrought iron gate as people milled about the walkways around me – all reverent. Even though we were in the middle of the city, a veil of silence surrounded the tower. It reminded me of Memorial Day back in the States. My family silently clustering around relatives' headstones, painfully aware of how alive we are in the moment. Standing in front of the poppies, I felt my blood flowing freely, flowing life.

London had been

I was impressed with Dana's careful description and research into the mammoth London art installation marking the 100th anniversary of WWI, but I was equally impressed with the compassionate connections she makes at the end of the essay between that event and all wars.

-Keith Ratzlaff

engulfed with poppies in honor of Remembrance Week – seven days dedicated to commemorating all who had perished in the line of duty for the British Commonwealth. Remembrance Week is held annually in November, and during this time each year, crimson flowers become the centerpiece of London, hanging on crosses erected in front of Westminster Abbey, circling wreaths in cemeteries, and lining pathways around St. Paul's Cathedral. Poppy pins pepper the suitcoats of commuters on the tube and hang from the straps of women's handbags. Almost every Briton has a poppy, and to go without is almost treason. However, 2014's Remembrance Week was even more significant because it was the 100th anniversary of World War I.

The centennial anniversary was specially marked by an art installation at the Tower of London called *Blood Swept Lands and Seas of Red*. The tower was encircled by 888,246 ceramic

poppies, representing each British Commonwealth military fatality during World War I. The poppy has been associated with memorialization since a Canadian soldier, John McCrae, noticed the blushing flower springing up from the disturbed ground at Ypres, Belgium around May 1915 where three battles had taken place between the Allied and German forces for control of the city. McCrae took note of the poppies in his poem, "In Flanders Field:"

*In Flanders fields the poppies  
blow  
Between the crosses, row on  
row,  
That mark our place; and in  
the sky  
The larks still bravely singing  
fly  
Scarce heard amid the guns  
below.*

An American woman named Moina Michael working at the YMCA Overseas War Secretaries' Headquarters in New York

came across McCrae's poem in the November issue of the *Ladies Home Journal* in 1918 and was deeply moved. She made a pledge to wear a silk red poppy in remembrance for those who died in World War I. Word of her pledge spread, and the poppy soon became internationally accepted as a memorial symbol. A symbol that still endures today.

Like Moina, Paul Cummins was inspired by a poem and designed the tower's poppy display from the words of the anonymous soldier. Cummins commissioned 52 potters to make 7,000 flowers a day. Each bloom handcrafted by cutting out clay poppy stencils, molding the flat petals into a cup-like structure, and loading the flowers into the kiln. Next, each one was painted and re-fired to harden the glaze. Even though all the blooms underwent the same assembling process, each had its own unique petal folds, imperfections, and beauty – an appropriate representation of each fallen soldier with his own fears, loves, and memories of home out on the battlefield. Soldiers loading their firearms and donning their gas masks, caked in earth as they tunneled trenches. Clay underneath their fingernails; similar to the potters investing their artistry into each soldier. Eventually though, each unique bloom joins the uniformity of the red sea.

The “planting” of the poppies began in July and

ended in November; during which, over 4 million visitors came to see the display. At the beginning of November, exhibition managers urged the public to avoid visiting the tower because it was becoming overcrowded, and the nearest underground station was closed as a result. On the final day of Remembrance Week, a friend and I defied the requests and braved the crowds to see the poppies one last time.

The sidewalks teemed

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**Eventually though,  
each unique  
bloom joins the  
uniformity of the  
red sea.**

---

with pedestrians with hardly any room to walk. I bumped into all the surrounding bodies and squinted up against the sun at police officers who stood above the crowd with megaphones to direct foot traffic: “Keep walking people! You need to keep moving! Do not stand in the middle of the sidewalk!” Wood slats were put on some of the fences surrounding the tower to prevent people from blocking the pedestrian flow by stopping to look. I stood on my tiptoes to see over the slats, but my height wasn't in my favor. We tried to maneuver ourselves to an area without the slats, but the crowd foiled our efforts. I was thankful that I had already

seen the display a number of times on my various excursions around London.

As I sat at my internship desk on a Tuesday morning, my director and fellow intern joined the United Kingdom in bowing our heads to pay our respects for two minutes at 11:00 a.m. on November 11 – Armistice Day. In the silence, I conjured up images of soldiers and the women and children they left at home to fend for themselves. Nurses tending to wounds, industrial workers producing weapons, the opposing forces fighting for their homelands as well. Then, I pictured the devastation of London boroughs during World War II's Blitzkrieg. The decimation of the East End docks, St. Paul's Cathedral miraculously untouched, a beacon of hope. The death of around 60 Londoners on October 14, 1940 in the Balham underground station along the Northern Line, where people slept to seek cover from the Blitz. A bomb exploded on Balham High Road over the northern end of the station, creating a huge crater in the street. A double decker bus crashed into the crater and broke the water and sewage lines. Water gushed into the station and flooded the tunnels where 500 civilians were sleeping. Each day that I traveled to my internship in Balham, I passed the plaque honoring the victims of the disaster.

I strolled down the

pathways of Hyde Park and Regent's Park where 11 military personnel were killed between two bombings during memorial services on July 20, 1982. I rode the underground from King's Cross to Russell Square almost daily where a suicide bombing took place on July 7, 2005, killing 26 passengers. The bombing was one of four attacks that day,

three on the underground and one on a bus in Tavistock Square – a block from my apartment; 52 people died that day. The death toll seems endless, spanning all the years, wars, and routine days.

London itself was a battle ground. When Remembrance Week comes and poppies spring from the city, London becomes

Flanders field. Red flowering and seeping into the once disturbed ground of each borough. As Britons pin on their poppies and stay true to Moina's pledge, the blooms become more than just a mere symbol of remembrance. Each poppy becomes a person, a story, and a sacrifice. A sea of scarlet and a chorus of voices that won't be forgotten.

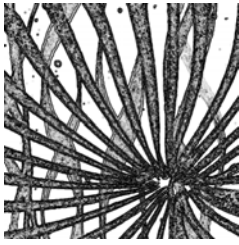
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# La realidad y la fantasía de la crisis española de la vivienda en *Los fenómenos*

Elizabeth Carman

*SPAN 487: Senior Seminar in Hispanic Literature and Culture*

El derecho a la vivienda en España representa más que una declaración en el artículo 47 de la Constitución Española. La ley requiere que el gobierno establezca unas regulaciones y un sistema que crea y mantiene un país de propietarios. Sin embargo, este derecho se ha convertido en una norma en la sociedad española. Según Ada Colau y Adrià Alemany, 87 por ciento de los españoles poseían una casa en 2007, que contrasta con el promedio europeo de 60 por ciento (33). La importancia y la popularidad de la vivienda, junto con los cambios políticos y la economía española y global, llevó el país a una burbuja inmobiliaria caracterizada por los bajos tipos de interés y la construcción de miles de casas. Estos factores y la recesión global provocaron una crisis española en 2007 que queda hasta este momento en España. Debido a la naturaleza reciente de la crisis, mucha de la información y datos del periodo vienen de la

Elizabeth's essay examines a recent and relatively unknown Galician film from 2014, *Los fenómenos*. In the film, Neneta, a single mother, finds a job in the construction industry at the tail end of the housing boom and start of the economic crisis in Spain. I was impressed by Elizabeth's clear and precise thesis, overall organization and detailed and sustained close readings of the film's various depictions of "home." In addition, Elizabeth's discussion of precarious labor, the dream of home ownership and the right to housing in contemporary Spain all help properly contextualize the film.

-Kathleen Korcheck

producción cultural española. Este ensayo se enfoca en la película *Los fenómenos*, por enfatizar la representación y la importancia del concepto de la vivienda en este texto visual.

*Los fenómenos*, una película española dirigida por Alfonso Zarauza, se trata de una mujer abandonada por su esposo y forzada a mudarse con su bebé a su pueblo natal en Galicia. La mujer, Neneta, encuentra un puesto de peón en la construcción y aprende a trabajar como mujer en un sitio de hombres. Con el paso del tiempo, gana bastante dinero para comprar una casa de la misma compañía para la que trabaja. Sin embargo, la compañía empieza a fallar y Neneta y sus compañeros no reciben sus cheques. Al fin, Neneta no tiene el dinero suficiente para pagar su renta, y por eso pierde su casa. A

lo largo de la película, surgen unos temas clave de la crisis española, como el concepto de la vivienda. Hay cuatro tipos de casas principales en *Los fenómenos* que incluyen la furgoneta poseída por Neneta y su esposo, Lobo; las casas incompletas que construye la compañía; el piso piloto; y la casa nueva de Neneta. A través de los aspectos denotativos y connotativos en las escenas, el director crea ciertos sentimientos y emociones que se pueden asociar con cada casa incorporada. Exploro cómo los elementos literales y simbólicos funcionan con cada tipo de casa en la película para demostrar la situación precaria de Neneta y la gente española en general. Sostengo que estas casas diferentes simbolizan la realidad precaria y difícil de la crisis, al igual que el sueño de ser dueño de una casa en España, así demostrando la

naturaleza contradictoria del concepto de la vivienda en este país.

La primera casa que se ve en *Los fenómenos* es la furgoneta que poseen Lobo y Neneta, y este hogar móvil está incorporado por la película entera. La casa está cerca de la playa y su exterior es muy sucio y viejo. También, está muy abierta al mundo exterior, como no hay puertas actuales en la casa. Unas cortinas separan a la familia del espacio afuera de la furgoneta, así que el viento pasa por el interior de la casa (Figura 1). Estos detalles son importantes para entender la situación de la familia



Figura 1. Neneta y Lobo en la furgoneta. *Los fenómenos*. Dir. Alfonso Zarauza, 2014.

también, particularmente Neneta. Es obvio que la familia no tiene mucho dinero porque vive en una casa así. Sin embargo, el director utiliza este tipo de vivienda para mostrarnos más que la situación económica pobre de la familia. La diferencia entre una furgoneta y una chabola es que se puede mover una furgoneta. El director eligió este tipo de vivienda porque no está situada en un lugar estable. Tal vez esta inestabilidad es un indicio de la inseguridad de la vida de Neneta también. No pasa mucho tiempo antes de que

salga Lobo de la furgoneta, abandonando a Neneta y al niño a la vez. Después de que sale él, Neneta se pone nerviosa mientras la música lenta y triste toca en el fondo. Fuma y llora con el viento soplando el pelo sobre su cara. Hay poca luz, y como la luz, hay poca esperanza en la cara de Neneta. Su bebé empieza a llorar, y apaga las luces y sale para cuidarlo. Sin el dinero de su esposo ocupado, Neneta ya no tiene los recursos para apoyar a su niño y a sí misma. La vivienda en la que vive refleja la situación y los sentimientos de ella. La oscuridad, la suciedad, la amplitud, y la movilidad de

la furgoneta simbolizan la vida desgraciada y precaria de la protagonista. Según Guy Standing en su libro sobre la clase

precaria, “the precariat can be identified by a distinctive structure of social income, which imparts a vulnerability going well beyond what would be conveyed by the money income received at a particular moment” (12). En la vida de Neneta, esta precariedad y vulnerabilidad se revelan por su vivienda. Abandonada por su esposo, le quedan poca esperanza y recursos a Neneta. Como la furgoneta, a ella le falta la estabilidad y tiene que moverse para cambiar

de situación. Aunque este tipo de casa es muy evidente al principio, no parece tan importante durante el resto de la película. Sin embargo, aparece en momentos clave, y volveré a este punto al fin del ensayo.

Aunque todavía no están terminadas, las casas que están construyendo Neneta y sus amigos representan otro tipo de casa principal. Las casas están en las primeras etapas de la construcción. La estructura básica está completa, pero sólo hay el armazón de las casas en la forma de muchas paredes blancas. Otro detalle notable en casi todas las escenas que incluyen este sitio es la falta de luz. Lo gris del sitio crea un ambiente deprimente. Sin embargo, el área hacia afuera de las casas incompletas normalmente brilla debido al exceso del sol, así que las viviendas parecen estar en una sombra permanente (Figura 2). Este contraste de la luz produce un efecto importante en relación con el significado connotativo del tipo de vivienda. En mi opinión, el sitio de la construcción sirve



Figura 2. Neneta trabaja en la sombra del sitio de la construcción, que contrasta con la luz de afuera. *Los fenómenos*, Dir. Alfonso Zarauza, 2014.

como símbolo del estado de los trabajadores. Casi todos trabajan para que puedan mejorar sus situaciones de la vivienda o poseer una casa mejor. Aún Josué, un amigo y compañero de Neneta, ya tiene una casa bastante atractiva, pero quiere moverse debido a sus vecinos ruidosos. Trabajan literalmente en un espacio oscuro, pero muchos de ellos están simbólicamente en este espacio oscuro cuando trata a la vivienda también. Ven la luz hacia afuera, que puede representar sus sueños de poseer una casa buena. Desean realizar sus sueños, pero todavía se quedan sin las viviendas que quieren. Como las casas que están construyendo, los sueños de muchos trabajadores, incluyendo a Neneta, no pueden ser realizados. Siempre van a estar ellos en un mundo de construcción, literal y figuradamente. La economía mala les hace quedarse siempre en *el proceso* de lograr un mundo ideal, similar al proceso de construir una casa. Ciertos eventos ocurren en este sitio que demuestran esta tensión entre estar en la situación que ya tiene y lograr una vivienda mejor. De hecho, Josué está en el sitio de construcción cuando averigua que quizás perderá su casa por no pagar la renta. Después, se vuelve casi loco por no recibir su sueldo. Este hecho de siempre estar en el proceso de ganar una casa es evidente en la vida de Neneta también. Experimenta muchos momentos difíciles en el lugar de trabajo, incluso el robo

de su sueldo y su huida de la policía. Trabaja con una meta, pero no puede lograr lo que quiere. Es verdad que con el tiempo, compra una casa bonita, pero como vemos después, este sueño no puede ser realizado. De esta manera, el director utiliza el sitio de construcción en la película para demostrar la situación en la que están los trabajadores y Neneta y las circunstancias en que desean estar.

La casa ideal que quieren Neneta y los otros trabajadores se observa en el piso piloto que ve Neneta antes de que compre una casa. En comparación con lo gris y la suciedad del sitio de construcción y la furgoneta, el director “pinta” el piso con colores vibrantes. Neneta anda por la casa con un asombro, tocando la cama y un vaso bonito (Figura 3). Admira la belleza y la riqueza de la

Cuando la agente inmobiliaria, Nina, entra en la casa con una pareja, el contraste entre ellos y el piso piloto y Neneta se hace aún más obvio. Mientras ellos visten unos trajes y la ropa sofisticada, Neneta todavía se queda con una apariencia muy sucia. También, Nina y la pareja no tienen la misma mirada de asombro. Para ellos, una casa como el piso piloto no es un sueño; es algo bastante cotidiano.

Por la representación del piso piloto en esta película, se puede ver la naturaleza contradictoria de la crisis española. Según Colau y Alemany, en España “existe una cultura propietaria que no se da en otros lugares” (33). Aunque España es un país distinto en su cultura propietaria, no es distinto con respecto a la idea de que alguien solo tiene que trabajar



Figura 3. “...como el vaso que toca, la casa no pertenece a alguien como ella.” *Los fenómenos*. Dir. Alfonso Zarauza, 2014.

casa, pero como el vaso que toca, la casa no pertenece a alguien como ella. Está en una fantasía. El director evidencia este punto debido a las diferencias físicas entre la casa y Neneta. Ella lleva la ropa sucia de su trabajo, y su cara y pelo no están maquillados.

duro para obtener lo que quiere. Llevando su ropa de trabajo, se puede ver el sueño americano en Neneta durante esta escena del piso piloto. Sin embargo, vemos luego en *Los fenómenos* que este sueño es casi imposible para alcanzar. Pedro Simón, un periodista y

novelista español, ha escrito mucho sobre la crisis y su naturaleza contradictoria en



Figura 4. Neneta está en la oscuridad de su casa nueva. *Los fenómenos*. Dir. Alfonso Zarauza, 2014.

cuanto al sueño americano. En una entrevista en el diario español *El Mundo*, Simón habla sobre la validez y la presencia del sueño americano en España, diciendo que “[El sueño americano] es falso. A una persona con dos piernas amputadas no le puedes decir que va a ser Supermán. No sólo es una mentira, sino que es una mentira mezquina.” Los personajes de *Los fenómenos* trabajan para ganar una casa como el piso piloto, pero no pueden hacer bastante para obtener y mantener esa casa ideal. El sueño americano les engaña, y vemos esta ilusión y engaño por la casa nueva que compra Neneta, que es la cuarta vivienda representada en esta película.

Vemos esta casa por primera vez cuando entran Neneta y su amante ella le dice, “es la bomba.” La casa enfrenta el mar y parece ser todo lo que había querido. A pesar del entusiasmo de la protagonista, los aspectos denotativos de las escenas que incluyen esta vivienda

no corresponden con sus emociones. Cuando Neneta entra en la casa, la vemos en un pasillo oscuro y muy angosto. Casi nunca vemos mucha luz en la casa, pero se puede verla afuera de la casa (Figura 4). Este contraste entre la luz al exterior y la luz al interior es reminiscente de la iluminación de la furgoneta y el sitio de construcción. Aunque Neneta está en la oscuridad, siempre hay la esperanza de la luz hacia afuera. El director revela la posibilidad de unos problemas con la vivienda por el contenido también. Neneta no puede abrir la puerta para ir al porche, y hay unas manchas en el cuarto de baño. Aún tiene que dormir en el suelo durante su primera noche en la casa, y tiene mucho frío. Luego en la historia, esta casa nueva es el sitio dónde su amante y esposo se ven el uno al otro en un momento muy tenso. Aunque técnicamente ha logrado su sueño de poseer una vivienda digna, todavía se puede ver la realidad precaria de su vida por las características de la casa y lo que pasa adentro. Al final, Neneta tiene que vender su casa nueva. Se repite la música lenta y triste que tocaba al principio de la película cuando estaba en la furgoneta, mientras la cámara se enfoca en un letrero que dice que “se vende” la casa. Debido al uso de la misma música, se pueden asociar los sentimientos de la vulnerabilidad y la inseguridad de la furgoneta con esta casa. Justo antes de esta escena, Neneta ve

comiendo en un restaurante caro a Nina y a los dueños de la empresa de construcción para la que trabaja. Aunque Neneta ya no recibe su sueldo de la compañía, los dueños todavía viven unas vidas de lujo. Literal y figuradamente Neneta se queda excluida de este restaurante y este mundo.

Sin embargo, Neneta no es la única persona que experimenta el deseo de ser propietario y la inhabilidad de hacerlo. Dean Allbritton, en su artículo “Prime Risks...,” habla de un cine de crisis, un tipo de cine que cuenta una historia de ficción dramatizada y al mismo tiempo representativa de la situación de muchos españoles viviendo durante la crisis. En su trabajo, dice, “Perhaps the fundamental characteristic of this contemporary iteration of ‘crisis cinema,’ beyond the usage of physical vulnerability as a metaphor for vulnerability writ large, is its attempt to organize the individual experience of precarity and vulnerability into a communal one” (103). Se puede observar esta aplicación de una experiencia individual a una comunal en *Los fenómenos*. El letrero de venta de Neneta es el único enfoque de la última escena de la película (Figura 5). La



Figura 4. Neneta en el balcón de su casa. *Los fenómenos*. Dir. Alfonso Zarauza, 2014.



cámara echa un vistazo sobre las otras casas, y todas tienen la misma señal. Aunque las películas dramatizan las situaciones de sus personajes, el director de esta película aún usa su obra para demostrar la naturaleza contradictoria de la vivienda en la sociedad española. Aunque mucha gente tiene el sueño de poseer una casa, y trabaja sin cesar para lograrlo, la realidad es que obtener y mantener este sueño no es posible. En “Sueños rotos,” un ensayo para *Human Rights Watch* sobre la crisis española de la vivienda, Judith Sunderland escribe, “Las compras esperanzadas de viviendas durante el boom económico español se han convertido en una pesadilla de ejecuciones hipotecarias, desahucios y sobreendeudamiento en plena crisis económica” (3). La gente española compra con la esperanza y vende con sus sueños rotos.

Al final de *Los fenómenos*, volvemos a la vivienda de la furgoneta. De manera interesante, la furgoneta solamente aparece en los momentos tristes o difíciles en la vida de Neneta. La furgoneta representa la situación actual y difícil de la protagonista, y sirve como recordatorio de esta situación durante la película. Por ejemplo, después de comprar su casa nueva, Neneta va a la furgoneta para ver a su esposo y le abofetea por su abandono de ella, mientras la música triste y lenta toca otra vez. Es significativo que esta

escena ocurra justo después que compra su casa ideal, porque nos recuerda que su acceso a la vivienda nueva no durará. Luego, cuando Neneta tiene que vender su casa, ni siquiera le queda la furgoneta. Su esposo sale en la casa móvil mientras ella permanece de pie fuera de la casa que está vendiendo. Ahora, ya no tiene la poca seguridad que le ofrece la furgoneta. En su estudio sobre unas películas diferentes que tratan de la crisis, Albritton arguye que dos de las películas analizadas contienen unos protagonistas que “lose in some way (death and jail, respectively) and are beaten by the system, but they do so in markedly different ways” (108). Este tema ocurre en *Los fenómenos* también, por ya otra manera diferente. El sistema español “vence” a Neneta por sus contradicciones de la ideología. La compañía y la idea del sueño americano le dan la esperanza de poseer una cosa y lograr sus sueños. Sin embargo, la realidad de la crisis no es tan optimista, como vimos por los aspectos connotativos y denotativos de la película.

Neneta pierde por creer en un sistema que tiene unas ideologías contradictorias a la realidad. El director usa esta situación individual para mostrarnos algo más comunal con respecto a la crisis de la vivienda. Por sus ideas contrarias y falsas, el sistema capitalista creó una fantasía que permitía ocurrir el “boom” de la construcción y, en última instancia, la crisis.

Sin embargo, alguien tuvo que lograr esta fantasía para crear el sistema utópico. La película nos hace pensar en quién consigue este sueño, y lo que es más, en quién tiene el derecho a la vivienda en medio de una crisis. Julio Vinuesa Angulo habla de este asunto en *El festín de la vivienda*, diciendo, “En la aplicación de las normativas sobre vivienda protegida, uno de los aspectos más difíciles de gestionar ha sido la determinación de los criterios con los que establecer quienes tienen derecho a ser adjudicatarios de una vivienda” (86). Aunque la Constitución Española dice que todos tienen este derecho, *Los fenómenos* ofrece una perspectiva diferente por la vida de Neneta. A pesar del optimismo de Neneta sobre la oportunidad de poseer la casa de sus sueños, la crisis hace que esta casa siempre quede en sus sueños. Es difícil determinar quién tiene el derecho a la vivienda exactamente, pero sabemos quién no lo tiene. La gente que empieza sin la casa ideal, como Neneta y su furgoneta, no puede trabajar ni hacer nada para obtenerla. Cuando hay una crisis, es casi imposible moverse desde una furgoneta o chabola a una vivienda digna, a pesar del trabajo duro y el optimismo del sueño americano.

Por las cuatro tipos de viviendas en *Los fenómenos*, el director Alfonso Zarauza presenta la vida de Neneta. Sin embargo, no es solamente la vida de Neneta. La

precariedad, la vulnerabilidad, y la inseguridad caracterizan mucho de la sociedad española además. Por la iluminación y el contenido de las escenas, la esperanza y el sueño de ser propietario están presentes en cada casa. No obstante, la iluminación, la música, y el contraste creado por la apariencia de Neneta

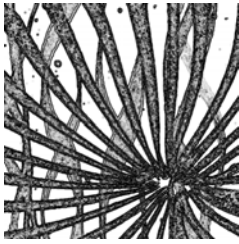
demuestran la realidad difícil y desesperada de su vida, además de la gente española. En *Fuera de lugar*, Peter Pál Pelbart dice que “la crisis es una conjunción del ‘nada es posible’ y del ‘todo es posible’” (46). Se ven estos dos lados en *Los fenómenos*. Aunque Neneta siempre está en una situación precaria, todavía hay

la esperanza que va a lograr la vida que quiere. Por medio de las viviendas diferentes en esta película, el director nos enseña el lado difícil de la crisis y la esperanza constante de ser propietario, revelándonos la realidad contradictoria del concepto de la vivienda en la España actual.

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# Tribes and Tribulations: An Ethnography of College-Aged Gay Men and the Problems They Face

ANTH 366: *Ethnographic  
Field Methods*

Emma Simmons

*“It basically felt like they were shopping for a new handbag, and you happened to be the newest, latest, most trendy style.” – Roderich*

## Introduction:

It is never easy to go against the norm. It can be emotionally, physically, and mentally taxing to fight against what one has been taught is correct one’s whole life. For many in the Midwestern United States, this “correct” path seems to be the stereotypical “American Dream”; you meet the man or woman of your dreams, you get married, buy a house together, and have at least 2 kids. However, this dream is not so easy for everyone to achieve, especially if he or she happens to be gay. Last semester, I had a chance to observe some of these difficulties first hand while studying the micro culture of gay male college students.

Since I was close with some men involved in this community, it made it much easier to find informants. I asked two of my friends, both of whom

In this course, students learned how to employ the methods that anthropologists use to carry out research, from interviewing to participant observation. Early in the semester, students chose a sub-culture to document. I chose Emma’s paper for both its engaging writing style and its very interesting content. She documents the lives of gay college students, and does so through an engaging writing style that brings the reader into the lives of her informants.

-Jeffrey Bass

are “out” (openly express their sexual orientation) and attend a small liberal arts college, if they would be my informants for the semester. My informants, who will be referred to as Roderich and Simon respectively (both pseudonyms), and I meet several times a week. During our meetings I conducted informal interviews and asked questions about folk terms and the gay college community in general. I focused specifically on the gay community on a small liberal arts college campus and rural, more conservative communities, like the ones my informants live and study in, in the Midwest.

During these meetings, I carried out participant observation and did an unstructured interview with my informant Roderich. During my participant observation, my informants

completed free listing, pile, and triadic sorting exercises in order to elicit more information. I also completed a direct observation exercise in which I studied how individuals in a small, rural, conservative college town would react to a male-to-male public display of affection (hand holding) close to the center of town. The findings of my research led me to conclude that college-aged gay men, particularly those studying at a small liberal arts college, face a variety of challenges different from those their heterosexual counterparts face and that these men have many ways of coping with these difficulties.

## Ethnographic Findings:

Over the course of the semester, I identified several aspects of my informants lives

as gay students that they found challenging. These challenges are described in the following sections in order from those seen as most to least challenging for my informants. They include: coming out (how it's done and how people respond to these men once they do), dating (especially online), and finding their place within a "tribes". Finally, things that are considered to be general issues faced by all gay men are addressed at the end of the section, including: fear of hate crimes, difficulties with people's religious beliefs (both the beliefs of gay men and those of the people they interact with), stereotyping, and the rise of the "GBF" (or gay best friend), as well as self-acceptance and the popular view that homosexuality is a choice.

### **Coming Out: Contexts in Which It's Done**

One of the first, and possibly biggest, challenges a gay man faces is the decision to "come out", or reveal his sexual orientation to his family, friends, and acquaintances. Though there is the common idea that coming out has to be a specific sit down talk, there are many other ways gay men choose to communicate their sexual orientation, which vary greatly based upon the context in which a person comes out. According to Simon and Roderich, their methods for coming out often changed according to the

type of relationship they had developed with the person. Though a man's close family and friends might experience "the coming out talk", newer friends probably would not. Often, my informants will mention their orientation in casual conversation or will slip hints into a discussion with new acquaintances. Simon mentioned that his boss and many of his coworkers discovered he was gay because they heard him mention it during a conversation with another coworker. This informal way of coming out is incredibly popular with my informants (and, according to them, other gay men who are already out with their family and friends), and many new friends and acquaintances get a more casual treatment than if they had known Simon or Roderich when they were first exploring their new sexual orientation.

The way my informants utilize the casual conversation method differs greatly between them. The main reason for this discrepancy between Roderich and Simon is due to the way they are viewed by society. Coming out is a bit easier for Roderich because his demeanor more closely conforms to the common stereotypical perception of how a gay man behaves. For example, he is more flamboyant and makes more comments referencing his sexuality than Simon does. Simon, on the other hand, is often mistaken for a straight man, which is very frustrating

for him. It makes it difficult for him to communicate his orientation to potential romantic partners, and he is hit on by girls, meaning he has to come out more often than Roderich does. Both Roderich and Simon, when questioned, said that the way someone acts should not be the definitive way of figuring out his sexual orientation, though it can be a hint to probe further to see if a person communicates their orientation in other ways. Both informants consider assuming someone's sexual orientation because of their demeanor to be extremely rude and an inaccurate way to truly discover a person's orientation.

Since Simon's demeanor doesn't lead most people to deduce his sexual orientation, he communicates his sexual orientation in a different way than Roderich. Simon mentioned when he began the process of his "big" coming out (the first time he began publicly presenting himself as a gay man, but after he had come out to his close friends and family) and he was meeting new people, he would drop hints about his orientation during a game called "20 questions". During this game, he would supply questions for the person to ask him. In this way, he would guide the person to the realization that he was gay, but he wouldn't tell him or her himself. He would make this new person ask if he was gay before he would confirm he it. Now that he has been out for a few years, Simon seems



more willing to allow the topic to come up at random or will hint at it by saying things like, “Wow, that guy is really cute, don’t you think?” Roderich does not usually have any problem coming out to people that he meets. Since he behaves in a more stereotypical way, he says that most people usually assume that he is gay.

There are certain places where Roderich and Simon do not feel the need to come out, for example, in their classes at school. While on campus at their college, neither Roderich nor Simon feels the need to come out to people they are not personally connected with. Neither feels the need to discuss their orientation with their professor unless they are particularly friendly with that faculty member. If their sexual orientation comes up in class, it will usually come up during a class discussion (brought up by Roderich or Simon), or will be mentioned in a paper if relevant to the topic being written about. For example, one of Simon’s fraternity brothers discovered that he was gay because he was helping Simon edit one of his papers for a class in which he was discussing his sexual

orientation. Their sexual orientation is something quite private for them because they want to be known for who they are, not for who they are attracted to.

Social media websites, however, are very different from university classes. Roderich and Simon are



Sean Robbins, 2015

both very open about their sexual orientation on their social media websites, like Facebook, for instance. Social media provides a new platform on which gay men can communicate their sexual orientation and its use seems to be prevalent among college-aged gay men. Simon mentioned that one of his coworker discovered his orientation because he had

changed his preferences on Facebook from “is interested in women” to “is interested in men”. The act of putting his sexual orientation online can be an extremely important symbolic step for college-aged gay men. Making things “Facebook official” is huge for my generation. It gives

something a new level of validity because this information is available to everyone you are friends with (and, depending on how public your profile is, people you aren’t friends with) can see this information on your profile. It is easily accessible.

### **Coming Out: The Responses**

One of the most stressful times in a gay man’s life is waiting to see how someone will respond to him after coming out. In order to identify the range of responses that

gay men face, I had Roderich and Simon participate in a free listing exercise in which they listed all the possible ways someone might react upon discovering a gay man’s sexual orientation. After they had completed their lists, I asked them to organize these responses into positive, negative, and neutral categories, where it became apparent there were far more

negative responses than positive or neutral. Simon and Roderich had several common responses in relation to how people reacted to them coming out, including: the person not being supportive, being shocked, confused or unsure of how to respond, and being offended by the person coming out. These seem to be common responses gay men fear when they decide to come out.

It was interesting to note that, according to Roderich, a person trying too hard to be supportive, something he called “hyper-normalcy”, fell into the negative category. In his experience, he has found when a person tries too hard to be accepting, even if they are completely loving and tolerant, it can be very uncomfortable for the person who has come out. He said it’s just strange when a person acts like nothing has changed even though both of them (the gay man and the person they have come out to) know things are not the same.

Another thing Roderich touched on was the feeling of grief, loss, or just a general sadness as a response. He classified these as neutral responses, stating, “These people might have to come to terms with losing a part of a dream they might have had. For example, a dad might have been dreaming of walking his daughter down the aisle for years, but now he has to give up that dream. It’s not what you thought it

was going to be, and you have to grieve for that lost part of yourself.” It is important to note that the responses Simon and Roderich listed are responses they would expect from anyone they come out to. They could not think of any responses that would be unique to a college professor, a roommate, or classmates, and both pointed out that responses are so varied that it becomes difficult to list all of the possible responses to this situation.

### **Dating: Challenges and Strategies**

After coming out, the next big challenge for my informants, and one of the topics we discussed the most, is dating. Roderich and Simon both live on campus at a small liberal arts college located in a relatively small, conservative Midwestern community, which means that their dating pool is extremely limited. It can also be a bad idea for members of a gay community this limited to date each other because of the potential for drama. In order to illustrate this, Roderich recounted a story of a friend who dated another gay man on campus that ended in a bad break up. According to him, these two men do not talk to each other and can hardly stand to be in the same room. Although the gay community on his campus is small, it still provides Roderich with more of an opportunity to connect with other gay men than

when he is at home. During an unstructured interview, he mentioned,

The community I grew up in, I was the first openly gay man in my high school’s history. Several people had come out after their graduation, but I was the first one to come out in the high school. And I was the only gay man in a twenty-mile radius. The only reason it wasn’t a larger radius is because I live less than twenty-miles from [the large state university], where they have a fairly significant LGBT community on campus. It felt kind of isolating. I mean, I didn’t know if there was anyone else like me. And it felt very lonely for a while because I... The dating pool was obviously nonexistent in my school, and so I’d have to look outside. And I actually met Tyler, my first boyfriend, at an honor band audition. And the only reason I could tell was because he was fitting every single stereotype I knew, and that’s how I got the courage to talk to him.

Due to the threat of the drama associated with on campus dating, both of my informants prefer to look off campus for potential partners. For Simon, most of the other gay men he’s met have been through mutual friends. He believes that most gay men meet each other either through friends or at social gatherings, like bars or at conferences for gay rights. However, dating seems more difficult for Simon than

Roderich because he does not behave as stereotypically, meaning his sexuality is not as immediately obvious to potential romantic partners. This makes it a bit more difficult for him to meet other gay men if there is no personal connection already, which can be through a friend or acquaintance or meeting them because of an LGBTQ+ group on campus.

In order to combat the issues of the limited dating pool on a small campus (and the difficulties due to being less obviously gay), my informants use online resources, like dating websites or apps like Tinder or Grindr, to meet other gay men. Meeting people online, however, has a different connotation than it does if you meet them through a friend or by chance. According to Simon, when you meet someone through an app like Grindr (an app for meeting other gay men, or, as Roderich puts it, "...a tracking service for other gay men" that allows you to message other users) or an online dating site, there is more of a sexual connotation. This is especially true with apps like Grindr and Tinder. When a man uses these apps, there is the implication that he is looking for a "hook-up", not a friendship or a more substantial relationship. Simon and Roderich both find it difficult to meet people

online for a more serious relationship because of these often unspoken expectations.

There is also a slight implication that something is wrong with you if you can't meet someone to date in real life. It's almost shameful to use an app or an online website. Though the stigma isn't quite as strong as it is in the heterosexual community,

he has something wrong with him. Roderich believes that the stigma of online dating is more present with the use of apps which have a "hook-up" connotation because, even though some are advertised as "dating" apps, they are mainly used as a place to find a hook-up.

### Tribes: Used in Dating

Tribes in the Gay Male Community	Body Type Tribes	Bear	Older Bear
			Cub
		Otter	
		Jock	
		Geek	
		Twink	
		Clean Cut	
	Kink Tribes	Leather	Regular Leather
			BDSM/Bondage
		Daddy	
		Discreet	In a relationship
			Closeted
		Rugged	
	Poz		
Trans			

it's still there. According to Simon, most men that he has found on online dating sites are individuals that would be considered undesirable in the dating scene outside of the internet. For example, they have strange fetishes, don't have a pleasant personality, or aren't physically attractive, and he is slightly embarrassed about being online for that reason. He is online because he has such a small dating pool in real life, not because

An important part of the online dating community is the use of "tribes" in order to classify people. I first discovered the existence of these tribes during a meeting with Roderich while he was using his phone to browse Grindr. He explained how the app was set up and how to create a profile, showing me a long list of tribes a person can choose to include on his profile. According to Simon and Roderich, the reason that tribes are so important in these

instances is because they allow an individual to get a rough guess of how a potential partner looks physically. It can also help them get an idea of how someone will behave and a small glimpse into their personality.

The body type tribes are, of course, defined by body type, including: the amount of fat or muscle a person has, the amount of hair a person has, height, and age, with most individuals in this group 35 or younger. The kink tribes are defined as: *daddy* (an older man 50+ years of age, or an older man with a younger partner) and *discrete* (someone who isn't "out of the closet"). Discretes could also possibly be in another relationship and don't want their partner to know or are questioning their sexuality. These individuals don't want to make their identity public, but still want to be part of the LGBT community. Other kink tribes include: *leather* (individuals who are turned on by leather or who are interested in bondage or BDSM, the sexual act of tying up one's partner), and *rugged* (which was defined as a lumberjack type fantasy, a very strong man with facial hair). There are also two tribes that do not fit in either the kink or body type categories. They are: *poz* (HIV positive) and *trans* (a transgender individual).

Men can choose their tribes based on the parameters above or what feels the most comfortable for them. A man's demeanor

can also help determine what tribe he would best fit into. For example, both of my informants mentioned that men and boys that fit into the "twink" category tend to be more effeminate and are expected to be the bottoms (the partner who is penetrated during sexual intercourse) in the sexual relationship. Men who fit into categories such as "rugged" are expected to be a "man's man" and be more dominant and aggressive and top (the partner who penetrates during sexual intercourse).

Most of the tribes, especially the body type tribes, were defined by my informants as having an age limit on them, generally a person up to their early to mid-30's. I questioned my informants about this age limit and what happens to a man who had identified as a certain tribe once he passed the age limits they had specified. Simon and Roderich seemed puzzled by my question. Both mentioned they had never considered what would happen or how they would self-identify in the future. Simon mentioned these tribes are mainly used during the search for a partner, and a man is not likely to be as involved in the dating scene once they have reached their 30's. He also mentioned that, though they might not be in the dating pool at the time they pass these age limits, they might rejoin at a later time as part of a different tribe.

For my informants,

a man's tribe is fairly fluid. A man often chooses what tribe he identifies with and can move from one to another fairly easily because it is a reflection of who he is and how he sees himself. According to Simon, "You're not necessarily stuck in one thing. Your tribe changes as you change." While a man is still in college, his tribe is still extremely important in his search for a partner. Tribal membership becomes less important once he is in a committed relationship. According to Simon, kink tribes remain important even after a man enters a dating relationship because kink tribes deal with sexual preferences which will continue to be expressed within a dating relationship.

According to my informants, there seems to be a fairly high demand for twinks, especially within the Midwestern gay community. Twinks seem to fulfill the more stereotypical image of gay men. They are more effeminate, look younger, are more slender, and tend to be the bottom in the sexual relationship. They also seem to be the foil to the bear category. Bears are bigger, older, and hairy. These two groups appear to be the most popular within the college-aged gay community, and are the two tribes I have heard mentioned most often during my ethnographical research, both inside and outside of it.

In addition to this apparent cross over between



the kink and body type tribes there also appears to be some tribes that are very closely related to others. The otter tribe seems to be one of these. It almost seems to be a filler tribe. It is separate from other categories, but it is also very closely related to both the bear and jock tribes. In fact, when Roderich was describing the otter tribe to me, he stated that they were basically a combination of the bear and jock tribes. They are not exactly chubby like a bear, nor are they as athletic as a jock would be. They are more hairy than a jock, but less so than a bear. Tribes like this were harder to explore because they were not often mentioned during my interviews with my informants.

### **Other Challenges Gay Men Face:**

Once gay college students have become more integrated into the gay community, there are even more challenges they face. One of the biggest fears for my informants is that they are going to become victims of a hate crime. This is especially worrying to Roderich. He believes his fear to be slightly irrational because he is quite safe on his college campus, but it is something he worries about when he is off campus. He referenced Matthew Shepard's story as the main reasons for his fear. Matthew Shepard was a young gay man living in Wyoming in the early 90s

who was killed after meeting two homophobic strangers in a bar one evening. These men took Matthew out into the country, tied him to a fence post, beat him, and left him for dead. Roderich became very emotional while recounting this story and said, "I was just shocked that someone would do that to another human being over something so trivial. I mean, he wasn't flirting with these men, he wasn't forcing his sexuality upon this guys, but these guys were closed-minded and bigoted enough that they would do what they did. I mean, thankfully, they were convicted of murder, so Matthew Sheppard's family did get justice, but... Just that fact that someone would do that to another human being astounds me." This fear has prevented him from public displays of affection, like holding hands, hugging, or kissing another male, without fear of someone nearby reacting in a negative manner.

Religion can be one of the biggest conflicts for gay men both because of their religious beliefs and because of the beliefs of their loved ones. Many gay men are shunned by their faith communities or are even thrown out of them all together. Roderich, for example, was banned from his church youth group because of his sexual orientation. He also felt extremely uncomfortable attending church functions,

including services, once he came out. Additionally, he received hate mail from one of his more extreme religious acquaintances telling him he was going to hell. These reactions impacted him so negatively that he no longer attends church. Although the church near his college is much more accepting than the church he grew up in, Roderich stated he is too afraid of putting himself out and making himself vulnerable only to be shunned again. He would rather have not religious community than to put himself through that sort of emotional pain again.

While problems with religious beliefs often leave a gay man feeling alone and isolated, he may also begin to face problems with people becoming too interested in him because of his sexual orientation. Roderich had numerous issues with this kind of "hyper-attachment" when he first came out. He hypothesized that these girls liked him because he behaves in a more stereotypical way and is an ideal candidate for a "GBF", or gay best friend, popularized by the mainstream media. He was often approached by people he had never talked to before who wanted to be his best friend. He said this was distressing because, "The reality is I'm just another... I'm just another guy. Granted, I like other guys and don't mind going shopping or for Starbucks or anything like that, but I don't want that to be the sole reason

someone wants me as their friend.” He wanted to be seen as a human being, but he felt as if he was being treated like a new fashion accessory. These girls did not care for him for any reason other than because he was gay. “It basically felt like they were shopping for a new handbag, and you happened to be the newest, latest, most trendy style,” he stated.

All of the difficulties listed above can play a role in the last challenge discussed here: self-acceptance. Many gay men find it difficult to accept themselves when they realize their sexual orientation. A man’s religious beliefs can play a large role in how difficult it is for him to accept himself as gay. If a man has been taught his whole life that homosexuality is a sin, he is less likely to accept his sexual orientation and will not come out of the closet. Fear is another reason many men refuse to come out. They may be afraid of how their families and friends will react to their sexual orientation or how they will be treated in public. They may even fear that they will be killed for being gay. It is also possible they could be in denial about their sexual orientation because many people view homosexuality as a choice.

Simon’s reaction to this subject was particularly forceful. I asked him if he believed there were any positives to being gay, and he responded, “Honestly, I can’t

think of any, which is why I think people who say being gay is a choice are fucking morons... It is not an easy road that I’m on now. I didn’t choose it. But I’m going to be who I am.” Simon also disclosed that, if given the choice, he would choose to be straight. He does not feel very optimistic about his future as a gay man. Nevertheless, in spite of the difficulties they face, both Simon and Roderich declared they will continue to be who they are and they will

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**It is not an easy road that I’m on now. I didn’t choose it. But I’m going to be who I am.**

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never go back into the closet and will persist in their efforts to overcome the obstacles associated with being gay.

### **Conclusion:**

This semester, I had my eyes opened to a world that I thought I knew. For example, before my conversations with my informants, I had no idea that coming out is a life-long process, and that it is not always the big “coming out” talk many people picture it to be. That conversation is usually reserved for a person’s family and close friends. Usually, a gay college

student comes out in casual conversation. He might change his sexual orientation or come out via social media or make jokes about his sexual orientation to new friends. In spite of these varied ways in which my informants come out, they seem to expect a person to react negatively when they do so. They stated that the negative reactions to coming out are much more publicized and well known than the positive or neutral ones, so it is much easier to remember these kinds of reactions. I also realized that positive and negative reactions could be simplified into being supportive and unsupportive respectively. After a gay college student comes out, he begins to encounter more difficulties upon entering the gay community. One of the big problems is dating.

Both of my informants have difficulty with this because they attend a small liberal arts college where the LGBTQ+ community is very small. These difficulties are compounded because their school is located in a fairly small, conservative, rural community in the Midwest. There are several ways my informants overcome these limitations, including using online resources like dating sites and apps to find potential dating partners, and trying to meet new partners through friends or in public spaces. Though online resources are very useful to them, they bring another set of challenges for my informants

to overcome. Although these online sources do not carry the same stigma that they do in the heterosexual community, there is still a question if there is something wrong with you if you have to use a dating site or app to meet people.

Through discussions about online dating, I discovered the use of tribes, which are used in dating in general and online dating specifically. In general, these tribes are used online in order to give potential partners an idea of how a person might look or what kind of kinks they might have before meeting. They can help a man narrow down his search for a partner fairly quickly. They can be broken down into body type tribes and kink tribes, and there are several classifications for each tribe like: amount of body fat, how muscular a man is, how much body hair he has, his sexual preferences (or kinks), and his age. These tribes seem to be used mainly by younger gay men, including college-aged gay men. My informants believe the tribes are specific to younger gay men because older gay men are no longer in the dating pool. They also emphasized the tribes are

fluid and a person can change tribes as he changes. Once a person is in a relationship, his membership in a body type tribe becomes less important, though his kink tribes are still important.

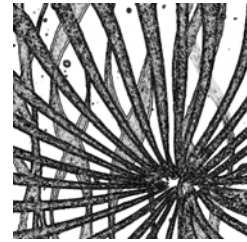
In addition to these very specific issues gay college students deal with, there are several general problems they face that affect all gay men. These problems include things like fear of hate crimes and hate speech, which can lead to fears about openly showing affection with a significant other while in public. Religious beliefs are also a hurdle many gay men have to overcome. These men fear exile from their faith communities, hate from extreme religious groups, and even hate mail. Roderich, for example, felt extremely unwelcome in his church when he came out because of the judgments people made about his sexual orientation. Stereotypes are also a big challenge for my informants. If a gay man fits a certain stereotype, like Roderich who is more flamboyant and effeminate that Simon, they might be seen as a potential “GBF” (gay best friend). They are not seen for anything other than their sexual orientation.

On the other hand, if a man does not fit the stereotype, like Simon, he could have trouble dating, might often be mistaken as straight, and might have to come out more often than men who fulfill the stereotype.

Possibly one of the biggest challenges gay men face is self-acceptance. These men might have difficulty accepting themselves and their sexual orientation for the reasons listed above. All of these challenges make life difficult for gay college students and make things that are easy for their heterosexual counterparts much harder for them. Many straight people take it for granted that they can adopt, get married, and easily buy a house while these simple things are still struggles for gay men. Both of my informants mentioned that life would be a lot easier for them if they were straight, but that they are going to continue to be who they are and keep looking for a person to share their life with. They will keep moving forward and learning how to overcome the problems they face both in college and off the college campus.

# The Platonic Forms

Matt Imoehl



*PHIL 280: Plato*

Throughout the Republic and other Platonic dialogues, Plato gives arguments for the reality of the Forms through the mouth of Socrates. Plato's Argument from Opposites paints a picture of what is meant by the Forms, and makes a compelling case for their existence. I will also address a second argument for the Forms that I will call the Craftsman Argument. My intention is to present and defend these two arguments for the reality of the Forms.

In the Argument from Opposites, from the Republic (523-5), Plato asks us to consider three fingers. One finger is the biggest, one the smallest, and one in the middle. When viewing the medium-sized finger, it appears big compared to the small finger, and small compared to the large finger. Our senses view the same object as being both big and small. In fact, anytime we identify something that is big, we immediately draw comparisons to smaller things. Something is big only relative to smaller things, and a big

I nominated his paper for the Anthology because it does something that it is very hard to do in brief space for readers lacking prior acquaintance with the topic. That is, for a thoughtful reader it makes a compelling case that the famous dictum is wrong about "the measure of all things." It is not humanity ("man," in traditional translations) that is the measure of all things, as Protagoras has it; rather, it is the intelligible yet incorporeal realities which Plato calls "Forms" that are the measure. Sophomoric textbooks appear patronizing in their expositions of Plato's theory by suggesting that the Forms are literally mental images, and Aristotle himself seems to trivialize it in his criticisms at Metaphysics I.9.

-Chad Ray

thing only becomes big out of a previously smaller state. But when a finger is identified as both big and small, there is a contradiction. Big and small are opposites, so the finger could not be identical to Bigness itself and to Smallness itself. In the finger, the senses perceive the one size as both big and small, as though Big and Small were mixed together; but the mind understands Bigness and Smallness themselves as opposites, which are clearly separate from the finger. In fact, Bigness and Smallness must be distinct from the entirety of the physical world, since all physical objects participate in Bigness and Smallness to varying extents, and the size can be compared to either or both. Though they participate in Bigness and Smallness to varying extents, those physical objects should not be confused with Bigness itself and Smallness itself. The fingers refer us to Bigness and Smallness but are not identical

with them. We understand what it means to say that one object is bigger than another object, because we understand the Big. This suggests that we are capable of understanding an intelligible reality that cannot be perceived by the senses. This reality that is not sensed but is understood is the reality of the Forms.

This is a powerful and compelling argument. Rational beings understand many things that they never encounter in the physical world. No one disputes that the Pythagorean Theorem is true for right triangles, yet no one has ever observed a right triangle or the Pythagorean Theorem. If you doubt this, consider that lines in geometry have no width and points have no dimensions at all; they are "seen" by the mind, not by the senses. We can mentally grasp concepts that seem to explain truths about right triangles, even though we have never encountered a right triangle.



Even after the death of humanity and the universe itself, the Pythagorean Theorem will express an eternal, unchanging truth about reality. Given this fact, it is difficult to deny that the Pythagorean Theorem has some kind of reality, apparently independent of us. This intelligible reality is grasped by rational beings, but the Pythagorean Theorem endures even when no rational beings are around to understand it.

Plato's second argument, the Craftsman Argument, is taken from the Republic at 596b, when Socrates says:

*"Aren't we also accustomed to say that it is in looking to the idea of each implement that one craftsman makes the couches and another the chairs we use, and similarly for other things? For presumably none of the craftsmen fabricates the idea itself. How could he?"*

The ideas of chairs and couches are not all that powerful, so consider an artist that wants to draw a circle. The artist gives his best attempt at drawing a circle, but it inevitably fails to be a perfect circle. The drawing will share some similarities to a circle, and participates in the Form of Circularity to some extent. Yet the drawing is not the same thing as Circularity itself. When we examine the drawing, we observe the imperfections that prevent the drawing from being a circle. We can do this even though no one has ever seen a perfect circle, or Circularity itself.

Our minds have the mental capacity to grasp the Form of Circularity, and that Form is the standard to which we compare the drawing. The fact that the artist can come close to drawing a circle shows that he also has access to the intelligible reality of the Form of Circularity. Some Forms are more difficult to grasp than Circularity, yet we seem to have some knowledge of them. When we hear of someone abducting a child, we feel compelled to say that

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### **How could an artist attempt to draw a perfect circle without knowledge of the Form of Circularity?**

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the abductor has performed an unjust act, even if we do not have a complete understanding of the Form of justice. It seems that there are objective truths about the Forms of Circularity and Justice that do not depend on human knowledge or existence.

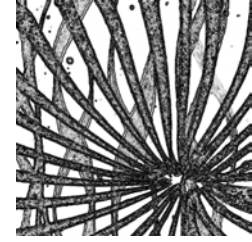
The Craftsman argument is compelling as well, as it is difficult to describe reality without acknowledging the existence of eternal, unchanging, imperceptible realities. How could an artist attempt to draw a perfect circle without knowledge of the Form of Circularity? Circularity is no mere human construct;

it is a reality in which material objects participate to varying degrees. Note too that Circularity itself is not round or a circle, any more than Bigness is gargantuan. The Form is what the artist understands and renders sensible or material by imitation, but is not a sensible or material thing itself. The artist's understanding of Circularity allows him to draw an approximation of a circle that refers observers to the Form of Circularity. What the craftsman understands is that in virtue of which sensible circles are more or less round. This might be an intelligible formula, like "the complete set of points on a given plane, at a given distance from some given point on that plane." The formula is perfectly intelligible; its physical approximations, mutable and imperfect.

Plato succeeds in arguing for the reality of the Forms. The Argument from Opposites considers a finger that we perceive as both big and small, and concludes that Bigness and Smallness must be distinct from the finger, because Bigness and Smallness are opposites, and therefore could not be the same thing. The Craftsman argument shows that a craftsman cannot create the object of his craft without knowledge of the Form of that craft. Our ability to judge the object of his craft suggests that we understand a reality that is distinct from the physical world.

# Supervised Chaos

Bailey Anderson



*ENGL 240: Personal Essay*

“Excuse me, Miss, are you a Christian?” He sat in a geometric armchair, looking up from the book he read, *The Bible Code*. With immense front teeth and gray peppered hair with a matching handlebar mustache, he reminded me distinctly of a mouse. He looked as if he had been working outside, covered in a thin film of dried sweat and cigarette ash. The skin around his mouth congregated in folds and creases, laugh lines developing with every grin that stretched across his entire jaw.

Once I had answered his question in the affirmative, that yes, I was a Christian, there was no stopping him as he recounted the contents of his book in a nonsensical flurry of misguided science. “In the book of Revelations, it predicts the end of the world, and I believe we’re in the end-times. When the sun sets tonight, look at its position; it’s not exactly where it should be. The sun is moving toward setting in the east and rising in the west. Science suggests this happens once every 64 million years and causes all life on the planet to end.”

As he finished explaining about the sun and the moon, I was frozen with

“Supervised Chaos” is a study in defamiliarization. From witty exchanges with patrons to the chore of cleaning restrooms at a public library, Bailey captures a view of the library that few readers will ever have considered. These comic asides humanize her subject and add resonance to the deeper message about vocation that makes the narrative so memorable.

-Joshua Dolezal

my arm halfway between my bookcart and the bookshelf in front of me in the middle of reshelving *Friday Night Lights*.

All I could do at this point was nod, as if this made perfect sense. I barely listened, and instead telepathically tried to send a distress signal to my supervisor for the night. I inched my bookcart toward the elevator, but not nearly fast enough.

While my mind was occupied with the distress signal, he continued to explain the science and theology behind his Apocalyptic theory, somehow coming to the conclusion, “And the Earth is moving farther and farther away from the Milky Way.”

“Tell your friends about this, I’m trying to get the word out to as many people as I can so we can all repent and be saved in the kingdom of the Lord.”

I smiled and agreed with him half-heartedly, quietly assuring him that I would tell everyone I knew about the world’s end.

If this happened only once, it wouldn’t have been worth mentioning, because

it floats in a choppy sea of craziness which I had encountered at my job at the library. But it hadn’t happened only once. He felt the need to remind me of his theory every time he saw me. He soon became a regular patron, and one every library employee avoided in the most kind-hearted way possible.

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When I began searching for a dream career, even from the first time my kindergarten teacher asked what I wanted to be when I “grew up”, I never put a second thought upon the possibility of being a librarian. Even as I took a high school job at the library and fell in love with it, I never saw myself as a cardigan-clad, coffee-guzzling human search engine in a pencil skirt. My job was just that: a job; it wasn’t a career-option.

I bounced between majors for most of high school, each of which I was sure of being the correct one for me until I was presented with another option, much like the bouncing I did

between hobbies as a child. Did I want to play piano? What about ballet? Would I fit best into the journalism world? Or maybe I would like to be a substance abuse counselor. What about an elementary school teacher? I felt like a helium balloon floating within the branches of a tree, constantly being passed from one aspiration to the next without much consequence. In the back of my mind, I knew that when I found what I was looking for, I'd have no problem being tethered to it.

It wasn't until the last month or two of my senior year of high school when I found my tether, and it was there all along, the most attractive and prominent branch on the tree of my interests. I had turned a blind eye to it, which was hard to do considering I stared it in the face three nights of the week and about half of my weekends.

When I announced to my parents that I wanted to be a librarian, they looked at each other knowingly, proud that I had finally seen what I had been trying my hardest not to see: the love I had for my job, the love my job and coworkers had for me, the skills and interests which made me perfect in a library setting, and most of the all, the passion I had been suppressing all along.

When I began to report my new plan to anyone who asked, I felt this passion oozing out of every pore,

boiling over all at once like a pot of potatoes. Shamelessly, I declared "I want to be a librarian" and when I did, it felt like the truest phrase I'd ever spoken.

It's a common thought that libraries are painfully quiet, so quiet they seem even devoid of life. The quiet is often believed to be strictly enforced by tight-lipped, tight-bunned women with pointy noses and glasses that don't

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**I felt like a helium balloon floating within the branches of a tree, constantly being passed from one aspiration to the next without much consequence.**

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quite fit the way they should. When telling friends and family of my aspirations of becoming a librarian, it wasn't rare to hear a joke somewhere along the lines of "You'd better practice your shushing".

Having been to many different public libraries, I can testify that the iconic silence which accompanies most people's perception of the library is still alive and well in some places, but Washington Public Library was never one of them. The library I claim as my own nearly vibrates

with activity on weeknights. Children dash around my legs, squeezing between the onyx bookcart and myself, and hop into the elevator, playing a wildly unsupervised game of tag while their mother checks Facebook, none-the-wiser. Teenagers in the young adult section somehow think it acceptable to play music without headphones. An elderly woman shouts at her husband that her hearing aid has run out of batteries. Wednesday afternoon movies are heard throughout most of the second floor, thanks to our new state-of-the-art speaker system. There is even an immense amount of smoking that happens in the bathroom on stale, cold evenings ("too cold to go outside and do it!") without the knowledge of the librarians behind the desk, or so they think. And there, at the center of it all: the exhausted librarian, smiling at each patron as he or she walks in while the noise and activity persists, as if it didn't exist at all.

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Checking the bathrooms at the end of the night was always a gamble; public restrooms nearly always are. Most of the time, I was only met with smells: smells of sweat, toilet bowls left semi-clean from their day's usage, or other less pleasant smells that reminded me of just what went on in there during the day. I lived in fear of the days where I was met with the source of it.

Whether I opened the stall to discover blood in the urinal, wads of chewing tobacco stuck to the beige marble-tiled walls, or what appeared to be the resurgence of dysentery in Washington, Iowa, *someone* had to roll up their sleeves, put on latex gloves, and clean it.

During the work week, I dealt with a lot at my job, from disgruntled patrons to various bodily fluids. Quiet Saturday afternoons were my favorite part of the job; they were a true rarity.

I relished the sunny Saturday afternoons I spent behind the desk at the library, watching would-be patrons stroll by the library windows without a second thought. They walked their dogs, pushed strollers full of children with one toddler who bounced along behind, or simply basked in the sunshine of an uncharacteristically tolerable November day. Not many craved to visit a square building with watery fluorescent lighting and a distinct smell of must on days like this. As for me, I loved the way I could hear every newspaper page crinkle as it turned, how the quiet seeped beneath my skin until all I could feel was peace.

When I left to attend Central College, I knew I would miss a lot of things about working at the library: my co-workers and supervisors; the atmosphere; and of course those quiet, sunny Saturday mornings where silence rushed to me like the waves in the shallow end of a swimming pool, with



Whitney Sowers, 2015

a gentle nudge and a warm embrace.

Within the first week of college, I was back behind the circulation desk, pushing a rattley, onyx cart full of books and taking inventory on the third floor of Geisler Library, which was deemed a “quiet zone” for studying and research. As I picked up book after book, scanned the

barcode, and put it back in its original spot, I ran the pages through my fingers, checking the publication date and Date Due slip in the back, reading a couple sentences of each before replacing it. Every once in a while, out of the corner of my eye, I would catch a flash of movement, but when I turned, no one and nothing was there. I hadn't yet adjusted to the lack of activity, still expecting the constant bustle between the stacks: patrons slowly pacing back and forth, slowly browsing through each and every book in the collection and those who knew exactly what they were looking for upon walking in. The stifling silence seemed tangible, a shroud of airborne sand clinging to me even as I left. Not a single newspaper page crunched as its reader desperately tried to put it back together the way it was when he found it, and not a single child peeked around the stacks only to dash back to the kids'

room, giggling and babbling all the way. The phone didn't ring. While I kept expecting to be approached by a patron in need of assistance, or just one walking by as I worked, they never came, and this lack of discord pressed down on my shoulders while I continued to rifle through some of the oldest books I had ever had the wary pleasure of



holding in my hands.

Somehow, the silence differed from that of the public library. The silence at the public library was well-deserved after a long week of taking hurried lunch breaks interrupted by a patron and a shrill, screaming phone (which both presented themselves at the same time, go figure) and calling patrons who are all just sure they returned their overdue books. The silence at Geisler Library was uninterrupted and intense. Instead of soaking through me and allowing me to relax after a long week, like the rare silence of a Saturday afternoon, it put me on edge and made me feel as if I were the only person left on Earth; it was humid and oppressive.

It didn't take me long to ache for the chaos of the

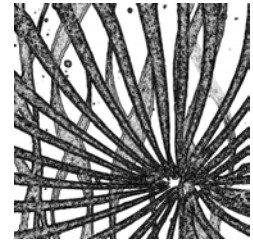
weekday public library and the sense of control I had over all of it, whether that control was real or imagined. As I looked over the desk of the public library from my black mesh throne with lumbar support, I saw a chaotically governed kingdom, and I the perceptive ruler with a hand in every corner of it. I'd be there in a blink at any sign of trouble, whether that meant showing a computer-user how to copy and paste (for the third time this week) or dashing to a shelf to catch the row of books about to topple to the floor. I had knowledge of every aspect, able to locate a subject in the Dewey Decimal System without looking it up first and make double-sided copies from two single-sided originals.

As I ran through the list of things I would miss

about working at Washington Public Library, tumultuous pandemonium was never on it, but it is truly one of the things I miss the most. I yearn for the corny jokes the patrons told me ("What do you call a midget psychic who escapes from jail? A small medium at large!") and even the senseless Apocalyptic theories which I got to hear about several times a week. I miss the infallible politeness and the impenetrable smile I gave to each patron who walked into the double-doors, whether they were about to give me trouble or not. I never dreamed I would miss the antics of the weekday more than the solitude of the weekend, but when the chaos is more satisfying than the calm, that is where passion makes its home.

# Learning the Loess Hills

Elizabeth Koele



*LAS 410: Ecotones:  
Exploring Literature,  
Science, and History*

Driving north along the edge of Western Iowa, the flat land surrounding the Missouri River is the definition of perfect farmland. The soil is full of nutrients and technology allows water from the Mighty Mo to be pumped into huge sprinkler systems. Glancing out my window, I look back at the large hill I had just descended, which stretches into the distance. This long line of raised earth will follow me the rest of the way home. Through those last 90 miles, it will range from looming over the road as I slide down its slopes to change

## Recipient of the John Allen Award

Liz enchants the reader with a personal journey and connection to Iowa's Loess Hills, the landscape she calls home. I particularly appreciated her focus on time as well as the layered integration of natural history, art work such as George Catlin's "Grassy Bluffs, Upper Missouri" and her personification of the hills. The power of "Learning from the Loess Hills" encourages readers to understand this fragile treasure and protect these gentle "friends" from human impact and encroaching ecological threats.

-Mary Stark

interstates, to retreating to the distant edge of the horizon. Somehow, the hills' presence seems to grow the further they recede from my point of view. They appear all the more amazing defiantly interrupting the flat farmland, Iowa's very own mountains standing sentinel throughout time. Before I arrive home, I will climb the hills one last time, reaching the last leg of my journey. For a short time, my way will proceed along

their opposite edge. We part ways a short distance from our separate destinations, and I bid the hills adieu, assured they will be able to manage the remaining miles unaccompanied. As promised, we both reach our end, a mere 25 miles apart and although we neither started nor ended our journey together, it was pleasant to have a familiar companion for part of the way.



*Ides of March (cut branch fires near Missouri Valley)*, 1994  
Keith Jacobshagen (by permission)  
18" x 46" <sup>1</sup>

\* \* \*

As the bus climbed the hill, the excitement among the third graders was uncontainable, and when the vehicle finally bounced to a stop in a plume of gravel dust, we spilled out onto the grass of the recreation area. It was Fieldtrip Day and we were visiting Hillview Recreational Park, one mile west of Hinton, Iowa. The park rangers herded us together and attempted to establish some semblance of order. We started off with a hike through the park's variety of ecosystems. First, we traipsed around the woods, jumping down steps carved into the hillside and skipping along the dirt and mulch paths with energy only found in elementary students. We stopped to poke at weird plants and were instructed on the different animals and trees residing within the forest. The trees eventually gave way to the park's reconstructed prairie, opening onto waving grasses and the sound of songbirds. By the end of our trek, it seemed as if we had travelled miles. The class gathered back by the shelter house, and a couple of DNR rangers began speaking about what made this area so special. In basic terms they described the complex processes that had gone into creating the landscape around us. As a 10

year old, I didn't pay a lot of attention to the information they presented. It was hard to believe that these seemingly normal hills were almost one-of-a-kind and had been built up over thousands of year. Little did I know at the time, the hills that had always been present at the very edge of my childhood were far more impressive and complex than I could comprehend.



George Catlin - *Grassy Bluffs, Upper Missouri*<sup>†</sup>

In 1832, artist George Catlin departed from St. Louis, Missouri, beginning his 2,000 miles journey up the Missouri River.<sup>2</sup> Along the way he encountered tall waving prairies, Native American tribes and chiefs, and endless herds of buffalo. Eventually, he arrived at the dramatic bluffs and rolling hills along the banks of the river. Catlin marveled at the tall banks, comparing them to “ramparts, terraces, domes, towers, citadels and castles.”<sup>3</sup> He depicted these soaring bluffs in a handful of his paintings, sparking the interest of other artists in the process. Little did George Catlin know the lengthy

geological processes that had created the hills and bluffs were as laborious as those necessary to create a painting.

Around 25,000 to 12,500 years ago, large glaciers covering the mid-portion of North America began to recede, signaling the end of the last Ice Age.<sup>5</sup> As they departed, their massive weight crushed the rock beneath, pulverizing quartz rock into silt. The powdered minerals were swept up by the melted runoff from the glaciers, running down into larger rivers, particularly what is now known as the Missouri River. The silt's journey was only half over, as the rivers washed the relatively heavy particles into mud flats along their

banks. Over time, these deposits dried out and were swept up by strong western winds, which lifted the powder from the Missouri River valley eastward. The heaviest of the pulverized rock and mineral wasn't carried far, piling up not far from the banks of the river and forming what is today known as the Iowa Loess Hills.<sup>6</sup>

Although a fairly common type of soil, loess seems to be a mystery to many. It's found all over the world, but rarely collects in such large deposits and thus is frequently overlooked. From the German word “for loose or crumbly”, it is defined by geologists as a “gritty,

lightweight, porous material composed of tightly packed grains of quartz, feldspar, mica, and other materials.”<sup>7</sup> It exists in multiple locations across the United States and around the world, which may at first make the hills seem rather ordinary. Other deposits exist near rivers such as the Danube in Germany.<sup>8</sup> However, the Iowa Loess Hills are a “geologic anomaly,” worthy of being studied by school children and scholars alike.<sup>9</sup> The hills are the second largest in the world. They are surpassed only by the loess hills of Shaanxi, China, which were created far longer ago and stretch deeper than the Iowa formations- an estimated 2.5 million years old and 300 feet deep.<sup>10</sup> In contrast, the Iowa hills average 60 feet, but can be as deep as 150-200.<sup>11</sup> These impressive statistics alone set aside the Iowa Loess Hills as a geological wonder.

Straddling the very western edge of Iowa, the Loess Hills stretch slightly over the border of Missouri, up until just past Sioux City, Iowa- a length of around 200 miles. They can spread from 10 to 15 miles wide, and overall cover a landscape of approximately 650,000 acres.<sup>13</sup> The hills are covered by an incredibly unique ecosystem. Different from the tallgrass prairies to the east and the Missouri River Valley wetlands to the west, the Loess Hills host a mixed grass prairie, which is a mixture between tallgrass

and shortgrass determined by moisture levels.<sup>14</sup> Although “less than 2% of the hills themselves remain in native grasses and forbs,” these statistics are still better than many other areas in the state, where under 1% of native landscape remains.<sup>15</sup> This mix of grasses becomes increasingly unique through its location in the Iowa Loess Hills. Some of the plants found within the hills are almost 100 miles removed from where they would traditionally be located. The environment hosted in the Loess Hills is capable of hosting mixed grasses and other organisms that usually only thrive in the more arid western sections of the United States.<sup>16</sup>

Further examining this natural phenomenon, the structure and location of the Iowa Loess Hills help create two very different but coinciding ecosystems. The western side of the hills faces directly into the strong winds that frequently rush across Iowa. The orientation also allows for exposure to the hotter afternoon sun, all cumulating to create the aforementioned arid conditions that mimic more western climates. In contrast, the eastern side of the hills is more gradually inclined and is more sheltered from the wind and sun. Upon these slopes condition are more suitable for forests and the tallgrass prairies that used to spread across the rest of the state.<sup>17</sup> In recent decades, the presence of forests has steadily

increased when before there was only prairie grass.<sup>18</sup> This expansion can likely be linked to the increased human population residing in and around the hills. It is incredible to think that within space of a few miles such a drastic change in ecosystems can occur. This mix of climates is just another reason the Iowa Loess Hills are truly one of a kind.

Despite being thousands of years old, the Loess Hills are still constantly changing and evolving. Some changes have been occurring naturally but many can be directly attributed to humans. Before the arrival of European settlers, several indigenous groups lived in the Iowa Loess Hills, including the Glenwood, Great Oasis, and Mill Creek peoples.<sup>19</sup> They were eventually pushed out by later settlers in the late 19th and early 20th centuries. The new residents attempted to rework the land to their liking. They “caused erosion directly by digging out roads and cellars in the fragile soil.”<sup>20</sup> The groups also worked to stop natural prairie fires. Invasive species of plants, such as leafy spurge and garlic mustard, have lately been introduced to the ecosystem and have begun to choke out the native species. These nonnative plants are especially problematic considering that Iowa’s largest surviving prairies are found in the hills, known as the Broken Kettle Grasslands Preserve. Over the span of a little over one hundred years, human interference has drastically changed the environment and ecosystem of the Loess Hills.<sup>21</sup>



In addition to the problems posed by human settlement, the Iowa Loess Hills face naturally occurring issues. When they were young, the hills were smooth piles of loosely deposited loess. As they were exposed to weather, the soft soil began to erode into rough, jagged formations. Erosion, both natural and manmade, is undoubtedly the largest threat to the Loess Hills. According to the United States Geological Survey, the Iowa Loess Hills “have one of the highest erosion rates in the U.S., almost 40 tons/acre/year.”<sup>22</sup> It’s alarming to realize how quickly the hills are disappearing. As author Robert Grant wrote: “The hills are in a constant process of erosion toward joining the relative flatness of the surrounding countryside.”<sup>23</sup> There are several clearly visible examples of the collapse of the Loess Hills. One is the uniquely named catsteps, which are formed when the loess slips and slumps repeatedly down the slope of the hills, creating small shelves of vegetation.<sup>24</sup> On the larger scale, large gullies are common in the Loess Hills, large gaps where the natural loess has been carried away by rainfall. They can be miles long, over one hundred feet wide, and as deep as 80 feet.<sup>26</sup> Although it seems inevitable that someday the Loess Hills may be no more, for

the present it’s important to appreciate the hills while they are still with us.

Through careful

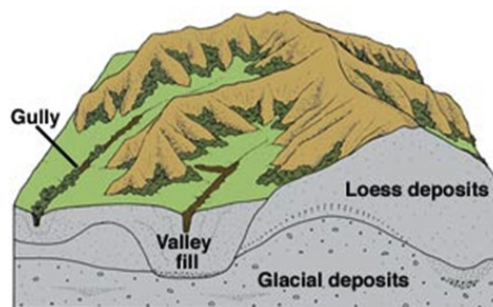


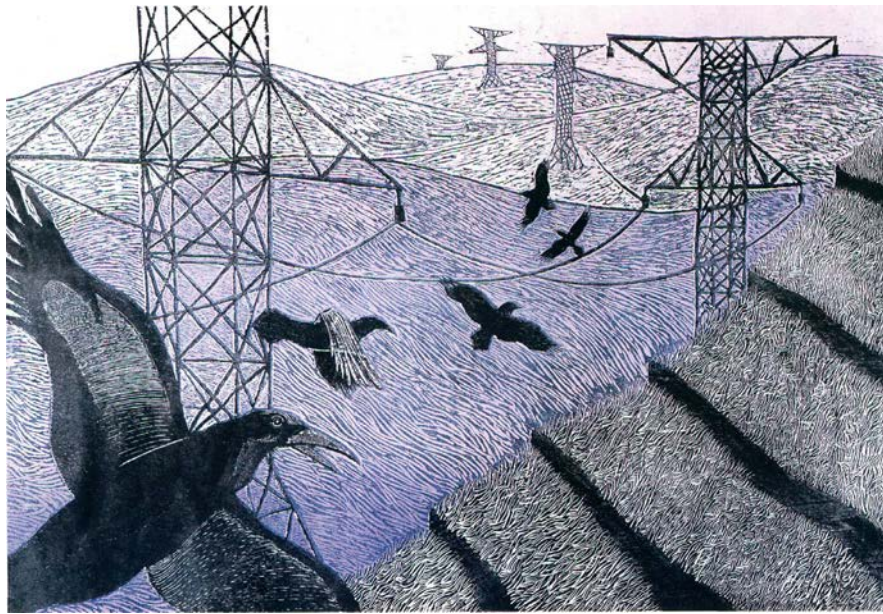
Diagram of the landscape of the Loess Hills<sup>25</sup>

study, the Loess Hills emerge as a fascinating paradox. They host two very different ecosystems on their western and eastern slopes, working in harmony. A one-of-a-kind prairie covers the hills, mixing short and tall grasses. The geological composition of the very hills themselves also seems to be a contradiction. Although the loess is soft and unstable, easily eroded by weather, if one were to “cut a Loess Hill vertically...its wall can stand for decades due to the interlocking characteristics of the loess soil particles.”<sup>27</sup> The Iowa Loess Hills are an incredibly unique landmark, defining the landscape and ecosystem of Western Iowa for thousands of years. Many are not mindful of exactly how rare the hills and the organisms that live upon them are, and it’s important to spread awareness. The Loess Hills are “dynamic and rapidly evolving,” and the delicate soil that gives the hills their name may someday be completely

washed away.<sup>28</sup> It would be a tragedy for humans to accelerate the destruction of these irreplaceable hills.

\* \* \*

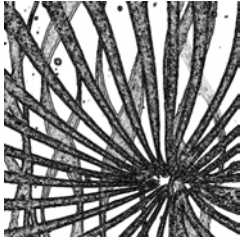
Sighing as I adjusted the radio, I lamented the fact that my drive back to school had only just begun. It had been less than 20 minutes since I had departed Le Mars, and I have well over three hours left to go. At this point, the landscape was still well-known and loved. I had been driving this route all my life, shuttling back and forth to the amenities and resources offered by Sioux City. Just how many times had I taken this journey? The number was almost impossible to calculate. I glanced out the window, noting exactly where I was: the strange transition between small-town Hinton and the very edges of the city. This area was marked by an increasing number of buildings, and the large substation next to the highway. I passed underneath the massive powerlines that stretched into the distance. Tracing the path of the looming power lines in my mind, I followed them west, where they continued to weave through the gently rolling hills. I could even picture where they crossed another highway I frequented, further into the shadow of the hills. Despite the metal structures’ impressive height, they never quite seemed to dwarf the proud presence of the ancient hills I call friends.



*Crows over the Catsteps*, 1994  
 Randy Becker (by permission)  
 20 x 29

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2. *Ibid.*, xv.
3. *Ibid.*, xvi.
4. "Grassy Bluffs, Upper Missouri," National Gallery of Art, accessed November 23, 2015.
5. "Geology of the Loess Hills, Iowa," USGS, last modified July 1999, accessed November 16, 2015.
6. Robert L. Grant, *A Case Study in Thomistic Environmental Ethics: The Ecological Crisis in the Loess Hills of Iowa* (Lewiston: Edwin Mellen Press, 2007), 18.
7. "Geology of the Loess Hills, Iowa."
8. Grant, *A Case Study in Thomistic*, 20.
9. *Ibid.*, 20, 9.
10. "Geology of the Loess."
11. Grant, *A Case Study in Thomistic*, 19.
12. "Unique Features of the Loess Hills," Loess Hills National Scenic Byway, last modified 2014, accessed November 16, 2015, <http://visitloess-hills.org/>; "Iowa: The Loess Hills," The Nature Conservancy, last modified 2015, accessed November 16, 2015.
13. Grant, *A Case Study in Thomistic*, 16.
14. *Ibid.*, 10.
15. *Ibid.*, 18.
16. *Ibid.*, 20.
17. Mutel, Swander, and Pohlman, *Land of the Fragile*, xxi.
18. Grant, *A Case Study in Thomistic*, 20.
19. *Ibid.*, 21.
20. "Iowa: The Loess Hills," The Nature Conservancy; Grant, *A Case Study in Thomistic*, 23, 33.
21. "Geology of the Loess."
22. Grant, *A Case Study in Thomistic*, 19.
23. Mutel, Swander, and Pohlman, *Land of the Fragile*, xxi.
24. "Geology of the Loess."
25. *Ibid.*
26. "Unique Features of the Loess," Loess Hills National Scenic Byway.
27. "Geology of the Loess."
28. Mutel, Swander, and Pohlman, *Land of the Fragile*, xvi-xvii.; "Randy Becker's *Crows over the Catsteps* also speaks of humanity's attempted dominance over the land. While birds dance in the sky over the stepped hills, high-power lines dissect heaven and earth."



# An Evolutionary Approach to Vocalizations and Hearing Adaptations in Killer Whales

*BIO 320: Evolution*

## Background Information

It was when baby killer whale, Kasaka, was born into SeaWorld and then transported to another park location when mother Takara was observed producing an extreme long-range vocal pattern never heard before by humans. Frequently studied today, killer whales have evolved the ability to produce a variety of vocalizations with a wide range of frequencies. These vocalizations seem to serve several functions, some known, but as witnessed with Takara in the film *Blackfish* (Cowperthwaite, 2013), some unknown. Because of these whales' geographical range, they are difficult research subjects but nevertheless deserve to be studied due to their complex cognitive and communication capabilities. From this research review, we would like to know: what is the evolutionary function of different vocalization forms in killer whale communication and how does this affect observed behavior? Our hypothesis is that if changes

Stephanie Griffih & Jessica Mozga

Stephanie and Jessica wrote this for Evolution, an upper level biology class. Students have to develop a proposal of research they would like to conduct that answers an evolutionary question. I chose their paper because they did a beautiful job of explaining what is known about vocalizations in killer whales. They were able to identify a gap in the knowledge of the evolution of vocalizations for hunting and developed a hypothesis and a way to test that hypothesis.

-Paulina Mena

in auditory communication, in response to adapted vocalizations in prey, leads to increased fitness in killer whales, then the individuals who are able to perceive and respond to the new vocalizations will be successful predators and a change in auditory perception will be observed.

Communication among species in the Animal Kingdom is regularly observed, however, some organisms have evolved in both auditory function as well as vocalized communication. Many different forms of communication through vocalization have been observed such as songs, clicks, whistles, squawks, barks, and quacks in many different frequencies. The ability of

vocal learning—vocalizations produced by choice in order to achieve a certain goal—has been studied among few groups of organisms such as birds, bats, elephants, Cetaceans (whales, dolphins, and porpoises), and some primates, but is considered rare (Sewall, 2012, p 1). This type of call, often referred to as a matched call, provides benefits to those that produce the vocalization as well as to those who listen and respond to the call. These calls serve many purposes including finding a mate, parental care of young, group membership, teamwork, and hunting.

Bottlenose dolphins and killer whales are well studied for their match calls. Male dolphins often form alliances and change their



calls to match each other. This is an example of group membership in organisms (p 10). Likewise, killer whales form social groups referred to as pods, and are extremely successful hunters in these groups working together in order to find food. Their strategy heavily relies on the communication between individuals in the pod (p 9).

Despite the disadvantage to studying Cetaceans in their aquatic habitat, this group of organisms is studied often due to the abundance of vocalization abilities including chirps, cries, moans, clicks, and whistles. Also, because of human advances in technology and mobility, these animals have been caught and heavily studied in captivity. Dolphins in particular are favored because of their size and adaptability to controlled environments. Captivity for Cetaceans, however, has disadvantages because of certain species' large body sizes, food preferences, and highly mobile behavior. Though they can be studied at sea, it is difficult for humans to observe Cetaceans without disturbing their natural behavior and because of the complications associated with working at sea (Sebeok, 1977, p 794).

With the data that has been observed in Cetaceans, it is evident that their complex communication style is highly advanced, probably meaning their physical features involved with auditory vocalizations and sound

perception is the result of the evolutionary development within their order. The ability to learn vocalizations is part of this complexity. Beluga whales and killer whales have been known to imitate signals from other individuals and species. This was witnessed by scientists in a study devoted to beluga whales, particularly a calf imitating its father's call but only after he was introduced to the group—a clear indication of vocal learning (Janik, 2014, p 60). The first discovered evidence of vocal learning was recorded in baleen whale males; all males within a Hawaiian breeding ground were found to all sing the same song to attract a mate but with elements in each theme that changed over time. Interestingly, the males synchronized this change, which also suggests vocal learning was involved (p 61). Cetaceans' large range of vocalizations have developed due to cognitive capabilities—a result of complex social behaviors and dependence on social relationships in large societies.

How Cetaceans use their abilities varies depending on behavior and function. Calls in killer whales and whistles in dolphins seem to serve a shared purpose of spatial awareness and social relationships (p 61). Filatova (2013) found that different call types were used for different situations. For example, low frequency vocalizations in killer whales were used

while in close proximity to each other—probably just to maintain spatial cohesion—whereas higher frequencies were used for long distance travel as well as in the presence of mixed pods—perhaps to ensure that sound is received by intended individuals.

Whistles in dolphins not only indicate spatial awareness but also serve as a mechanism for individual recognition in pods, contact calls between mother and calf, distress calls, and aggression. Signature whistles exchanged between the mother and calf is an essential form of communication in the first few months of calf development. These vocal communicative interactions are important for bonding and recognition (Janik, p 62). Distress whistles are different in acoustic structure from contact/signature whistles in that they are emitted in stressful situations, and a whistle rising and falling in frequency twice can be a form of intimidation signaling (Stebbins, 1983, p 115).

As important as vocal signals are, the presence of silence is also an informative communication style. For example, because dolphins are commonly vocal within pods, the sudden absence of vocals can act as an alarm call, perhaps to warn other individuals of predators. Silence is also typical in killer whale pods while resting in close proximity to pod members (p 115). It is also used in attempt for



killer whales to ambush prey (dos Santos & Almada VC, 2004, p 402). The absence of acoustic signaling in Cetaceans represents the strong bond that individuals share within pods as well as the vast intelligence they have evolved.

Being the ocean's top predator, *Orcinus orca*, more commonly known as the killer whale, this organism has evolved to obtain this status. Their high level of intelligence displayed through predation is evidence of the overall species' fitness, which was acted on by the forces of natural selection. These evolutionary changes as well as those pertaining to their auditory development have been studied widely. Originally, researchers thought that vertical transmission—from mother to calf—and changes that occurred in pod dialect was due to mimicking error. Filatova (2010) however argues that horizontal transmission exists within pods between adults. If the original evolutionary theory holds true, the similarity in calls between observed pods should change at an identical rate, however, they were found to change at different rates suggesting that cognitive development directly relates to the species' auditory signaling (p 965-968). The signaling was carried from the calf stage to the adult stage in an individual's lifetime, thus leading to the development of horizontal transmission.

Vocalizations are found in various animals; however, the ability for vocal learning is limited to only a few groups of organisms including Cetaceans. This order has developed many unique auditory communication styles over time that has increased their fitness. Killer whales have surpassed other Cetaceans due to their highly evolved intelligence and vocalization capabilities. Their dependence on community for successful hunting strategies demonstrates their evolutionary need for developed auditory communication. Finally, their status as a top predator of the ocean is an indicator of the species' overall successful fitness.

### **Statement of the Problem**

Our research proposal is based off the work of Morisaka and Connor (2007) and their findings. Their focus was on the coevolution of killer whales and their prey. In terms of evolutionary studies, the concept of coevolution is key in understanding relationships between two different species. The idea is that the relationship is always changing; one species determines the response of another. In this situation, the ability to adapt quickly will generate the best-fit individuals; therefore, sexual reproduction is highly favored for its beneficial gene selection. This

relationship is observed in killer whales and their prey that have adapted over time in response to one another's vocal communication styles. Various species of sperm whales, porpoises, and dolphins (known as odontocetes), which are preyed upon by killer whales, have experienced loss in vocal whistles. This suggests these vocalizations are costly to produce either because of energy consumption or predation risk (May-Collado et al., 2007, p 9). Morisaka and Connor found that some of these odontocetes have adapted to using narrow-band click communication and high frequency sound (p 14:39). In return, it would be assumed that killer whales, being the top predator, would respond through adaptation specialized in hearing narrow-band clicks and high frequency sound over time.

### **Significance**

Our study is important for further comprehension of this predator-prey relationship that demonstrates mechanisms observed in coevolution. By researching the evolution of killer whales, we can better understand their level of intelligence and how this directly correlates to their fitness. The complexity of their communicative evolution may also aid in further research and knowledge focusing on how the human language came to be (Janik, 2014, p 1).

## Methods

As stated previously, our hypothesis is that if changes in auditory communication, in response to adapted vocalizations in prey, leads to increased fitness in killer whales, then the individuals who are able to perceive and respond to the new vocalizations will be successful predators and a change in auditory perception will be observed. If we were to conduct this research, the focus would be on multiple killer whale individuals in captivity. Since this type of interaction between prey and predator would be difficult to observe in the wild by researchers, captive killer whales are a viable alternative for research purposes.

Since Morisaka and Connor (2007) have shown that odontocetes often preyed on by killer whales are capable of producing narrow-band clicks and high frequency sounds, playing recordings of these vocalizations to the killer whales in captivity allow to observe which individuals, if any, can perceive them. To obtain these recordings, we would use sperm whales, porpoises and dolphins as subjects for vocalization. All recordings would be taken from wild populations

in order to simulate more naturalistic responses in the killer whales. A variety of recordings including narrow-band clicks, high frequency sound, as well as other natural communication styles used in socializing, hunting, and traveling will be played for killer whales in captivity to



Melissa Ketchum, 2015

trigger a response or change in behavior. Playing sounds meant to go as “undetected” or “detected” will help distinguish the fitness of individuals in captivity. If an individual responds to a narrow-band click or high frequency sound, then this individual would be considered more fit than the others.

Recordings would be referred to as “undetected”—

narrow-band clicks and high frequency—or “detected”—all other vocalizations. Both undetected and detected sounds would be played for whales in captivity. Once a week, for four months, each sound—undetected and detected—would be played on different days randomly selected each week.

Each sound would be played before being fed to test if individuals would respond more strongly. Playing each vocalization before meal times would be done to mimic Pavlov’s classical conditioning experiment in psychology with dogs and bells, hopefully to receive similar responses. Over time, various vocalizations would be played for the captive killer whales, and after the vocalizations were played, the whales would be fed. Eventually, we would get to a point where the undetected vocalizations would be

played, and the whales that can perceive these sounds would respond as if they are receiving food. This would tell us which individuals are the most fit and evolved specialized hearings. The purpose of not performing the experiment at a set time each day would prevent the whales from becoming accustomed to schedule and therefore exhibit natural behaviors. Our target subject group would include

individual whales of all ages to best simulate a wild pod. A microphone playing the recording would be placed on the side of the tanks.

Individuals who respond to the undetected vocalizations at the end of the experiment will be considered to have the beneficial hearing adaptation. Individual recognition of captive whales would be needed in order to document which individuals are responding and perceiving the sound emitted. If individuals were in fact interpreting the undetected vocalizations, then we would expect to see the same individuals responding each time the experiment is conducted.

### **Expected Results, Analysis, and Interpretation**

Since killer whales are considered to be top predators, we would expect that they would eventually evolve in response to the behavior of their prey. In our study specifically, we would expect roughly one-third to one-half of the individuals to perceive and respond to the undetected recordings. All individuals would most likely respond to the detected recordings, because these would definitely be perceived unless the individual suffers from a hearing handicap. It is possible that none of the individuals perceive or respond to the undetected recordings; this could be simply because all individuals are not adapted to this

frequency of sound emitted by their prey. Also, if individuals can perceive the undetected vocalizations, then we would expect the more fit whales to respond as if they are going to be fed when the vocalization recording is played. These assumptions are based on the results of Pavlov's dog and bell experiment in psychological classical conditioning.

Responses from the target subject grouping would be important when interpreting results, because responses in juvenile individuals would tell us that this adaptation is beneficial and is being passed down in generations. Responses in any individual might give us more information on the pods of their ancestors and the pod's overall fitness. If individuals can perceive the undetected frequencies, this would suggest that they come from a more successful pod.

In our results section, to help analyze data, we would include all observations in a table. Separating individuals who perceive undetected sounds versus those who only perceive detected sounds would be beneficial, because we could use this information to locate pod fitness on a geographical scale. This may include a map of pods around the world related to the individuals capable of perceiving undetected sound. We could then compare the location of pods to the distribution of recorded toothed whale species. If pods capable of hearing undetected

sound are found in areas with less prey species in number, it may be that other factors are causing this evolutionary change in killer whale auditory perception.

Since age is another factor, showing results in the form of graphing may be beneficial to identify if this adapted hearing is due to genetics in juveniles. If the trait were passed on, we would expect to see responses to the undetected vocalizations. Graphs would allow us to visualize the results and show the differences between perception in adults and juveniles.

The problem with studying marine organisms is the vast size and depth of the ocean that limit our human technological capabilities. This prevents us from being able to study Cetaceans at full potential. However, much research has been conducted with organisms in captivity, but these results differ from what would be expected in the wild likely because these individuals live in controlled environments. In captivity, individuals are not exposed to predation, interactions with various Cetacean species, or interactions with other Cetaceans of the same species. Also, the fact that Cetaceans are so mobile in the ocean and humans are so limited affects the research that can be done. Finally, human presence and disturbance could cause unnatural behavioral and vocal responses that will skew the data. Because of these limitations, not much research

has been published on certain aspects of Cetacean behavior and communication in the wild, which is why our study could be used to advance our knowledge on this subject.

## Conclusion

Our data could provide more evolutionary knowledge on the coevolution between killer whales and their prey.

This would be an enormous step to understanding killer whale auditory communication adaptation and their intelligence. We may also be able to identify where these changes are geographically occurring, which pods are more successful in hunting, and how these changes correlate with prey distribution. Age may be an important indication

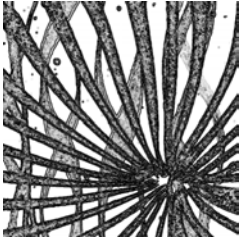
of the rate of change in the species. Overall, our study is important, because this area of gained undetected calls in prey has little research. Knowing which individuals perceive undetected sound will help us identify the most fit individuals in captivity, which may indicate killer whale pod success rates worldwide.

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# La Vega

Sam Davis

## ENGL 343: Travel Writing

We found ourselves walking again, this time away from the city center, and towards the countryside. Laura, a friend of my host parents, was visiting for the weekend, and we'd decided to cap off a lazy Sunday with a visit to the garden, as Antonio, my host father, was eager to check in on his crop. Despite our leisurely pace, we were intent on escaping the buzz of the city for the calming allure of La Vega - the vast, flat area of countryside neighboring Granada proper.

The valley in which Granada lies is somewhat bowl-shaped, flanked by foothills and mountains on nearly all sides. To the east is the city, rising and falling with the contours of the land, with the cathedral as the jewel in the center of its crown, the tanned stone standing in contrast against the various grays and whites of office buildings and apartments. Further east, the Alhambra rests on its prominent perch, overlooking the valley, which is speckled with *pueblos* of many sizes, all connected to the main city through branching roads. From the south, the mazy foothills of the Sierra Nevada grope towards the city fringe like withered

Sam's essay is a snapshot of an ordinary Sunday ritual--a walk with his host parents to their vegetable garden outside Granada. But however ordinary that walk sounds, it's really an exotic essay full of wonderful characters, sharp description, and connections to his Iowa home and childhood. These experiences are why we travel.

-Keith Ratzlaff

fingers outstretched. The western border of Granada is formed by a major highway, and just to the west of that highway lies our destination, an open, fertile valley - *La Vega* - a pastoral gem not yet spoiled by urbanization.

We sauntered on, crossing the river, pausing only for a moment when Antonio spotted a familiar face among the throngs of *granadinos* headed home for the night. "*Como andas?*" she inquired (literally "*How are you walking?*", but meaning "*How have you been?*"). I thought it ironic, given our circumstances, and asked myself the same question. At this point in my stay in Granada, I'd long since reconciled myself with the natural rhythm of my footsteps - I'd found my pace, as it were. I suppose I finally slowed my mind enough for my body to catch up, and the ensuing reunion had me feeling gathered for once. I'm convinced that this tranquility that'd somehow taken hold of me over the course of the last couple months had something to do with spending a lot of

time walking. On a typical weekday, I calculated that I walked about seven miles, and up to ten or eleven if I ventured out at night. There's something so balancing—so human—about putting one foot in front of the other, and letting the mind go where it may.

With the sun still well above the horizon, I imagined it was around seven o'clock, but I supposed it didn't matter - I hadn't bothered to check the time all day, as was the usual on Sundays in Andalucía. Often the majority of the day was spent preparing for and thoroughly enjoying the day's most anticipated occasion - lunch. There was nothing more on the agenda.

Study abroad students like myself are trained to make the most of their time, to go and go, to see and do, to make a hasty trip to yet another alleged paradise during every spare moment - after all, it may be the chance of a lifetime. However, those

curious Sundays in Andalucía began to catch ahold of me, slowing me down and keeping me near, my plans to travel Europe gradually evaporating. On Mondays, many of my friends in class used to complain about the previous night's frenzied return to Granada, ranting on and on about deceiving budget flights and logistical hiccups. To be honest, I was envious, but still I preferred to stay home. Almost every Sunday night, I'd leave my snoring host parents to the news, lug my mattress out onto the terrace and lie down to watch the first stars squeeze through the twilight sky, *Manolete* the tiger cat purring in my lap.

Before us, deep golden beams streaked the asphalt, light pouring in through the narrow streets running east to west and spilling onto the sidewalk. I thought of my home back in Iowa, of that soft pink light that floods in through the west windows in the living room after supper. As the sun continued to sink, the west-facing sides of the buildings took on a salmon-tinted hue, much like the peaks of the Sierra Nevada in the distance, also ablaze, basking in the lingering rays of *Lorenzo* (the sun as personified by the locals).

We were nearing that line which, on the western fringe of Granada, marks the clash of the rural and the urban – *Autovía A-44*. From where we were, I could already make out the fields, and the old plantation houses once abandoned but taken up

again because of urban sprawl and the ever-increasing lack of fertile farmland. Terracotta tiles ran the roofs, delicate cascades of earthen orange. There were wooden shacks nestled between bushes and long grass, their frames warped from the searing Andalusian summers. The paths ahead widened and turned from concrete to gravel. I felt a rush.

As a native Iowan, I'll admit I'm actually quite fond of long gravel roads, and fields of corn and beans, of river bottoms strewn with cottonwoods, the occasional thriving prairie (most of which are long gone), and sumac-laden county highways. I found a weird sort of humble pleasure in attempting to explain the Iowan landscape to my host parents during my first few days with them. It's always bothered me when people (especially natives) label Iowa as plain and boring. There's actually much to see, but it must be sought after, and with patience. It was this that I wanted to communicate, but my rusty Spanish didn't allow for it. Antonio and Jesusa offered polite smiles in consolation and made me promise to send pictures when I returned home, although I was afraid they wouldn't see things the way I do. I feel a bit stir crazy when I can't see all of the sky, and I'm calmed by a view that extends out to the horizon, not obstructed by office buildings and cathedrals (as grand as they may be). When I picture home, I

see those long gravel roads tapering off into the distance, and electrical wires draped in an endless procession over the hills, everything converging and growing closer together towards a center point, until suddenly, the line ends, and earth touches sky. However, rather than what meets the eye, it's the simplicity that dazes me – and the solitude! As a boy, I liked to imagine that the gravel roads were unpaved only because the tires that had ventured out to pound the rocks into asphalt were still too few.

Were it not for the hum of rubber on pavement, I would have thought myself long removed from Granada. A mere five-minute walk back towards the city could've land us in a shopping mall, which sits adjacent to the highway. We followed a winding dirt road, passing beneath a canopy of roses in full bloom, which clung to a trestle that arched over the meandering path. Beaming, Jesusa plucked one and placed it in her hair, something I'd already seen her do many times by that point. The fragrance came in waves.

Rounding a corner, we arrived at the gardens. The field before me was subdivided into about 20 rectangular plots of comparable size, marked by shallow ditches dug into the soil. Antonio offered an explanation – a city organization owns the land and rents out plots, providing tools and seed in exchange for a monthly payment. It seemed that many people took advantage, for the place was

still teeming with life even with the fast receding light. Some had slings and baskets already full of early spring harvests – beans, spinach, swiss chard, lettuce greens. We followed a footpath towards the heart of the field, passing a frail, hunched *señora* who had dedicated her entire plot to flowers, which were in full bloom. We stopped for a moment to shower her with compliments, and then resumed our meandering down the path, which was thinning now. An older man stepped out of our way, treading lightly between rows of potatoes, leaning on his rake and brushing away the perspiration beading up at his temples with a dirty glove. After a short time we reached Antonio's plot. He stood still for a moment, legs apart, hands on his hips, and then went right to work. Laura and I collapsed on a nearby bench to rest our weary legs for a spell, and she began to roll a cigarette.

Laura, a native of France, had been living in Spain for more than 30 years, and most recently had moved to a humble abode in the barren mountains of Southern Spain, where she lived alone – save for her many feline friends. Even though she spoke Spanish with near-native fluency, she still answered questions with “*Oui, oui.*” A gentle woman of small stature, her lack of makeup and plain garb reflected her contempt for material things. Laura has

a rather gravelly voice, but her talk of universal energy and harmony and love seems to purify it, in a way. The last time I saw her before leaving Spain, I told Laura I didn't know if I'd ever see her again, and that I'd miss her terribly. She laughed and kissed me on the cheek, and told me our spirits have a connection – we'd find each other someday. I can still picture her movements – running a thin hand through her hair, a cigarette dangling precariously between her fingers. She'd take a slow and methodical drag, then tilt her head back slightly like she always did, gently exhaling the smoke through pursed lips, with a faint whisper.

Before she could enjoy a single puff of the cigarette she'd rolled, Antonio called us over to behold the breathtaking cauliflower he'd been coddling for the last few weeks. “*Oui, oui,*” whispered Laura in affirmation. We all chuckled, and Antonio went back to his harvesting, beaming with pride. Laura lit her cigarette.

After a short while, when we'd finished the bulk of the picking, Jesusa urged me to walk back down the gravel road to catch a glimpse of the new litter of kittens by the toolsheds – the owner of the plots had cats brought in a while ago in an attempt to do away with the rodents that plagued the old buildings. I nodded, and started walking once again, back down the gravel road, but not for the

kittens.

On both sides of the road, there were numerous plots of different shapes and sizes, but all seemed to be plowed in the same manner – rows and rows of perfect lines of elevated dirt, the seedlings just beginning to poke through the crest and unfolding, revealing the first small leaves, mere wisps of light green at that point. I kept walking, passing by row after row, lines bending and shifting in my peripherals, one after the other in succession.

When I was a child, I used to blink my eyes with regular intervals marking each time the car passed an electrical tower. My vision would follow the rise and the fall of that single wire, tethered precariously to its wooden post. Then I'd imagine a man running on the shoulder at 55 miles an hour next to the car, like a road-runner, his legs a flesh-colored blur. I would make him plunge down into the ditches and then, with a burst of speed, ramp off of the upcoming slope, up into the sky with a magnificent leap, limbs flailing in the air, finally slamming down again on the next downslope. But most often, especially when I was dozing off, I would stare directly out the window to my left —I always sat on the left—and try not to move my eyes while watch the stripes of corn and beans pass by me, something akin to a film reel. On other

occasions I'd pick out a row up ahead, and wait for us to approach it, following it with my gaze as it neared. Then, in that one moment when the car reached the row - a flash - the row would form a straight line leading from my perspective to the horizon, but only for a passing instant, and then it'd be behind us, quickly receding, bending and elongating once again. Ask any small-town Midwestern child and they will know what I mean.

Back at our plot, after some time (having been through considerable talk regarding bean trestles and pepper strains), Antonio got my attention, "*Mira pa'lla.*" He gestured to a man in a straw hat a couple plots down. "*Yimi.*" I vaguely remembered hearing this name come up over dinner a couple times - the name of a "funny" man Antonio had wanted me to meet. We all wandered over towards Yimi's plot. He was in the middle of a conversation with another gardener, also an acquaintance of Antonio, and we joined in. "Yimi" sported a Green Bay Packers t-shirt, athletic shorts, and thong sandals - undoubtedly American. After a few minutes of conversation, Antonio introduced me to *Jimmy*, whom I'd pegged as Asian all along because of my host father's struggle to pronounce the English sounds. Knowing little about me, Jimmy continued to speak to me in Spanish. I

was a bit confused, but kept on with Spanish as well in an effort to keep my host parents included in the conversation. I asked Jimmy where he was from, and told him I was from Iowa. "*Wait, what the hell!*" he exclaimed, suddenly, in English. "*You're not Spanish?*" I tried to stifle my laughter - here were two Americans, oblivious to each other, both hiding behind guises - one Asian and the other, Spanish. Jimmy looked to the sky and groaned, pestering me for letting him struggle through

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**Golden hour had set in, and the valley was bathed in an ethereal glow, the sun clinging to the horizon.**

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a Spanish conversation all that time.

There was no holding back; we eagerly burst forth into rapid English. The Spaniards' eyebrows raised, and they glanced at each other, completely lost now, but we didn't care much anymore. It felt incredible to speak my native language in front of my host parents, for the burden of confusion that I was used to carrying was theirs to bear for a short time. There's a certain dark satisfaction we get in turning the tables on someone, in

forcing them see things from our own point of view. Perhaps we all just want to be understood - I think we all have something worth sharing, after all. Regardless, I took my chance to boast, and cracked more jokes than my usual self, making sure to laugh with extra delight as to communicate to my host parents that I did in fact have a sense of humor. My glee was short-lived, as the Spaniards became bored (Jesusa always told me she hated the sound of English) and wandered back towards Antonio's plot, daylight quickly receding.

Jimmy's voice was laid-back, and he shaped and drew out all the vowels in his words - speech reminiscent of a surf bum, or someone of the like. I couldn't help but grin. He'd moved to Granada three years ago, originally from Wisconsin, and had been living with his family in Seattle, when out of pure boredom they decided to uproot and go somewhere new. We talked of his family, of Spain, of what we missed back home, and how the *granadinos* teased him for his "nontraditional" gardening methods. I asked him if he ever regretted the move. "*Never*", he asserted - "*Look around, this place is beautiful!*" He was right. Golden hour had set in, and the valley was bathed in an ethereal glow, the sun clinging to the horizon. If I blurred my vision, the landscape became something reminiscent of a work of Monet, dashing



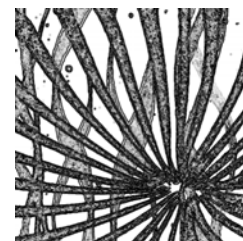
streaks of color squiggling and squirming in a constant and dazzling display. Leaves and flowers danced and swayed in the breeze, each miniscule movement catching some of that heavenly golden light and reflecting it with a quick flash. There was a clarity that caused things to seem dreamlike - colors so pure, a breeze so gentle. I remember turning to the south and seeing the *Sierra Nevada*, which had been to my back most of the evening, and in the vibrant, lucid light, those mountains put me in my

place – I was an insignificant speck, but I did have a story. For a moment, I was fully conscious of myself where I was – my place in the garden, in the valley, and in the world, as if things had been put rightly back into scale and perspective. As soon as it came, it was gone. I looked to my surroundings once more, everything bathed in the glow of *Lorenzo* and radiating beauty. I saw the gravel road, a gentle curve, and the electrical wires, draped like tapestry, following road's arc, on and on.

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The sun had set and the cool of the night was already upon us. We gathered the night's crop - cardoon stalks, leeks, beans, and the small red peppers that Jesusa hangs on a cord in the kitchen to dry. We then stopped briefly at the toolshed and dropped off what we had borrowed. Those first stars I'd grown so fond of were beginning to appear overhead, speckling the sky. We gave our farewells to the big sky, and we set off, refreshed, back down the gravel road, toward the city lights.

# Extraction and Depolymerization of Natural Rubber from Common Milkweed



Kevin Jack

CHEM 430: Advanced Organic Chemistry

## Abstract

Isoprene is a common biologically produced hydrocarbon and the monomer of natural rubber. Most natural rubber is extracted from *Hevea brasiliensis*, a tree native to South America. Here we describe attempts to recover isoprene from *Asclepias syriaca*, common milkweed, which is native to and abundant in Iowa. Natural rubber was extracted from milkweed through a series of liquid solid extractions. Depolymerization of isoprene from natural rubber was attempted by thermal, peroxide catalyzed, and

The writing intensive Advanced Organic Chemistry course focuses on the development of disciplinary, technical writing skills. The assignment represented here required students to write a research article in the format of the *Journal of Organic Chemistry* based on the experiments they performed during the lab section of this course. While the typical style for submission to this journal is technical I thought Kevin was able to write this piece in a way that was accessible to a lay audience and still met the high standard of technical writing and experimental results  
-Jay Wackerly

transition metal catalyzed methods. Characterization of the recovered isoprene was accomplished by  $^1\text{H}$  NMR and GC analysis.

## Introduction

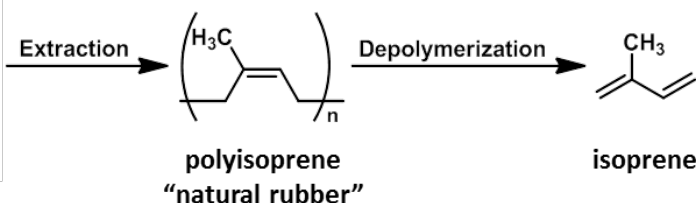
Natural rubber (NR) is a polymer of isoprene produced in many plants, most notably the rubber tree, *Hevea Brasiliensis*. Around 98% of the NR produced comes from this tree.<sup>1</sup> However, there have

been numerous attempts at the isolation of NR from plants domestic to North America.<sup>2,3,4,5</sup> Early in the 20th century interest in finding a domestic source for natural rubber stemmed from its utility as one of the most important polymers in the world. It was used in a wide range of applications such as tires, hoses, jacketing for wires, the soles of shoes, and water-proof materials. Because rubber was required for so many common

products, Thomas Edison and Henry Ford both had a hand in investigating possible domestic sources of NR, namely goldenrod and milkweed.<sup>2</sup> Interest increased during World War II when the Allies' access to rubber in



*A. syriaca*  
"milkweed"



Southeast Asia<sup>6</sup> was severely cut off, and there were still no domestic sources. This posed a problem:

*“A modern nation could not hope to defend itself without rubber. The construction of a military airplane used one-half ton of rubber; a tank needed about 1 ton and a battleship, 75 tons. Each person in the military required 32 pounds of rubber for footwear, clothing, and equipment. Tires were needed for all kinds of vehicles and aircraft.”*<sup>7</sup>

However, acquiring rubber from milkweed or goldenrod was not feasible on a scale large enough to supply the war effort. The U.S. instead implemented the synthetic rubber program, a grand undertaking that ultimately succeeded and no doubt influenced the outcome of the war.<sup>7</sup> With the advent of quality synthetic rubbers in the 1940s, the demand for a domestic source of NR was virtually eliminated until the oil shortages of the 1970s, when research into extraction of rubber from domestic plants began to resurge.<sup>3</sup>

Today, interest in obtaining commodity chemicals--such as ethanol for fuel use--from renewable sources has rebounded due to the prospect of declining oil availability and increasing levels of atmospheric carbon.<sup>8,9</sup> In 2007, *ca.* 13% of the crude oil consumption in the US was used for non-fuel chemical production.<sup>4</sup> Without the vast, inexpensive source of hydrocarbon byproducts

of petroleum refinement, chemical industries may begin to rely more heavily on biological sources for their supply of commodity chemicals.<sup>8</sup>

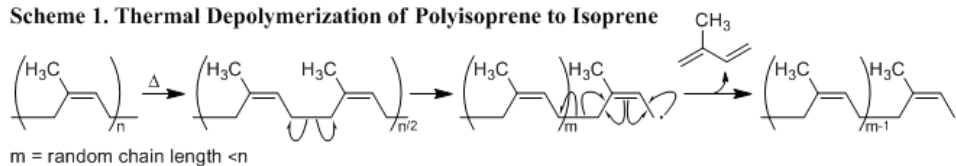
One commodity chemical used to make synthetic rubber is isoprene. Isoprene was first isolated by the thermal depolymerization of NR in 1860, by C.G. Williams (Scheme 1).<sup>10</sup> Most attempts to depolymerize natural rubber yield low molecular weight liquid natural rubber (LNR).<sup>11,12,13</sup> LNR chains are shorter, and typically terminated with oxygen bearing functional groups that increase the utility of the molecule and thus garnered more research focus.<sup>12</sup> Ravindran and coworkers reported partial photocatalyzed radical degradation of natural rubber at room temperature in the presence of hydrogen peroxide to produce hydroxyl terminated LNR.<sup>12</sup> Sakdapipanich and coworkers reported a metal-catalyzed oxidation depolymerization with  $\text{Co}(\text{acac})_2$  yielding LNR.<sup>13</sup> Inspired by these reports of partial depolymerization we report our attempts to develop a new, efficient synthetic strategy in order to extend the reaction to obtain isoprene from natural rubber.

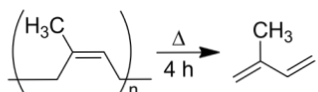
## Results and Discussion

The extraction of natural rubber from milkweed leaves by serial solid liquid extractions was effective and facile. Initially an aqueous extraction was used to remove the water soluble compounds at reflux for 30 min. Next an acetone extraction removed the terpenoids, isoprenoids, glycerols, and sterols.<sup>4</sup> Finally a toluene extraction allowed for the recovery of polyisoprene from the milkweed leaves. The yield by mass was 2.2 % which is comparable to yields of  $2.4 \pm 1.8$  % reported by Volacic<sup>4</sup> but less than the 4.4 % reported by Harvey and Hallend.<sup>5</sup> Recovery of NR was confirmed by <sup>1</sup>H NMR and comparison to a known standard. Our method of extraction, though not as high yielding as others, was efficient and required no specialized equipment or difficult set ups.

A total of five depolymerization reactions were attempted to obtain isoprene (Table 1). Since the amount of NR extracted from milkweed was on the milligram scale, depolymerization experiments utilized NR acquired from commercial suppliers. Thermal depolymerization at 450 °C with a copper wire

**Scheme 1. Thermal Depolymerization of Polyisoprene to Isoprene**



**Table 1. Depolymerization of NR**

catalyst	temperature	yield
-	450 °C	2.2%
( <i>t</i> -BuO) <sub>2</sub>	125 °C	- <sup>a</sup>
Fe <sub>2</sub> (CO) <sub>10</sub>	125 °C	trace <sup>b</sup>
Pd(PPh <sub>3</sub> ) <sub>4</sub>	125 °C	- <sup>c</sup>

<sup>a</sup>No isoprene was detected by GC. <sup>b</sup>Isoprene was detected by GC analysis. <sup>c</sup>Resulting product was insoluble in all solvents screened.

packed fractioning column, which ensured that short oligomers would not carry over with the distillate, successfully afforded isoprene in 2.2 % yield. The peroxide catalyst had no effect, evidenced by <sup>1</sup>H NMR.

Using a catalytic amount of Fe<sub>2</sub>(CO)<sub>10</sub> produced a mixture of oligomers and a small amount of isoprene, evidenced by GC and <sup>1</sup>H NMR while the reaction with Pd(PPh<sub>3</sub>)<sub>4</sub> yielded a thick brown tar.

Reflux times were constrained to 4 h to ensure efficiency, so it is possible that the catalyzed reactions simply had not progressed to the point of producing any isoprene before the distillation. This could explain why oligomers, rather than isoprene, were predominantly isolated in the Fe<sub>2</sub>(CO)<sub>10</sub> catalyzed reactions. However additional investigation will be required in order to identify an effective, low temperature depolymerization metal catalyst. Next we may focus on a Ziegler-Natta complex like TiCl<sub>4</sub> that may work better than the peroxide and alkene coordinating complexes we surveyed.

## Conclusion

A fast and simple method for the extraction of polyisoprene from *A. syriaca* leaves was developed. Fe<sub>2</sub>(CO)<sub>10</sub> was the most promising catalyst surveyed, with oligomers and a small amount of isoprene observed in the distillate. Thermal decomposition of polyisoprene was successful in yielding measurable amounts of isoprene.

## Experimental Section

**General.** Milkweed leaves were picked from mature plants at the Central College Field Station in late July, 2015. The leaves were packed in mason jars and stored frozen prior to use. The solvents used were reagent grade and obtained from Sigma-Aldrich. Pd(PPh<sub>3</sub>)<sub>4</sub>, Fe<sub>2</sub>(CO)<sub>10</sub>, di-*tert*-butylperoxide, and *cis*-polyisoprene were reagent grade and used without further purification. GC spectra were taken on a HP 6890 Series with a 30 m × 0.32 mm × 0.25 μm 5% crosslinked PH ME siloxane column. <sup>1</sup>H NMR spectra were recorded on a 300 MHz spectrometer. Chemical shifts are expressed in parts per million (δ) using TMS as an internal standard.

**Extraction of Polyisoprene From Milkweed.** Six milkweed leaves were flash frozen in liquid nitrogen, then ground with a mortar and pestle.

The resulting powder (17.05 g) and 150mL of DI water was transferred to a 250 mL Erlenmeyer flask. The solution was refluxed for 30 min, vacuum filtered, and the retentate washed with water and transferred to another 250 mL Erlenmeyer flask along with 150 mL acetone. The solution was then refluxed for 1.5 h, vacuum filtered, and the retentate washed with acetone until the filtrate was colorless. The resulting pale yellow powder was then transferred to a 250 mL Erlenmeyer flask with 100 mL toluene. The solution was refluxed for 1 h and then vacuum filtered. The filtrate was concentrated by heated evaporation under a stream of nitrogen affording 375 mg (2.2%) polyisoprene as a yellow white solid. <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 5.300 (t, J = 6.0, 1H), 2.208 (m, 4H), 1.773 (s, 3H).

**Thermal Decomposition of Polyisoprene.** To a 50 mL round bottom flask was added 1.03 g polyisoprene. A reflux condenser packed with copper wire and a distillation head were fitted to the flask, and a short path distillation head was attached to the condenser. The entire set up was wrapped in cotton for insulation. An udder was attached to the distillation head and immersed in liquid nitrogen. The round bottom was heated in a sand bath at *ca.* 450 °C. Isoprenes were collected in 2% yield (20 mg) as a clear liquid. <sup>1</sup>H NMR



(300 MHz,  $\text{CDCl}_3$ )  $\delta$  6.453 (dd,  $J = 21.9, 10.5, 1\text{H}$ ), 5.124 (dd,  $J = 32.6, 10.5, 2\text{H}$ ), 5.00 (d,  $J = 4.5, 2\text{H}$ ), 1.850 (s, 3H).

**Depolymerization with Peroxide.** To a 10 mL round bottom flask was added 0.202 g *cis*-polyisoprene, 6 mL toluene, and 50 mg *t*-butylperoxide. A reflux condenser packed with copper wire and a distillation head were fitted to the flask, which was then immersed in a 125 °C oil bath. The solution was allowed to reflux for 2 h. The flow of water through the condenser was stopped and the solution was allowed to distill into an udder immersed in liquid nitrogen. After 3 h, no distillate was collected.

The solution was allowed to cool, and concentrated by boiling under a stream of nitrogen. The resulting brown tar was characterized by  $^1\text{H}$  NMR and found to be polyisoprene.

**Depolymerization with  $\text{Fe}_2(\text{CO})_{10}$ .** To a 10 mL round bottom flask was added 0.332 g *cis*-polyisoprene, 7 mL toluene, and 4 mg  $\text{Fe}_2(\text{CO})_{10}$ . A reflux condenser packed with copper wire and a distillation head were fitted to the flask, which was then immersed in a 125 °C oil bath. The solution was allowed to reflux for 2 h. The solution was allowed to distill into an udder immersed in liquid nitrogen. Two drops of a light brown distillate were

collected. GC data suggests the distillate was a mixture of oligomers of isoprene.

**Depolymerization with  $\text{Pd}(\text{PPh}_3)_4$ .** To a 10 mL round bottom flask was added 0.333 g *cis*-polyisoprene, 7 mL toluene, and 2 mg  $\text{Pd}(\text{PPh}_3)_4$ . A reflux condenser packed with copper wire and a distillation head were fitted to the flask, which was then immersed in a 125 °C oil bath. The solution was allowed to reflux for 2 h. After refluxing, the solution had turned to a dark brown liquid with solid dispersed throughout which was insoluble in all attempted solvents.

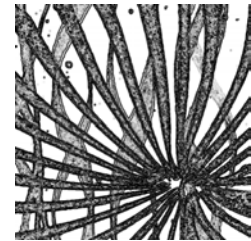
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# 19:22

Taylor Sanders



*ENGL 240: Personal Essay*

Taylor's essay came out of a set of journal assignments about working. Her evocation of shadowing a "hospitalist" over two days is humbling and harrowing by turns. The real key to this essay is its timing as it builds to the surprising climax.

-Keith Ratzlaff

Many believe that a physician's training starts in med school, but it actually starts much sooner. In order to even have a chance at becoming a physician you must be an outstanding student, be involved in extracurricular activities, volunteer, conduct research, and shadow a physician. My first official shadowing experience started at the Thyroid Clinic with Dr. Mova. I followed Dr. Mova around for one day. He performs thyroid biopsies and I arrived almost a whole hour prior to his first appointment to get the full experience. I had seen a breast biopsy before, so I wasn't at all nervous, and I had bragged that I could watch surgeries online (even while eating), so as I walked into the tiny room I was just excited, and probably a little cocky.

The room was so bright, it was almost blinding. As I squeezed into a corner between the patient, ultrasound monitor, and Dr. Mova, my heart quickened, not out of nervousness but actual, full body excitement. There wasn't a lot of room so I stood leaning against

the wall, my knees locked. I felt bad for the patient as I watched a four inch needle penetrate her neck, which I could see on the ultrasound screen. The thyroid is a light grey gland that wraps around the front of your throat, and sits directly next to the carotid artery, which appears black. At first, if you don't know what you're looking at, you could miss the mass that needle is aimed for since it's only a slightly different colored grey than the rest of the thyroid. I remember thinking that it wasn't normal to be able to see this, and that I was lucky to be in this position.

Then, I realized how hot the room was, and that I had a headache. I looked over at Dr. Mova, who had a bead of sweat running down his nose, I cringed at the thought of it landing on the patient. My head swam and I told myself to stay still and to focus on the screen, pushing myself to remember everything, because I didn't want to miss a single detail. I tried breathing in my nose

and out my mouth, I tried focusing on something across the room, I even tried holding my breath. All I could really make sense of was that the room wouldn't stay in focus, it started to get really far away, like I was zooming in and out on a camera lens. Despite that, I told myself not to quit, to push through because I would be out of the room soon.

When I woke up, I was on the floor, and my entire body was drenched in sweat. There were four nurses crowded around me, and the patient looked at me with wide eyes. I immediately started to apologize and tried to get up, but eight hands told me to stay on the floor. Being my stubborn self, I convinced them to let me sit on a chair and covered my face in embarrassment; I told myself not to cry, and told the nurses I didn't need a cold towel, but my sweaty body told them otherwise. When one handed me a juice and I told them I didn't want any applesauce, they laughed at me, explaining that I needed

to relax, that I was very confused.

I went home early that day because I was overwhelmed that I had been so weak in a room full of such strong people. I frantically Google-searched my way to answers, trying to make sense of why I had fainted. I worried that I had spent the last 6 years of my life chasing after a career I wasn't tough enough to achieve. I remembered how I had doubted myself earlier that year, when I struggled with my class load and didn't think I was smart enough to become a physician. After an experience like that I dreaded returning to the hospital the next day and shadowing another doctor. I couldn't imagine telling my parents that I had given up on my dream that easily, so the next day I woke up before the sun and arrived at 6:30am to shadow a hospitalist.

A hospitalist is a new type of doctor; they typically specialize in internal or family medicine and do a fellowship in hospital medicine. This type of doctor works only in the hospital, since most primary care physicians can make more money staying at their practice all day many don't "round." This is where a hospitalist comes in; they are in charge of patient care in the hospital. They diagnosis and treat a variety of admitted patients. I was lucky enough to shadow Dr. Baustian, a man who made it his two day mission to make sure I

knew what it was like to be a physician.

I stayed in the hospital from 6:30am-5:00pm the first day, only stopping because I had told my mom I would be home for dinner, and more pressingly I had developed huge blisters from sprinting to keep up with Dr. Baustian's long strides. I saw thirteen patients that day, and watched as he admitted two. The first man had tattoos all

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over his body, and had had his gallbladder out the day before. He came back because of intense stomach pains and he when showed the doctor his stomach, it was obvious something wasn't right. It stuck out, but not from fat; it looked inflated, like it was blown up with a pump. Then, Dr. Baustian tapped on the patient's stomach. It sounded like a basketball. I had never heard a stomach sound that way before, but Dr. Baustian didn't even flinch. Instead he admitted the man and explained that he had a little extra air in his abdomen. When someone has gallbladder surgery, the

surgeon enters through small holes, and adds some air so that it's easier to maneuver. Usually, the air dissipates on its own, sometimes it stays inside the patient for too long, causing discomfort. The man was discharged the next day, after, as they put it, "he passed gas."

I had so many experiences that day that I talked to my parents about it until I went to bed. I was so surprised that I had made so many connections with patients I only saw for a few minutes, and couldn't wait to get back to the hospital the next day to check on them. The next day, I wore tennis shoes to keep up, and to help my blisters heal.

That day, I ate lunch in 10 minutes and saw 16 different patients. Even though I had had nothing to do with their recovery I felt a sense of accomplishment as many of the patients I saw the previous day were sent home. I think my favorite moment of that day is when Dr. Baustian got to tell a man he hadn't had a stroke. I have never seen someone so relieved, and I immediately hoped that one day I would be able to give someone news like that. Contrastingly, I also saw someone die that day.

I had decided to stay for Dr. Baustian's entire shift, 7:00am-7:00pm. At 6:50pm, the call overhead came for a code blue on the ICU. I looked over at Dr. Baustian, and asked if I could go, or if I would be in the way, when he

told me of course I was going my heart rate quickened, and my palms felt drenched. I wiped them on my khakis and stood up quickly. He, on the other hand moved in slow motion. He saved his chart, and then walked towards the stairs. For the first time, I walked quicker than him, and as we pounded down the stairs he said, "This is too quiet, this isn't good."

When we got into the room, the nurses and techs were waiting for a doctor to intubate. I couldn't believe how calmly Dr. Baustain strode through the group of people to the patient. I envied his ability to remain stoic in a room full of chaos. I stood by the door, out of the way, recognizing that I was by far the least important person in the room. Three nurses were already switching off doing compressions, while a fourth was using an ultrasound to find a pulse. There was another nurse writing everything down, and yet another making sure he wrote it correctly. The last person I noticed was the patient. Probably because I could barely see her unless I strained my neck and stood on my tip toes, and only if the nurses stood in the right place.

At first I didn't notice that the woman was completely naked in this crowded room; her gown was pushed aside to do compressions, and the nurse looking for a pulse was checking her pelvic

arteries. After the patient was intubated, the group looked more like a cohesive whole than individuals, the three nurses switching who did compressions perfectly, while the doctors called out orders. There were two small nurses, and one larger one, who pushed into the old woman's chest so hard I thought she would go through it as the frail body bounced with compressions.

*"I found a pulse!"*

The cry set caused me to jump, but I was immediately hoping that the patient would recover. I scooted closer, taking off my cardigan since I'd started to sweat, and reminded myself to keep my legs bent so I wouldn't faint. The patient's skin was pale, and looked like glass, except for her chest, which moved like rubber as the nurses did compressions. One of the smaller nurses asked for a wash cloth to put on the woman's chest, because the wire from her previous surgery had begun poking them as they pushed on her. Then, they lost the pulse.

I let out an audible sigh and found myself praying, as I watched the scene unfold, "Dear God, please stop the suffering of this woman, give her strength to let go." As I finished my prayer, I saw what looked like fruit punch start to come up the intubation tube, I realized a few seconds later it was blood. That's when the pulmonologist, the patient's doctor, walked out, spoke

with the family and returned a few moments later telling the team to stop, the family wanted them to quit trying to bring her back. The doctor called the time of death, 19:22.

It was at that moment that I realized that watching the woman die was a privilege. More importantly, I realized the trust that patients and their families put into physicians to make the correct decisions about their health care is the biggest honor I could ever ask for. It is a responsibility that takes more than a strong stomach and intelligence; it is empathy, it is passion, and it is acknowledgement that life is fragile. After that I knew that my life wouldn't be full unless I earned that privilege.

My heart rate didn't steady until Dr. Baustain and I were standing in front of the elevator after a 30 minute briefing meeting. He seemed even taller as we stood listening to the elevator beep down floors closer to us. Eventually, he asked if I was okay, and I told him I was fine, but what I was actually feeling was much more complicated.



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