The Writing Anthology



Edited by Hannah Marcum and K.E. Daft Advisor Joshua Doležal

A Publication of the English Department and the Art Department

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Dear Readers,

Welcome to the 38th edition of The Writing Anthology.

It is our delight to share this year's publication with you. After reviewing submissions representing a wide variety of disciplines, we selected the following eight pieces to be featured. The rigor of this selection process proves the continuing excellence of student writing at Central College. We offer our congratulations to the published student authors: you should be proud of your exemplary work.

While the goals of specific disciplines are easy to spot in this diverse blend of essays, we hope you will also take notice of the overarching themes that connect them. K.E's opening personal essay reveals through its simple scenes the author's commitment to authentic self-discovery. In the final piece, "Ghosts," Travis immerses readers in his authentic experiences on the Afghan battlefield. Both pieces demonstrate that we read and write in order to find our true selves. The authors featured in this year's anthology succeed in communicating their identities along with their original ideas, and we hope that in reading you are reminded of the authentic, human side of academic writing.

Each year, The John Allen Award is granted to the individual exhibiting the highest quality of student writing. We are proud to honor Hannah Marcum with this year's award. Her meticulous essay "Flash of Lightning, Sprig of Lilac: Representations of Nature in Walt Whitman's War Poetry" weaves together close analysis of poetry with history, biography, and aesthetic theory in an ambitious new reading of an American classic. In her third and final year as a *Writing Anthology* co-editor, Hannah's dedication to the publication has been duly rewarded by this recognition and serves as a model for future writers and editors.

We offer our thanks to the professors who inspired and shaped these essays for taking notice of their students' exemplary work. Your dedication to your students' success is commendable. Thanks also to Professor Mat Kelly for his discerning eye and for our cover design, and to all of the featured student artists for their outstanding contributions. We would particularly like to recognize Madeline Wagner for providing this year's cover art. Finally, our thanks to Steffanie Bonnstetter in Central College Communications for her expertise.

Most importantly, we acknowledge our faculty advisors, Dr. Joshua Doležal and Dr. Ashley Scolaro, who have been insightful guides throughout the publication process. Dr. Doležal is in his second year as lead advisor and we are excited to see his future vision for this publication unfold, including the development of a web edition of *The Writing Anthology*. Our thanks go out to Jordan Bohr and Cooper Vittetoe for bringing this new facet of the anthology to life.

One final thank you to all—past, present, and future—who have made this anthology possible. Without further ado, we present the 2018 Writing Anthology.

Hannah Marcum '18 K.E. Daft '19

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Buried Roots

K.E. Daft

ENGL-213: Nature Writing & Environmental Literature

K.E. deftly weaves class readings into their own narrative of place. I especially admire the authenticity of the closing, which avoids a dramatic climax and instead focuses on locating the extraordinary in dandelions, one of the most ordinary features of spring. The narrative is innovative in form and accessible to those unfamiliar with the texts referenced. —Joshua Doležal

A flickering red cardinal begins
again his daily ritual,
Hurtling his frail body against
the plexiglas window
Of the small church room where
we hold rehearsal,
At war with his own reflection.
Is he evidence of nature trying to
break through?
It seems at this point that his beak
is more cracked
Than the chapel glass —
Does he know that this mad
insistence means certain
death?

I. Bird-Feeder

"I can feel the sun now. The bird-chorus has run out of breath...The world has shrunk to those mean dimensions known to county clerks. We turn toward home, and toward breakfast." – Aldo Leopold, *A Sand County Almanac*

We skim above the lake's surface, firmly planted on our yellow-plastic paddleboards.

"I'll race you to the

raft!" I call, and Becca jolts ahead of me. She's got the sturdy build of a mac-and-cheese-addicted swimmer, and I, with my emaciated noodle arms, am no competition. Still, I paddle along after her, hearing the haunting huuuu-uuu of the loons and responding with my own warbled cry.

We can continue like this for hours: Becca paddling sturdily ahead and me catcalling the loons as I dance and fall gracelessly above the murky water. We dock on pine-crusted shorelines before pushing off again, holding a vision of our own orangecabined shoreline in our minds, lest we forget where to return. When our arms are too sore to propel us any further, we lie, rocking, on the unsteady surface, tangling our fingers into the waterweed and stonewort growing under the water, and sharing our hopes

and unrequited summer loves as the Minnesota sun burns into our sunscreen.

When the bugs get too dense or the sun too low, we return to our shoreline, knowing the evening potluck which always awaits our return: red beans and rice, lasagna, fresh-caught walleye, strawberry and peach pie, and bread. Always bread – the middle slices smothered in garlic and butter, and the end pieces saved for the ducks that swarm the modest shoreline in search of scraps left behind by vacationing families.

After dinner, we tear scraps of leftover bread into chunks and hurl them into the water, beckoning the ducks to come closer, hoping that today will be the day they'll snap food from our hands. Once our bags are empty, we run to the lodge next door for ice cream, and settle down on the green-painted swing in front of the

water. Digging our feet into the sand with each forward swing, we let the ice cream drip in between our toes, mingling with the dirt into sticky, sweet, summer sand. In moments such as these, I feel what John Price describes as "the familial embrace of nature, body, and spirit" (9). In moments such as these, I feel peace.

My brother will rise before dawn, communing with the world under the water, searching for perch, sunfish, and the elusive Northern pike as the sun breaks over the rippling mass of the lake. I, however, choose to begin my mornings with a world already alive, waking to birdsong outside the logwalls of my small, makeshift bedroom, and blinking away the light barely-deterred by the thin, cotton-checked curtains in my windows. Minnesota morning.

This lake my family visits – Woman Lake – is part of a cluster: Woman Lake, Man Lake, Boy Lake. With all of the life springing forth from these lakes, one would never guess that they were named for death. After all, what tourist brochure will mention it? Who would want

to vacation at the site of a slaughter? This place, a place of peace for me, is named for the death of Ojibwe women and children at the hands of the Sioux (Upham 92). This is not the tourism they want – a narrative of death and displacement, so the past is concealed. And now, the site of numerous vacation lodges and resorts, Woman Lake exists alongside the Cherokee Jeep, the buffalo nickel; a commodification of "wildness"; a disembodiment of indigenous suffering. As Linda Hogan might say, this place is a "[replacement] for what was being slaughtered... named for the very tribes and wild animals that were violated" (120). The only place Minnesota can remain perfect, I suppose, is in one's memory.

Even the ducks are no longer what they once were to me. The lodge at the top of the hill no longer sells duck-bread – in its place on the worn oak shelves are bags of corn and seeds. The smiling lady at the front desk – Lori – tells me that this is better for the ducks; that when they eat bread, it overfills them, prevents them from growing feathers; it doesn't provide them with

enough nutrition. Some part of me, though – however illogical – longs for the time I could share what I loved with the ducks, watching stale loaves disappear down a flock's gullets. I still buy the corn, still try to feed them, but they never stay as long, and more often than not, I am left stranded on the dock, watching their iridescent feathers fade into the sunset.

On the last day of our vacation, my mother buys a striped bird-feeder at a craft show in Hackensack. Haven't you heard, Mom? I want to scream: the birds can feed themselves.

II. The Early Bird

"...they just keep telling me to leave it be, the momma's coming back, the momma's coming back, even though that isn't true and even if it were, she'd be too late." – John Price, *Man Killed by Pheasant*

At age six, I find a broken egg-shell amidst the clover in my backyard – pale blue with brown speckles, and a baby jay nestled, shivering, inside. I take it to my mother, holding in my mind some heroic vision of salvation. She wraps it gently in a towel, places it into a ceramic dish, and hands me a spade. "Go

dig up some worms. Nothing too large – it won't be able to eat anything too big – but it needs food if it's going to make it through the night," she tells me.

Determination clouds my face as I head to our front garden to dig. The first dozen worms I uncover are enormous, their rippling, ropy bodies slithering out of my grasp and back into the blackened soil. Finally, I uncover the perfect worm: a wriggling mass barely more substantial than a spaghettistrand. Taking my trophy back in to my mom, who has relocated the bird to our downstairs bathroom, I observe the bird in its smallness against the vast, Minnesota-themed space. It seems strangely at home amid the log-cabin photo frames and black bear figurines. Its beak reaches, pleadingly, toward the sky, but it clicks shut each time, empty. Weak. My mother has a sad awareness etched into her face; she knows it is dying and we cannot save it. I am too young to recognize this, however; I am focused entirely upon my task, eagerly sliding worm chunks into the jaybird's reaching, open mouth.

"Slow down!" My mother cries, grabbing the remains of the worm from my hands. "Here. Do it like this."

In the morning, I run downstairs to find that the bird and its small, makeshift nest have disappeared.

"I'm sorry," my mom says. "He didn't make it through the night."

I find the bird in the garage: not yet buried, poorly hidden. Its beady eyes are frozen, and its beak is still open, still reaching.

The next time I find a shattered egg-shell – this time containing a small, bright cardinal – I shut my eyes tight and turn away, leaving it to be swallowed by ground ivy and dandelion tufts.

III. Seeking the Prairie

"...the spiritual journey to a place begins, as some claim, with mortal fear." – John Price, *Man Killed by Pheasant*

I am on the prairie, the sun burning dryly into my forehead, bleaching my hair a brighter blonde. After a long, dry drive and an even drier tour, my scout troop is hot, sweaty, and ready to return home to the comfort of air conditioning; ready to welcome our green lawns with open arms. We have listened to our guide lecture about how little native landscape remains in Iowa (.1 percent) and have heard and forgotten dozens of prairie-plant names. We are moments from piling back into the vans, when our tour guide hits us with the magic words: "Before you leave, how about a game of hide-and-go-seek in the prairie?"

She has known us for so little time, yet she knows us so well. Giggling, we run off in a dozen different directions, frantic to steer clear of the slow counting that means pursuit will begin shortly. I bury myself in a patch of tall bluestem (Andropogon gerardi, according to the guide). Satisfied with my spot, I lie flat on my back in the stiff, towering grass, closing my eyes. Minutes pass - maybe hours. I can hear the squeals of others being found, and I begin to worry. What if I am never found; if I remain here forever? What if I'm swallowed alive by this prairie? Standing, feigning ignorance, I surrender myself to the seeker.

"I found you!" Grace calls, triumphant, as the others laugh. "The game wasn't over yet!" I shrug, good-naturedly. I don't tell her my secret: that I'd rather be captured by her than by the prairie.

For years afterward, the prairie plagues my nightmares: a recurring dream beginning that night. In these

dreams, I am running. Through golden fields, terrified by the wind and my own shadow, pursued by an assailant unknown, I fly - tripping in sneakers through too-tall prairie grass. My sight is obfuscated by the too-tall and the never-ending: Panicum virgatum, Schizachyrium scoparium, Sorghastrum nutans. Words and names blur and swirl together as I stumble through this unfamiliar landscape, entirely directionless. I arrive, finally, at a barren wooden house, drag myself - panting - through flower-papered hallways. I am in my mother's closet, buried behind years of low-hanging cotton tees – I am holding my breath. I know they will come. I am holding my breath and - I hear footsteps; the door opens. Clothes are pushed aside: sloppily, rapidly.

Every time, I wake up, breathless.

What good can come from a landscape forced back from the dead?

Walking back from class one day, I tell Jess, "We should go to the Neal Smith sometime."



dandelions (Photograph by K.E. Daft)

We have been given an assignment: to write about our connection to our native place, and it's the only place I know to begin.

"I'm free over Easter."
She fishes in her backpack for a moment, then pulls her hand back, phone tucked neatly into her palm. She scrolls for a moment before returning to meet my eyes. "The weather looks like it should be pretty decent."

"We could touch some

grass. Y'know, have a spiritual experience with some buffalo," I mumble, side-stepping the remains of a worm left over from last night's rainfall.

"That's a great way to lose a hand," Jess says, tugging

her backpack back into place.

"Yeah, but it'd at least be a great story."

Jess must agree, because we make plans to go, pack lunches, and dig out our sturdiest boots.
But, it rained, or – it was supposed to rain?
Neither of us recalls, exactly; only we know that we never went.

And the rain never came.

IV. Dandelion Fluff

"Tiny, gladsome flower, / So winsome and modest, / Thou art dainty and sweet. / For love of thee, I'd die." – anonymous Dakota author, quoted in Melvin Gilmore's "The Plant Tribes"

"The flowers are starting to bloom!" I shout, slipping out of my seatbelt and sliding out the backseat of the van to touch the fresh yellow blooms emerging in our lawn.

"Wait until I stop the car!" My mother calls from the front seat, but it's too

late. I'm already out among them, flailing my arms in an attempt to make snow angels in the bright green grass. Bringing the car to a stop, she follows me, her brow creasing under the wave of her freshly-permed hair. "Those are weeds, not flowers," she says. "Your dad was supposed to buy weed killer for them..." Trailing off, she heads inside to confront my dad, slamming the metal door behind her with a resonant whunk.

The faint sounds of arguing slink out from underneath the garage door, but I am entirely oblivious; my ears muffled by grass, full of the promises of dandelion fluff.

Even now, I struggle to impress upon my parents the importance of dandelions.

"It's some of the first food for bees in the spring," I plead. "Besides, they're such a beautiful yellow."

"It'll drive the neighbors nuts if we keep them," my dad says, skimming absentmindedly through television channels. In his mind, this conversation has ended. In mine, it is just beginning.

Steven Apfelbaum, in his essay "Getting to Know Your Neighbors" writes about this same trepidation his neighbors had with his backyard prairie, unable to understand its purpose. One such neighbor, hailing from a farming community and mindset, saw Apfelbaum's yard as "a weedy mess;" unable to understand why Apfelbaum didn't "cultivate and spray to keep the weeds down" (319, 320). Perhaps this is the issue: a lack of patience; an inability to see the beauty of what will come. The natural is not seen as beautiful, but rather as

something to be dominated, tamed.

Dandelions, despite my parent's best efforts, remain my favorite flower. I've never understood the weed/flower distinction; twenty years haven't helped my mother's cause. The yellow blooms grow rampant in my parents' yard and in the yards of all in the neighborhood. Perhaps tomorrow they will be gone, suffocated with Roundup and Weed B Gon, but for today they thrive in erratic, spontaneous communities.

One of them, I see, has already turned white, bearing its tall, age-worn head proudly. It's such a beautiful thing: death giving birth to new life. In the backdrop of this scene, my front door opens. My mother, standing in the doorway, calls: "You're home!"

And she's right.

Works Cited

Apfelbaum, Steven I. "Getting to Know Your Neighbors." Price, pp. 319-329.

Gilmore, Melvin R. "The Plant Tribes." Price, pp. 132-137.

Hogan, Linda. "Department of the Interior." 1993. Intersections: An Introduction to the Liberal Arts: Perspectives on Human Nature. Edited by Josh Doležal, et al., Tapestry Press, Ltd., 2014, pp. 119-123.

Leopold, Aldo. A Sand County Almanac: And Sketches Here and There. Oxford University Press, 1949.

Price, John T. Man Killed by Pheasant: And Other Kinships. 2008. University of Iowa Press, 2012.

Price, John T., ed. The Tallgrass Prairie Reader. University of Iowa Press, 2014.

 $Upham, Warren. \ \textit{Minnesota Place Names: A Geographical Encyclopedia}. \ 3 rd \ ed. \ Minnesota \ Historical Society \ Press, 2001.$

Social Evolution of Bees Through **Environmental Pressure**

McKenna Kilburg

The assignment consists in writing a research proposal that investigates an evolutionary question. Students have freedom to choose their specific topic. I thought McKenna's proposal was especially interesting because it focused on the evolution of social behavior by investigating a species that shows polymorphism for the traits. —Paulina Mena



Introduction

BIOL-320: Evolution

Over eight million different species exist on earth, and of these, most species display some sort of socialization within or between species. This socialization can take the form of several frameworks. These include team reciprocity, in which one organism will trust another until they are crossed, or selfish teamwork, where members of a group act together to achieve a common goal that helps all parties individually. In addition, many species utilize altruism, in which all actions taken are for the good of the group rather than a specific individual (Dugatkin, 1999). The most organized form of altruism, and sociality in general, is termed eusociality, which is characterized by overlapping generations, cooperative care for the young, and

differential reproductive castes (Andersson, 1984).

One taxa that consistently displays eusociality is the order of Hymenoptera, which consists of wasps, bees, and ants. This group of organisms is unique because of their sex-determination process termed haplodiploidy. Like all Hymenoptera, when a female bee mates, she can store the male's sperm in a specialized organ called a spermatheca. This sperm can be utilized to fertilize an egg, creating a diploid female. Conversely, an unfertilized, haploid egg develops into a male. (Zayed and Packer, 2009).

Bee species lie on a spectrum of sociality, with some being completing solitary in their singular nests, others being primitively social, in which they maintain brood care or share a nest,

and others being eusocial in which they share a nest in addition to the tasks needed to maintain their community. This sex differentiation helps to form role distinctions within a colony. A haploid male's only role is to simply feed until the queen is ready to mate; in some species, they are also responsible for guarding the nest. Conversely, females either take on the role of the queen or a worker depending on their allotted nutrients as larvae. Workers are fed pollen and nectar, whereas an upcoming queen is fed royal jelly, but this only occurs in highly social species (Wilson-Rich, 2014).

This differentiation between a female queen and worker fulfills one of the eusociality requirements in that it creates differential reproductive castes. The queen bee mates with select drones

then care for. However, the worker bees are incapable of reproducing due to the difference in their nutrients that turns certain genes off and on; in addition, many queens release pheromones that inhibit a worker bee's ability to reproduce (Wilson-Rich, 2014). This appears to be troublesome for the theory of evolution because an individual's fitness is determined by its ability to survive and reproduce (Bergstrom and Dugatkin, 2012). However, most of the bees within a colony are not capable of reproducing and would be deemed evolutionary impasses, yet bees still seem to be evolutionarily favored as sterile females continue to survive. This paradox has puzzled scientist for generations. In fact, Charles Darwin, himself, claimed that the sterile female workers represent a "special difficulty, which at first appeared to me insuperable, and actually fatal to my whole theory" (Darwin, 1871).

and lays thousands of eggs

at a time, which the workers

Despite the initial confusion, Darwin proposed that sterile individuals can be evolutionarily fit if they pass on their own genetic information by helping the queen reproduce. This is possible because bees, and all haplodiploid species, are highly related. Sister bees share three-quarters of their DNA with one another, but a bee only shares 50% of their DNA with their own offspring, as shown in Figure 1, below. As a result, it is more beneficial to help individuals that are more related to oneself survive rather than reproducing on one's own. Therefore, it has been proposed that relatedness is the driving force that allows eusociality to evolve.

This idea is referred to as kinship selection, and it was first proposed by William

Father

Mother

Son

Hamilton, an evolutionary biologist, in 1964 (Queller and Strassmann, 1998). This theory explains that organisms are likely to behave altruistically toward their own family members in order to help perpetuate their genetic lineage. Kinship selection theory has grown synonymous with haplodiploidy because the unparalleled amount of relatedness in haplodiploids makes them the most likely to show kinship favoritism (Nowak et al., 2012). Therefore, worker bees are willing to sacrifice their own lives, by foraging for food or guarding a nest, because this effort helps to propagate their genetic lineage. This theory of kinship selection also explains that worker bees tend to the queen's offspring



Figure 1: Haplodiploid relatedness showing that sisters are more related to one another than their own offspring.

Daughter

because workers can perpetuate their genetics by caring for the next generation of their family. In Hamilton's original theory, he measured the worth of an action based on the equation rB > C, where the relatedness of an individual (r) multiplied by the benefits received by the action's recipient (B) must outweigh the cost absorbed by the individual performing the action (C) for said action to be worth acting on (Queller and Strassmann, 1998).

Kinship selection has been used as the textbook explanation as to how eusociality originates for decades. However, Nowak et al. (2012) show that an increasing number of exceptions continue to surface as several species that are diplodiploid show sociality, such as species of shrimp and mole rats, in addition to many haplodiploids not displaying sociality, like the many solitary bee species. As a result, other theories have been proposed to determine the origin of sociality.

Mutualism was offered as an explanation for eusociality as groups of bees that live together all benefit from the shared home that offers protection from predators. In addition, each bee has a specific task of nursing larvae, tending to the queen, guarding the hive, or foraging, and each individual bee benefits from

the work of all the other bees, thus making social interaction evolutionarily favorable (Wilson-Rich, 2014; Andersson, 1984). However, mutualism does not explain why sterile workers are necessary; this caveat lead to the theory of manipulation, in which worker bees are coerced into servicing the colony because the most fertile female bees release reproductioninhibiting chemicals. In addition, any worker that manages to produce offspring despite the inhibiting pheromones may be eaten by the queen to discourage such autonomy (Ratnieks and Wenseleers, 2008). Although manipulation explains the caste system and cooperative brood care, it does not explain why sterile workers choose to stay within the social hive rather than beginning their own solitary nest (Andersson, 1984).

Over all, no theory explaining the origin of eusociality has been entirely accepted by the scientific community. Nonetheless, it has been noted that there are several traits in common between all eusocial species. Therefore, it has been proposed that some

pre-conditions are required to later evolve eusociality. The two most basic traits include a cohesive nest and a delivery system to get nutrients to the nest. Dr. Malte Andersson, a professor of Animal Ecology at the University of Gothenburg in Sweden, hypothesized that the presence of these traits allowed for opportunities of social engagement and task delegation; without the help of other bees, constructing a hive and finding food is a sizable chore, so working with others creates a more efficient use of energy (Andersson, 1984). Additionally, Dr. Sarah Kocher and Dr. Robert Paxton, from Harvard University and Martin-Luther University, respectively, found that a lesser form of sociality, called communality, where females share a nest together but do not have reproductive castes, is a pre-adaptation to eusociality (Kocher and Paxton, 2014). Despite these findings, several solitary species also exhibit these pre-eusocial traits, indicating that they will either evolve sociality in the future, or more comprehensive traits are needed to diagnose social species.

With this knowledge, several studies have attempted to investigate the causal agent of sociality within previously solitary bees. One study, conducted by several professors and students at Cornell University, evaluated molecular changes that could serve as pre-adaptations to eusociality. By sequencing and comparing the DNA of bee species, they quantified the amount of variation between advanced eusocial. primitive eusocial, and noneusocial bees. It was found that genes associated with gland development, signal transduction, carbohydrate digestion, and brain development evolve more quickly in the eusocial lineages, suggesting that these molecular changes could be the pre-adaptions, or the "genetic toolkit," for the evolution of eusocial lineages (Woodard et al., 2011).

Additionally, other studies have looked at environmental factors that could serve as selective pressures for the evolution of eusociality. One in particular, conducted by Norman Lin, a professor of Zoology at the University of Kansas, showed a positive correlation

between the presence of predators and parasites and social behaviors in bees. His study demonstrated that an increased amount of dangers in the local environment causes insects to congregate into one successful location; if an abundance of insects make up this community, then some members can serve as guards for the rest, creating the first of the divided hive tasks (Lin, 1964).

In addition, two German professors, Dr. Ingolf Steffan-Dewenter and Dr. Susanne Schiele from the University of Bayreuth and University of Gottingen, respectively, instead evaluated whether the population dynamics of native bees were regulated by bottom-up and top-down forces. Over the course of five years, thirty populations of solitary bees were monitored in fragmented habitats, and it was determined that available foraging area had a larger effect on population size than predators. Therefore, they concluded that bottom-up forces, such as nesting resources and food availability, determine the success of a population's size and social tendencies. (Dewenter & Schiele, 2008)

Statement of Problem

The evolutionary method of developing sociality remains unknown because no one proposed process has been entirely accepted by the scientific community. Many studies have shown that genetic and environmental factors can serve as pre-adaptations to sociality in insects, including DNA mutations or the presence of predators and parasites. However, no study has completely isolated one bottom-up environmental force that can lead to sociality. Therefore, this study hopes to distinguish such a force and show that it prompts social behaviors in bee populations.

Significance of Project

It is necessary to
put research efforts toward
investigating the effects of
bottom-up forces because
humans have a direct impact
in limiting suitable habitats
and resources for insects
through deforestation and
habitat fragmentation.
This proposed research
intentionally deprives bees
of these nesting resources
to determine their ability
to adapt. The goal of this

study is to obtain information that can be used to further conserve native populations of bees.

If this isolated study

can show a correlation between nest resource depletion and increased social behaviors, then it can be concluded that limited resources in the environment can lead to more social organization within insect populations. Therefore, the presence of nesting resources acts as a selective pressure in a population in which only the adaptably social can survive, leading to increased evolutionary fitness in those that are social in these situations. Contrarily, if this study shows that limited nesting resources cause increased mortality in bees, then it can be concluded that deforestation and habitat fragmentation are harmful to local bee populations because they cannot adapt to areas without nesting resources.

Hypothesis

In this specific study, the effects of depriving Ceratina bees, also known as small carpenter bees, a genus with social pre-adaptations, from nesting resources will be studied. It is hypothesized that there will be a significant difference in the preference between singular or shared nesting and a significant difference in the growth and survival rates of the offspring from singular and shared nesting. Without an excess of nesting resources, bees with social pre-adaptions should be able to adapt to sharing resources and forming colonies than bee populations without pre-conditions. This prediction is based on evidence from other studies showing that social pre-adaptations are a beginning step toward future sociality (Kocher & Paxton, 2014; Andersson, 1984).

These small carpenter bees create their nests within the shoots of plants. Each spring, Ceratina bees emerge from overwintering and begin preparing for the mating season ahead. The females find a suitable home and begin to excavate a nest into it, creating an entrance hole and a long tunnel about 4-8 inches in length (Rehan & Richards, 2010). Some Ceratina bees will find solace in old nests used in past seasons. The foundress who creates or finds this nest will then find a male mate, become fertilized, and begin collecting pollen and nectar that will feed her offspring. She rolls up her pollen collection and positions it at the end of her



Figure 2: Ceratina bee larvae housed in individual brood cells within a plant shoot, scale in mm (Ali et al 2016).

Methods

In this proposed study, the Ceratina bee genus will be studied because of its polymorphic social behavior. tunnel where she lays a single egg on top of the pollen mass. She then builds a wall with chewed wood pieces, closing off the brood cell. The foundress continues this process until there is no room for another brood cell; an example of this is depicted in Figure 2. The Ceratina eggs hatch within a matter of days and the resulting larvae will feed on the provided pollen mass; once sufficiently fed, the

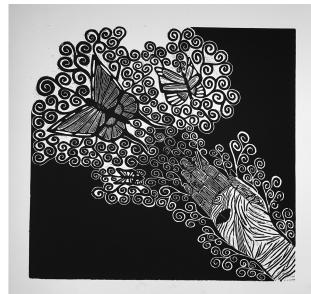
larvae pupate within the cell, and emerge as an adult after nearly two months by excavating out of the shoot.

Most often,
Ceratina bees are
sub-social, which
means that they
show extended
parental care for their
offspring. However,
one species, Ceratina
calcarata, has an additional
social pre-adaptation in
which they create a small

reproductive caste system

where one daughter is coerced into caring for her sisters and forgoing her own reproduction. The first brood cell created by the foundress is given significantly less pollen that is more rich in proteins; this daughter emerges earlier than her sisters and is also much smaller. This dwarf eldest daughter serves her family most likely because of

altruistic kinship in that she can only pass on her genetic information by helping her sisters survive to procreate (Lawson et al., 2017). Despite C. calcarata's additional social pre-adaptation, there has not been a more substantial division of labor within the



Catalina Valdez, linoleum print, 24" x 24"

Ceratina genus, such as that of the eusocial queen, workers, and drones, nor the presence of multiple generations living in one nest.

Previous studies
have shown that progression
from a solitary status, where
there is no brood care, to
one of sub-sociality is a
preadaptation toward later
eusociality (Kocher & Paxton,
2014; Andersson, 1984). In
addition, specific Ceratina
species have developed even

further social adaptations like the small separation of labor between sisters. Therefore, it can be hypothesized that Ceratina bees are likely to develop increased social behaviors if given the correct environmental pressures given their social pre-adaptations.

In this study,
Ceratina bees will be
captured at Central
College's Field
Station within their
overwintering nests.
These small carpenter
bees hibernate within
old nests and emerge in
late spring. The males
emerge from these nests
in early May, and the
females typically emerge
three weeks later (Rehan

& Richards, 2010). Therefore, several overwintering nests will be obtained in March, most likely found within sumac and raspberry plants. These nests will be identified by the single, circular entrance hole, about onehalf centimeter in diameter. where a female carpenter bee had initially excavated the nest (Lawson et al., 2016; Ali et al., 2016). A minimum of five occupied nests of varying Ceratina species will be collected by carefully

covering the entrance hole with tape so no occupants escape in addition to using a hand saw to break off the nest from the identified branches (Rehan & Richards, 2010). These still-overwintering nests will be gently placed into one enclosed greenhouse. Here, the bees will continue to hibernate until May. Once emerged, the old nests will be removed and the occupants will search for food, shelter, and mates.

However, the greenhouse's resources will be limited. There will be an abundance of angiosperms for the bees to collect nectar and pollen from, namely annuals like geranium, petunias, and lilies because these plants contain stems in which bees cannot excavate. In addition, nesting will be provided for the bees. The greenhouse will contain a limited number of dead, broken twigs from raspberry or sumac plants for the Ceratina bees to excavate. The number of available twigs will depend on the number of Ceratina bees that successfully emerge from overwintering. These twigs will have a glass plate covering one side, allowing researchers to see the bees' behaviors inside

their created nest. However, there will not be enough of these twigs provided for each female bee to continue their sub-social lifestyle of one foundress per shoot. There will also be no available wood in the greenhouse for the carpenter bees to use as additional nesting materials.

With the bees' resources limited, their behavioral tendencies like nest claiming, food foraging, and interacting with others are likely to be altered. Typically, each female foundress will forage for pollen and find a nest on her own, but with limited resources, the Ceratina bees will either fight over the only nesting options available, share the nesting area, or die from failure to find a nest. Because the Ceratina bee genus has various preadaptations to sociality with their parental care for their offspring and minor reproductive castes, it is likely for them to adopt the social behavior of nest sharing and potentially sharing brood care responsibilities.

Observations of the bees' behaviors will be recorded twice each day, making sure to note the number of bees within one nest and the number without nests in addition to the amount of help nonmothers contribute to brood care, the number of eggs deposited, and the survival of the offspring within the nests. These observations will take place over the course of four months, from May to September so the original overwintering population's offspring will be seen emerging from their brood cells. The bees that inhabit a nest solitarily or do not find a nest will be compared to those that co-inhabited nests. A student's t-test will be used to compare the number of bees in single or shared nests in addition to comparing the growth and survival rates of the offspring from the single and shared nests. This will determine if there is a significant difference in the social preference of Ceratina bees if resources are limited and if one social structure is more beneficial for the offspring.

If the Ceratina bees show a significant preference for sub-social nesting, the researcher can conclude that another environmental factor, outside of resource depletion, causes the drive toward sociality, such as food depletion or the presence of predators. However, if the Ceratina bees significantly adopt social tendencies, then the researcher can conclude that limited nesting resources is a driving environmental pressure toward sociality. Therefore, if nest resource depletion continues in the environment, it can be expected that the Ceratina bee lineage will adapt to this selective pressure, allowing those who can share nests to survive and reproduce. Over time, Ceratina bees may become accustomed to sharing nests and develop a higher level of social structure.

Follow-Up Study

A later study will be conducted in which food availability is the independent variable rather that nesting resources. In this case, the enclosed greenhouse would have an abundance of nesting sites available, but there would only be a limited number of food sources. For example, only one petunia plant could be placed in the greenhouse. The bees' behavior to this environmental pressure would be evaluated in the same manner as previously mentioned, but simply in relation to a different variable. Therefore, if this

second experiment were to create a significant difference in the social preference of Ceratina bees, researchers could conclude that food resource depletion is a driving environmental pressure toward sociality. However, it is important to conduct these two experiments completely separately as to confidently determine which factor relates more to social evolution. It could be possible that both limited nesting and food resources cause social tendencies in bees, but this ought to be determined separately.

References

Andersson M. 1984. The evolution of eusociality. Ann. Rev. Ecol. Syst. 15, 165-189.

Ali H, Alqarni A, Shebl M, Engel M. 2016. Notes on the nesting biology of the small carpenter bee *Ceratina smaragdula* (Hymenoptera: Apidae) in Northwestern Pakistan. Florida Entomologist. 99(1): 89-93.

Bergstrom C, Dugatkin L. 2012. Evolution. New York, NY: W.W. Norton & Company.

Darwin C. 1871. On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for l ife. New York (NY): D. Appleton & Company.

Dewenter I, Schiele S. 2008. Do resources or natural enemies drive bee population dynamics in fragmented habitats. Ecology. 89(5): 1375-1387.

Dugatkin, L. 1999. Cheating monkeys and citizen bees. New York, NY: The Free Press.

Kocher S, Paxton R. 2014. Comparative methods offer powerful insight into social evolution of bees. Apidologie. 45: pp. 289-305.

Lawson S, Ciaccio K, Rehan S. 2016. Maternal manipulation of pollen provisions affects worker production in a small carpenter bee. Behav Ecol Sociobiol. 70(11): 1891- 1900.

Lawson S, Helmreich S, Rehan S. 2017. Effects of nutritional deprivation on development and behavior in the subsocial bee *Ceratina calcarata* (Hymenoptera: Xylocopinae). Journal of Experimental Biology. 22: 4456-4462.

Lin N. 1964. Increased parasitic pressure as a major factor in the evolution of social behavior in halictine bees. Insectes Sociaux. 11: 187-192.

Nowak M, Tarnita C, Wilson E. 2010. The evolution of eusociality. Nature. 466: 1057-1062.

Queller D, Strassmann J. 1998. Kin selection and social insects. BioScience. 48(3): 165-175.

Ratnieks F, Wenseleers T. 2008. Altruism in insect societies and beyond: voluntary or enforced? Trends Ecol. Evol. 23: 45-52.

Rehan S & Samp; Richards M. 2010. Nesting biology and subsociality in *Ceratina calcarata* (Hymenoptera: Apidae). Entomological Society of Canada. 142(1): 65-74.

Wilson-Rich N. 2014. The Bee: a natural history. Princeton (NJ): Princeton University Press.

Woodard S, Fischman B, Hudson M, Varala, K, Cameron S, Clark A, Robinson G. 2011. Genes involved in convergent evolution of eusociality in bees. PNAS. 108(18): 7472-7477.

Zayed A, Packer L. 2007. The population genetics of a solitary oligolectic sweat bee, *Lasioglossum (Sphecodogastra) oenotherae* (Hymenoptera: Halictidae). Heredity. 99: 397–405.

El feminismo disimulado en "La indiferencia de Eva" de Soledad Puértolas



Katie Haffenden

SPAN-323: Introduction to Hispanic Literature

Katie chose to work on a challenging short story from 1982, by Spanish writer Soledad Puértolas. After creating and then tossing out a self-generated phrase to describe Puértolas' strategies in the piece, Katie developed what she calls "feminismo disimulado" ("hidden" or disguised feminism) to describe Puértolas' particular approach for tackling women's inequality as writers in the early post-Franco era in Spain. This originality in her approach, along with the primary and secondary source evidence she employs to support her argument, demonstrate that Katie is just the type of active reader she describes in her own analysis. —Kathy Korcheck

En el libro de relatos Una enfermedad moral. publicado en 1982 y escrito por Soledad Puértolas, hay un cuento llamado "La indiferencia de Eva." Para el lector ocasional es posible que el cuento parezca como si nada significante ocurriera. Por otro lado, un lector activo puede determinar algunos temas importantes en el cuento que conectan bien con la historia de las relaciones entre hombres y mujeres en España. Durante las décadas de los setenta y ochenta del siglo XX, el feminismo aún no era muy aceptado en la sociedad, pero todavía estaba presente en las obras de muchas escritoras españolas (Tsuchiya 215) que usaban elementos feministas incluyendo "techniques

of subversion and parody, or the construction and deconstruction of 'feminine' (or gendered) identities and discourses" para criticar los sistemas literarios dominados por hombres y redefinir los papeles de los hombres y mujeres (215). Aunque estos elementos feministas estaban presentes, las escritoras los escondieron para que pudieran tener éxito en el mundo literario controlado por los hombres mientras que ellas expresaban sus creencias. Soledad Puértolas usa un feminismo disimulado en "La indiferencia de Eva" para cuestionar la estructura del mundo literario que prefería las obras de los hombres.

En el cuento "La indiferencia de Eva," el narrador es un novelista

que también organiza las exhibiciones del arte (26). Eva, la otra personaje principal, es una periodista que tiene que hacer una entrevista con el narrador (27). Desafortunadamente, el primer intento de la entrevista no sale muy bien, y los dos planean rehacerla en la oficina de la estación de radio el día siguiente (27). Desde el principio del cuento, el narrador no puede entender por qué Eva no tiene ningún interés en él y sólo puede concentrar en esta idea (25). El día siguiente, el narrador está sorprendido por la elocuencia de Eva durante su parte de la entrevista (29). Aunque Eva tiene éxito en la segunda entrevista, el narrador habla muy torpemente de sus obras

y los retos que experimenta él como escritor (30). Deprimido a causa de su entrevista fracasada, el narrador va a un bar y bebe una copa; solo se queda en el restaurante por pocos minutos porque ve a Eva caminando por la calle (31). El narrador sigue a Eva a su coche y él mira cuando Eva

empieza a llorar (32). Eventualmente, Eva le permite al narrador a entrar en su coche y los dos llegan a otro bar (34). Al fin, Puértolas insinúa que los dos tienen sexo (36).

Para entender la importancia de este cuento, es necesario entender el contexto histórico que precede la escritura del relato. Por muchos años en España, las mujeres no tenían derechos básicos. Por ejemplo, las mujeres no podían obtener trabajos fuera de la casa legalmente por muchos años (Tsuchiya 213). En los años treinta, las mujeres experimentaron la llegada de algunos derechos como divorciarse, pero estos derechos desaparecieron rápidamente bajo la dictadura de Franco (213). Durante

la década de los sesenta, las feministas tuvieron el derecho de reunirse por primera vez en más o menos treinta años (214). Además, diez años después, el gobierno perdió su habilidad de censurar obras literarias (215). En aquel momento, las mujeres empezaron a expresar más



Amariah Seeley, Acrylic paint, 7" x 8"

libertad en su escritura, pero muchas escritoras continuaban escondiendo temas feministas en sus obras (214). Todavía era difícil para las escritoras porque si querían escribir de temas muy comunes u abiertamente feministas, su literatura era llamada "femenina" o vista como obras para las

mujeres (219). Es posible ver los temas feministas de Soledad Puértolas en "La indiferencia de Eva," pero se tiene que buscar las pistas en el rompecabezas del cuento. Puértolas ha descrito sus obras como "un mapa de huecos" (citada en Garganigo 142). Esta idea tiene que ver con el

> feminismo disimulado mencionado arriba. En los huecos presentes a causa de los eventos cotidianos en el cuento, Puértolas puede añadir elementos feministas. En otras palabras, la manera en que Puértolas escribe le permite criticar el sexismo que ha sido presente históricamente en los sistemas literarios dominados por los hombres en España sin decirlo explícitamente.

Primero, un elemento en el cuento que sirve para criticar los sistemas literarios es la ironía de la confianza que tiene el narrador en sí mismo. Desde el principio del cuento, es obvio que el narrador entiende su valor. Cuando él está analizando su primera interacción con Eva, él piensa "Mi nombre no es muy original y bien

pudiera suceder que a ella no le hubiese ocurrido relacionar mi persona con la del escritor que había publicado dos novelas de relativo éxito" (28). Aquí, el narrador quiere parecer humilde, pero en realidad, él piensa que es muy importante. También, la manera en que él describe las acciones de Eva muestra su engreimiento. Durante la primera entrevista, Eva tiene dificultades de formular una cuestión apropiada y, siguiendo al narrador, ella "esperaba, sencillamente, que yo le resolviera la papeleta" (26). Puértolas describe al narrador de una forma muy arrogante en esta cita porque parece que a él le gusta pensar en Eva como tonta.

En su artículo, "Language, Desire, and the Feminine Riddle in Soledad Puértolas's, 'La indiferencia de Eva," Akiko Tsuchiya habla de la presencia de elementos estereotípicos de la "male (literary) experience" que están presentes en "La indiferencia de Eva" (70). Uno de los elementos es el camino para los hombres para que puedan llegar a ser héroes (73). La ironía de la confianza que tiene el narrador en sí mismo es

obvia cuando se piensa en este tema. El momento en que el narrador se da cuenta de que no ha llegado a ser el héroe del cuento ocurre durante la entrevista de radio con Eva (73). Aunque el narrador es muy torpe durante la entrevista y no puede formular una respuesta muy buena, Eva es muy natural y el narrador piensa que ella está viviendo su destino apropiado (30). En este cuento, no es el hombre que está viviendo con propósito, sino la mujer. Este elemento feminista es un poco difícil ver inmediatamente, pero existe para criticar los sistemas que valoran a los hombres y sus obras más que a las mujeres y las suyas. En otras palabras, un lector feminista o activo puede entender esta crítica, pero un lector pasivo no entendería la significancia de la situación.

También, la añoranza del narrador para entender a Eva completamente revela un tema feminista. En el cuento, hay muchos instantes cuando el narrador analiza aún los elementos más insignificantes de Eva para llegar a entenderla mejor. Por ejemplo, después de que el narrador llega a la oficina del radio, él piensa muy

intensamente en la sonrisa que le da Eva (28). Usualmente, la gente, cuando ve a una persona sonriente, solo piensa en devolverle la sonrisa a la persona. El narrador, por otro lado, tiene que especular en la significancia de la sonrisa porque quiere saber más de Eva. También, su anhelo es muy evidente cuando se queda mirando a Eva. Después de seguir a Eva en su coche, él la mira fijamente desde poca distancia (32). Él no la mira así para comprender cómo ayudarla; solo quiere estudiarla. Estas reacciones muy extrañas muestran la extensión de su interés en entender a Eva.

Otra vez, refiriéndome al artículo de Tsuchiya, otro elemento estereotípico de la literatura para los hombres es el de las mujeres como objetos del "male gaze" (70). Siguiendo a Tsuchiya, las mujeres en la literatura usualmente son importantes solo para realizar los deseos de los hombres (71). El deseo del narrador para entender a Eva viene del problema que ella no satisface los requisitos del narrador. En otras palabras, la frustración del narrador está presente como resultado del hecho de que Eva no actúa como "a

mirror designed to duplicate his inflated view of himself' (Arias 4). El narrador quiere entender a Eva porque no cumple el papel que él quiere para ella. El rechazo de este papel tradicional de las mujeres por parte de Eva es un ejemplo importante del feminismo disimulado en la obra.

Es importante notar el uso de la categorización de Eva por parte del narrador como otro ejemplo del feminismo disimulado. En la obra, el narrador, en su esfuerzo por entender a Eva, siempre trata de hacerla encajar en una categoría u otra. Por ejemplo, él habla del hecho de que ella es periodista para comprender por qué está preocupada por la hora de la entrevista (27). La mayoría del tiempo, todo el mundo está preocupado por el tiempo cuando tiene un trabajo para hacer, pero el narrador quiere simplificarla. Mejor dicho, el narrador no puede entender que Eva es una persona completa porque ella no satisface sus deseos, así que él trata de enfocarse en partes de Eva para clasificarla como una cosa u otra. También, la primera oración del cuento es un buen ejemplo de la generalización de Eva por parte del narrador. Al principio de la obra, el narrador dice
"Eva no era una mujer guapa"
(25). Desde el principio, el
narrador quiere reducir a
Eva a solo su aspecto, para
que él pueda entenderla. Para
el narrador, Eva no tiene el
mismo valor como él, así que
usa las categorizaciones para
entender mejor a la mujer
como "un enigma" (36).

Los intentos del narrador de simplificar a Eva en exceso son referencias a la discriminación que experimentaban las escritoras españolas y las mujeres españolas en el fin del siglo veinte. Después de la dictadura de Franco, cuando las mujeres pudieron entrar en diferentes ocupaciones, había mucha discriminación contra ellas (Garganigo 143). Específicamente, las escritoras tenían que luchar por los mismos derechos de los hombres. Por ejemplo, en una entrevista con dos escritoras españolas, Soledad Puértolas pregunta, "¿Por qué choca que una mujer asuma una voz masculina? Es que yo, cuando escribo, no soy mujer. En este sentido soy también hombre. Soy de todo..." (Carmona 159). En esta cita, Puértolas está hablando de la diferencia entre la recepción de

literatura escrita por hombres y mujeres. Los hombres pueden crear narradores masculinos o femeninos, pero solo las mujeres pueden hablar de las mujeres en sus obras. Es obvio que la categorización es una referencia al sistema injusto que prefiere las obras de los hombres en vez de las de las mujeres. La mayoría del tiempo, los escritores españoles no querían entender la complejidad ni la importancia de las obras de escritoras españolas, y por eso, usaban categorías como "femenina" para discriminar contra ellas (Tsuchiya 217). Aunque esta discriminación no ocurría en todas las situaciones, por muchos años, las escritoras españolas no recibían el mismo tratamiento ni el mismo agradecimiento por sus obras en el mundo literario. También, es interesante notar que el narrador de este cuento es la única persona que muestra su perspectiva de Eva y lo que pasa en el cuento. Este hecho se relaciona muy bien con la idea de que las mujeres en el mundo literario, incluyendo las autoras, son definidas por las opiniones de los hombres controlando el sistema literario.

Aunque es escondido, hay ciertos elementos feministas en el relato "La indiferencia de Eva" de Soledad Puértolas. La confianza que tiene el narrador en sí mismo es muy irónico porque Eva es en realidad el personaje más exitoso en su trabajo y va por el camino correcto. También, la añoranza que el narrador tiene de entender

a Eva viene de su deseo que
Eva refleje su imagen de sí
mismo. Además, el narrador
trata de simplificar a Eva en
varias maneras en su búsqueda
para entenderla, reflejando
las categorizaciones bajo
las cuales viven y trabajan
las escritoras españolas.
A causa de la historia
complicada de las relaciones
entre hombres y mujeres en
España, muchas veces los

elementos feministas de las obras de escritoras españolas son muy disimulados. "La indiferencia de Eva" revela una historia compleja de la patria de la autora y muestra las dificultades que experimentaban las escritoras españolas y las mujeres españolas durante el fin del siglo veinte.

Obras citadas

- Carmona, Vicente, Lamb, Jeffrey, and Sherry Velasco, et al. "Conversando con Mercedes Abad, Cristina Fernández Cubas y Soledad Puértolas: 'Feminismo y literatura no tienen nada que ver"." Mester, vol. 20, 1991, pp. 57-165.
- Garganigo, John F., and Edward J. Mullen. Introduction. El Cuento Hispánico: A Graded Literary Anthology. McGraw-Hill, 2004, pp. 142-43.
- González Arias, Francisca. "From 'The Origin' to 'The Treasure Chest': The Short Stories of Soledad Puértolas." Hispania, vol. 95, no. 1, 2012, pp. xvii-xxi.
- Puértolas, Soledad. Una enfermedad moral. Anagrama, 1988.
- Tsuchiya, Akiko. "Language, Desire, and the Feminine Riddle in Soledad Puertolas's 'La indiferencia de Eva." Revista De Estudios Hispánicos, vol 25, no. 1, 1991, pp. 69-79.
- ---. "Women and Fiction in Post-Franco Spain." The Cambridge Companion to the Spanish Novel: from 1600 to Present, Cambridge University Press, 2003, pp. 212-30.



The Business of Love in The

Good Woman of Setzuan

Bailey Anderson

ENGL-362: World Literature II

Bailey Anderson's essay, "The Business of Love in the Good Woman of Setzuan," demonstrates her remarkable versatility as a writer, her imaginative reach, and her impressive analytical skills. The assignment called for students to select the one work on our syllabus that, in their view, had the most staying power, the one work that could transcend its own historic period, travel through time, and speak most effectively to our

present concerns. Bailey chose Bertolt Brecht's 1940 play, The Good Woman of Setzuan, and her paper reveals the hidden connections between marriage, love, and money: connections, which, as Bailey shows, are still evident today. Her analysis attends to all the complexities of Brecht's text while also keeping an eye on the big picture of universal human nature. In that way, she shows us the power and relevance of Brecht's provocative critique of capitalism. —Michael Harris

Ask anyone what the most important factor in a successful relationship is, and they will likely tell you it is love. However, even people who love each other face challenges which may jeopardize the relationship. Sociological studies suggest that one of these hidden important factors in a relationship is money. Most people marry within their socioeconomic class, and in the instances when they do not, there are common phrases in the public lexicon to address this abnormality: "marrying up" and "marrying down." In these marriages that cross socioeconomic lines, couples are more likely to fight about money, parenting, leisure time, and marital communication (Streib). They

are consequently less likely to stay together. For this reason, love is important, but sociologists seem to suggest that money and socioeconomic class are as well, although they have a somewhat reticent role. Even though the depictions of love and marriage in The Good Woman of Setzuan by Bertolt Brecht might at first seem antiquated, and from some perspectives are, when modern sociologists reiterate the role of money in matchmaking, these issues prove to be more modern than most of us would like to admit. As a key part of Brecht's critique of capitalist society, love is depicted as a commodity in The Good Woman of Setzuan in different ways, some of which are more socially acceptable than others, and even though

there is a growing number of people who believe that love is the most important factor in a marriage, money and socioeconomic class inevitably play a role in the development and success of a relationship.

Love in this play is always seen as a commodity in its capitalist society, but in some cases, the buying and selling of love is seen as more socially acceptable than other forms of barter. For example, as the play begins and the audience first learns about Shen Te's character, one of the first pieces of information revealed about her is that she is a prostitute. When we first hear her name, Wong refers to her as "Shen Te, the prostitute," defining her by her profession (2215). He even expresses apprehension

about the gods' knowledge of this fact, and wishes to hide her client from them. "or they'll know what she is," again reducing her to her profession (2215). Wong's desire to hide this from the gods, in an effort to maintain their high opinion of her, shows that even though Shen Te is undoubtedly a good person at heart, she is still defined by the fact that she is a prostitute. In modern society, we tend to see these professions in the same way, often portrayed in movies and television shows as somewhat one-dimensional characters and perpetually defined by their occupation of "selling themselves." Shen Te, however, discloses to the gods that "I sell myself for a living," but they still believe that she is the one good person for whom they are looking (2216). It is only the gods who are able to see past Shen Te's profession to see the good person underneath, and even aid her in escaping the lifestyle that even she loathes by giving her money to open a tobacco shop. Her profession as a prostitute, and the negative reception of this profession on the part of the society as a whole despite

her good heart, is in some ways different from how love is portrayed as a commodity in the rest of the play. However, Clare Cross argues that even though the surface motivation for a person to buy the services of a prostitute might be sexual activity, the customer "is likely to be paying, not only for sex, but also for some emotional intimacy and companionship, in other words, at least the illusion of love." It would be a romanticization to say this is the principal motivation of these clients, but on some level that may not even be clear to the clients themselves, Cross's assertion is correct. Shen Te's profession as a prostitute is by far the least socially acceptable example of love as a commodity in The Good Woman of Setzuan.

The play shows the much more positive reception of love in connection with money in several instances, and all of them are concerned with marriage. After receiving the money from the gods and purchasing a tobacco shop, Shen Te worries about being able to pay the rent to a calculating landlady. For this reason, the policeman writes her a marriage advertisement

as a means of obtaining money. In this instance, it is clear that marrying someone rich is the best way for a woman, and specifically Shen Te, to obtain money. Effectively, they condone Shen Te once again to sell herself, though in a less direct fashion. Even today, some audiences might refer to marriage as "legalized prostitution," which reflects the sentiment of Brecht's play that in a capitalist society, even love can be bought and sold. The policeman, along with everyone else in this scene, jokes to Shui Ta, whom the audience knows is really Shen Te, "We can't pay six months' rent, so what do we do? We marry money" (2228). He fails to see his own insistence that Shen Te get married on the same level as Shen Te's previous profession. He has just denounced her profession, again while addressing Shui Ta, because "love isn't bought and sold like cigars" (2227). Through the marriage ad, however, he is supporting Shen Te's selling herself in marriage and even marketing her, which opposes his statement about love and money being separate issues. The marriage ad requests a

"respectable man with small capital" and even presents the marriage as an opportunity to invest in a "flourishing tobacco shop," of course adding a description of Shen Te's "prepossessing appearance" to increase her desirability (2228). He is taking the liberty of selling her into marriage, so she can attain the six months' rent. This scene once again places love in the context of money, but in a different and less obvious way than Shen Te's prostitution at the beginning of the play. It provides an example for the audience of marriage as "legalized prostitution," which is a phrase still used by some members of the modern audience. It is truly the dark side of marriage. Even when the audience believes it has found one example of love separate from money, it proves not to be the case.

At the beginning of Shen Te's relationship with Yang Sun, an unemployed pilot, the audience expects it to be more pure and separate from money matters. For Shen Te, it is. She first describes Yang Sun to Wong as a "brave and clever man" instead of referring to him as rich or, as the case may be, poor (2232). She even forgets about the issue of paying the rent on the shop until the old woman asks her about the financial status of her new beau (2235). For her, the love is genuine and unaffected by the money she has to lose or gain in the match. However, the audience soon learns that Yang Sun is simply "selling an illusion of

Shen Te begins to understand that love is always something to be bought and sold, and it is rarely genuine in her world.

love to Shen Te" (Cross). Shen Te helps Yang Sun to obtain a position as a pilot, and is prepared to follow him to it, but learns he must have 500 silver dollars in order to get the job completely. The only person who has the hope of obtaining the money is Shen Te, and Mrs. Yang convinces her not only to give him the money she was going to put toward the rent but also to sell her entire stock of tobacco in order to pay for the job (2237). Her decision is clearly based on the genuine love she

feels for Yang Sun, but it is evident to the audience that the whole relationship is just a ruse so Yang Sun can get the money for his job. Yang Sun confides to Shui Ta that once he has the job, "I'm leaving her behind. No millstones around my neck!" (2240). Yang Sun, the poorer of the pair, is selling himself in marriage to Shen Te so he can get the job he needs and leave her poor and destitute. In this case, the one prostituting himself is Yang Sun, not Shen Te. He refuses to marry her until her cousin, Shui Ta, arrives with the 500 silver dollars. Because Shen Te and her cousin are the same person, Shui Ta never arrives, and they do not complete the transaction. The roles are switched in this scenario, and he is, as a modern audience might say, "marrying up." After her encounter with Yang Sun, Shen Te begins to understand that love is always something to be bought and sold, and is rarely genuine in her world.

In one more major instance, love is portrayed as a commodity, but in this case Shen Te is aware of the role of her love when Mr. Shu Fu writes her a blank check after the termination of her

engagement with Yang Sun. He does not explicitly state that the gesture is an act of love, but the audience and the other characters on stage know that Mr. Shu Fu has romantic feelings for Shen Te. Earlier in the play, he began "to suspect I am in love with her" (2235). As he talks with

Shen Te about
her misfortune
regarding Yang
Sun and eventually
writes her a
blank check, he
makes no mention
of marriage.
However, his
intentions are
easily understood
by Shen Te and
Mrs. Shin, who
happen to be
negotiating payment

for laundry services. Shen Te does not intend to use the check at all, and insists that she can pay for Mrs. Shin's services without using Mr. Shu Fu's gesture of kindness, to which Mrs. Shin replies, "What? You're not going to cash it just because you might have to marry him? Are you crazy?" (2249). Both women have understood Mr. Shu Fu's intention to buy Shen Te's love by his gesture. Shen Te,

as someone who has literally sold her sexual love in the past, is disgusted by the idea of marrying a man simply because he is rich, and sees this as a form of "legalized prostitution." Mrs. Shin, however, is representative of the society in which prostitution is not socially



Madison Thingstad, handmade artist's book, "Cutting your teeth"

acceptable but marrying for money is accepted and even encouraged in cases like Shen Te's.

While marrying for money today is less common and less socially acceptable, it is still by far more socially acceptable than prostitution. When Shen Te realizes that she is pregnant, however, Mrs. Shin's tone changes because the check "wasn't meant for a christening"

present" (2250). In other words, now that Shen Te is unmarriageable by society's standards, it would be imprudent to use the blank check that Mr. Shu Fu meant as a gesture of courtship. Shen Te accepts this as a condition of use of Mr. Shu Fu's money, but her cold-

hearted alter ego
Shui Ta does not; he
writes out the check
for the exorbitant
sum of 10,000 silver
dollars. Mr. Shu Fu
accuses him of theft
as a result because
he put in all of the
risk and did not
reap the reward of
marrying Shen Te.
Again, Mrs. Shin
and Mr. Shu Fu have
a common vision of

love and marriage, which in the play is always connected with money, whereas Shen Te has a somewhat more evolved notion that marriage and money should be separate issues.

Shen Te's attitude toward her pregnancy is one of hope and fear, which might also have to do with Shen Te's understanding that love in a capitalist society is nothing more than something to be bought and sold. From the beginning, Shen Te is certain that her child-to-be will be a son. Because of her experiences as a woman in this society, it may be attributed to wishful thinking. She has seen women prostituting themselves, women marrying for money instead of love,

and women being taken advantage of by men. She has even created a male alter-ego to play the role of the heartless businessman, her cousin Shui Ta, as is necessary in order to succeed in this capitalist society. Men, as she sees it, are the ones doing the buying and women are the ones being sold. Along the

same lines, she sees this child as being the one man that will love her without consideration for economics, and fearfully vows to protect him from the cruelty of their world. When Shen Te sees the child of the carpenter digging through the trash for something to eat, she clutches her stomach and sings:

As this is the world my son

will enter
I will study to defend him.
To be good to you, my son,
I shall be a tigress to all others
If I have to.

And I shall have to. (2252)

Any modern parent recognizes that Shen Te is preparing to protect her son from the cruelty of their world at



Madison Thingstad, handmade artist's book, "Cutting your teeth"

any cost to herself. By her acceptance that in order to do this she must be a "tigress to all others," she appears to glean strength from the knowledge that, as a mother, her duty is above all to her child, whose love she will hopefully never have to buy. In order to do that, she needs to keep the child away from its alleged father, Yang Sun, who has been a major participant in

the buying and selling of love in the rest of the play (2258). This is only one of the reasons she decides to hide behind her other identity of Shui Ta, the other reason being that she wishes to hide her pregnant belly from Setzuan as a whole. Not only does Shen Te intend to make sure her son is a

different breed of man than those she has encountered in the past by protecting him from their capitalist society, she also looks forward to enjoying the unconditional love of her son. She hopes to pass on her evolved view of love to her child by keeping it from capitalist appraisals of love.

Woman of Setzuan

by Bertolt Brecht, love is
portrayed as a commodity and
is often seen in conjunction
with some kind of monetary
transaction, an issue which
is still relevant today as
the audience considers the
hidden role of money even in
modern relationships. While
the importance of money
tends to be a little more
hidden in modern society, to
the point where marriages

are rarely based on money alone, it is clear that money plays some kind of role, even in romantic relationships based primarily on love. The connection between love and money is much more explicit in the play, but highlights one of the most prominent problems Brecht saw with the capitalist society in which he lived, and something he would undoubtedly still consider a problem in modern

capitalist society. Marriages between people from different socioeconomic classes are rare, and those that occur are more likely to fail than those between two partners from the same socioeconomic class. In the play, Brecht compares marrying for money, which is legal, to prostitution, which is not. He wonders why one is socially acceptable but the other is not, and hypothesizes that in a capitalist society,

even love is subject to monetization. Money, he argues, should be a separate matter. However, it proves to be a factor in decision-making in relationships even today. Marrying for love is more common now than it was in the time the play was written, but money still plays a hidden role in whom we fall in love with, whom we marry, and ultimately, the success of our romantic endeavors.

Works Cited

- Brecht, Bertolt. *The Good Woman of Setzuan. The Norton Anthology of World Literature*, vol. E, 2nd ed., edited by Sarah Lawall and Maynard Mack, W.W. Norton & Company, 2002, pp. 2213–2267.
- Cross, Clare. "Overview of 'The Good Woman of Szechwan." *Drama for Students*, vol. 9, edited by Ira Mark Milne, Gale, 2000. Accessed 25 Apr. 2017.
- Streib, Jessi. "For Richer or Poorer: The Challenges of Marrying Outside Your Class." *The Washington Post.* 26 Mar. 2015. Accessed 28 Apr. 2017.



Euclid's Proof of the Pythagorean Theorem

Katherine Lowe

MATH-386: Mathematics Seminar

Katherine's paper is a very thorough exposition of Euclid's proof of the Pythagorean Theorem. This proof is not seen very often outside an undergraduate Geometry course. Katherine tackled the proof with no prior undergraduate work in geometry. She worked to understand the material and then presented it logically and mathematically. Her explanations show complete understanding of the mathematical concepts

and are detailed and clear. She uses complex and refined mathematical reasoning. She correctly uses terminology and notation throughout her paper (which is heavy on notation). Her paper is a stand-alone, mathematically easy to follow (for those with some experience reading proofs), and logical progression of Euclid's proof of the Pythagorean Theorem. —Wendy Weber

1. Abstract

This paper seeks to prove a significant theorem from Euclid's *Elements*: Euclid's proof of the Pythagorean theorem. The paper begins with an introduction of Elements and its history. Next, the paper establishes some foundational principles for Euclid's proofs: definitions, postulates, and common notions. It then lists and explains some of the earlier propositions, which are needed to complete the later proofs. Then, Proposition I.47, the Pythagorean theorem, is proven, followed by Proposition I.48, its converse.

2. Introduction

One of the greatest works of mathematics is Euclid's *Elements*; author

William Dunham argues, of all the books ever written, "only the Bible has received more intense scrutiny" (30). Elements contained 465 propositions in 13 books, covering topics in both geometry and number theory. It should be noted that most of the theorems were not originally Euclid's work, but he compiled the work of others and presented it in a "clear, organized, logical fashion" (Dunham 31). One of these propositions was Euclid's proof of the Pythagorean theorem. Euclid was not the first to prove it, but this postulate, unlike many of the others, was entirely his own work. There have been hundreds of proofs of the Pythagorean theorem published (Kolpas), but Euclid's was unique in both its approach and its organization,

much like the rest of *Elements*. Written in 300 BC, Euclid's *Elements* remains arguably the most important text on mathematics.

3. Postulates and Common Notions

Euclid began Elements with 23 definitions. He defined such things as a line, right angle, and parallel lines: "Parallel straight lines are straight lines which, being in the same plane and being produced indefinitely in both directions, do not meet one another in either direction" (Dunham 33). Notice that Euclid defined parallel lines as lines that never cross and not that they are everywhere equidistant, as is often done.

From here, Euclid introduced five postulates.
These were self-evident

statements built off the definitions; they did not need to be proven and were accepted as givens. Postulate 1 stated, "[It is possible] to draw a straight line from any point to any point" (Dunham 34). Another important postulate used in his proof of the Pythagorean theorem was Postulate 4: "All right angles are equal to one another" (Dunham 35). To anyone who has studied geometry, these statements are undeniable, which is exactly what Euclid intended.

The most controversial aspect of Euclid's Elements was Postulate 5. It stated, "If a straight line falling on two straight lines make the interior angles on the same side less than two right angles, the two straight lines, if produced indefinitely, meet on that side on which are the angles less than the two right angles" (Dunham 35). In other words, if $\alpha + \beta$ is less than two right angles, lines AB and CD cross at some point (Figure 1). This postulate was far more complex and less obvious than the previous ones; many mathematicians felt that this was really a theorem and should not be assumed true. Euclid,

understanding this sentiment, avoided using Postulate 5 in his propositions. He did not use it at all in the first 28

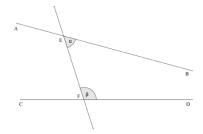


Figure 1: Postulate 5

propositions.

Following the Postulates, Euclid introduced five common notions. Like the postulates, these were accepted facts that did not need to be proven; however, the common notions were "of a more general nature, not specific to geometry," unlike the postulates (Dunham 36). Common Notion 1 was the equivalent of the transitive property of addition: "Things which are equal to the same thing are also equal to one another" (Dunham 36). Common Notion 2 stated, "If equals be added to equals, the wholes are equal" (Dunham 36). In algebraic terms, if a =b, then a + c = b + c.

4. Other Propositions

In order to prove the Pythagorean theorem, Euclid used conclusions from his earlier proofs. We will consider the propositions needed to prove this and other theorems.

Proposition I.4 proved the congruence of two triangles; it is commonly known as the side-angleside theorem, or SAS. Euclid proved that "if two triangles have the two sides and included angle of one respectively equal to two sides and included angle of the other, then the triangles are congruent in all respect" (Dunham 39). In Figure 2, if AC = DF, AB = DE, and $\angle CAB = \angle FDE$, then the two triangles are congruent. This means that not only are the remaining sides and angles congruent, but the two

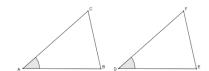


Figure 2: Proposition I.4



Figure 3: Propositions I.13 and I.14

triangles also have the same area.

In Proposition I.8, Euclid proved another

congruence theorem. If two triangles have all three sides of one triangle equal to all three sides of the other triangle, the triangles are congruent. This is called the side-side-side theorem, or SSS.

Euclid showed how to construct a line perpendicular to another line in Proposition I.11. He showed that this line could be drawn from a point on the line or a point not on the line. This proposition was one of many construction proofs.

Proposition I.14 considered when a line is straight. In I.13, Euclid showed that if line CBD in Figure 3 is a straight line, then the angles $\angle CBA$ and $\angle ABD$ sum to two right angles. Proposition I.14 is the converse of this: if $\angle CBA$ and $\angle ABD$ sum to two right



Figure 4: Proposition I.16

angles, then line *CBD* is a straight line.

Proposition I.16 states, "In any triangle, if one of the sides be

produced, the exterior angle is greater than either of the interior and opposite angles" (Dunham 41). That is, in Figure 4, $\angle DCA$ is greater than $\angle CBA$ or $\angle BAC$. To prove this, Euclid bisected the line segment AC with line BF, where BE = EF. He then drew line segment *FC*. Since AE = EC by the bisection, BE= EF by construction, and $\angle 1$ $= \angle 2$ (since vertical angles are equal), we see that $\triangle AEB$ and ΔCEF are congruent by SAS, Postulate I.4. Clearly, ∠*DCA* is larger than $\angle FCE$, and since $\angle FCE = \angle BAE$, $\angle DCA$ is larger than the interior angle $\angle BAC$. By a similar argument, Euclid showed that $\angle DCA$ was also larger than interior angle ∠CBA.

In Proposition I.27
Euclid proved that "if a straight line falling on two straight lines make the alternate angles equal to one another, the straight lines will be parallel" (Dunham 44). Given that angles 1 and 2 in Figure 5 are equal, he assumed lines AB and CD intersected

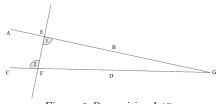


Figure 5: Proposition I.27

at point G and looked for a contradiction. In a triangle, according to Proposition I.16, the exterior angle $\angle 2$ is greater than either interior angle. However, since $\angle 1 = \angle 2$, we have a contradiction. Therefore, lines AB and CD never intersect and are, by definition, parallel.

Another construction proof was given in Proposition I.31. Here, Euclid showed how to construct a line parallel to a given line through a point not on the given line.

Proposition I.32 is a well-known fact of geometry: the three interior angles of any triangle sum to two right angles. In Figure 6, Euclid constructed line CE parallel to line BA. Therefore, $\angle 1$ was equal to $\angle 4$, and $\angle 2$ was equal to $\angle 5$, as shown in Proposition I.29. So,

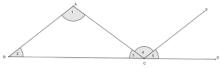


Figure 6: Proposition I.32

the sum of the interior angles of $\triangle ABC$ was: $\angle 1 + \angle 2 + \angle 3 = \angle 4 + \angle 5 + \angle 3 = 2$ right angles.

This equation is true because line BCD is a straight line, which is equal to two right angles by Proposition I.14 (Dunham 46).

In Proposition I.41 Euclid proved the equivalent of the equation $A = \frac{1}{2}bh$, for the area of a triangle. He showed that if a triangle and a parallelogram share the same base and fall between the same parallel lines (i.e. have the same height), then the area of the parallelogram is twice the area of the triangle. In Figure 7 the triangle and parallelogram share the base line segment AB and fall between the parallel lines

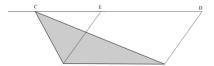


Figure 7: Proposition I.41

AB and CD. According to Proposition I.41, the area of the triangle is half the area of the parallelogram.

The last theorem
Euclid needed in order to
prove the Pythagorean
theorem was Proposition
I.46. Here he showed how
to construct a square from a
given line segment. The next
proposition was his proof of
the Pythagorean theorem.

5. Proposition I.47

Theorem: In rightangled triangles, the square on

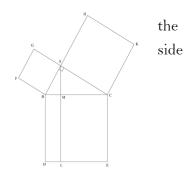


Figure 8: "The Windmill"

subtending the right angle is equal to the squares on the sides containing the right angle (Dunham 48).

Unlike the typical algebraic understanding of the Pythagorean theorem as $a^2 + b^2 = c^2$, Euclid constructed actual squares *BCED*, *ABFG*, and *ACKH* from the sides of the right triangle ΔABC using Proposition I.46 (Figure 8). This shape came to be called "the windmill" as Euclid's proof gained popularity. Euclid sought to prove that the area of *BCED* was equal to the sum of the respective areas of *ABFG* and *ACKH*.

Euclid employed
Proposition I.31 to draw line
AL through A parallel to line
BD. From here, Euclid sought
to prove that the area of
square ABFG was equal to the
area of rectangle BDLM, and
the area of square ACKH was
equal to the area of rectangle
CELM.



Figure 9: Triangles $\triangle ABD$ and $\triangle FBC$

To show that line segments CA and AG were on the same straight line, Euclid noted that $\angle BAC$ was a right angle by the hypothesis and $\angle GAB$ was a right angle by the construction of the square. Thus, the two angles sum to two right angles; by Proposition I.14, line CG is a straight line.

Using Postulate 1, Euclid drew line segments AD and FC, forming triangles $\triangle ABD$ and $\triangle FBC$ (Figure 9). Since they are sides of the same square, AB is equal to FB by construction. Likewise, BD = BC. We see that: $\angle ABD = \angle ABC + \angle CBD = \angle ABC + (\text{right angle})$

Similarly, $\angle FBC = \angle ABC + \angle FBA =$ $\angle ABC + (right angle)$

Therefore, by Postulate 4, which states that all right angles are equal:

 $\angle ABD = \angle ABC + (right$

angle) = $\angle FBC$

By Proposition I.4, which proved the side-angle-side theorem, $\triangle ABD$ and $\triangle FBC$ are congruent since AB = FB, BD = BC, and $\triangle ABD$ = $\triangle FBC$.

Using Proposition I.41, Euclid observed that the area of $\triangle ABD$ and rectangle BDLM shared the base line segment BD and fell between the parallel lines BD and AL. Thus,

Area (rectangle BDLM) = 2 Area (ΔABD)

Similarly, ΔFBC and square ABFG share base line segment BF and fall between parallel lines BF and CG, since we have shown CG is indeed a straight line. So, Area (square ABFG) = 2 Area (ΔFBC)

We have already shown $\triangle ABD$ and $\triangle FBC$ are congruent by SAS, so we can conclude:

Area (rectangle BDLM) = 2 Area (ΔABD) = 2 Area (ΔFBC) = Area (square ABFG)

Therefore,
Area (rectangle BDLM) =
Area (square ABFG)
Euclid was half-way

done with his proof. Next, he followed a similar method to show the area of square ACKH was equal to the area of rectangle CELM. He drew segments AE and BK to form triangles ΔACE and ΔKCB

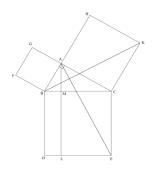


Figure 10: Triangles $\triangle ACE$ and $\triangle KCB$

(Figure 10). Since $\angle BAC$ is a right angle by hypothesis, and $\angle CAH$ is right by construction, $\angle BAH$ sums to two right angles, and, by Proposition I.14, line BAH is a straight line.

Next, Euclid showed ΔACE was congruent to ΔKCB . Sides AC and CK are two sides of the same square, and thus the lengths are equal. Similarly, BC and CE are equal. He then proved $\angle KCB = \angle ACE$: $\angle KCB = \angle BCA + \angle ACK = \angle BCA + (\text{right angle})$ Also, $\angle ACE = \angle BCA + \angle BCE = \angle BCA + (\text{right angle})$ Therefore.

$$\angle KCB = \angle BCA + (right angle)$$

= $\angle ACE$

Since $\triangle ACE$ and $\triangle KCB$ have two sides and their interior angles are equivalent, $\triangle ACE$ is congruent to $\triangle KCB$ by SAS.

Returning to Proposition I.41, Euclid observed $\triangle ACE$ and rectangle CELM share base CE and fall between parallel lines CE and AL. Thus, Area (rectangle CELM) = 2 Area ($\triangle ACE$)

Also, ΔKCB and square ACKH share base CK and fall between parallel lines CK and BH, since we have already proven line BH is a straight line. Thus, Area (square ACKH) = 2 Area (ΔKCB)

Since ΔKCB and ΔACE are congruent, their areas are equal: Area (rectangle CELM) = 2 Area (ΔACE) = 2 Area (ΔKCB) = Area (square ACKH)

Therefore,
Area (rectangle *CELM*) =
Area (square *ACKH*)

Finally, since Area (square BCED) = Area

(rectangle *BDLM*) + Area (rectangle *CELM*)

by construction, we have: Area (square *BCED*) = Area (rectangle *BDLM*) + Area (rectangle *CELM*) = Area (square ABFG) + Area (square ACKH)

So, we see that the area of the square on the side opposite the right angle is equal to the sum of the areas of the squares on the other two sides. Euclid's proof is complete.

6. Proposition I.48

While the Pythagorean theorem is well-known, few are familiar with the proof of its converse.

Euclid immediately followed Proposition I.47 with the proof of the converse of the Pythagorean theorem in I.48.

Theorem: If in a triangle, the square on one of the sides be equal to the squares on the remaining two sides of the triangle, the angle contained by the remaining two sides of the triangle is right.

From the hypothesis,

Euclid constructed $\triangle ABC$, assuming $BC^2 = AB^2 + AC^2$ (Figure 11). He then showed $\triangle BAC$ was a right angle. He drew line segment AE perpendicular to AC, using Proposition I.11. Then he

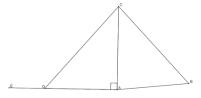


Figure 11: Proposition I.48

constructed AD = AB and connected D to C with line segment CD. Now he had two triangles: ΔBAC and ΔDAC .

The triangles share side AC, and AD = AB by construction. Because line segments AC and AE are perpendicular, $\angle DAC$ must be a right angle. By the Pythagorean theorem, $CD^2 = AD^2 + AC^2$

Substituting
$$AD = AB$$
,
 $CD^2 = AD^2 + AC^2 = AB^2 + AC^2$

From our hypothesis, $CD^2 = AB^2 + AC^2 = BC^2$

Because $CD^2 = BC^2$, CD must equal BC. Since all three sides are equal in length, $\triangle BAC$ and $\triangle DAC$ are congruent by SSS, Proposition I.8. But if they are congruent, then $\angle DAC = \angle BAC$, so $\angle BAC$ must be a right angle. Thus, the converse of the Pythagorean theorem is proved.

7. Conclusion

Euclid's proof of the Pythagorean theorem is only one of 465 proofs included in *Elements*. Unlike many of the other proofs in his book, this method was likely all his own work. His proof is unique in its organization, using only the definitions, postulates, and propositions he had already shown to be true. Euclid's proof takes a geometric approach rather than algebraic; typically, the Pythagorean theorem is thought of in terms of a^2 + $b^2 = c^2$, not as actual squares. The other propositions in Elements contain the same level of organization, clarity, and ingenuity of Propositions I.47 and I.48. Euclid's Elements is a mathematical masterpiece well-deserving of the attention it receives.

References

Dunham, William. "Euclid's Proof of the Pythagorean Theorem." *Journey Through Genius: The Great Theorems of Mathematics*. New York: Wiley Science Editions, 1990. 27-60. Print.



Restoration Through Brave Narration

Peyton Gray

ENGL-362: World Literature I

Peyton positions her reading of *The Thousand and One Nights* in relation to both feminist and historical scholarship. Her reading of the *Nights* considers the collection's original cultural context to make an argument about its protofeminist potential in its own time and its ongoing feminist potential in ours. —Valerie Billing

In the popular Middle Eastern piece of literature entitled The Thousand and One Nights (The Nights), a frametale narrative is used to tell various stories that revolve around King Shahrayar and his relationship with women. The Nights begins by describing the king's view of his wife's betrayal and through this event, the main plot is uncovered. For the next few stories, the king and his brother go on a journey to find someone else who is affected by this betrayal just as they are. When the king does, indeed, find someone in a worse situation than himself. he returns to his kingdom and declares that he will sleep with a virgin every night, and, in order to mirror his perception that women are dangerous and should not be trusted, he will murder her the next morning. It is through this idea that the character of Shahrazad is

introduced, the brave daughter of the king's vizier who vows to risk her life in order that she might attempt to fix the king's immoral ways.

This essay will discuss the importance of the role of Shahrazad, even though her portion of *The Nights* is based solely around her narration. Specifically, this argument will uncover the depth of Shahrazad's character in relation to the role of Middle Eastern women around the time of the latter half of the twelfth century. Although Shahrazad's role within The Nights is generally associated to be just narration, her storytelling methods can be analyzed through both a feminist and historical lens, making her influence within the progression of The Nights highly significant, both inside and outside of the frame. In fact, it is my argument that as a woman, Shahrazad conveys

a sense of bravery beyond the norms for her society that no man can or does replicate. Through her storytelling abilities alone, Shahrazad displays a dignified sense of wisdom as she tells specific stories that make the king subconsciously reconsider his stance and ultimately, make her own story more significant than the many she tells. Finally, I discuss the significance of the role of Dinyazad, Shahrazad's sister who spends her days within the bedroom with Shahrazad and the king, prompting her to keep telling stories. Without Dinyazad's constant, verbal cues to her sister, would Shahrazad's plan have been as effective?

Although the frametale begins with two dominant men, their stories are not the main focus of *The Nights*. Instead, once Shahrayar returns to his kingdom, Shahrazad, the vizier's oldest daughter, takes control of the plot from here. Within the text, Shahrazad is described as a scholar:

The older daughter, Shahrazad, had read the books of literature, philosophy, and medicine. She knew poetry by heart, had studied historical reports, and was acquainted with the sayings of men and the maxims of sages and kings. She was intelligent, knowledgeable, wise, and refined. She had read and learned. (1182)

As an accomplished, educated woman, Shahrazad's role within the story is monumental because it negates two common occurrences of the time in the Middle East: the status and education of women. According to Bernard Lewis, author of the book entitled The Middle East: A Brief History of the Last 2000 Years, "the emancipation of [Middle Eastern women lags far behind changes in the status of men, and in many parts of the region is now in reverse" (17). Within the Middle Eastern society, women were given one of the lowest social statuses. In fact, their status was often equated with those of slaves and unbelievers, and "only the woman was, in the

traditional religious world view, irredeemably fixed in her inferiority" (206). No matter what a woman did, because of her gender, her status was inevitably fixated. It was not until the late nineteenth and twentieth centuries that women's roles within society began to change. During this time, the people of the Middle Eastern countries began to believe that "the education of women was necessary to save them from idle and empty lives, fit them for employment, and train them for harmonious marriages and the raising of children" (Lapidus 893). Therefore, the fact that Shahrazad is highly educated and serves as the narrator of The Nights defies the norms for Middle Eastern women of her time.

Stemming from her education and social status, Shahrazad exercises a form of bravery that also negates the stereotypical characteristics of Middle Eastern women during the time. To put *The Nights* into context, the political network of the Middle Eastern societies during the twelfth century was heavily based on of the "just actions of men." To explain, this meant that rulers believed that "they had

the knowledge, understanding, and moral qualities essential to implement the revealed law," while also obeying the law for themselves (Lapidus 183). Additionally, it was believed that only men had the right to be rulers, and thus, women were kept out of political affairs within society. Reiterating what was discussed earlier, until the nineteenth and twentieth centuries. Middle Eastern women held one of the lowest places within society. A woman's voice was not considered valuable, and therefore, was generally not permitted to be heard within society (Lapidus 183). By challenging the king through narration, Shahrazad is consciously trying to change the role of women in the eyes of the law.

Not only is Shahrazad acquitted with bravery, but her persistent actions symbolize how this bravery extends far beyond the capability of women of the time. When Shahrazad first introduces the idea of her sacrifice to her father, he tries his best to convince her to give up her plan. In fact, because he understands the likely consequence of

giving his daughter up to Shahrayar, the vizier quickly grows angry, calling Shahrazad foolish and telling her to "Desist, sit quietly, and don't expose yourself to peril" (1184). This scene clearly represents the vizier's thoughts on bravery as he pleads with his daughter to simply live her life and let someone else take care of this problem within the kingdom. Shahrazad's bravery does not sway, however, as she says, "Father, you must give me to him, even if he kills me...This is absolute and final" (1183). Shahrazad too understands the likelihood of what her plan could surmount to. The difference between herself and her father, though, is her willingness to sacrifice her own life to save others. With her education and wisdom. Shahrazad is potentially the only virgin living in the kingdom that understands how to go about changing the king's perception of women.

Additionally, in the scene describing the encounter between the vizier and Shahrazad, the first glimpse of Shahrazad's understanding of the power of voice is displayed. In one final attempt to convince his daughter not to give herself up to the king, the vizier tells Shahrazad two stories about what happens to people when they miscalculate their place in society. Shahrazad, though, is not effected by the stories and explains to her father what is going to happen if he does not grant her request:

Such tales don't deter me from my request. If you wish, I can tell you many such tales. In the end, if you don't take me to King Shahrayar, I shall go to him by myself behind your back and tell him that you have refused to give me to one like him and that you have begrudged your master one like me. (1186)

Here, Shahrazad's bravery extends into disobeying her father's wishes, despite his many authority and desperate attempts to change her mind. Clearly, Shahrazad understands the necessity of her actions and will not let anything, even her father's pleas, deter her from doing the right thing.

When Shahrazad is indeed handed over to the king, she begins to craft a narration so precise that is humbles the king and eventually, after many nights, changes his mind on several issues. In fact, Shahrazad's narration is such a unique,

persuasive technique that several critics spend time analyzing it. According to feminist Fedwa Malti-Douglas in her article "Shahrazad Feminist." Shahrazad "performs a critical role in changing the dynamics of male/female sexual relations. in redefining sexual politics. When she consciously takes on her shoulders the burden of saving womankind...she had taken on a much more arduous task: educating the ruler in the ways of a nonproblematic heterosexual relationship" (51). Rather than utilize the common strategies of men in power at the time, Shahrazad does not seek to lecture the king about his ways. Instead, through her narrative tactics. Shahrazad is trying to educate him. She understands the power of wisdom, and therefore, slowly and thoroughly teaches the king. Over time, her strategies make the king subconsciously reconsider his opinion, based on his reactions as the tales stretch on.

Because Shahrazad's bravery and education are so clearly represented through her voice, the actions of the king are sometimes forgetten. Yes, being given the role of

narrator is an uncommon opportunity for an Arab woman such as Shahrazad. And, through her meticulously thought out stories, it is not hard to tell that Shahrazad knows this too. Yet, what is even more curious is the way Shahrayar reacts to

Shahrazad's words. As a man of power, Shahrayar could have easily shut down Shahrazad's plan when she came to the abrupt ending of her story the first night, and killed her like the rest of the

virgins that came before her. And yet, he does not do this. Why?

In contrast to
Shahrazad, King Shahrayar
does not inhabit a persona
built on bravery. Whenever
his authority is challenged,
Shahrayar is so threatened
that he overcompensates,
typically resulting in an
extreme reaction like selfpity or murder. For instance,
when Shahrayar first learns of
Shahzaman's wife's betrayal

in the prologue of the tales, he immediately succumbs to an attitude of anger. Attempting to comfort his brother, Shahrayar says, "in my opinion, what happened to you has never happened to anyone else" (*The Nights* 1179). By saying this,



Lydia Bandstra, Acrylic paint, 11" x 15"

Shahrayar is making it seem like his brother has been treated in a way that no man could have ever experienced besides Shahzaman himself. Yet, when Shahrayar suddenly learns that he himself is in the same situation as his brother, his attitude swiftly changes to that of self-pity and loathing, saying "no one is safe in this world...Perish the world and perish life! This is a great calamity, indeed"

(1180). Because Shahrayar is now dealing with the same feelings of pain as his brother, within a very short amount of time, he assimilates this experience to all men and their relationships with women. Since, after all, Shahrayar is a king and

would never be treated this unjustly were it not an experience that all men had to suffer through. Therefore, instead of bravely facing his kingdom in strength throughout this period of dishonor,

Shahrayar cowers in defeat, declaring all women evil.

Some critics, like
Richard Van Leeuwen
discusses within his article
"The Canonization of The
Thousand and One Nights,"
believe that The Nights falls
flat in terms of opportunities
for character analyzation
and overall significance. For
instance, Van Leeuwen claims
that an analysis of The Nights
will only discover surfacelevel meaning:

The characters are puppets, they have no individual personality and the events are not the consequences of their decision, but rather of the vicissitudes of external fortune.

There is no appreciation of the deeper realities of experience within individual man, and no sense of "real tragedy" ...changes in fortune occur not through a direct effort of the hero, but as a result of coincidental circumstances. (106)

In this statement, Van Leeuwen suggests that the characters found within The Nights, such as King Shahrayar and Shahrazad, do not hold any significance outside of their normal, character routines. While Van Leeuwen poses an interesting argument, I must disagree with his thoughts. Had he analyzed the frame surrounding The Nights, Van Leeuwen would have better understood the goal of the stories included and thus recognized just how essential each character and his or her actions are to the overall effectiveness of The Nights. Perhaps it is not the goal of The Nights to include stories that make sense among society, but to challenge history. What if, by writing a text that is so different from traditional Middle Eastern

tales, the author of *The Nights* planted the seed for a political or gender movement? In fact, it is not the characters within Shahrazad's tales that are important, but rather, the king's reaction to them. For instance, the patience of Shahrayar after Shahrazad's initial tale signals that something is happening beneath the surface of the king's mind than what first glance displays. Had

Perhaps it is not the goal of *The* Nights to include stories that make sense among society, but to challenge history.

Shahrazad not specifically planned her story to do this, Shahrayar would not have reacted this way, and thus, *The Nights* would not have concluded with the pair living in harmony.

Apart from Van
Leeuwen, other critics
challenge character roles
within *The Nights* too,
specifically in terms of who the
true protagonist is. While it is

my argument that Shahrazad serves as the narrator first and eventually turns into the protagonist, not all scholars agree. According to the Peter Heath, "the issue at stake is indeed Shahrazad's life, but also that of Shahrayar. Besides, the central idea is now the restoration of the king's sound perception both of himself and of women" (qtd. in Enderwitz 3). To add to that, scholar Mia Gerhardt believes that "the readers, like the compilers, gradually forget Shahrazad and her plight, and concentrate all their attention upon the stories she tells" (qtd. in Enderwitz 194). While Heath's stance is correct about Shahrazad's focus resting on repairing the king's view of women, Shahrazad's own story is not less significant than Shahrayar's. With this said, Gerhardt's point is disproved. Even though a reminder of Shahrazad's role only happens when the tale of the night ends and the text once again reads "but morning overtook Shahrazad, and she lapsed into silence," her survival remains the overarching focus. In fact, according to Eva Sallis, "It is Sheherazade's life and

narrative power which are remembered long after we become hazy about the myriad details of the contents" (qtd. in Enderwitz 189). Without Shahrazad, *The Nights* becomes a story with no purpose or significance – just a combination of tales that seemingly do not connect. Therefore, while Shahrazad inhabits the role of narrator, her plan gives her the title of protagonist, too.

The reason so much emphasis within the tales resides on repairing Shahriyar's perception of women is due to Shahrazad's wisdom. Up until her entrance into the king's bedroom, the other women involved in the king's plan have been uneducated virgins; no one that could challenge the king. Shahrazad's knowledge, though, allows her to clearly think through the entire plan, and thus, she crafts a narration focused on addressing the king's thoughts and actions directly. Through her precise narration, Shahrazad shows her recognition that the plot of her stories needs to be mainly focused on molding Shahrayar's view on gender in a very specific way so as not

to upset the king. Some critics, however, believe Shahrazad's motives for narration are selfish. According to Fedwa Malti-Douglas in her article entitled "Narration and Desire: Shahrazad," "from Shahrazad's perspective, the frame becomes a 'time-gaining' technique, similar to other time-gaining or lifesaving acts of narration in the body of the Nights themselves" (11-12). While the method in which Shahrazad chooses to tell her story does increase the likelihood of her survival into the next morning, her main focus is not on saving her own life. From the very beginning of her plan, Shahrazad's goal has been to save the people first, and then herself. In fact, she tells the vizier, "Father, you must give me to him, even if he kills me" (The Nights 1183). Here, she recognizes the likely consequence of her action, but through her selflessness and dignified sense of bravery, she pushes her fears aside and vows to carry out her plan for the people. Shahrazad's method of storytelling is furthest from time gaining, it is a sacrifice a potential suicide mission. As a result, each night Shahrazad tells the king a bit

more of the captivating story she has constructed, peaking his interests and delaying her supposed death. Each portion of the story she tells has nothing to do with her own situation, yet, something about the tale always entices the king, allowing him to subconsciously reconsider his stance on women throughout the many nights Shahrazad spends with him.

The first story that Shahrazad tells to King Shahrayar is "The Story of the Merchant and the Demon." Exercising her wisdom, Shahrazad uses this story to plant a seed of doubt in the king's mind about mistakes - specifically his reaction to his wife's affair. For example, in this tale, a merchant accidentally kills a demon's son by throwing the pits of his dates on the ground. As a result, the demon immediately decides he must, in return, murder the merchant in order to avenge his son's death saying, "I must kill you as you killed him – blood for blood" (1187). Shahrazad goes on to describe the merchant and the demon arguing back and forth as the merchant pleads for his life. Consequently, that first night ends with the

story hanging in limbo - the demon's sword raised and ready to strike down the merchant, but no inclination of whether he will.

Shahrazad tells this initial story because of who the fictional characters inside represent. Here, there are two characters with opposite statuses: the demon represents the power of the king, and the merchant represents the helplessness of women, both found in the situation of the king's late wife and the kingdom's virgins. Similar to the demon, King Shahrayar believed he had to kill his wife in order to compensate for her betrayal. Immediately upon finding out about her actions, Shahrayar uses his power to murder her rather than question her about her motives. Additionally, like the demon, Shahrayar's mind is so hardened to the idea of trusting someone of a lower status, in this case women, that he immediately disregards any reasoning his wife might have to behave the way she did. Unlike the demon, though, Shahrayar acts quickly and not once falters in his decision to murder his wife. In fact, he goes so far as to vow to then

sleep with a virgin each night before killing her the next morning. On the other hand, the merchant represents the helpless women within the kingdom. Like the merchant, Shahrayar's late wife was accused of doing something to hurt someone in power, and the result was murder. More importantly though, the merchant represents the helpless virgins whose fate has been told to them countless times and yet, they cannot do anything about it.

There is a difference between the king's situation and the fictional characters' situation, though. By telling this specific story, Shahrazad is teaching Shahrayar what it looks like to exercise true wisdom and bravery. Instead of immediately killing the merchant, the demon listens to his pleas and in the end, gives the merchant one year to say good-bye to his family. The demon did not know if the merchant would actually return, and yet, he chose to grant the man's request anyway. When Shahrazad ends the tale unconcluded and with no hint as to what might happen next, the king is captivated, "burning with curiosity to hear the rest of

the story" (1188). Although Shahrazad used a simple method of metaphorical storytelling, the king yearns to hear the conclusion of the story, meaning that something within Shahrazad's words has penetrated his hardened heart. In fact, the king is so consumed by the story that the first thing he asks of Shahrazad the next night is for the conclusion to the story of the demon and the merchant.

Additionally, the first act of bravery displayed by a man is found inside of this first tale that Shahrazad uses, also represented by the merchant. Subtly, Shahrazad brings up the issue of bravery by introducing several fictional male characters in this story alone that inhabit this persona. For example, although the demon immediately tells the merchant he must kill him after he finds his son dead, the night does not end in another death. Instead, the merchant refuses to give up on his life and pleads for forgiveness. Here, the merchant represents a man of bravery because of the sense of humility he displays as he recognizes his mistakes and humbly asks

the demon for forgiveness. Had the merchant cowered in defeat, much like King Shahrayar, the outcome would have likely been his death. Instead, though, the merchant displays his knowledge of the power of voice, pleading with the demon to at least give him a chance to say farewell to his family. Then, a furthered sense of bravery is displayed by the merchant when, after one year, he willingly decides to return to the demon's home. When this time comes, the merchant's family is tormented by sadness, but still he keeps his promise. "He said to [his family], 'Children, this is God's will and decree, for man was created to die.' Then he turned away and, mounting his horse, journeyed day and night until he reached the orchard on New Year's Day" (1189). Understanding the importance of bravery, the merchant remains faithful to his promise, even though he could have easily hidden himself in his home and forgotten about the demon.

It is no surprise that male bravery does not show up in *The Nights* until Shahrazad's fictional tales. The purpose of Shahrazad's character, the merchant, centers around the idea that bravery is not gender or class specific, but rather depends upon personality, wisdom, and overall faithfulness. Additionally, Shahrazad is quite precise about the way she introduces the idea of pure

King Shahrayar represents a generation of men who believe that...female importance is non-existent outside of the bedroom.

bravery to King Shahrayar. Had she outright belittled the king's bravery, or, used any sort of female character within her story, her point would not have been made. King Shahrayar represents a generation of men who believe that their lives matter more than others, that power is everything, and that female importance is nonexistent outside of the bedroom. The king cannot be challenged by a woman outright, nor will he be accepting of accusations pulled from a real-life event because of

his power. Therefore, the only way to get Shahrayar to relate to a story was for Shahrazad to use fictional male characters. Shahrazad displays her awareness of her specific audience through the stories she uses, and the order of which she tells them. Additionally, because Shahrazad knows how difficult it will be to change the king's view, her bravery is further demonstrated as she decides to take on the challenge anyway.

For the rest of *The Nights*, Shahrazad exercises this method of oral storytelling, which in turn displays her sense of wisdom. In fact, Shahrazad seems to have picked the perfect strategy necessary to execute her plan of saving the people. According to Enderwitz:

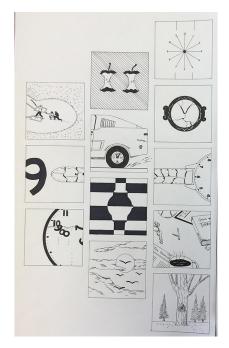
a speech in a way of a theologian or philosopher would have been useless [for Shahrayar]... He was in need of a knowledge that is supplied only by experience and literature, a knowledge comprising human totality, body, soul, sentiment... Therefore, Shahrazad instructs by way of narration. (qtd. in Enderwitz 196)

Each night, Shahrazad adds an aspect to her story that subtly furthers the king's

interests and changes his mind through education. For example, it takes Shahrazad eight full nights to finish her initial tale because of the caution she takes when introducing each new character and his story to the king. Had she taken another, perhaps quicker, approach, Shahrayar's domineering personality would not have been accepting of her ways, resulting in death come sunrise. Here, Shahrazad presents her understanding of the key relationship between storytelling and politics, which, in harmony, can translate into power. According to Melissa Matthes, "a skillful narrative invites the listener into its world, forming a bond of engagement between the two. A story can also bring forward the assumptions buried in apparently neutral arguments and challenge them" (79). Shahrazad does just this in her mode of storytelling, inviting the king, without his realization, to rethink his assumptions of women through her use of fictional characters living in an imaginary world. And, because of this "skillful

narration," by the end of *The Nights*, Shahrazad succeeds in changing the king's opinion and ultimately, enables him to fall in love with her.

Apart from Shahrazad, another woman should



Ian Meentemeyer, pen and ink, "Watch" (1)

be recognized for bravery and wisdom in The Nights: Dinyazad. Each night Dinyazad continuously reminds Shahrazad of the importance of timing, and keeps the king curious based on her own interest in the continuation of the tales. Although her role within the tales only makes an appearance when dawn and dusk arrive, the outcome where Shahrazad lives and the king has fallen in love would not have happened.

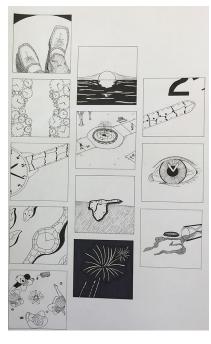
From the beginning of *The* Nights, Shahrazad recognizes the importance of Dinyazad's presence in the bedroom. She tells Dinyazad, "When I go to the king, I will send for you, and when you come and see that the king has finished with me, say, 'Sister, if you are not sleepy, tell us a story.' Then I will begin to tell a story, and it will cause the king to stop his practice, save myself, and deliver the people" (The Nights 1186). Rather than allow the burden of saving the women of the kingdom to rest solely on her own shoulders, Shahrazad splits the weight between herself and Dinyazad. Here, Shahrazad shows understanding for the power of voice combined with the power of women as she incorporates her sister into her plans.

Shahrazad and
Dinyazad represent the
spectrum of women found
within *The Nights*. For
instance, while Shahrazad is
described as having a lengthy,
scholarly education, not once
is Dinyazad's wisdom or
importance mentioned prior
to the tales. Additionally,
Dinyazad's sole purpose
within the story seems to rest
in the hands of her sister. Had

Shahrazad not called upon Dinyazad, there mostly likely would not have been any mention of her. Yet, despite her lack of education or worldly awareness, Dinyazad immediately submits to Shahrazad's request when she is asked to participate in her plans, replying with "Very well" (1186). In fact, even though Dinyazad likely understands the role of women within her society, not once does she question Shahrazad's motives. In her own way, Dinyazad serves as the heroine of The Nights. Dinyazad's role within Shahrazad's tales is so important that without her voice, each night would not begin, nor would each morning end. Patiently, Dinyazad sacrifices her time to wait in the bedroom night after night, only revealing herself when necessary to push that night's tale further along. In this way, Dinyazad watches over her sister, making sure that the plan is progressing accordingly. Dinyazad keeps Shahrazad conscious of her purpose, and how effective voice can be when appropriately timed and utilized.

Few scholars have

taken the time to dissect
Dinyazad's role within
Shahrazad's tales, but it is
my belief that a complete
feminist analysis of *The Nights*cannot be done without
acknowledging her. For



Ian Meentemeyer, pen and ink, "Watch" (2)

example, Enderwitz describes the sisters' relationship as dependent upon each other for survival: "the privileged and emancipated Shahrazad... cannot free herself as long as the poor, uneducated, and veiled Dunyazad in her traditional setting remains in subjugation or...that the freedom of the former is at the expense of the latter" (198). What Enderwitz argues here is that had Shahrazad's plan failed, Dinyazad would have likely died alongside her.

While I agree with Enderwitz's idea, I would argue that she is missing an essential component of Dinyazad and Shahrazad's relationship. Like Shahrazad, Dinyazad consciously lays down her life to serve others by agreeing to her sister's request. However, is Dinyazad's sacrifice not more crucial than Shahrazad's? Because Dinyazad is not used by King Shahrayar for anything inside of the bedroom, does her life not hang in limbo the entire time that Shahrazad speaks? For example, were the king to disagree with and lash out at part of Shahrazad's tales, Dinyazad's life would likely be the first to feel the brunt of his anger, rather than Shahrazad. To explain, the entire time the sisters spend in Shahrayar's bedroom, Dinyazad's life is completely disposable. She serves no purpose outside of the plan, such as a sexual partner or storyteller, and therefore, could easily be killed by Shahrayar. Additionally, without Dinyazad's involvement, the plan would not have taken off in the first place. The success of The Nights is directly contingent upon the character Dinyazad, not Shahrazad. Although it is Shahrazad's voice that propels us through tale after tale, it is

Dinyazad who opens the door to

allow her to do so. There is not one brave woman within *The Nights*, but two.

Overall, in this essay I have argued that the role of Shahrazad extends beyond the simple title of narrator. Through her actions, Shahrazad displays a sense of bravery and wisdom that extends beyond the characteristics of a Middle Eastern woman during the twelfth century. As she utilizes precise narrative techniques, Shahrazad educates King

Shahrayar about his incorrect perception of women, ultimately changing his views by the end of The Nights. Additionally, through the analysis of King Shahrayar himself, I have come to the conclusion that Shahrazad's actions are not and could not be replicated by any human man found within *The Nights*. Through her display of bravery and wisdom, Shahrazad transforms The Nights into an educational lesson for the king, and through this

method, ends up saving both herself and the people of the kingdom. Therefore, even though Shahrazad is seen as only the narrator, her stories propel her into the role of protagonist, too, making her own tale more significant than the many she tells to the king. Finally, I have discussed the too-often-ignored importance of Shahrazad's uneducated sister, Dinyazad, claiming that without her extraordinary sacrifice, Shahrazad's voice would never have been heard by the king.

Works Cited

- Enderwitz, Susanne. "Shahrazâd Is One of Us: Practical Narrative, Theoretical Discussion, and Feminist Discourse." *The Arabian Nights in Transnational Perspective*, edited by Ulrich Marzolph, Wayne State UP, 2007, pp. 261-275.
- Lapidus, Ira M, and Rogers D. Spotswood Collection. *A History of Islamic Societies*. Cambridge Cambridgeshire, Cambridge University Press, 1988.
- Lewis, Bernard, and Rogers D. Spotswood Collection. *The Middle East: A Brief History of the Last 2,000 Years.* New York, N.Y., Scribner, 1995.
- Malti-Douglas, Fedwa. "Narration and Desire: Shahrazad." Woman's Body, Woman's World. Princeton, NJ. Princeton University Press, 1991.
- -----. "Shahrazâd Feminist." The Arabian Nights Reader, edited by Ulrich Marzolph, Wayne State UP, 2006, pp. 342-64.
- Matthes, Melissa, "Shahrazad's Sisters: Storytelling and Politics in the Memoirs of Mernissi, ElSaadawi and Ashrawi," *Alif: Journal of Comparative Poetics*, vol. 19, no. 19, 1999, pp.68–96.
- "The Thousand and One Nights," *The Norton Anthology of World Literature*, edited by Martin Puchner, shorter 3 rd ed., vol. 1, W. W. Norton & Company, 2013, pp. 1176-1197.

Flash of Lightning, Sprig of Lilac: Representations of Nature in Walt Whitman's War Poetry



Hannah Marcum

ENGL-425: Seminar in Literary Studies

I enjoyed the development and detail of "Flash of Lightning, Sprig of Lilac: Representations of Nature in Walt Whitman's War Poetry" as Hannah explores Whitman's multi-faceted imagery of war and relates it to Kant's Critique of Judgement and the theory of the sublime. Hannah is an insightful reader of both the original poetry and philosophy as well as secondary criticism. In addition, her voice engages the reader with nuances of words and ideas. It is a pleasure to read Hannah's prose. —Mary Stark

Aroused and angry,

I thought to beat the alarum, and
urge relentless war;

But soon my fingers fail'd me,
my face droop'd, and I
resign'd myself.

To sit by the wounded and sooth them, or
silently watch the dead.
-epigraph to Drum-Taps (1871)

Walt Whitman never understated the significance of the Civil War on his poetry. The sixth verse in *Leaves of Grass* (1891-2), titled "To Thee Old Cause," dedicates the volume to a "peerless, passionate, good cause," declaring, "These recitatives for thee,—my book and the war are one" (2, 15). This declaration signals the inclusion of two central sections of Leaves—Drum-Taps and Memories of President Lincoln—with poems that span the length and breadth of the war both chronologically

and thematically. Several prominent scholars have employed these sections in tracing the turbulent war years; Whitman, like every American, was profoundly changed by the five years of fighting.² His transformation climaxed in December of 1862, when the news of his brother George's injury in battle drove him to Washington, D.C. (Loving 67). It was there his famous service as a war nurse began with the new year, providing the inspiration for celebrated portions of Drum-*Taps.* Jerome Loving relates this perspectival change:

Although Whitman was slow to engage emotionally in the war effort, these kinds of experiences made it impossible for him to ever retreat from it again. For the poet the Civil War became a marriage ceremony of sorts—between him and his country—and his poignant

wartime poems in *Drum-Taps* (1865) a betrothal and a spiritual renewal.

(68)

As Loving intimates, Whitman's personal experience of the war was, in the beginning, at a far remove from his poetic experience, but the two approaches met and finally converged late in the war, as seen in the shift from the optimistic, belligerent "recruitment" poetry that begins Drum-Taps to the more subdued and reflective "battlefield" poetry at its center. Ending with poems like "Reconciliation," followed by Memories of President Lincoln in the deathbed edition of Leaves of Grass, the final project of *Drum-Taps* is that of synthesizing Whitman's "book and the war," that is, his overarching politicalpoetic vision for America and

the effects the Civil War had on its feasibility. The war changed America, to be sure, but in these postbellum works Whitman seems to be asking, 'Did it change *my* America?'

While rooms could be filled with scholarly work on Whitman's Civil War

experience,
my approach,
informed by
ecocriticism,
studies his welldocumented shift
in perspective
through the
nature imagery
he employs in
Drum-Taps and
Memories of

President Lincoln.

By his own account, as M. Jimmie Killingsworth notes, Whitman was "drawn out of nature and into history" at the start of the war (ch. 5). Early poems of *Drum-Taps* are often cited to exemplify Whitman as urban poet or political poet, and the thematic foci of these works stray from his earlier meditations on the natural world.3 However, I find the prolific use of natural metaphor in these poems provides an environmental framework for contrast with his battlefield poetry,

which places poet and reader intimately within the natural world, as well as those works from before and after the war, where nature is a more explicit participant. In its mirroring of the political framework of Whitman's war poetry, this ecopoetic reading uncovers



Ashley Maley, Acrylic paint, 11 x 15"

the tensions and attempted reconciliations within.

Guiding my study, alongside the work of Whitman critics, is the aesthetic philosophy of Immanuel Kant. In his 1790 Critique of Judgement, Kant treats "those judgements, called aesthetic, which concern the beautiful and the sublime in nature or in art" (169). Beauty, he clarifies, is specifically tied to judgements of taste, which originate in pleasure due to a sense of

formal purposiveness of an object. Sublimity, on the other hand, arises from "an intellectual feeling" that is not necessarily pleasurable nor connected to an object's purposiveness (192). In an earlier work, Kant had made the clearer distinction that

"the sublime moves us, the beautiful charms us," and in the Critique, he systematizes the effects of these forces of charming and moving (245, note 4). In the 18th century, discussion of the sublime was relatively new to the study of

aesthetics, and Kant's parallel treatment of the beautiful and sublime in nature and art provides a vocabulary for unpacking these themes in Drum-Taps. Harold Bloom has long identified Whitman's poetry as sublime, writing in 1976 that "Song of Myself" remained "the greatest instance yet of the American Sublime" (Miller xxvi). Intensifying this view more recently (2016), he equates Leaves of Grass with "the American Sublime" itself, "incarnated in a book that is

also a man" (Bloom 23). While Bloom's verdict on *Leaves* is compelling, I explore both the beautiful and the sublime in *Drum-Taps*, particularly the way they diverge and dovetail in Whitman's use of natural imagery to depict watershed moments of the war, from his own move to Washington, D.C. to the assassination of President Lincoln.

"Deeps More Unfathomable": The Sublime War

Is war natural? Generally, we understand this philosophical question in anthropocentric terms, asking whether it is natural for humans to go to war with each other. To augment this inquiry, some authors explore the question literally—that is, ecologically—by posing or juxtaposing the world of war with the natural world. When a shell destroys a farmhouse, the arrator in Ambrose Bierce's "Chickamauga" (1891) describes the cries of a young child as "something between the chattering of an ape and the gobbling of a turkey--a startling, soulless, unholy sound, the language of a devil." Such a description not only erases

the humanity of the child, but replaces it with a supernatural and completely alien image. Bierce's descriptive mode is typical of naturalism, a representation of the universe as utterly indifferent to the dealings of humans, which gained traction as American writers witnessed the perceived purposeless violence of the Civil War. While Whitman, who observed that violence firsthand, writes during the shift to naturalism, his poetic depictions of the natural world in and around Drum-Taps do not follow it. Significant changes do occur in this regard, suggesting that Whitman faced the same doubts as his contemporaries, but after the war, he remained true to the older tradition of transcendentalism and its more benevolent portrait of the universe.

To contextualize
Whitman's war poetry, a
momentary glance at the
indiscrete 1855 edition
of Leaves of Grass offers
the clearest picture of his
antebellum style. Political
tensions were already high;
Whitman himself underwent
a switch from Democrat to
Republican around 1854 as
the former party intensified

their pro-slavery stance and Abraham Lincoln gained prominence in the latter (Reynolds 149). Still, Stephen John Mack notes that the in first edition of Leaves, Whitman had "conflated history and nature. He had invested historically contingent, laissez-faire Jacksonian America with the authority of unalterable but benign nature" (ch. 6). The first edition of Leaves introduces the poet's meditation on this early conception of nature among his characteristic catalogs of his environment near and far:

I believe a leaf of grass is no less than the journeywork of the stars,

And the pismire is equally perfect, and a grain of sand, and the egg of the wren,

And the tree-toad is a chef-d'ouvre for the highest,

And the running blackberry would adorn the parlors of heaven,

And the narrowest hinge in my hand puts to scorn all machinery (662-666)

Here, a focus on the small and prosaic demonstrates Whitman's early approach to the natural world. He favors the close and casual, the intimate and "benign," over the lofty grandeur of more traditional romantic poetry. The microcosm he portrays admits no note of discord. Alongside it, however, in what will eventually become the pivotal thirty-third section of "Song of Myself," Whitman prophecies, "We are about approaching some great battlefield in which we are soon to be engaged, / We pass the colossal outposts of the encampments.... we pass with still feet and caution" (810-811). Five years before the Civil War's onset, Whitman already has a belligerent side; he fills several subsequent pages with lines recounting the 1836 Battle of the Alamo and imagining similar future scenes.4 Fifteen years later, it would become Whitman's central task in Drum-Taps to reexamine his conflation of history and nature in light of the thoroughly historical war (Mack ch. 6).

"Colossal" is
Whitman's chosen adjective
to describe the military
outposts he envisions in
the lines above, a term
which German philosopher
Immanuel Kant in his *Critique*of Judgement defines as "the
mere exhibition of a concept
if that concept is almost too

large for any exhibition" (253). This is not to suggest the outpost per se physically exceeds our capacity to comprehend it—rather that it connotes the connection between Whitman's war imagery and Kant's aesthetic philosophy.5 Kant was among the first to delineate an aesthetic contemplation of the "sublime," which refers to a quality of greatness beyond measure that evokes the strongest sense of awe conceivable (244).6 This goes beyond the merely beautiful, which naturally attracts us, to a "liking incompatible with charms, and, since the mind is not just attracted by the object but is alternately always repelled as well, the liking for the sublime contains not so much a positive pleasure as rather admiration and respect" (Kant 245). "This Compost" contains one of Whitman's most famous depictions of the aesthetic sublime: "Now I am terrified of the Earth, it is that calm and patient, / It grows such sweet things out of such corruption, / It turns harmless and stainless on its axis, with such endless successions of diseas'd corpses" (42-44). Any such scene to which we are simultaneously drawn by its magnificence and paralyzed by its power exemplifies the sublime. A poem near the beginning of *Drum-Taps* starts with a description of such vehemence:

Rise O days from your fathomless deeps, till you loftier, fiercer sweep,

Long for my soul hungering
gymnastic I devour'd what
the earth gave me,

Long I roam'd the woods of the north, long I watch'd Niagara pouring,

I travel'd the prairies over and slept on their breast, I cross'd the Nevadas, I cross'd the plateaus,

I ascended the towering rocks along the Pacific, I sail'd out to sea,

I sail'd through the storm ("Rise O Days from Your Fathomless Deeps" 1-6).

Now, in place of the tree-toad and wren, stand pouring Niagara and towering coastal rocks. Citing these lines, Michael Moon identifies a "naturalistic view that good and evil are compounded in all reality" in Whitman's "references to the violence inherent in nature" (*Leaves* 245, note 7). Recognizing this inherent violence brings closer Whitman's natural

aesthetic to that put forth by Kant. In other words, when his subject matter first turns to the war, Whitman's natural imagery turns to the sublime.

War is sublime thus Kant conceives it, "if it is carried on in an orderly way and with respect for the sanctity of the citizens' rights. [...] A prolonged peace, on the other hand, tends to make prevalent... base selfishness, cowardice, and softness" (263). Kant believed that just and "orderly" war was capable of bringing out what is selfless and strong in men. Whitman, in the fiercely nationalistic recruitment poetry that begins *Drum-Taps*, appears to agree. As Betsy Erkkila notes, he "envisions the war as a dramatic means of drawing the people away from their self-interested pursuit of business as usual toward the republican values of patriotism, sacrifice, and courage" (196). This is readily visible in the first poem of Drum-Taps:

How you sprang—how you threw off

the costumes of peace with indifferent hand,

How your soft opera-music

changed,

and the drum and fife were heard in their stead, How you led to the war, (that shall serve for our prelude, songs of soldiers,)

How Manhattan drum-taps led. ("First O Songs for a Prelude" 7-10)

This hymn to the marching soldiers of Manhattan echoes Kant, describing a distasteful peace in order to heighten the glory of war. Accordingly, Whitman eschews his earlier focus on small, peaceful images of nature, combining sublime scenes in the natural world with unbarred praise of Union troops in the intense climax of "Rise O Days:" "Lo! from deeps more unfathomable, something more deadly and savage, / Manhattan rising, advancing with menacing front-Cincinnati, Chicago, unchain'd" (25-26). Then, in a decisive move that unites nature poet with politic, he exclaims, "How Democracy with desperate vengeful port strides on, shown through the dark by those flashes of lightning!" (30). This fervent treatment of both the war and the natural world permeates the eight or so recruitment poems that begin Drum-Taps. Kant writes that in apprehending the beautiful, the mind is in "restful contemplation," but when

presented with the sublime it is "agitated" by "a vibration...a rapid alternation of repulsion from, and attraction to, the same object" (258). In 1855's Leaves of Grass, Whitman championed a view of nature bathed in restfulness, but in the early poems of Drum-Taps, his agitation is clear through nature's agitation.

The recruitment poetry is often singleminded in its attraction to sublime scenes, but moments of repulsion appear throughout. One such moment occurs in "Song of the Banner at Daybreak," advertised in 1861 but not published until its appearance in *Drum-Taps* (Genoways 83). Whitman writes a dialogue in which he intends to "dramatize the threat of secession by lending each view its own voice: the voice of the poet, the voices of father and son, and the voices of the banner of America and the pennant of war" (Genoways 83-84). The banner and pennant, speaking as one, exhort the human characters to "fly in the clouds and winds" with them, and while the poet and child are persuaded by its sublime presence, the father's voice is contrastingly

cautious (24). He tells his son, "It is to gain nothing, but risk and defy every thing, / Forward to stand in front of wars—and O, such wars! what have you to do with them? / With passions of demons, slaughter, premature death?" (102-104). His son does not speak again, so the questions are left hanging, followed only by the banner's countering retort, "Demons and death then I sing," (105) and the poet's "haughty and resolute" hymn of allegiance (122). Genoways characterizes Whitman's "strongly prowar stance" in this poem as "strikingly radical" (84), while Erkkila calls it "emphatically Union" in its commitment to a unified nation, yet notes that "one hears the dissenting voice of doubt that would come to dominate later war poems" (195). The "poet" in "Banner at Daybreak" may be a patriot, but the same man also penned the questions posed by the father, which cast doubt upon not only the purpose of war but also its place in nature. Aligning war with "demons, slaughter, [and] premature death" complicates a straightforward understanding of its naturalness and leaves the sublime natural symbolism of *Drum-Taps* tainted by strangeness.

"Cold Dirges of the Baffled": The Personal War

A heap of severed limbs met Walt Whitman when he stepped off the train at Washington, D.C. in December of 1862 (Loving 67). This debris marked the site of the Battle of Fredricksburg, which had ended the week before in a controversial Confederate victory. Walt was on a familial mission to locate his brother George Washington Whitman, who had been superficially wounded in the battle (Loving 67). At the army hospital where he found his brother recovering, Whitman first observed the nightmarish reality of the Civil War, which he described as "...the marrow of the tragedy concentrated in those Hospitals...those forming the Untold and Unwritten History of the War" (Memoranda During the War 5). As Erkkila puts it, Whitman in Washington, D.C. came face to face with "America not as union but amputee, the heritage of the fathers not remembered but dismembered" (198). After nearly three years of war, the assured battle

cries of the north, epitomized in Whitman's recruitment poetry, had fallen silent. The fighting showed no signs of slowing and the nation was, ironically, united in its restlessness. It was in this climate at the hospital opposite Fredricksburg that the proud poet of democracy chose to adopt a new name. He did not return home again during the war, but stayed in the capital to write of and directly tend to, as he told Emerson, "America, already brought to Hospital in her fair youth—brought and deposited here in this great, whited sepulchre of Washington itself" (Correspondence 68). He became both nurse and historian; he became the "wounddresser."

The shift of December 1862 on Whitman's perspective was one primarily of proximity. Instead of hearing news of the war from letters and newspapers delivered to him in his sequestered New York home, Whitman was near the front lines, observing firsthand the mutilated bodies in all their humanity. This same consideration of distance tempers our appreciation of the sublime, Kant argues,

because sublimity "carries with it the idea of...infinity" in what we perceive, yet we are unable to fully apprehend this magnitude from either too close or too far away (255). This demonstrates that sublimity, to a degree, is subjective; it exists "not so much [in] the object as the mental attunement in which we find ourselves when we estimate the object" (256). Among other factors, judging a thing "sublime" depends on the proximity of the viewer in relation to the object. If one were in a rowboat being tossed upon a stormy sea, one would be very little likely to sit back and appreciate the aesthetic magnificence of the waves. When he stepped off the train at Fredricksburg, one might say, Whitman climbed into that rowboat. Without the comfortable cushion of distance, he could no longer celebrate the military sublime. As shown above, the father's voice in "Song of the Banner at Daybreak" is an early whisper of uncertainty in regards to the war that surfaces in Drum-Taps.7 Similar traces of doubts arise in several of the next pieces, often in voices other than the poet's own. In

"The Centenarian's Story," it is the old Revolutionary veteran, modeled on George Washington, who cries "It sickens me yet, that slaughter!" and reflects that the battle he was part of had "[n]o women looking on nor sunshine to bask in, it did not conclude with applause,

Without the comfortable cushion of distance, he could no longer celebrate the military sublime.

/ Nobody clapped hands here then" (64, 76-77). The explicit absence of light—the next line mentions "darkness," mist," and a "chill rain" (78) overshadows the lightningflashes of the recruitment poems. Closely following this piece, "Come Up from the Fields Father" relocates the horrors of war to a familiar farm-home setting, with "apples ripe in the orchards" and "grapes on the trellis'd vines," where a recent rain has left "the sky so calm" and the farm "vital and beautiful" (6; 9-10). In this setting, full of life, the family receives

word of a wartime tragedy:
"While they stand at home at
the door he is dead already,
/ The only son is dead" (3031). That is he the "only son"
dooms the farm as well as the
family, both left without an
heir. After this despondent
point in *Drum-Taps*, Whitman
adopts the subdued and
contemplative tone of a man
trying to make sense of the
destruction surrounding him.

This effort is perhaps best exemplified in the poem "Vigil Strange I Kept on the Field One Night," a piece Moon describes as "a monologue both lyrical and dramatic...artfully controlled and profoundly felt" (*Leaves* 255, note 6). Whitman's poetic "I" recounts a night spent mourning the loss of a young boy on the battlefield. At sunrise, the elegy ends:

And there and then and bathed by the rising sun, my son in his grave, in his rude-dug grave I deposited,

Ending my vigil strange with that, vigil of night and battlefield dim,

Vigil for boy of responding kisses, (never again on earth responding,)

Vigil for comrade swiftly slain, vigil I never forget, how as day brighten'd,

I rose from the chill ground and folded my soldier well in his

blanket, And buried him where he fell. (21-26)

Not drums nor storms accompany this "strange" image of war, but language of intimacy and love. Before entering the hospitals at the front, as M. Wynn Thomas explains, Whitman had been drawn to "what affects man in masses'—by which [he] meant not just size of the armies involved but what the size signified...a whole society mobilized for the first time in history" (97). During this vigil, the poet cares not for the *levée-en-masse* of either side, but for the singular body and soul of the soldier he loved. The sublime war at that moment disappears, along with its magnificent imagery. A "rude-dug grave" forms the setting for this somber, personal elegy. Even as the narrator buries his fallen 'son.' the 'sun' rises and illuminates the scene in new light. This juxtaposition marks another change that occurs within *Drum-Taps*: the mismatch of nature imagery with mood. Whereas in his recruitment poetry the martial tone and vast natural landscapes heightened each other, here

the beauty of nature and the ugliness of the front lines undermine each other. The poet claims as much in "Year That Trembled and Reel'd Beneath Me," a six-line lament which Moon suggests refers to 1863-4 (*Leaves* 259, note 2):

Year that trembled and reel'd
beneath me!
Your summer wind was warm
enough, yet the air I
breathed froze me,
A thick gloom fell through the
sunshine and darken'd me,
Must I change my triumphant
songs? said I to myself,
Must I indeed learn to chant the
cold dirges of the baffled?
And sullen hymns of defeat? (1-6)

Without answering his own questions, Whitman shows that nature, in its unaffected way, answered for him by continuing on in warmth and beauty as the war became ever colder and uglier. Mack argues that "given the poet's previous reliance on the perfect correspondence between nature and the ideal, the problem of a violent and unacceptable reality first presents itself to the poet as an anomaly, a failure of correspondence" in this poem (ch. 6). "Year That Trembled" is perhaps the

nearest Whitman comes to affirming naturalism as his contemporaries do. But his poetic depiction of nature is yet sympathetic to the human condition.

To that end, the image of motherhood is important in Whitman's exploration of war and the natural world in Drum-Taps. As the father in "Song of the Banner at Daybreak" voices doubt about the war, the mother figure voices another perspective elsewhere. For instance, the "Mother of All" in "Virginia—The West" asks, "with calm voice speaking, / As to you Rebellious... why strive against me, and why seek my life?" (9-10). Whitman's invocation of the "Mother of All" first represents his unified vision of the nation against which the Confederacy is fighting.8 In addition, as in other sections of Leaves of Grass, the mother also traditionally represents the earth.9 When war is understood as unnatural, a "struggle against death" in Killingsworth's words, it must also be understood as un-maternal, a "parallel struggle against the earth"

(ch. 4). America-as-mother and Earth-as-mother are both endangered by the war. Whitman satirizes the threat of division by secession in "Virginia—The West" as a vivisection with an "insane knife" (4). The threat to

Mother Nature is more subtly suggested in the final stanza of "Come Up from the Fields Father," where the grief of a farmwife mourning her son's death in battle causes the speaker to

lament, "O that she might withdraw unnoticed, silent from life escape and withdraw, / To follow, to seek, to be with her dead son" (36-37). Flourishing natural imagery in the second and third stanzas of this poem provide a sharp contrast with the final bleak image of double death.10 Neither iteration of the mother fears for herself; each reticently accepts that the war will devalue her life in pursuit of a seemingly worthier goal. The Confederacy's goal of secession outweighs the value of America as a Union; both

sides' pursuit of victory at the cost of any, or every, life undermines the value of nature as an organic whole. The somber characterization of the mother figure in *Drum-Taps* signals her preparation to be, if needed, foremost



Madeline Wagner , Acrylic paint, 11" x 15"

among the war's martyrs (9).

In an attempt to avoid the martyrdom of nation and nature, and to synthesize the themes of *Drum-Taps* thus far, Whitman hearkens to the same image in "Over the Carnage Rose Prophetic A Voice:" "Sons of the Mother of All, you shall yet be victorious, / You shall yet laugh to scorn the attacks of all the remainder of the earth" (5-6). His vision of a nation reunified by "affection" is coupled with a prophecy of the reunification of tone

with natural imagery (2): "To Michigan, Florida perfumes shall tenderly come, / Not the perfumes of flowers, but sweeter, and wafted beyond death" (12-13). From his vantage point near the front lines, Whitman attempts

to realize these harmonies through becoming the poet of reconciliation.

"Beautiful as the Sky": The Reconciliation of War and Nature

In addition to the plethora of political implications it

brought about, the Civil
War ushered in a new style
in American literature—
effectively curtailing
romanticism and its offspring
transcendentalism—which
Erkkila claims affected Walt
Whitman as it did others:

The changes wrought by the war... had the effect of jolting literary
America out of romance and into realism. If in the prewar period
Whitman had viewed himself as a poet-prophet, mythically embodying democracy and the revolutionary traditions of the past, during the war years he came to see himself as a kind of poet-historian, preserving a record of the present moment for

future generations. (205)

The war poetry acts as something of a microcosm of Whitman's career: in the recruitment poetry, we see him as poet-prophet, while in his battlefield poetry from Washington he embodies the poet-historian. At the end of the war, Whitman first reconciles these two personas before he moves on to his chosen task of reconciling the nation. In his post-war poetry, he is at once historian and prophet, at once mourner and healer. Above all, as Thomas tells us, "Whitman greeted the ending of the war" with "tones of reconciliation" (95). Though the literary scene was changing around him, Whitman's political vision as the poet of democracy and of the Union emerged unscathed, even strengthened, as he wrote in Memoranda During the War: "Before I went down to the Field, and among the Hospitals, I had my hours of doubt about These States; but not since. [...] And curious as it may seem the War, to me, proved Humanity, and proved America and the Modern" (59). As Kant claims, war here provides a setting conducive to evoking the

best in human nature. This is a particular effect of the sublime, which Kant writes "raise[s] the soul's fortitude above its usual middle range and...gives us the courage to believe that we could be a match for nature's seeming omnipotence" (261). Whitman characteristically wishes to

In his post-war poetry, he is at once historian and prophet, at once mourner and healer.

reconcile this understanding of the soul's fortitude in war, reminiscent of his recruitment poems, with the more subdued tones of his battlefield writings. The war "proved Humanity" at its most sublime, while at other moments it "proved" Whitman's conception of nature as beneficent and beautiful.

In the final poems of *Drum-Taps*, as well as the subsequent *Memories of President Lincoln*, Whitman estranges himself from Kant and from the naturalists, who would agree with the

philosopher that nature "in its chaos...most arouses our ideas of the sublime, or in its wildest and most ruleless disarray and devastation" (246). Kant places the sublime in opposition to the beautiful; naturalism places nature itself in opposition to the beautiful insofar as beauty requires some kind of order or design to exist, as Kant argues.11 But Whitman returns precisely to the beautiful that which is bounded and purposeful—and the natural in "Reconciliation": "Word over all, beautiful as the sky, / Beautiful that war and all its deeds of carnage must in time be utterly lost, / That the hands of the sisters Death and Night incessantly softly wash again, and ever again, this soil'd world" (1-3). In a conception characteristic of Whitman, he claims it in the hands of death that the warrent world will be unified and returned to a state of beauty. "Reconciliation" first appeared in the 1865-66 volume Sequel to Drum-Taps, alongside poemsthat later shifted position in Leaves of Grass, including "O Me! O Life!" which ended up preceding Drum-Taps in 1881. This is a poignant laundry list

of questions the war raised for Whitman "of the empty and useless years of the rest, with the rest me intertwined, / The question, O me! so sad, recurring-What good amid these, O me, O life?" (6-7). Encouragingly, he next provides an "Answer— That you are here—that life exists and identity, / That the powerful play goes on, and you may contribute a verse" (8-9). Indeed, both life and death are constantly at work in the cyclical rebirth of the natural world and in Whitman's poetry.

The premier instance of this life-death alliance is another poem originally from Sequel to Drum-Taps, a tender threnody to President Lincoln, "When Lilacs Last in the Dooryard Bloom'd."12 Throughout its sixteen sections, Whitman succeeds in reconciling some of the deepest tensions present in his Civil War poetry. After following Lincoln's coffin as it travels by train crosscountry, Whitman inserts parenthetically, "Not for you, for one alone, / Blossoms and branches green to coffins all I bring," thereby reconciling the individual memory of the President, in keeping

with his intimate battlefield and hospital poetry, with the collective, national memory of the 620,000 casualties of the war (46-47). This expansive move conjures up the hymn to the levée-en-masse in his recruitment poetry, as the poet now sings their lament. Beyond a eulogy to his Manhattan soldiers, however, Thomas boldly asserts that "When Lilacs..." becomes for Whitman "a song that reunites North and South" through their shared experience of death and suffering (107). The full effects of what Loving calls Whitman's "betrothal and spiritual renewal" of the nation come to light (68, cf. 45 above). These marriages within the poem fulfill the role of the poet of democracy, even in the midst of the most trying era for democracy in America since its founding.

Enhancing and even surpassing these political healings in "When Lilacs..." are the bouquets bound from its "trinity sure" of natural symbols: the lilac, the western star of Venus, and the hermit thrush singing its carol (4). Lincoln's springtime death allows Whitman to formulate that event's connection to the yearly bloom of lilacs,

of which he first gives just one sprig to Lincoln's "coffin that slowly passes" (45) and then comes "with loaded arms...pouring for you, / For you and the coffins all of you O death" (53-54). This anticipates the reconciliation of life and death, no longer at odds but working in harmony, as is only natural. The poet claims he will "adorn the burial-house of him I love" with "pictures of growing spring" so that even the body's final resting place continually experiences life (80-81). This relation strengthens fully at the thrush's song in section 14, where death is given personification as "dark mother," mirroring and extending Whitman's traditional anthropomorphic notion of the earth as mother. The thrush then sings to this "strong deliveress":

From me to thee glad serenades,
Dances for thee I propose saluting
thee, adornments and
feasting for thee,
And the sights of the open
landscape and the highspread sky are fitting,
And life and the fields, and the huge
and thoughtful night.
(151-154)

In these lines, one further reconciliation is brought about by Whitman, that of

the sublime and the beautiful. His "open landscape" and "high-spread sky," especially in their association with death, are traditional images of sublimity, yet Whitman allots these lines to a small songbird, who would hardly be noticed in such a scene.13 Out of Whitman's three symbols, the thrush and the lilac both work to narrow the reader's focus in on the close and approachable details of nature, while Venus in the twilit sky serves to broaden it out to the expansive, even infinite bounds of creation. "When Lilacs" is ripe with nature imagery that spans both the sublime focus of his Whitman's early war poetry

and the small, detail oriented focus more often associated with his name.

Walt Whitman's poetic account of the Civil War is among the richest literature in existence from that era of American history. The journey on which the man and his poetry embarked at the outset of the war remains unique, thanks to his singular talent woven together with his dynamic experience as the war progressed. At the same time and in the same respect, that journey mirrors the quintessential American journey through the war, exploring in turn life and death, the individual and the army en masse, the sublime

and the beautiful. Throughout his war poetry in Drum-Taps and beyond, representations of the natural world inform Whitman's understanding of the war in a way that transfers to readers as they take the same (literary) journey. In his reflection on the war after the final shots were fired, Whitman develops a poetic conception of "reconciliation" based on the harmonic model he found in the inner workings of nature. These works preserve a hopeful postbellum statement that can guide readers to recourse to nature, no matter how far they may have strayed.

Notes

¹ Michael Moon points out that Whitman "comes closest to defining [the cause] in the 1860 'To a Certain Cantatrice' as 'the progress and freedom of the race'" (Leaves 6, note 2). Curiously, Whitman rarely refers to the 'Civil' War; he writes of the "war of attempted secession" and uses variants of this phrase elsewhere (Prose Works 154).

² In addition to the sources I reference below, see especially the recent monographs The Better Angel: Walt Whitman in the Civil War by Roy Morris, Jr. (Oxford, 2001) and Now the Drum of War: Walt Whitman and his Brothers in the Civil War by Robert Roper (Walker & Co., 2008).

³ Cf. Ted Genoways' Walt Whitman and the Civil War: America's Poet during the Lost Years of 1860-1862, especially "The Representative Man of the North" (pp. 44-78), or "The Union War" in Betsy Erkkila's Whitman the Political Poet (pp. 190-225). Erkkila's following chapter, "Burying President Lincoln" (pp. 226-239), takes into consideration natural imagery in "When Lilacs Last in the Door-yard Bloom'd" and exemplifies the comprehensive approach I take.

⁴ Cf. 853-932.

⁵ From Whitman's notebooks: "Immanuel Kant said that of the manifold wonders pressing upon his receptivity the play of law in the outside world and the other play of passion and spirit in the human Soul most excited his awe and admiration. And these are the centripetal and centrifugal motives of all Walt Whitman's pages" (1506). My argument, where Kant is concerned, does not hinge on the slim chance that Whitman was consciously channeling his aesthetic theory but rather on the notional marriage of the two writers' conceptions of war and the sublime.

6 Edmund Burke (1730-1797) is generally considered the first to systematically delineate the concept of the sublime in art and nature, in A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful (1757). Kant acknowledges Burke's contribution in Critique of Judgement: "We can now also compare the transcendental exposition of aesthetic judgments we have just completed with the physiological one, regarding which work has been done by someone like Burke...so that we may see where a merely empirical exposition of the sublime and of the beautiful may lead." He goes on to say that Burke "deserves to be mentioned as the foremost author in this way of treating the subject," while still critiquing his "merely empirical" or physiological approach (276).

7 For other lines that hint at uncertainty in the poems cited in Part I, cf. "First O Songs" 37, 41-2; and "Rise O Days" 31-2.

8 Recall that Whitman identified the conflict primarily as the "war of secession" (cf. note 1 above). His portrayal of America-asmother persists past the war, brought to completion in "Thou Mother with Thy Equal Brood" in the cluster Whispers of Heavenly Death (cf. Leaves 381).

9 Cf. "A Song of the Rolling Earth" 41, e.g.

10 Cf. p. 51 above for specific lines.

11 Cf. Kant 244.

12 Sequel to Drum-Taps does not exist as a discrete cluster in the deathbed edition; instead, "When Lilacs" appears as the first poem of the Memories of President Lincoln cluster that immediately follows Drum-Taps, thus remaining in similar placement throughout its inclusion in Leaves of Grass. Cf. Whitman 276, note 1.

13 From Whitman's notebooks: "Hermit Thrush / Solitary Thrush / moderate sized grayish brown bird / sings oftener after sundown sometimes quite in the night / is very secluded/ likes shaded, dark places...in swamps—/ is very shy/ sings in May & June— / not much after June/ is our best songster/ song clear and deliberate—has a solemn effect— his song is a hymn [...] is the bird of the solemn primal woods & of Nature pure & holy" (766).

Works Cited

Bierce, Ambrose. "Chickamauga." The Devil's Dictionary, Tales and Memoirs, Library of America, 2011.

Bloom, Harold. The Daemon Knows: Literary Greatness and the American Sublime. Spiegel & Grau, 2016.

Erkkila, Betsy. Whitman the Political Poet. Oxford UP, 1996.

Genoways, Ted. Walt Whitman and the Civil War: America's Poet during the Lost Years of 1860-1862. U of California P, 2009.

Kant, Immanuel. Critique of Judgement. Translated, with an Introduction, by Werner S. Pluhar. Hackett, 1987.

Killingsworth, M. Jimmie. Walt Whitman and the Earth: A Study in Ecopoetics. U of Iowa P, 2004. The Walt Whitman Archive, www.whitmanarchive.org, ID: anc.00162.

Loving, Jerome. "Caresser of Life: Walt Whitman and the Civil War." Whitman and the Civil War, special double issue of Walt Whitman Quarterly Review, vol. 15, no. 2, 1997, pp. 67-86.

Miller, Edwin Haviland. Walt Whitman's 'Song of Myself': A Mosaic of Interpretations. U of Iowa P, 1989.

Mack, Stephen John. *The Pragmatic Whitman: Reimagining American Democracy*. U of Iowa P, 2002. The Walt Whitman Archive, www.whitmanarchive.org, ID: anc.00159.

Reynolds, David S. Walt Whitman's America: A Cultural Biography. Alfred A. Knopf, 1995.

Thomas, M. Wynn. "Weathering the Storm: Whitman and the Civil War." Whitman and the Civil War, special double issue of Walt Whitman Quarterly Review, vol. 15, no. 2, 1997, pp. 87-109.

Whitman, Walt. Complete Prose Works. David McKay, 1892. The Walt Whitman Archive, www.whitmanarchive.org/published/other/CompleteProse.html.

other/Completer rose.ntml.
—. Leaves of Grass and Other Writings. Edited by Michael Moon. Norton, 2002.
Memoranda During the War. New Republic Print, 1875. The Walt Whitman Archive, www.whitmanarchive.org/published
other/Memoranda.html.
Notebooks and Unpublished Prose Manuscripts. 6 vols. Edited by Edward F. Grier. New York UP, 1984.
——. Walt Whitman to Ralph Waldo Emerson, 17 January 1863. The Walt Whitman Archive, www.whitmanarchive.org, ID:
uva 00844



Ghosts

Travis Croxdale

ANTH-375: Ethnographic Writing

This essay was prepared in response to a prompt in an Anthropology Topics course on Ethnographic Writing. The point was to explore a "confessional" style of narrative, which uses first- or second-person perspective to record a remembered event. Here, Travis Croxdale – Anthropology major, Central junior, and Afghan veteran – evokes both combat and personal transformation in war. I nominate this piece because of its compelling language as well as its moving conclusory metaphor on the dehumanization a young American experiences in military deployment. —Cynthia Mahmood

The air is dry, but it has the scent of stagnant water. A mildew sort of scent, baking under the dome of lingering clouds. Your breath comes short and ragged in the nine-thousand foot elevation, eighty-pound pack heavy on your back as your clothing, head to toe, leaves only your face exposed to sweat profusely. Your feet ache in their boots (the same boots, the same socks); your back aches and your neck too. Your muscles grow more tired by the minute.

As you scan the landscape around you, you must wipe your brow to keep the stinging perspiration from dripping into your squinting eyes. You notice a few farmers toiling in the distance. They pay no attention to you. The only sound you can hear is your heavy breathing and your only sensations are your

bodily aches, the heat, the feeling of the earth being shifted beneath your every step. Your mind has gone almost blank in the abject glare of the Afghan sun.

With the others, you keep a pace of about four or five miles per hour, only slowing momentarily to sip your water or to maneuver around rough terrain. In that sparse landscape your eyes find minimal comfort: little vegetation in the valleys between rocky, snow-capped mountains, and no wildlife of note. On farmers' lands there are a few domesticated animals: a herd of goats, an occasional donkey. The farm land is not flat. It is made of rows that elevate like wide steps up to the bases of the mountains. It would be beautiful if not for the war.

You try not to become complacent in the endless trudging, but the constant

stride forward and the nearhundred-degree heat seem never-ending. You swirl down the drain of boredom, pain, and the random thoughts that claw at your attention. You glimpse the next brother in front, but his clothes, his pack, his gait are all the same as yours. Slowly you become robotic. You stop for another drink of water, then push ahead. Step, step. Step, step. Step, step. Step, step. When you turn to look back, the farmers have disappeared. It is weird; they are there, then they are gone. A land full of ghosts. You trudge on: step, step.

At once you realize that this steady onward push has led you past the farmland and you have reached the outskirts of a village. The houses are made of mud and you find yourself in a Neolithic looking setting. The pathways between the

dwellings are padded earth, hard as concrete. Nothing is more than one story high. Small sounds of human habitation emerge: a mortar and pestle, the cry of a child. As your eyes scan the buildings, your mind snaps to some state of attention. The zombie state of sweaty trudging has ended; something else is required. You experience this shift as if coming from outside yourself: disembodied.

BOOM! SNAP!
SNAP! RATTA TAT TAT!
RATTA TAT TAT! SNAP!
POP! SNAP! POP! POP!
THUUMMP! POP! POP!
POP! BOOM! RATTA TAT
TAT!

Your mind shifts from robot zombie to robot warrior at the first drop of a shell casing. Without conscious thought you turn to the location of the noise, aim, and squeeze the trigger rapidly. Scanning for the closest cover, you slow the rate of how often you send the little lead grim reapers towards the hidden noise. Little to no cover is available. There are only broken rocks and small humps in the ground. Sweat pours into your eyes, blurring your vision. You

search the area, looking for the flashes of death to acquire a proper heading towards which your lead reapers can embark. Once obtained, you guide them towards their mark. With every squeeze of the trigger you smell the expended rounds as they leap from your rifle. The gasses produced from each shot begin to irritate your eyes until they tear up, and the tears flow down your face. The mixture of sweat and tears create an acrid, yet oddly refreshing cocktail that you lick from your dustencrusted lips.

In the moment. adrenaline mutes the aches and pains of your recently exhausted body. Your muscles feel alive again, ready for any physical demand without question. Your mental processes flow smoothly, allowing you to see, hear, feel and think more clearly than ever before. As you gain your bearing you know it is time to move forward. You swiftly stand and move towards the chaotic noises and flashes of light. Now gliding effortlessly over the once-challenging terrain, you continue to move forward. You get closer and

closer to the cacophony as you move down the narrow alleyway. You start to notice that the flashes have voices, not unlike your own. Loud, profane screams in a foreign language fill the gaps between each shot fired. Now the sporadic voices have silhouettes that occasionally reveal themselves to be persons, only to disappear again after each muzzle flash. Smoke and shadow blur the scene, but your thoughts are clear.

Continuing your push forward, you turn a corner and enter a new environment. Echoes from rifles firing are enhanced by the shortening of sound waves bouncing off the walls of the homes. This makes them louder than they were before, amplified as in a fun house. You find your way through courtyards and around small trees, but rifle echoes and yelling try ineffectively to disorient you. The unknown is around every corner. Your entire body and all your senses are keyed to a pitch of perfect functioning.

Suddenly your nose recognizes a familiar smell: body odor and spices. It is the scent of the living spaces of Afghans. The firing has

faded to an array of distant popping sounds. You understand that these pops are not a threat to you; no, they are coming from your brothers who are watching over you with their own little lead reapers. Your pace slows as you work your way through the maze of walls. Your body feels light and empty but your heart pounds heavily and deliberately. You see a rudimentary wooden door and some draped canvas, and you know you must move through this entryway. The smell of arm pits and cardamom now shares the air with the scent of heated barrels and expended bullet casings. The sound of whispers wells up around you. You lean against the dirt wall that holds the door you are about to enter.

Your boots stabilize you along the wall as your brothers line up behind you, without sound and without instruction. A moment of heavy breathing is taken to regain full bearing. Then a quick intake of breath with no time to think is interrupted by the "ready" tap relayed from one brother to the next in unplanned choreography.

The tap on your shoulder sends you into an explosive movement forward as you fall into the door, one by one by one. Suddenly you see faces emerge in the interior darkness: foreign, but not unlike yours. No time to process, no time to think, no time to consider. You

Was that scream coming from your throat, or one of theirs?

move forward into the room, watching the faces fall to the floor with each squeeze of your trigger. Was that scream coming from your throat, or one of theirs?

You whip around: this one, that one, another one, a flash over there, a grim reaper here. No time for thought, only this ballet of death for which training has readied you. Robot.

In moments, you and your brothers are standing in a room full of ghosts. The smell of blood and shit complements the B.O., the spices, the bullet casings. You cannot fully

see the carnage in the semidarkness and the smoke. There is silence as you and your brothers check the other rooms. Into one, then another. You pat each other on the back, but you cannot feel the hands of your comrades on your shoulders.

As you look one more time at the faces of the dead on the floor, you have the sensation that you too have become a ghost. You try to grab hold of the self that you knew, but it has flown away. A ghost among ghosts.

Your unit leaves the village, to return to the fields and the trail. Somebody stays behind to do the counting: their dead and ours. It's always more theirs than ours. Our superior technology; our overwhelming firepower.

Exhausted you trudge along, boots barely touching the ground. The brothers ahead of you and behind you have become translucent.

The Afghan twilight envelops you in waves. Again a zombie, you think ahead dully to your evening rations, your dry socks.

A day has gone by: one more day of success in war.

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