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Contents

From the Editors

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Submissions have been both multidisciplinary and geographically broad in scope with contributions that pertain to theory, archaeology, biological, linguistic, technological, and cultural concerns.

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We hope you enjoy the contributions in this volume.

Eric Bowne and Jonathan Berkshire

Information for Authors

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- a PDF file of the complete submission
- OR a Word file containing the complete paper (i.e., including abstract, tables and figures)
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- Excel file of tables is preferred.

Trashing the Natural State: Exploring Issues of Illegal Waste Disposal in Arkansas

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Abstract

This project is an exploratory study into why Arkansas, the *Natural State*, contains so much litter and illegal dumping in its natural settings. I examined the privatization of waste management infrastructure and the subsequent increased costs and loss of local facilities as motivating factors in illegal waste disposal. Illegal waste disposal particularly impacts rural communities by contributing to a degradation of the natural environment, creating public health risks from vectors attracted by illegal dumps, framing negative perceptions of place, and disinvestment in communities. I explored this issue with an analysis of survey data on the region's environmental attitudes, a content analysis of official reports of illegal dumping, and fieldwork visiting and documenting illegal dumpsites. Through these efforts I gained a better understanding and documentation of the sustained problem in the state. I highlighted how there is a cultural contradiction between Arkansas's branding and attitudes towards natural environments and its inadequate waste management infrastructure. I concluded my study with a call for more research into successful waste management examples and for the need to study these conditions across the state.

Introduction

The world's population has grown significantly in recent decades, currently standing at over 8 billion people (United States Census Bureau 2023). With this growth has come a concomitant increase in trash and waste production. By the 1960s, the United States generated 3 pounds of trash a day per capita (Louis 2004). Interestingly, this startling statistic about trash in America coincided with a major rise in environmentalism (Louis 2004). In 1962, Rachel Carson published *Silent Spring*, one of the first popular works of literature to bring attention to environmental issues. While it focuses primarily on hazardous pesticides and other harmful chemicals that were commonly used in agriculture at the time, it also more broadly brought into question humanity's negative impact on the planet (Lockwood 2012). It was within this context that the United States Congress passed the 1965 Solid Waste Disposal Act, the first piece of national legislation to address modern solid waste management and regulation (Louis 2004). Congress then passed the Resource Recovery Act of 1970 and later its replacement, the Resource Conservation and Recovery Act of 1976 (Louis 2004). The intention was to bring more attention to recycling in waste disposal management. Overall, environmental concerns are only becoming increasingly relevant in light of the country's growth and consequential trash generation.

Responding to national attention on environmentalism, Arkansas legislators passed *Act 1352 of 1995*, which officially recognized Arkansas's nickname as the *Natural State*. Its purpose was to improve the state's image by capitalizing on the growing environmental sentiment of the time. The act claimed that Arkansas was deserving of this title due to its "unsurpassed scenery, clear lakes, free flowing streams, magnificent rivers, meandering bayous, delta bottomlands, forested mountains, and abundant fish and wildlife" (State of Arkansas 80th General Assembly 1995). The connotations of this statement raise the question of how the *Natural State* fits into this context of increased trash generation.

Objectives

I explored why the *Natural State* has so much litter and illegal dumping present in its natural settings. I examined the privatization of waste management infrastructure and the subsequent raised costs and loss of locally-based waste management facilities as motivating factors in illegal waste disposal. I wanted to understand how these changes have impacted rural communities in particular and generally how communities are affected from environmental, public health, and social angles. I used a multi-methodological approach. First, I analyzed survey data to gain insight into attitudes toward the environment. Next, I conducted a content analysis of official reports of illegal dumping to learn how dumpsites are assessed in the state. Lastly, I carried out fieldwork by visiting and documenting illegal dumpsites. Ultimately, I seek to bring attention to the harmful effects of an inadequate waste disposal infrastructure and provide a clearer understanding of how this problem presents itself in Arkansas.

Literature Review

Conceptualizing Waste

Trash is commonly referred to by a variety of terms, including garbage, waste, debris, refuse, and rubbish. In the end, these terms share the same general meanings of discarded materials. In contrast, littering and illegal dumping, while similar, have separate definitions. Littering can be classified into two categories: negligent or deliberate. Negligent littering is littering that has occurred unintentionally through negligence. Deliberate littering, however, is defined as "throwing, dropping, or discarding material or products in inappropriate locations intentionally" (Karimi and Faghri 2021:783). An illegal dump is defined as the "disposal of waste in an unpermitted area" (United States Environmental Protection Agency 1998). Illegal dumping is also sometimes referred to as fly dumping, open dumping, midnight dumping, or promiscuous dumping, among other terms. There are also other key points to note about the distinction between littering and dumping. Littering is typically the result of an individual discarding small items of waste, like a cigarette butt or a fast-food wrapper. Illegal dumping, meanwhile, is typically done with large items like discarded furniture or old construction materials. While littering can pile up over time, illegal dumping can be thought of as its more concentrated, larger-scale counterpart. As for why it occurs, the Environmental Protection Agency (1998) stated that items can be dumped in order to avoid the costs associated with proper disposal, such as time, effort, or fees. In this study, I generally use the terms waste and trash for all these categories.

The State of Litter

The United States has a serious trash problem. In 2009, the U.S. Environmental Protection Agency (EPA) found that Americans generated "243 million tons of trash" (United States Environmental Protection Agency 2010). That same year, a study funded by the nonprofit environmental organization Keep America Beautiful found that "more than 51 billion pieces of litter" are left on American roadways annually (Culberston et al. 2009). The widespread pattern and volume of illegally disposed waste pose serious questions for environmental quality and policy.

Arkansas's numerous thriving natural areas do not make it immune to these negative trash impacts. The Arkansas Department of Transportation (2024) found that the state has an "average of 32 million pieces of litter annually." This reality presents a stark contrast to the commonly portrayed image of Arkansas as the *Natural State*.

The Privatization of Waste Management

The management and allocation of waste disposal is an important signifier of good infrastructure. However, with the United States' boom of urbanization and consumerism, infrastructure that was originally intended as a public service has become part of the private sector. Roughly 85 percent of the country's overall infrastructure is owned by private entities (Federal Emergency Management Agency 2011). More specifically, since the 1980s, there has been a continuous decline of municipal ownership and operation of waste management facilities (Louis 2004). In addition to this decline in public services, private companies have increasingly replaced local facilities with larger, regional ones (Louis 2004). The disappearance of local sites can affect rural communities in particular due to distance and the typical economic class of residents.

Research suggests that private ownership of facilities may not only be economically inefficient, but may actively fail in providing communities with safe and affordable waste management (Louis 2004). Once again, this means that lower income, rural communities are hit the hardest. This new capitalism-driven way of handling waste removal intensifies pre-existing economic disparities (Ty 2015). A key part of this issue stems from the fact that the municipalities are not structured around a business model and thus not motivated by profit like privately-owned entities are.

Affordability is an important distinction, especially for rural Arkansas communities, since many rural residents live around the poverty line with an average poverty rate of 15.2 percent (United States Department of Agriculture, Economic Research Services 2022). The lack of accessible services leaves many residents to resort to less than ideal methods of waste disposal. For example, it is not uncommon for private services to charge per trash bag, a practice that may inadvertently encourage behaviors such as people dumping trash in empty lots or commercial dumpsters, taking it somewhere that does not charge per bag, or illegally burning it (Katz 2002).

The State of Recycling

Recycling in the United States has struggled to keep up with increasing trash generation, which can be another factor that leads affected communities to resort to other, illegal forms of waste disposal. The country's recycling model is fueled by an economic market which sustains itself, but increasing material contamination has negatively impacted this market (Rogoff and Ross 2016). Material contamination in recycling occurs when nonrecyclable materials get mixed in, reducing useability or ruining it completely. There are a variety of factors contributing to this increase, with a significant one being the growing

number of different types of plastics used for packaging consumer goods (Rogoff and Ross 2016). The average person may have trouble distinguishing which plastics are or are not accepted for recycling (Rogoff and Ross 2016). This uncertainty, in combination with stricter quality requirements for materials in general, has resulted in reduced profitability (Rogoff and Ross 2016). The profit decrease has led many waste management companies and municipalities to begin restricting what recyclables they accept, raising costs or taxes for services, or even ending their recycling programs altogether (Corkery 2019).

A key example of this decrease is evident with the United States' recycling exports to China. In 2016, over 16 million tons of recyclable materials, like plastic, paper, and metal, were exported (Cho 2020). However, a significant amount of these recyclables was contaminated and unusable; thus, they were left to pollute China (Cho 2020). In response to this issue, China banned the import of most recyclable materials that did not meet their new quality specifications (Cho 2020). The loss of the United States' Chinese market was an incredibly heavy blow to the country's recycling industry. Due to the United States' dependency on exporting recyclables, it never properly developed its own recycling infrastructure (Cho 2020). With the loss of this key source of revenue, many recycling programs have been left unable to financially sustain themselves. Many now only accept a much more limited selection of materials that meet the new market standards, while others have been forced to completely close down. Even with trash generation increasing, recycling is shrinking, and that trash still has to go somewhere.

Impact of Illegal Waste Disposal on Communities

Illegal waste disposal negatively impacts communities in many ways, including environmentally. For example, chemicals from dumped trash can leak into surrounding soil and water sources, which degrades their quality and can harm whatever comes into contact with them (City of Hot Springs ca. 2020s). Furthermore, dumped trash can unnaturally accelerate soil erosion or block waterways, leading to potential flooding issues (City of Hot Springs ca. 2020s). Local wildlife is at risk of illness from eating trash or becoming entangled in it (City of Hot Springs ca. 2020s). Cigarette butts are an example of this kind of danger. Research has found that tobacco products are the largest category of litter, accounting for up to 38 percent (Culberston et al. 2009). This statistic is extremely concerning considering the harmful environmental effects of these products. Littered tobacco products release chemicals that have the potential to destroy ecosystems; for instance, one study found that a single cigarette butt soaked in a liter of water is enough to kill half of the fish exposed to it (Rath et al. 2012). Regardless of how insignificant something might seem, even litter as small as leftover cigarette butts have serious consequences for the environment and the wildlife exposed to them.

Illegal dumping also endangers human health. Aside from how dumpsites degrade soil and water, they also attract rodents, mosquitos, and other pests, which poses another hazard to human health (City of Hot Springs ca. 2020s). These vermin bring with them the risk of disease (City of Hot Springs ca. 2020s). In Pennsylvania, for example, thousands of tires illegally dumped there each year often collect stagnant water, making them the ideal location for mosquitoes to live and reproduce (Lenehan and Meredith 2021). The West Nile virus, which is spread through infected mosquitos, first appeared in the state in 2000 (Lenehan and Meredith 2021). The Pennsylvania departments of Health, Environmental Protection, and Agriculture created the joint West Nile Virus Control Program to help prevent cases, and part of their mission includes cleaning up dumpsites to remove potential habitats (Lenehan and Meredith 2021).

In addition to environmental and health effects, litter and trash dumping have serious social consequences as well. One study found that litter negatively impacts peoples' perceptions of a place (Parker et al. 2015). The term "place" in this context refers to the meanings and feelings associated with the physical geography of a space (Gieryn 2000:465). Locations with illegal dumpsites or significant litter are often perceived as dirty (City of Hot Springs ca. 2020s). This perception can lead residents to feel uncomfortable or unsafe, and the accompanying stress of having to live near illegal dumpsites can negatively affect residents' mental health (City of Hot Springs ca. 2020s). Negative perceptions of place can have a particularly harmful effect on children, since a child's attachment to a place plays a significant role in the development of their identity, security, and sense of belonging (Jack 2008). Research has shown that children living in neighborhoods with a key characteristic of garbage/litter are at significantly higher risk of behavioral problems, for instance (Singh and Ghandour 2012). Furthermore, most children who grow up in these places often do not have the socioeconomic mobility to leave once they become adults, leaving the cycle to repeat itself with future generations.

Healing Versus Trashed Landscapes

Natural environments influence our lives in myriad ways. Research has found that spending time in nature is positively linked to improvements in mood and cognitive abilities, both essential elements of an individual's overall well-being (Weir 2020). This link relates to the concept of healing environments developed by Wilbert Gesler.

Healing environments are places that facilitate the well-being of an individual's physical, mental, spiritual, emotional, and social health (Gesler 2003). Healing environments have four forms: built, symbolic, social, and natural environments (Gesler 2003). Healing from natural environments is extremely relevant when discussing Arkansas as the *Natural State*. Features such as natural beauty or remoteness, as well as specific natural features such as the presence of streams, rivers, and lakes, all contribute to people's interpretation of landscapes as healing (Gesler 2003). Additionally, Gesler (2003) makes note of the way rural life is commonly portrayed as ideal compared to the harmful pollution of urban areas. It is no surprise that Arkansas continues to capitalize on its abundance of natural areas. Arkansas is home to 52 state parks and seven national parks, so it is often considered one of the best vacation areas in the U.S. for outdoor recreation, with more than 8 million visitors each year (Arkansas State Parks 2024). Given the healing potential of natural environments, the presence of discarded waste could have negative effects on individuals' overall well-being.

Another way to understand trash and illegal dumps in these environments is through the concept of derelict landscapes, which refers to "the dereliction of America's built environments, especially the degraded lived-in habitats of everyday life" (Jakle and Wilson 1992:xv). An important aspect of dereliction is disinvestment, "when maintenance is withheld in a building or area in the face of declining returns" (Jakle and Wilson 1992:6). Disinvestment signals to residents and visitors alike that the future of the area is dubious (Jakle and Wilson 1992). A common example of a derelict landscape is an old street with empty, boarded up buildings. Although derelict landscapes are usually thought of as an urban phenomenon, there are implications for rural areas as well.

Dereliction in rural areas is often perceived very differently from its urban counterparts (Jakle and Wilson 1992). An abandoned structure in an urban setting is viewed as an overtly visible sign of decay, while in rural settings it is often viewed with a sense of nostalgia (Jakle and Wilson 1992). Structures like abandoned barns or tractors can be romanticized as relics of simpler times (Jakle and Wilson 1992). Furthermore, rural buildings are far more separated from each other than urban ones, which makes the decay seem less serious and more isolated (Jakle and Wilson 1992).

Beyond general abandonment, dereliction in rural areas presents in many other ways. As populations decrease and rural jobs decline, responsibility for government infrastructure transfers to larger jurisdictions that are much farther away from the actual local areas (Jakle and Wilson 1992); the dispersal of waste management infrastructure is a prime example. Another symptom of dereliction in rural areas is illegal dumping. To demonstrate, Jakle and Wilson (1992) point to rural Appalachia and the way cabins there were surrounded by trash, even extending to entire car hulls, with further trash discarded in nearby ravines (Jakle and Wilson 1992). The ubiquitousness of dumping in Appalachia, and rural dumping overall, demonstrates disinvestment. However, when considering the lack of legitimate waste disposal options in these areas, it may not necessarily be a choice.

Methodology

Using multiple sources of data, I conducted an exploratory study to critically examine the various effects of improper waste disposal, implementing qualitative research methods as outlined by Quintão et al. (2020). I investigated its presence in the state of Arkansas through an examination of national-level survey data, a content analysis of official reports of illegal dumping, and data from fieldwork in three locations.

Survey Data Analysis

I conducted a secondary data analysis of the 1976, 1980, 2000, 2016, 2018, and 2021 General Social Surveys (GSS) to explore attitudes on environmentalism in the United States and the West South Central region, which includes Arkansas. This particular region was selected since the GSS does not include state-specific information. Multiple years were analyzed to look at the historical changes in attitudes in Arkansas's region and that of the overall U.S. The GSS data was gathered from random sampling on a national level, which has been used to gain an understanding of the general public's views (General Social Survey 2021). I performed a descriptive statistical analysis of the mean for one GSS variable.

Nature Variable. My variable concept was concern for the environment. I operationalized this concept using the GSS variable NATENVIR. NATENVIR asks, "Are we spending too much, too little, or about the right amount of money on: Improving and protecting the environment?" In the 2021 GSS, this variable is coded as 1 equals "Too little," 2 equals "About right," and 3 equals "Too much." In the 2006 GSS, this variable is coded as 1 equals "Too little," 2 equals "About right," 3 equals "Too much," and 8 equals "Don't know." In the 2000, 1990, 1980, and 1976 GSS, this variable is coded as 1 equals "Too little," 2 equals "About right," 3 equals "Too much," 8 equals "Don't know," and 9 equals "No answer."

Region Variable. My focus group was Arkansas residents, which are included in the West South Central region. I operationalized this concept using the GSS variable REGION. REGION asks, "Region of interview." This

variable is coded as 1 equals "New England," 2 equals "Middle Atlantic," 3 equals "East North Central," 4 equals "West North Central," 5 equals "South Atlantic," 6 equals "East South Central," 7 equals "West South Central," 8 equals "Mountain," and 9 equals "Pacific." This variable has been recoded to only include responses of 7 for "West South Central."

Content Analysis

I analyzed official "Complaint Investigation and Illegal Dump Evaluation Form(s)" from 2002 in Stone County to better understand the state's assessments of illegal dumps and use them as a guide of what to look for in my own fieldwork (Meador and Wrather 2002). This analysis served as a limited window into the waste disposal infrastructure currently in place. The purpose of this general content analysis was to make "valid, replicable and objective inferences" from various forms of communication content (Prasad 2008:175). Additionally, I looked to Arkansas government websites for information on the nearest waste disposal facilities for the sites documented in the forms and those selected for fieldwork.

Field Site Visits

Following the content analysis, I traveled to three sites selected through convenience sampling based on travel distance and familiarity with the area. The exact locations of these sites have been specifically omitted to protect the privacy of residents. At these sites, I took field notes on site size, trash density, types of waste present, and apparent site age. I gave particular focus to features of the communities these sites are found in or around, such as whether any derelict landscapes were present. I recorded the types of trash in order to better understand Arkansans' dumping habits and what they implied about potential needs in the waste disposal infrastructure. Additionally, I utilized photography to complement my field notes. Photography is a tool for visual communication that further helped contextualize the various issues associated with illegal waste disposal (Caldarola 1985). As data, these photographs provide points of comparison between Arkansas's portrayal as the *Natural State* versus the actual condition of the natural environment in and around my field sites. I also examined them through a layered analysis lens (Dowdall and Golden 1989). This approach looks at photographic data in three layers: appraisal, which is a simple comparison of the photos to other written data; inquiry, which looks at the collection of photos as a whole to discover any patterns; and interpretation, which looks in close detail at the potential context and meanings found in the individual photos (Dowdall and Golden 1989).

Limitations

I used nonrandom sampling procedures based on convenience. The results are not representative of all counties or rural areas in Arkansas. Additionally, the GSS does not have data specifically on Arkansas, and as such I can only offer data on attitudes from the general region.

Findings

Survey Data

Figure 1 shows how concern for environmental improvement and protection has changed over time. In the graph, a mean of 1 represents the belief America is spending too little on environmental improvement and protection efforts, 2 represents the belief the amount we are spending is about right, and 3 represents the belief we are spending too much money.
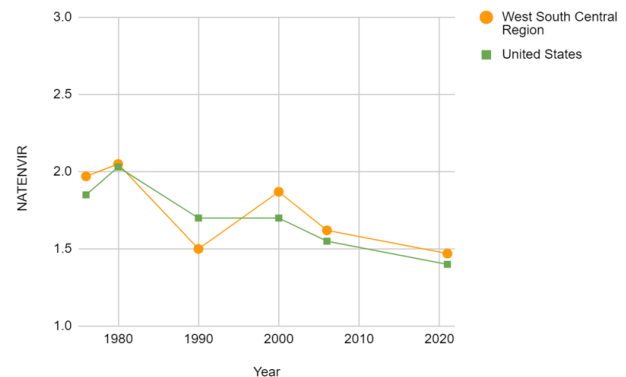

Figure 1.

Figure 1 shows the West South Central region had a mean of 1.97 in 1976, 2.05 in 1980, 1.50 in 1990, 1.87 in 2000, 1.62 in 2006, and 1.47 in 2021. This indicates that, on average, most Americans in the West South Central region believe the amount of money we are spending on environmental improvement and protection is about right. However, the trend shows an increasing shift toward the belief we are spending too little.

Figure 1 also shows the United States as a whole had a mean of 1.85 in 1976, 2.03 in 1980, 1.70 in 1990, 1.70 in 2000, 1.55 in 2006, and 1.40 in 2021. This indicates that, on average, most Americans believe the amount of money we are spending on environmental improvement and protection is about right. However, this trend shows an increasing shift toward the belief we are spending too little.

Content Analysis

I analyzed seven completed "Complaint Investigation and Illegal Dump Evaluation Form(s)" from 2002 for Stone County, Arkansas (Meador and Wrather 2002). The forms included sites located in the Mountain View and Fox areas. Each form had sections dedicated to the contents of waste mass, with ten categories: household

waste, hazard materials (such as paint thinner, cleaning chemicals, oil cans, herbicides, medical waste, and/or asbestos), white waste (such as refrigerators and/or other appliances), construction and/or demolition waste, tires, abandoned vehicles and/or auto parts, other bulky waste (e.g., TVs, furniture, mattresses, etc.), dead animals, and an open response "other" category. There was also a section for site assessment, which included four subsections. The first subsection was for air pollution, which included the categories of open burning, evidence of open burning, and strong foul odor present. The second subsection was for water pollution, with the categories of waste in or near standing or flowing water, as well as high probability of leachate (run-off) into ground/surface water. The third subsection was a public health risk assessment which included the following categories: vectors sighted (i.e. rats, flies, mosquitoes, snakes, scavengers), evidence of vectors (i.e. feces, eggs, tunnels), and public nuisance. The fourth subsection was a site usage assessment, which had a variety of categories: site attended or maintained for a fee; history of previous complaints; active promiscuous site, attractive nuisance, and evidence of recent dumping; dumping resumed at cleaned up or closed site; old site, no evidence of recent dumping, and overgrown.

The first site was a roadside dump in Fox. It consisted of household waste, hazard materials, white waste, construction and/or demolition waste, tires, abandoned vehicles and/or auto parts, other bulky waste, and dead animals. It had evidence of open burning, both categories of water pollution, and evidence of vectors. It was checked as a public nuisance and recorded as active.

The second site was a pit located behind a private residence in Mountain View. It consisted of household waste, white waste, and other bulky waste. In regard to air or water pollution, it had evidence of open burning and a high probability of leachate. Vectors were spotted at the site and it was recorded as being a public nuisance. It was also recorded as being active.

The third site was located in a ravine in Mountain View. It consisted of white waste, construction and/or demolition waste, and other bulky waste. There was no air pollution recorded at this site, but it did have a high probability of leachate. It was also recorded as being a public nuisance and an active site.

The fourth site was located behind a storage unit facility in Mountain View. It consisted of construction and/or demolition waste. It had evidence of open burning and a high probability of leachate. It was also recorded as a public nuisance and an active site.

The fifth site was located at the remains of a burned-down house in Mountain View. It consisted of household waste, white waste, construction and/or demolition waste, and other bulky waste. It was

documented as meeting both criteria for water pollution. It was recorded as being a public nuisance; however, the site usage subsection was left completely blank.

The sixth site was a potential dump site along a roadside in Mountain View. However, the document noted that there were no actual signs of dumping in the area, making it unconfirmed.

The seventh site was located in a pit along a roadside in Mountain View. It consisted of household waste, white waste, construction and/or demolition waste, and other bulky waste. There was no air pollution noted, though this site did have a high probability of leachate. It was also listed as being a public nuisance and active.

Field Data

Field Site One. The first field site was located on private property in Quitman, Arkansas. Quitman is in the central part of the state and is split between Faulkner and Cleburne counties. The town has 694 residents and a poverty rate of 21.4% (United States Census Bureau 2024). This site is in a privately owned, wooded area in a ravine. I visited in July of 2023. Site one was also split into two areas. The first area was located near the top of the ravine, toward the south, and had a length of roughly 80-feet with a width of about 25-feet at its widest point. However, the majority of the trash was concentrated within a 32-foot-long section located toward the top of the ravine. The entirety of the area was littered with items such as glass, cans, lightbulbs, plastic bottles, and random pieces of broken plastic. There were also several old barrels scattered throughout, with charred trash surrounding them. The concentrated section, in addition to the small trash and barrels, also had a number of larger items, including a whole car (see Figure 2).

Figure 2.

There were also larger pieces of household trash such as an old vacuum cleaner, a Christmas tree stand, children's toys, sheets of tin roofing, gas cans, and small propane tanks. Aside from the car, most of the trash seemed

to be relatively recent compared to that of the second section. Many items of household trash, for example, had relatively little weather damage.

The second area was located farther down the ravine. Like the first, this area had trash littered throughout with a main area of higher concentration. As a whole, the area was roughly 57-feet long and 25-feet wide, with the main dump area toward the center. Similarly to area one, there were cans, glass, and plastic bottles. However, area two seemed to have a significantly larger amount of cans and glass while also having less plastic. There also appeared to be more remains of barrels with burnt trash around them. The main dump area had items such as a hollowed-out stove, a rug, cookware, a large piece of metal that appeared to have once been a shelf, and a type of tin roofing different from that in the first area (see Figure 3).

Figure 3.

Field Site Two. The second field site was also located on private property in Quitman, Arkansas. I visited this site twice, once in July of 2023 and once in December of 2023. There was an abandoned, caved-in house with a shed located farther back on the property, as well as an abandoned camper (see Figure 4). The dumped trash was spread out across the front and backyard areas of the property and also extended into the foliage. Because the trash was so spread out, measuring the exact size of the site was not possible. However, the property is forty acres, and the dumping area is estimated to spread out over roughly two acres. The trash was visible from the road, so this site was not as remote as the first. The site was also across the road from an inhabited residence.

Overall, the trash appeared to be a mix of older and seemingly newer items based on observable weather damage, indicating an established and active dumpsite. The site had four separate areas of concentration. There was a considerable amount of household trash scattered on the ground throughout the entire site. This trash primarily included things such as drink cans, plastic bottles, laundry detergent jugs, milk gallons, and broken pieces of plastic. Additionally, animal feces were found during the summer visit, though not the winter one.

Figure 4.

The first area of concentration was in the front yard and driveway of the former residence (see Figure 4). While there was a scattering of smaller pieces of household trash, area one primarily had large items. There were tires, propane tanks, animal traps, chicken wire, chairs, children's outdoor toys, milk crates, a bicycle, a wooden trailer, a truck topper, a mailbox, various machine parts, plastic tubs, oil pans, and many large broken hunks of plastic. With the exception of the propane tanks and some of the tires, most items were partially covered in leaves, indicating this area was currently not as active as the others.

The second area was located farther down the driveway, to the right of the house along the tree line. This area was the smallest and consisted mainly of household trash. It did, however, have a large wagon, tires, smaller wheels, a pet carrier, plastic tubs, a vacuum, a large plastic children's toy box, large plastic trash cans, buckets, milk crates, tarps, and a metal barrel potentially used for burning. There was again scattered household trash, but there were also several larger items such as more plastic tubs and buckets, plastic dog houses, a children's ride-on toy car, an old computer monitor, two plastic patio chairs, a pile of wood planks, piping, and a bathroom sink counter.

The third area was more hidden than the previous two. It was located behind the house and into the foliage, not directly visible from the road or even the front yard. Because of this, I did not spot it during my initial visit. This area is larger than the second and comparable to the first. It consisted primarily of a large pile of household trash, specifically a lot of plastic bottles and cans (see Figure 5). It also had a few larger items such as tires, a plastic patio chair, buckets, a children's

ride-on toy ATV, a large unidentifiable hunk of plastic, the torn-up remains of an assumed recliner, and a turned over metal barrel potentially used for burning.

Figure 5.

The fourth and largest concentrated area was located to the right of the third, even farther back in the brush. Similarly, this area was not spotted during the summer visit. It primarily consisted of a large pile of household trash, specifically plastic bottles and cans. It also had several tires, buckets, large unidentifiable hunks of plastic, an ice chest, a large TV, and an old computer monitor.

Field Site Three. The third field site was located on private property in Drasco, Arkansas. Drasco is located in Cleburne County and has a poverty rate of 2.7% but a population of only 144 (United States Census Bureau 2024). I visited the site in February of 2024. The property consisted of an abandoned house, storm shelter, mobile home, and barn. The trash was spread out across the property, in both the front and back of the structures. Similarly to site two, this prevented me from measuring the exact size of the site. Trash could easily be seen from the road. There were other inhabited residences nearby, but none within view of the site. I also noted that the majority of the nearby residences had trash piles visible from the road; one resident was even actively burning trash in their front yard.

This site had six areas of concentration, the first of which was located in front of the house and relatively close to the road. It consisted of household trash such as cans, bottles, and cardboard boxes. It also had some planks of wood, a sheet of tin roofing, a chair cushion, and an interior door.

The second area was also located toward the front of the property and was visible from the road as well. It was positioned between the house and the mobile home. It consisted primarily of household trash, such as cans, bottles, small pieces of packaging plastic, and a large instant coffee tub. This area also included

a damaged part of an interior door, metal rods, and a measuring tape. The trash in this area did not appear recent.

The third area was a bit farther back behind the second but was still in the front yard and visible from the road. It too was in the middle of the property, between the house and the mobile home. It also stretched into a small ravine. This area consisted of general household trash, several tires, mattresses, couches, an ottoman, foam padding, carpeting, bedding, a laundry basket, a barrel, buckets, glass jars, dishes, a large decorative storage box, a piece of tin roofing, and a satellite dish (see Figure 6).

Figure 6.

The fourth area was to the right of the second and situated directly behind the mobile home, making it more hidden. The area included a large trash heap piled noticeably high. This pile consisted of household trash, primarily beer cans, plastic bottles, and other various pieces of plastic packages. It also had trash bags, shoes, clothing hangers, a TV, a basketball, buckets, a trash can, carpeting, large wooden pallets, other large planks of wood, and tires. Judging by the items' conditions, this was one of the more recent dumps.

The fifth area was located in the back of the property, in and around the old barn. It had four main points of concentration: a pile to the right of the barn, a pile by a tree in front of the barn, a pile to the left of the barn, and finally a very large collection of trash inside the barn itself. Because this area was located farther back and down a slope, it was not visible from the road. The pile on the right side was smaller but spread out along the side of the building. It consisted primarily of tires, broken wood pallets, a lawn chair, and various large hunks of plastic and metal. The pile by the tree consisted of household trash, dishes, and what appeared to be the inner springs of either a chair or mattress. There was noticeable charring on some of the trash in this pile, indicating burning. The pile on the left side consisted of an old computer monitor, a TV, tires, a trashcan, broken

wood pallets, a mattress, household trash, trash bags, carpeting, a vacuum, motor oil bottles, a pet carrier, and various broken hunks of plastic.

Figure 7.

I was prevented from fully documenting the pile in the barn itself due to the sheer amount of trash, the presence of a foul odor, and the unsafe, dilapidated condition of the structure. However, the entrance was wide enough to get a good overview. The pile consisted of items such as bed frames, dressers, windows, a sink, vacuums, storage tubs, bedding, carpeting, wood pallets, tool boxes, a tank of pesticide, books, old TVs, a footbath, an elliptical machine, wood shelves, trunks, wood crates, motor oil bottles, buckets, ice chests, interior doors, baskets, broken hunks of metal and plastic, and household trash (see Figure 7). Pieces like the furniture had obviously been there for a while based on the degradation of the various fabrics and wood finishings; the state in which they were haphazardly left suggests dumping. The household trash, however, appeared to be newer.

The sixth and final area was at the very back of the property, situated in a wooded area. Located farther back behind the barn, the trash was not initially visible. I noted flattened grass and dirt where a vehicle had driven. This area consisted of household trash and what appeared to be broken chunks of porcelain. There was also charring and evidence of burning on some of this trash.

Discussion

Survey Data

Both the West South Central region and the United States had noticeable shifts in 1990 toward the belief that not enough is being spent on protecting the environment. This seems to coincide with the increasing attention toward environmental issues like global warming and concern for pollution. For example, environmental issues were given considerable attention at the United Nations General Assembly in the late 1980s (Jackson 2007).

Furthermore, the presence of large quantities of litter in oceans became a topic of global concern that decade (Napper and Thompson 2020). Additionally, the year 1990 saw the second World Climate Conference, which in its Ministerial Declaration labeled climate change as an issue that required a worldwide response (Jackson 2007). These environmental issues spread more awareness to the public and offer a partial explanation for the time period's sudden shift in attitudes toward the belief that not enough money is being spent on protecting the environment.

Following this dip, Americans on average held the attitude that the country is spending the right amount until 2006, after which it began to steadily shift toward the attitude that we're spending too little. Meanwhile, the West South Central region actually had a stronger spike toward the attitude that the county is spending the right amount in 2000 following its dip in 1990. After 2000, attitudes began to steadily decrease similarly to the overall U.S., albeit to a lesser degree. A potential explanation for why the data spikes and then only slowly changes after the 1990 dip could be cultural inertia. Cultural inertia occurs when groups resist cultural change; essentially, it is their reaction to outside pressure pushing for change in their cultural practices (Zárate et al., 2012). In light of this, the similarities between the complaint forms and the field sites, even with a twenty-year gap between them, are not surprising; it makes sense that changes in levels of concern would only be gradual. Regardless of the exact reasoning, the findings still demonstrate that the West South Central region and the United States on average believe that we are spending about the right amount of money on the environment over time from 1976 to 2021, while also showing a steady shift toward the attitude we are not spending enough.

Content Analysis and Field Data

The sites described in the illegal dump complaint forms and the field sites are all rural areas. The literature notes that areas like these with more regional, rather than local, waste management facilities face a greater risk of illegal dumping (Louis, 2004). Stone County, where the form sites were located, has just one transfer station and no landfills. Cleburne County, the area of field visits, however, has a transfer station and one Class 4 landfill. The locations of all the licensed landfills in Arkansas can be seen in Figure 2. It should be noted that the permitted landfill data provided by the Arkansas Department of Environmental Quality contained several location listings with typos in the address or which were outdated and no longer in operation. Furthermore, there were also permitted landfills in the state not included in the data.
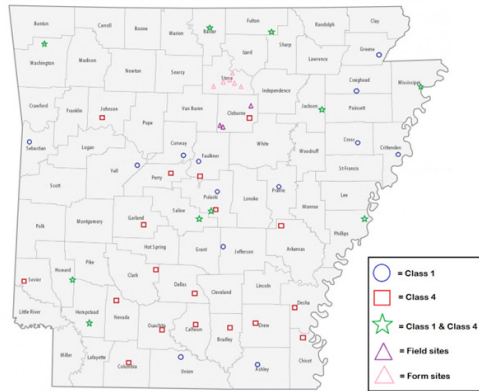
Figure 8.

The Cleburne County landfill requires individuals to first go through a transfer site instead of visiting the landfill itself. Mountain View is located 39.8 miles away from the transfer site, Fox 44 miles, Quitman 16.3 miles, and Drasco 13.5 miles. It is important to note that the Cleburne County landfill is solely a Class 4 landfill (Cleburne County 2013). Class 4 landfills in Arkansas only accept "inert, non-putrescible wastes such as construction and demolition wastes, appliances and furniture, and other bulky, inert wastes," while Class 1 landfills accept "household wastes, non-hazardous commercial wastes, and non-hazardous industrial wastes" (Arkansas Department of Environmental Quality ca. 2020s). Notably, Class 4 landfills do not accept household waste. A transfer site is a facility where trash collection trucks dispose of their loads to be compacted before being transported to a final disposal site (United States Environmental Protection Agency 2001). The Cleburne transfer station will weigh an individual's trash, at which point the individual will be charged a fee and sent on their way to the landfill (Heber Springs Transfer Station, personal communication 2024). Individuals must visit both locations to dispose of Class 4 items, and the rate is 88 dollars per ton (Heber Springs Transfer Station, personal communication 2024). However, the transfer station does accept household trash on site, at one dollar for a 13-gallon bin's worth and two dollars for a 33-gallon bin (Heber Springs Transfer Station, personal communication 2024). The lack of local landfills means residents are left with limited options for waste disposal. Given the limited legal mechanisms for waste disposal, it is unsurprising that there are illegal dumps in these areas. The association between landfill classification and types of waste found correlates with a number of the forms and field sites having household waste present. Further evidence of this link is found in the fact that the evidence of burning at the field sites appeared to have primarily been of household trash.

The most affordable option would be for residents to take their household trash to the transfer station themselves rather than pay for a pickup service; however, the Cleburne County landfill has limited hours. It is open from 8 a.m. to 4 p.m. Monday through Friday and only 8 a.m. to 12 p.m. on the first Saturday of each month (Heber Springs Transfer Station, personal communication 2024). These hours match peak work times, so individuals have few options outside normal work schedules. Additionally, the driving distances mentioned earlier add another potential barrier to legal disposal. The idea that individuals should simply take time off work is not a practical solution. I will also note that when trying to learn about both the transfer site's hours and fees, I was unable to speak with the office directly and instead had to speak to a regional office; even general information about the transfer site was not easily available. The addition of both fiscal and time costs is noted in the literature as being a key motivating factor in illegal dumping (Ty 2015; Katz 2002). Given the poverty in these areas, many people do not have the financial resources to pay the fees associated with using landfills or a trash-pickup service. Quitman, where two of the field sites were located, has a poverty rate of 21.4% (United States Census Bureau 2024). Furthermore, Arkansas as a whole has a rate of 15.2% (United States Census Bureau 2024). Although I only examined two counties, my findings suggest that Arkansas hits on the key characteristics of places most likely to face issues of illegal waste disposal.

Additionally, Arkansas demonstrates some of the key characteristics of derelict landscapes. A primary characteristic is the loss of local infrastructure with the shift to more regionally based facilities (Jakle and Wilson 1992). This can be seen playing out within the state via the distances between illegal dump sites and the Cleburne County landfill. Not only is the dereliction found in the lack of local facilities, but also through the resulting illegal dumps. Additionally, field sites two and three both displayed the derelict landscape characteristic of disinvestment (Jakle and Wilson 1992). Both dump sites were located on properties with abandoned houses. These empty and dilapidated buildings act as visual cues of decline in the area. This message of disinvestment is then worsened by the illegal dump sites.

This signaling, in combination with the presence of the trash itself, can taint the perception of place and put a strain on residents' mental health (Parker et al. 2015; City of Hot Springs ca. 2020s). Studies found that 26.6% of Arkansas's adult population have reported being diagnosed with a depressive disorder (United Health Foundation 2023). For context, the percentage for the general U.S. is 21.7%, and in the ranking of percentages for every state, Arkansas was near the bottom at 47th (United Health Foundation 2023). There

are innumerable factors influencing Arkansans' mental health, but it is plausible that illegal dumping contributes to feelings of depression for some people in the affected areas. Limited official waste management facilities and improper waste disposal are actively detracting from the state's *Natural State* image and its potential to serve as a healing landscape for residents.

The similarities between my field sites and those documented in the forms suggest these cases may not be isolated incidences. Illegal dumping appears common and has been for decades. This illustrates a contradiction in culture between the rising environmentalist attitudes in the region and the continued practice of illegal dumping. This is important to note because studies have found that waste management efforts not in accordance with the affected community's culture and lifestyles had significantly lower chances of success (Foellmer et al. 2022). These failed efforts are similar to a business that doesn't understand its target audience and whose marketing is thus unsuccessful. Furthermore, research shows that culturally-grounded efforts against illegal waste disposal are particularly effective when framed as a shared community goal (Foellmer et al. 2022). In theory, the emphasis on the outdoors in Arkansas would provide a strong foundation for efforts to prevent illegal waste disposal. However, this foundation unfortunately seems to be falling short considering the continued presence of illegal dumps.

Anthropologist Clifford Geertz (1972) argued that culture is not represented by one voice but rather by a set of competing voices (as cited in McGee and Warms 2017). He proposed this idea as an explanation for how a culture can contradict itself, something which can be seen with Arkansas. Its image as an icon for natural environments is inconsistent with its waste management infrastructure. This might also serve to explain how feelings of depression and nostalgia can simultaneously occur in areas with illegal dumps and other manifestations of dereliction (United Health Foundation 2023; Jakle and Wilson 1992). Additionally, the practice of illegal trash dumping could potentially be seen as ingrained in rural culture. For example, other studies have noted illegal dumping as a problem in other rural states like Kentucky (Tunnell 2008; Jakle and Wilson 1992). One such study also takes particular note that illegal dumping in rural areas is exacerbated by poverty and that local governments are often ill-equipped to combat it (Tunnell 2008). Although dumping and littering are illegal, the longstanding lack of adequately funded programs has made them normalized features of rural landscapes.

An illustration of this normalization can be found in country singer Alan Jackson's nostalgia-filled song "Drive (For Daddy Gene)," in which Jackson reminisces about childhood memories and makes reference to the practice of dumping. The song verse goes, "He'd let me drive her when we haul off a load / Down a dirt strip where we'd dump trash off of Thigpen Road," and later, "Just a dirt road with trash on each side" (Jackson 2002). The song, like many country music pieces, is meant to hold a level of relatability with its target demographic of rural audiences. The fact that dumping trash is part of that relatability in Jackson's song suggests the prevalence and acceptance of the practice. It also ties back into the idea of how derelict landscapes are often viewed as nostalgic rather than run-down (Jakle and Wilson 1992). The practice has developed a cultural aspect associated with rural life in particular. Furthermore, it ties into the concept of cultural inertia, with rural culture's evident attachment to the practice (Zárate et al. 2012).

Conclusion

A primary motivating factor in illegal dumping is a lack of local and affordable disposal resources. This in turn puts an already disadvantaged population at greater risk for negative environmental, public health, and social impacts. Arkansas, with its own abundance of rural areas and high rate of poverty, is a prime example of this cause and effect; this point became apparent when examining what was described in the forms and documented at the field sites. All these findings demonstrate that not only is Arkansas particularly at-risk for illegal dumping, but that it is in fact a longstanding and active problem within the state.

Communities are not necessarily to blame for their lack of resources; in reality, it is a structural issue they themselves have little control over. Given the poverty of many of these areas, it is simply not realistic to fall back on individual responsibility as a solution. Efforts toward ensuring proper waste disposal should be carried out and emphasized as collaborations with affected communities, rather than a group of outsiders stepping in and placing blame. Rising environmental attitudes and the emphasis on being the *Natural State* point to a desire for change toward proper waste management in Arkansas, but there is obviously some missing factor that is preventing it. Further inquiry into the topic could contribute to illegal dumping prevention. For example, examining the presence of illegal dumping in other Arkansas counties could provide a wider scope for comparison. Additionally, examining examples of successful waste management infrastructure within the state could further illuminate more of the aggravating factors leading to illegal dumping. It would also be beneficial to conduct a review of the private trash collection companies in the areas looked at, as this study focused more on local waste management facilities and

the lack thereof. A review of how many companies there are, where they are located, what their services cost, and so on could provide even greater insight.

Illegal dumping has far-reaching negative effects on residents in regard to both physical and mental health, so accessible waste management infrastructure is necessary for communities. However, even with its necessity, the attention and resources it is currently being given is not reflective of that. It is even less reflective of the state's public image as the *Natural State*. Given that this problem affects the general public, it is a matter where the government should be expected to step in, the same way it does for physical infrastructure like roads. There needs to be more targeted policy for improving the infrastructure and the extent to which it has been cut.

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The Milf Report: Disney's Perception of Women

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Abstract

Disney's influence on Western society is extensive and aids in perpetuating portrayals of women. Women are critically analyzed on their appearance and are supposed to replicate feminine and beauty expectations. However, wives and mothers have a different set of stereotypes, portrayals, and societal requirements than single, motherless women do regarding marriage and motherhood. Furthermore, these different standards of beauty have different levels of competence connected to them. Twenty of the highest-grossing movies for 1980-2000 and 2000-2020 were coded on marital status, parental status, age, attractiveness, and competence. Findings show that as age increases, attraction decreases and as women become mothers, attraction also decreases. Attractiveness did not decrease with marital status, nor did competence decrease on any independent variable. Therefore, these results display that society perceives mothers and older women as less attractive, but may not assess women as less competent regardless of motherhood, parental status, and age. Ultimately, these findings display different Disney portrayals of women. These portrayals are essential due to their impact on children and social perceptions of women.

Introduction

The media's influence on societal institutions and culture is undeniable and affects almost every sector of the industrialized world. A popular source of children's media is Disney and its associated companies like Pixar. However, the influence of Disney has moved beyond simple entertainment and has created an extensive culture of its own. This culture has saturated several areas of society and is a major player in childhood spheres. The mass visitation to Disney theme parks, with over twenty million guests a year, displays its popularity within the Western world (Wills 2017). Thus, with Disney's popularity, it is reasonable to assume that, like with all media, the company's influence is far-reaching and instrumental in childhood experiences (Robinson et al. 2007). Therefore, Disney continues to influence children and the public with its portrayal of society. A common theme in Disney is the difference between the young princess heroines and the older women featured in films (Wiersema 2000). These differences preserve the portrayal of women, influence impressionable minds, and maintain ideals about women in society. For example, Disney often portrays the princesses as feeble and nurturing, which often reinforces traditional gender norms (England et al. 2011). Thus, children often consume media that portrays women in specific ways. For example, a young, beautiful, but meek heroine, a "dowdy" motherly figure, or an older, wrinkly villain (Abel et al. 2020). These portrayals of women matter and likewise should be addressed. Portrayals need to be analyzed due to their impact on how children perceive women. These perceptions influence and guide interactions with women who are married, have children, and are older.

Thus, portrayals need to be assessed due to the media's important effects on children. Furthermore, this study adds to the previous literature regarding media portrayals of women. This study especially contributes to research on Disney movies, and how Disney women are displayed in children's movies regarding beauty and competence. Ultimately, this paper addresses how Disney perpetuates images of women by utilizing multiple Disney movies.

Literature Review

Women's Attractiveness Concerning Marriage, Age, and Motherhood

Women are represented in a multitude of ways regarding their age and marital status. One explanation for this difference is how married women are seen in society, especially concerning their perceived attractiveness. One basis of marriage is similar levels of beauty between spouses (Langlois et al. 2000). The fact that one criterion for picking a partner is beauty, shows the importance it holds in relationships and society. Researchers found that husbands' satisfaction was dependent on their perception of their wife's appearance, while these results were not found in women's marital satisfaction (McNulty et al. 2008). The concern men have for their wife's looks shows the importance of women's looks and how it influences marriage. Further research shows that marital status affects how women view themselves (Giesen 1989). Women who are married are less likely to rate themselves as attractive than single women. Single women, regardless of age, were less likely to focus on their physical appearance, or negatively evaluate themselves concerning their looks. These articles show that marriage affects how women see themselves, as

againg and marriage are intertwined. The valies of men influence women's perceptions of themselves as they age while single women are more likely to find internal self-worth.

Being attractive has been important for women across time periods, and continues to hold importance in today's society. Societal expectations push women to be attractive, which impacts their self-image, marital satisfaction, and ability to enjoy sexual interactions (Quittkat et al. 2019; Korochentseva and Lomova, 2023; Feki et al. 2018). This emphasis on women's appearance teaches both men and women that women need to be attractive in order to be satisfying. These ideals teach women that their appearance needs to be maintained and preserved to be seen as attractive. Therefore, as women age and start to lose the youthful beauty that was sought after, women and spouses begin to see them as less attractive (Margolin and White 1987). Youthful looks are based on slim figures, no grey hairs, no wrinkles, and no weight gain (Giesen 1989). Thus, aging is then associated with no longer being attractive. Therefore, an association between married women, age, and unattractiveness begins to form. Ultimately, society emphasizes women's appearances and those who are young. Therefore, people in married relationships have trouble managing aging and maintaining marital satisfaction. This creates the idea that married women can't be attractive due to their age. It's worth noting that youthful married women, such as women who are newly married, haven't yet faced this phenomenon. This is due to childish youth being the beauty standard which ultimately leaves no room for older, mature women (Mernissi 2001).

As women age, they have different expectations than they did in their youth. Motherhood is seen as essential to a woman's life experience and livelihood. Despite this seemingly outdated idea, even modern men still view mothering as a crucial role in a woman's life and working as an additional luxury (Gerson 2015). Beauty standards also follow this expectation of motherhood. Some mothers mention the need to "not let themselves go" after having children (Montemurro and Siefken 2012). This connects the idea that mothers should not be attractive, and that one has to take time to ensure looks are maintained. Trying to regain one's pre-pregnancy body is ideal due to being the most attractive version of a woman. Therefore, mothers aren't seen as attractive due to the changes their bodies go through (Montemurro and Siefken 2012). Changes such as weight gain and vaginal fluctuations are seen as undesirable. "Real" mothers should be willing to sacrifice their bodies, but women who want to keep their pre-pregnancy bodies show the idea that the "real mother" body isn't an attractive one. These contradictory ideals toward motherhood and beauty are important to emphasize. The feeling that women must sacrifice themselves, but also regain their pre-pregnancy is complicated and needs further research. Therefore, anecdotal recounts show that competent mothers should be willing to sacrifice their appearance for the good of their children (Montemurro and Siefken 2012).

According to Montemurro and Siefken (2012), motherhood is crucial. Mothers are expected to teach conservative and moral ideas to children. This is displayed today, considering motherhood and sexuality aren't often seen together. Mothers are expected to display traditional, conservative clothing, appearance, and actions in order to be "good" mothers. Therefore, sexual activity is connected to being young, not married, and having no children. Ultimately, this shows that married women are expected to have children and hide any "immoral" sexual behavior. This effect continues with mothers themselves. Research shows that two-thirds of mothers believe they should alter their appearance to ensure sexual privacy (Montemurro and Siefken 2012). Montemurro and Siefken note how women are supposed to put their children first and not be worried about being sexual beings. Many mothers believe that setting a good example for their children is crucial, and sex is not a good example. Ultimately, Montemurro and Siefken explain how women can't be sex symbols because their children should be the focus of their lives. Focusing on children leaves less time for sex overall, but also prohibits women from exhibiting sexual behaviors due to sex being taboo. However, presentations of motherhood and sexuality are changing. Since the late 90s, sexually attractive mothers have been presented in movies and media (Oliver 2010). MILFs (Mother I'd Like to Fuck) have begun to be commonplace within porn and other forms of media (Trice-Black 2012). This shift has put mothers in a different sexual position. For example, middle-aged women in pornography are often displayed as initiators of sex and sexually dominant rather than in mainstream porn, which generally places women in submissive positions (Vannier et al. 2014). Thus, women, especially mothers, are being displayed in more powerful positions which have been uncommon in contemporary society. This change is crucial in displaying shifts in the portrayal of women in media.

Women's Competence Regarding Marriage, Children, & Age

As with bearing children, marriage is a societal expectation of women. Marriage shows a woman is on a normal developmental path. As such, this deviance shows a lack of responsibility. Ultimately, single people are regarded as irresponsible and less mature than those who are married (Etaugh and Birdoes 1991;

Morris et al. 2008). Thus, due to the failure to meet the normative expectation of marriage, single people lack the competence that married people hold.

Mothers have a complex identity regarding their competence, especially in the workforce. Women face conflicting images regarding their work and personal identities. Not only are they expected to be devoted mothers, but also devoted workers (Gerson 2015; Williams et al. 2013). However, women are expected to put their children above work in every instance. Therefore, they are not fully devoted to their work as an "ideal worker" should be; due to this contrast, women are often seen as less employable (Jordan and Zitek 2012). They are not able to fully commit compared to women without children. Thus, their employment and working competence are negatively evaluated due to their status as parents.

A common stereotype regarding older adults is their lack of competence. Older adults may be described as warm but lack competence and intelligence (Fernández-Ballesteros et al. 2016). Furthermore, these negative views of older people may attribute them to being poorer workers than younger people (Dordoni and Argentero 2015). These stereotypes of competence may produce a self-fulfilling prophecy in which older workers don't feel valued and then leave which "validates" coworkers' perceptions of older employees. Ultimately, older adults are seen as less competent due to their social skills, cognitive abilities, and unwillingness to change compared to younger workers.

Physical attractiveness is paramount in Western society. Often, attraction is valued over a woman's skills and competence (Wolf 2002). For example, women who are focused on their appearance view themselves as less competent and often perform less competently (Gapinski, et al. 2003; Quinn et al. 2006). Ideas about attraction and competence are also displayed in other's perceptions of women's competence. For example, studies found that when applying for high-ranking employment, attractive women are seen as less competent than attractive men (Heilman and Stopeck 1985). Further research theorizes that this is due to the objectification of women, as objectifying women, regardless of social position, leads to lower perceptions of competence (Heflick and Goldenberg 2009). Thus, attraction and competence are negatively correlated for women. This is especially true for women in prestigious positions. This effect is not found in women in lower-paying (less high-ranking) positions (Glick et al. 2005). Therefore, women are judged based on their appearance in all positions, but attractive women are perceived as less competent in high-status positions.

Disney Portrayals of Women

Disney often portrays women according to these previously established ideas. One portrayal presented is age, as older women in Disney are not only presented less, but face older portrayals such as wrinkles, grey hair, or saggy breasts (Robinson, et al. 2007). The study shows that women, especially older women, are more likely to have negative portrayals than older men. Further media portrayals are perpetuated through roles and attraction. For instance, one study found five categories of women within traditional films: the young heroine, young and attractive, young unattractive, older and matronly, and older and unattractive (Wiersema 2000). Notice how there are no older, attractive women in these traditional Disney films. However, these categories persist today. Beauty standards for good women in cartoons fall within three larger categories: the young, domestic heroine, the sex figure with an hourglass figure, and the old "dowdy" matronly figure (Abel 1995). Ultimately, these categories show that older women are not considered attractive or sex figures in older cartoon movies. Motherly figures are attached to being older and not following the slender beauty standard of younger women. The association between caring mothers and not being attractive is further cemented (Abel 1995). These portrayals involving age and motherly tendencies show that older women are expected to care for younger people, and are not seen as attractive within society due to their age and focus on being mothers. While not every matronly figure is married, the majority interact with children which cements their role as parental figures.

Despite these established media portrayals, Disney has notably attempted to move away from problematic portrayals of women in their newer films. In the "renaissance" era of Disney (1980s-1990s), producers attempted to produce heroines that capitalized on their own skills, such as Belle's knowledge or Mulan's wit and resourcefulness (Whelan 2012). However, the films still focus on women eventually ending up with men, such as Pocahontas's sacrifice for John Smith and Megara's falling for Hercules despite being adamantly against men. An attempt was made to emphasize individual traits, but ultimately, the women depend on men and sacrifice their livelihood for them. However, this idea is changing in modern Disney films. For example, modern movies such as Moana display more assertiveness rather than passivity and the focus on romance and men (Hine et al. 2018). New princesses and women display more characteristics of heroism and bravery rather than focusing on heterosexual relationships and reliance on others. Therefore, implementing both eras provides wide-scale inclusion of different beauty and competence norms at those times. While Disney has attempted to expound upon women's gender roles, the focus on attraction

and competence still needs evaluation. Ultimately, this study is especially important due to the impact Disney has on youth populations (Wills 2017). This study is also significant due to the time periods covered and the amount of characters coded. For example, some studies only focus on main characters/princesses or have been published over a decade ago (England et al. 2011; Abel 1995; Hine et al. 2018; Johnson 2015). It's important to note that many studies focusing on the gendered nature of Disney often center on princesses rather than other "good" characters (England et al. 2011; Hine et al. 2018; Johnson 2015; Wellman 2020). Thus, this study is important as it adds to the literature on multiple Disney characters regarding both competence and beauty standards. Therefore, the hypotheses for this study are as follows: married women are seen as less attractive and less competent than single women, mothers are seen as less attractive and less competent than women with no children, and older women are seen as less attractive and less competent than younger women.

Method

The top twenty highest-grossing films, ten from the 1980s to the 2000s and ten from 2000 to 2020, were used for analysis (see appendix). The time periods were picked due to a considerable amount of Disney's top-grossing movies being released during this time. The time periods were chosen to allow for comparison across time; however, since comparisons were not significant, the sample was consolidated. All twenty of the movies were produced within the time frame, and were simultaneously some of the highest-grossing animated films to date (IMBd 2021). Furthermore, Disney movies were picked due to the popularity of Disney in Western culture. Disney's influence is evident in the sheer multitude of movies, its management of multiple corporations, its expansive cruises and theme parks, TV shows, and toy stores (Wills 2017). Ultimately, Disney's reach is far and interacts with multiple sectors of Western entertainment. This influence spreads and influences social norms. Likewise, media plays a key role in influencing social behaviors (Gardner 2015). Therefore, due to Disney's wide reach in Western society, it is unsurprising that Disney movies would also hold the same media influence, hence its usage for this study is due to its popularity in the media.

The independent variables for this study are marital status, parental status, and age, while the dependent variables are attractiveness and competence. The independent variables will be examined against both dependent variables.

Independent Variables

Marital status is defined as being married or not. Parental status is coded as having children or not. Finally, age

includes three categories: young adults (18-35), adults (36-55), and older adults (56+; Petry 2002). Young adults are coded as having completed puberty, and/or the presence of very young children (Brubaker et al. 2022). Self-report of age through character conversation may also be utilized. Middle adulthood is characterized by having parents as older adults and young or teen children (Robinson, et al. 2007). Self-report of age through character conversation may also be used. Older adults will be noted by the presence of aged traits such as the use of physical aid (wheelchair, cane, etc), middle-aged children, or clear indicators of grandchildren (Robinson, et al. 2007). Self-report of age through character conversation may also be utilized.

Dependent Variables

Attractiveness is coded with inspiration from two different studies. Attraction is based on an hourglass shape, petite build, and non-sagging breasts (Wiersma 2000). Youthful appearance is also connected to attractiveness (no wrinkles or grey hair; Robinson et al. 2007). Attractiveness is based on the idea that Western beauty focuses on slender women and preferences for youth (Giesen 1989). An attractive appearance can also include women having big eyes, small noses and chins, and a proportional body structure (Shawcroft et al. 2022). Attractiveness is coded 0 = attractive and 1 = not attractive.

Competence is coded as setting and reaching goals through "participatory", "empathetic", and manipulative leadership (Rosario Neira-Piñeiro et al. 2021). Participatory and empathetic leadership are actions defined through cooperation with others, or through unselfish means of interpersonal relationships. For example, Elsa and Anna face the threats of the forest in Frozen II with the help of a variety of people: Kristoff, Sven, Grand Poppy, and the Northuldra people. Manipulative leadership is also coded to apply to Disney villains. An example of this would be Yzma abusing Kronk's lower intelligence to complete her plans. Therefore, competent characters meet their goals through a variety of leadership styles and methods. Competence also requires being knowledgeable and skillful, due to the idea that society's perception that women and mothers are less professional due to their personal identities (Reid 2015). Thus, the perception that women are less competent and professional due to their conflicting roles as mothers, provides a higher standard of competence for women. Women have less prestige and power due to the belief that their main identity is as mothers. Therefore, competence is based on the context of power and using this power and knowledge to meet goals by looking through the lens of a character's job. For example, Helen's job in *Incredibles*

2 is as a superhero, so competence is coded as looking at her power and influence within that role to meet her goals. Competence is coded 0 = competent and 1 = not competent.

Coding will be done on the characteristics of women in animated movies in accordance with marital status, parental status, and age, as well as attractiveness and competence. Only human women with more than or equal to thirty seconds of screen time, with a speaking role will be evaluated, as the audience most perceives their presence. Women must have a plot role; consequently, background or extra characters are not coded. Sequels that have the same characters will have the characters coded twice. Developed characters will be coded regarding attraction traits or lack of attraction traits, and then evaluated by their marital status, parental status, and age.

Results

Descriptives

This study found that most women were portrayed as attractive, with 64% being attractive and 36% not being attractive. Women were also more likely to be portrayed as competent, with 60% being displayed as competent with 40% not being displayed as competent. However, women were more likely to be portrayed as unmarried with 34% of women being married and 60% being displayed as unmarried. Women were also more likely to be portrayed as not having children, with 38% having children and 60% not having children. Finally, most women in Disney films were displayed as young adults, with 57% being young (18-36), 23% being middle-aged (37-55) and 20% being portrayed as older (56+).

Descriptive Statistics (N = 47)

Dependent Variables

	Yes	No
Attractiveness	64%	36%
N	30	17
Competence	60%	40%
N	28	19

Independent Variables

	Yes	No
Martial Status	34%	60%
N	16	28
Missing = 3		
Parental Status	38%	60%
N	18	28
Missing = 1		

	Young Adult	Middle Adult	Older Adult
Age	57%	23%	20%
N	27	11	9

Table 1. Descriptive statistics of independent and dependent variables.

Results pertaining to marital status, parental status, and age on attractiveness and competence show varying support for the hypotheses. These results are shown in Table 2.

Martial Status, Parental Status, & Age on Attraction & Competence (N = 47)

	Attraction	Competence
Marital Status		
Pearson R	-0.194	0.087
Sig. (2-tailed)	0.208	0.576
Parental Status		
Pearson R	-0.350	0.130
Sig. (2-tailed)	0.017 *	0.390
Age		
Pearson R	0.760	-0.205
Sig. (2-tailed)	0.000 ***	0.167

*p = < 0.05; **p = <0.01, ***p = <0.001

Table 2. Pearson's correlation and significance tests on independent and dependent variables.

Marital Status

Pearson's Correlation and test of significance were employed to test variables, and did not provide support for the hypothesis that as women become married they become less attractive and less competent. Table 2 shows there was not a significant correlation between marital status on attractiveness or competence. Ultimately, the hypothesis that marital status would decrease women's attractiveness and competence was not supported.

Parental Status

To analyze parental status on attractiveness and competence, a Pearson's Correlation and test of significance was utilized. There was mixed support regarding the hypothesis that women as mothers were less attractive and less competent. Table 2 displays a significant relationship between parental status and attractiveness, p = 0.017. Therefore, these results show that women are portrayed as parents, they are regarded as less attractive. However, there was not a significant correlation between parental status and competence. Thus, there was a significant relationship between parental status and attractiveness, but not competence.

Age

A final Pearson's Correlation and test of significance was used to test correlations of age on attractiveness and competence. Results displayed partial support for the hypothesis that as women become older they become less attractive and less competent. As shown in Table 2, there was a significant correlation between age status and attractiveness, p < 0.000. Thus, as age increases, women are regarded as less attractive. However, the relationship between age and competence was not supported. Therefore, the relationship between age and attractiveness was significant, but the relationship between age and competence was not.

To summarize, only parental status and age had a significant relationship with attraction. However, no independent variables had a significant relationship with competence.

Discussion

Based on the results given, significance can be deduced for a few of the proposed hypotheses. Results indicate that as women age, they are regarded as less attractive. Furthermore, results show how women with no children are seen as more attractive than mothers. However, there does not appear to be a significant relationship between attractiveness and being married. These trends correspond with societal ideas that older women are deemed less attractive than younger women, and that mothers are less attractive than women without children. It's well-established that Western societies view older people and mothers as less attractive (Margolin and White 1987; Giesen 1989; Montemurro and Siefken 2012).. These trends show the connection between age, motherhood, and attractiveness previously described in the literature review.

Multiple implications arise from these results. The most evident is the connection between age and attractiveness. Past literature shows expansive support for this idea (Margolin and White 1987; Giesen 1989; Montemurro and Siefken 2012). Western beauty standards emphasize youth and non-aged features (Giesen 1989). Therefore, simply aging creates the perception that women are less attractive compared to younger women.

Results also show support for the relationship between parental status and lowered perceptions of attractiveness. As women become pregnant, give birth, and have children, their bodies go their changes. Changes such as weight gain are often viewed negatively (Montemurro and Siefken 2012). Moreover, women are told these natural bodily changes need to be "fixed" or reversed in order to be seen as desirable. Furthermore, mothers lose their ability to be sexually attractive after becoming mothers (Feki, et al. 2018). Social norms dictate that mothers cannot be sexual beings, as their focus should be on their children. This focus on children rather than sexuality reduces the attractiveness of mothers due to Western emphasis on women's sexuality (Feki, et al. 2018; Montemurro and Siefken 2012).

Results did not display a significant relationship between marital status and attractiveness. This does not support previous research which found support for married women being viewed as less attractive (Giesen 1989; McNulty et al. 2008). However, results show other implications for married women. For example, Disney often follows the stories of attractive protagonists (i.e. Belle, Helen, Moana, Anna, etc.). Due to the importance

society places on women and getting married, it's important for Disney to display young, attractive women getting married (Crouse 2017). Therefore, due to Disney being paramount in developing children's ideas about society, it's important for Disney to uphold traditional ideas about marriage (Robinson et al. 2007).

Results also yielded no significant relationships between marital status, parental status, and age on competence. Therefore, competence was not correlated with any of the former variables. This does not support previous claims about competence which note that single women, mothers, and older women lack competence (DePaulo et al. 2008; Williams et al. 2013; Fernández-Ballesteros et al. 2016). However, most women in the sample were coded more competently than incompetently. Therefore, Disney may be displaying a shift in portrayals of women. This may be due to portraying the attractive protagonists with beneficial and positive traits (Bazzini et al. 2010). Traits such as bravery, compassion, and resilience are being displayed in tandem with attractive women. Furthermore, Disney displays an evolution, with women in newer films being more likely to display these traits (Johnson 2015). Therefore, Disney may be enacting change in women's portrayal to display more competent women. For example, many modern movies such as *Big Hero 6, Frozen, Moana, etc.* have displayed women as more independent and leaders in their own sectors. The young women in Big Hero 6 are intelligent, engineers, and scientists. Furthermore, Moana saves her village, becomes chief, and leads her people to a new era of prosperity. Thus, Disney and its affiliates may be attempting to rebrand their female characters into more independent, competent women. It's important to note that this shift might not be displayed for marriage due to the expectation that women still get married (Sassler and Lichter 2020).

These results are important due to Disney's wide effects on children and Western influence. Examining the perceptions Disney presents to children is vital in assessing consequential ideas about women. Furthermore, these results are crucial in displaying current trends in women's portrayals. While Disney has shown that ideas of women's competence have shifted overall, old portrayals of women still persist in society (Xu 2021). For example, results show that portrayals of older women lacking attractiveness, unmarried women lacking competence, etc. still exist. Therefore, being able to articulate these patterns allows further exploration and presentation of women in Disney films. Finally, results are important due to supporting previous research and claims found within real-life and animated spheres. Finding further evidence of previously established claims allows for more well-rounded studies and research. Consequently, these findings are

relevant due to their support of previous literature and established portrayals of women. These results also show how some hypotheses don't hold up to societal scrutiny. For example, Disney doesn't portray married women differently than non-married women concerning attraction. Therefore, this research counters previous literature focusing on married women's attractiveness (Giesen 1989; McNulty et al. 2008).

Despite the relevance and importance, there are limitations to this study. The first is there was only one coder for the entirety of the measuring process. Interrater reliability should be considered for future studies. Furthermore, this study focuses on Disney movies and Pixar affiliates due to their wide effects on the public. Therefore, this focus doesn't account for other companies not within Disney's influence. This study also doesn't look at any live-action movies within or outside Disney. However, further studies and research on this topic would expand previous knowledge and increase the validity of claims. Moreover, this research doesn't examine the effects of goodness or evilness on attractiveness perceptions. These connections are important to explore in further research due to the presentation of villainous women's attractiveness (Wellman 2020). Thus, the relationship between singleness, unattractiveness, and villainous roles would provide further implications for women in Disney. Moreover, this study doesn't analyze competence on attraction. As previously stated, attraction is known to influence views on a woman's competence. However, this study doesn't look at the competence of attractive-coded women on a broad scale. Attraction and competence were briefly examined but more research needs to be conducted. Thus, future studies could do more complex statistics to evaluate the relationship of attraction on competence and vice versa on Disney women. Finally, the study doesn't look at these variables regarding men. Therefore, comparisons can't be made across sexes concerning attraction and competence. However, future research can examine men and compare their results to women.

Conclusion

Ultimately, examining the portrayal of women in Disney allows researchers to assess previously established claims about women in families. The current study corroborates ideas that society holds about mothers and older women. Society's views that mothers and older women can't be attractive permeate multiple sectors of entertainment, and Disney is no exception. Therefore, this study's findings support prior research regarding parental status, age, and attraction. However, previous claims of competence were not found in this study's results. Overall, these ideas are important to examine due to Disney's wide-ranging influence on Western society and children.

Appendix: Coded Characters

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Films	Characters
Hunchback of Notre Dame	Esmerelda
Mulan	Mulan Fa Li Grandma The Matchmaker
Hercules	Megara Hera The Fates Alcemene
Emperor's New Groove	Yzma Chicha
The Little Mermaid	Ariel Ursula
Pocahontas	Pocahontas Nakoma
Beauty and the Beast	Belle Ms. Potts
Tarzan	Jane
Aladdin	Jasmine
Who Framed Roger Rabbit	Jessica Rabbit
Frozen	Elsa Anna
Frozen II	Elsa Anna Queen Iduna Honeymaren Yelena

Incredibles II	Helen
	Evelyn
	Violet
	Edna
	Ambassador Selik
	Karen/Voyd
Toy Story 4	Bonnie's Mom
	Harmony's Grandma
Toy Story 3	Andy's Mom
Inside Out	Riley's Mom
Coco	Grandma Coco
	Elena
	Luisa
Up	Ellie
Big Hero 6	Aunt Cass
	Honey Lemon
	Go Go
Moana	Grandma Tala
	Sina
	Moana

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Roll for Communitas: Examining Intersections of Ritual and Play in *Dungeons and Dragons*

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Abstract

In the tabletop role-playing game *Dungeons & Dragons*, players have the freedom to be whoever they want and do whatever they want. Although most definitely a game, *Dungeons & Dragons* also exhibits characteristics suggestive of a ritual. This study examines how intersections of ritual and play manifest within the context of *Dungeons & Dragons*. Matan Shapiro's theory of "ritualized play" applies to *Dungeons & Dragons* because these play experiences and ritual experiences can be enacted within the same event. Through engagement in a ritualized play space, *D&D* players yield rewards of both play and ritual, namely the ability to reject/subvert the social order, the ability to ratify/uphold the social order, and a sense of communitas. However, rituals aren't always enacted perfectly, threatening the "ritual" aspect of *Dungeons & Dragons*, and resulting in a failure to produce the rewards promised.

Introduction

My friend stood against a wall, a good distance away from me. I slung my bow off of my back, notched an arrow, drew the string, and pointed it towards an apple positioned carefully on their head. I aligned my aim, breathed in, then out, and let the arrow fly. It sailed off my bow and across the room, went directly through the apple, and embedded itself in the wall behind them. We started celebrating, amazed that we had managed to pull this off so well.

Perhaps more accurately, my character in a campaign (a series of playing sessions) of the tabletop roleplaying game *Dungeons & Dragons* completed these actions. Out of character, I rolled two 20-sided dice to determine the success of this encounter, taking the higher number of the two rolls as the determining number. A 1 meant spectacular failure, a 20 outstanding success. My friends and I watched as the dice rolled, and both landed with the 20 facing up. Gasps went around the room as we looked at the numbers, knowing what was to come: outstanding success. Our dungeon master posed the infamous question: "How do you want this to go?" and I responded with the narrative I had envisioned. He took what I had described and embellished it, weaving the most epic tale to explain what happened above. Afterwards, we erupted in laughter, amazed that I had not only succeeded, but had done so by achieving two "natural 20s", the most revered outcome the dice could give.

Interactions like these were plentiful during our time playing, and I credit this campaign as my first real community on my college campus. Over the course of a year, strangers became close friends, building incredibly intense bonds given how little we knew about one another. While playing in this campaign was certainly fun, it often felt like something more was happening than just play. Moments where each player is wholly invested in the game transcend play, achieving a sense of communitas (Turner 1982) usually felt only when engaging in a ritual. Often ritual and play are conceptualized in anthropology as two separate, yet similar, entities. However, they are more intertwined than previously thought (Shapiro 2020). *Dungeons & Dragons* serves as a perfect vessel for examining these intersections because of its unique ability to bring people together through its escapist roleplaying nature.

Dungeons and Dragons, more colloquially dubbed *D&D*, is a tabletop roleplaying game (TTRPG) wherein players create characters and engage in collaborative roleplay scenarios with each other to achieve a common objective. This scenario is typically chosen by the Dungeon Master (DM), who operates as the rule enforcer and creator of the fictional space the characters occupy. *D&D* allows players to "imagine heroic characters for themselves and produce narratives of their adventures," with the objective being "not only to produce a good story but to allow the players to experience an imagined world together" (Laycock 2015). Literature on *D&D* has looked at the game's history and evolution (Peterson 2020), its ability to serve as an escapist world (Kawitzky 2020), and its ability to shape player identities (Garcia 2017). However, little research has been done on how players interact with one another, and how the game creates bonds between players. Community is at the heart of *Dungeons & Dragons*, and manifests in ways that make it more than just a game, taking on ritual-like qualities but ultimately fitting in a third category: ritualized play.

Literature Review/Theory

Ritual & Play in the Status Quo

Historically, social scientists have viewed ritual and play as foils to one another (Handelman 1977). Where ritual has structure and "seriousness" (Durkheim 1995[1912]; Van Gennep 1960), play has looseness and "fun" (Huizinga 1955[1938]; Caillois, 2001[1958]). Anthropologist Matan Shapiro takes this intersection one step further by arguing that ritual and play exist as "dynamic, processual experiences, which frequently merge when they are enacted together in highly symbolic public events [which] do not necessarily differ as rigid, predefined, conceptual frames, but rather as experiences that unfold in different forms" (Shapiro 2020: 193). In contrast to the idea of ritual and play as "foils" to one another, Shapiro instead looks at the relationship between the two domains as dynamic, interactive, and more intertwined than previously thought. This concept, coined "ritualized play", is integral in examining the realm of *Dungeons & Dragons*, as the game contains parallel structures of both ritual and play that intertwine in a way that is not mutually exclusive to either domain's ideas or literature. This research explores the utility of Shapiro's understanding of the relationship of ritual and play, challenging long-held anthropological conceptions of ritual and play as separate entities. If *D&D* exists as a true "ritualized play" space, then *D&D* players should experience a feeling of communitas (a traditional benefit of engagement in ritual) that strengthens their bonds with one another. There are three outcomes of this study: it applies 'ritualized play' to different cultural spaces than previously studied, provides a greater understanding of characteristics of ritual and play present in *Dungeons & Dragons* campaigns, and identifies potential constraints of Shapiro's theory as it pertains to the game.

Defining Ritual

Rituals are integral to the regulation of societal norms and the production of cultural values. They exist as rigid structures through which "collective feelings and ideas" are created, experienced, and reaffirmed (Durkheim 1995[1912]). Through these rigid structures, participants interact with the "sacred": "special things, protected, isolated, separated, prohibited, inaccessible, apart from the mundane world…invested with special properties" (1995: 357). Participants interact with rituals using gestures, words, and interactions specific to the group, and performing these during specific times, in specific places, or in a set sequence (Stein and Stein 2017). They serve as "culturally constructed system[s] of symbolic communication" (Tambiah 1979: 119), and "regulate, maintain and transmit from one generation to another sentiments on which the constitution of the society

depends" (Radcliffe-Brown 1952: 157), embodying the beliefs, norms, and cultures of the parent group (Davis-Floyd 2004[1992]) and reflecting the established structure and social order of the culture they exist within (Stein and Stein 2017). Thus, rituals exist as structured, "formal" events, separate from other forms of social interaction, existing as structured ways individuals interact with the sacred. They are designed to communicate symbols and regulate society, utilizing acts specific to their group in a structured manner.

Rituals come in a variety of forms, including transformative rituals, or rites of passage, which can be broken down into three phases: preliminal, liminal, and postliminal. Participants prepare for a ritual (preliminal), engage in the ritual (liminal), and disengage with the ritual having "changed" in some capacity (van Gennep 1960). The concept of liminality can be extended to ritual applications beyond the scope of rites of passage. Turner maintains that the idea of liminality can be applied to the entire ritual, not just one stage (1969), and further characterizes liminality as being necessarily ambiguous, where individuals have no status and groups become homogenized (1969). Through rituals, participants experience communitas: a feeling of mutual understanding and connection (Turner 1982). The idea of communitas bears resemblance to Durkheim's idea of "collective effervescence", which is that feeling of "electricity" in the air that people experience from gathering (1995[1912]). Ultimately, rituals in their various forms can transform those who participate and increase the bonds between those who participate in them. Participation in rituals serves to benefit both the parent culture and those that participate in them.

While rituals are designed to benefit the parent culture, they aren't always effective. Schieffelin quantifies a failed ritual, or "failure of ritual" as a ritual that does not produce the result expected from engagement (2007). He distinguishes this from "failure in ritual", where mistakes occur during the enactment of a ritual. Failures *in* ritual often cause failures *of* ritual but are not always the driving force behind ritual failure. Geertz looks at a specific instance of ritual failure during a Javanese funeral, where tensions between a culture's beliefs and values conflicted with their social behavior (1973). Thus, rituals "fail" when they lack efficacy and when tension exists between cultural values and participant behavior. Participants fail to adhere to the structure set forth by the ritual.

Defining Play

Where anthropologists see ritual as incredibly structured and formal, they categorize play as being looser. Play "rests, relaxes, distracts, and causes the dangers, cares, and travails of life to be forgotten" (Caillois

2001[1958]: 158). "Play spaces" exist separate from the "real" world (Bateson 1987[1972]), a "magic circle" of play "where the customary differences of rank are temporarily abolished" (Huizinga 1955[1938]: 77). There are 5 different characteristics of play: it is a voluntary action, different from "real" life, confined to specific contexts, tense and rule-bound, forming social groups characterized by "secrecy" and separation from non-play spaces (Huizinga 1955[1938]). Games are a subfield of play, and can be sorted into four different categories: games of competition, games of chance, games of mimicry, and games of balance (Caillois 2001[1958]). They can either be heavily organized with strict rules, or be improvisational with very loose rules (Caillois 2001[1958]). Another characterization of games comes in the purpose of play, specifically their finality. Finite games "are played for the purpose of winning, and infinite games for the purpose of continuing play…" (Carse 1986: 3). Traditionally, the more organized the game, the more finite it becomes (Frasca 2003).

Game designers view games as objectives-based events, or "[systems] in which players engage in artificial conflict[s], defined by rules, that result in a quantifiable outcome" (Tekinbaş & Zimmerman 2003: 11). This perspective on gaming has 4 main qualities: representation (that a game is a closed system representing a subset of reality), interaction (that players can observe the cause and effect of their actions), conflict (that a player is trying to achieve a goal, and there is an obstacle preventing that from happening) and safety (that a game is a safe way to experience conflict) (Crawford 1984).

While games can be classified as subsets of society, they also exist as an extension of society, wherein the way someone interacts in the game is an inherent reflection of their status outside the game (Geertz 1972), establishing games as inherently participatory. Through participation, the identities and opinions of players then become the single most important creative element to a game (Sicart 2011). Player participation can even change the structure of the game. Processual games can change through the playing process, and players (intentionally or unintentionally) can enact these changes, altering the rules and outcomes of a given game (Malaby 2007). Role-playing games are processual games of simulation and chance, where players craft and play as that character in a narrative arc facilitated by a game master (Montola 2003). Role-playing games should "establish some sense of community through a ritualized, shared storytelling experience amongst multiple players… [and] the players must, on some level, alter their primary sense of identity and develop an alternate self… (Bowman 2010, 11-12). Sociologist Fine looks at role-playing games as "social worlds", where participants can "escape" from the constraints of normal society by participating in their own constructed society (1983). In these "social worlds", players are both audience and actor: making character decisions influenced by the actions of others (Kim 2004) and subsequently creating their own bounds of the game (Loponen & Montola 2004). Thus, play exists as a voluntary interaction space, characterized in a myriad of different ways, where players gain the freedom to forget the constraints of everyday life. Role-playing games specifically allow participants to influence the rules and outcomes of the game and to act as a character that is an extension of themselves.

Intersections Between Ritual & Play

As evidenced above, ritual and play share overlapping characteristics; both exist as spaces separate from "ordinary" life and form connections between those who participate. Historically, the two are described as being "shadow images of one another in the kinds of messages they transmit to the social order." (Handelman 1977), or as separate processes/"frames", similar in characterization, that are enacted within society (Huizinga 1950). In some instances, ritual participants can use a "play" frame of performance to enact or make sense of different rituals (Turner 1982). Certain "anti-structural" rituals like the Jewish holiday Purim upend societal roles instead of upholding them, acting more in line with "play" frames than "ritual" ones (Rubenstein 1992).

Framing, or frame analysis, argues that events/scenarios are characterized as having different "frames" that people interact with. These "frames" denote what is "expected" social interaction within the space (Goffman 1974). Shapiro takes these ideas and argues that instead of scenarios having a dedicated "play" frame or a dedicated "ritual" frame, the two frames operate together (ritualized play).

Ritualized play as a framework comes from anthropologist Matan Shapiro, and presents a yet unseen conceptualization of the ritual-play relationship. He proposes that instead of ritual frames and play frames being distinct from one another, they work together in a dynamic, collaborative way, stating that "order and linearity in ritual may then suddenly transform into play, while double- standards in play could reorganize into a 'ritual-like' experience. The very integration of these distinct experiences during a single public event…thus goes beyond the restriction of framing" (Shapiro 2020: 197). When ritual and play are enacted together in this relationship, they " shuffle social values, imaginaries, polity, norms, symbols, customs, aesthetics, myths, narratives, gender role[s] and probably every other element of the moral order" (2020: 211). Shapiro's theory removes long-held conceptions of ritual and play as separate frames through which to view events. He instead proposes viewing events with the notion that ritual and

play are not mutually exclusive, and both concepts can be enacted in a dynamic relationship with one another to produce unique byproducts for individuals engaging with these events.

Methods

Interviewees were sought through mutual connections via convenience sampling. This included reaching out to local Discord servers and *D&D* campaigns. I excluded vulnerable populations and individuals who had never played before. The ethnographic interviews were semi-structured in nature and typically ran less than an hour in duration. Each interview included questions from a predetermined list, but also included information offered by participants unrelated to the questions, and any follow-up questions that arose from that process. I interviewed twelve participants about their experiences playing *Dungeons & Dragons*. Their experience level varied from 3 months to 25 years. Half of the participants cited having experience as a Dungeon Master, and every single participant cited having experience as a player. Some participants also mentioned experiences playing other forms of tabletop role-playing games.

Data/Analysis

Shared Narratives

Dungeons & Dragons is universally accepted as being a role-playing game. Per Bowman's characteristics, the game establishes community through active participation, shared storytelling experiences, problem solving, and the use of alternate selves (2010). These characteristics allow *D&D* to function as a "social world" (Fine 1983), where players can escape from their everyday lives into a world of their own creation. Community through shared storytelling manifested in a lot of participant responses. Augie, who serves as a Dungeon Master (DM) for a campaign with his friends, views the game as "improv fantasy storytelling, where the story can be whatever you want as long as you're working with the other players to build the story together." As the DM, he facilitates the narrative of the game, setting up different encounters for his players to solve, "curated" from where they want to see the story go. Nancy, a player with 4 years of experience, also touched on the importance of collaborative storytelling, saying that "at the heart of [*D&D*], it's a storytelling game…you get to create wonderful adventures and stories with your friends…some paper, some pens, five other people around you eating Doritos, and it's still baller." Cliff, who primarily DMs, describes how collaborative narratives manifest in the combat elements of the game, stating that "every time [players] kill a creature, I'll ask them 'how do you want to do it?'…and it allows [them] to give me the chance [to think], 'oh, this is what [they] want

to do, now I'm going to make it a reality.'" Similarly to Cliff, Brian views problems encountered in the game as a way to move the narrative forward, especially when it comes to his character, stating: "I've only got so much of my character…in my head. A lot of it's fleshed out by these challenging moments…like a little brain teaser that sparks off new ideas." Thomas, a DM with 8 years of experience, even argued that certain stories "actually work better in *D&D* than they would on a page, just because the participation is what makes the story interesting." He went on to say that "There's no other medium where you can say 'I am going to get involved- right here, right now- and my choice will…make a difference on the course of what's happening'". Through this process, players & DMs advance the game forward by working collectively, developing shared narratives, and advancing individual character narratives over the course of the campaign. The process of creating shared narratives allows players to build community with one another both in and out of character.

Alternate Self

Player characters, or "alternate selves" serve an important role during the campaign: further deepening the escapist nature of the campaign. Participants like Levi, who has 14 years of playing experience, touched on the concept of alternate self, stating "I don't feel like personally I have that many creative outlets, so it's creating a character…and it's like I can play sort of an extension of myself.". Playing the game is a family event for Levi, and he elaborated on how roleplaying manifests when interacting with his family, saying, " it's fun…acting standoffish at first when you…get to meet everybody,". Meeting family members for the first time is something possible only through using a character as an extension of oneself. However, a player's relationship with their alternate self isn't universal. Nancy looks at her characters not as an extension of herself, but as someone completely different. She mentioned "[getting] to be a person that…I am not or [getting] to hone in on a part of me that I don't really get to see that often.". Paul, who has been playing since 2015, also talked about highlighting aspects of his personal identity through the game, saying:

> *"I am multicultural/multiethnic. And so almost every character I've played has been [mixed race] because I want to play around with that idea of "what is it like coming from two different cultures. How do they blend together?" I like having a character that's going to overcome all [that]."*

Some interviewees even cited using their alternate self to help process trauma. Later in her interview, Nancy mentioned that playing in her most recent campaign

has helped her process generational trauma, saying "my character…she gave up part of her life so that her family…has a better life…that's on generational trauma as a fourth-generation Chinese person" and Thomas talked about playing with people who use their characters to gain power over situations they might not have had control over in "real life." Characters as alternate selves further deepen the escapist & immersive nature of the game. While participants are playing, they can fully forget about the constraints of everyday life, entering a "liminal phase" (Turner 1969), "magic circle" (Huizinga 1955[1938]), or "social world" (Fine 1983) of their own creation.

Dungeons & Dragons allows participants to engage in collaborative storytelling and facilitates a "social world" where players can escape into an alternate world and alternate self. The utilization of constructed narratives and "alternate selves" function to effectively erase existing social orders by allowing participants to craft a new identity. Playing can even empower players to use this social world to temporarily erase norms and roles held outside the game, consistent with Shapiro's definition of play dynamics present in ritualized play spaces.

Transformative Power

While *D&D* is identifiably a game, its status as a ritual is more contested. However, *Dungeons & Dragons* fits the definitional criteria of a ritual provided earlier in this study. For some participants, the game can serve as a transformative ritual not unlike that of a rite of passage (van Gennep 1960). Chris, who primarily DMs for middle and high school students via educational programming events, spoke to the transformative nature of the game, saying:

> "A young gentleman…he plays on our Discord server…[was] very shy. And so, [when] he first started playing like, that's how his characters were. And then he decided, "well, I wonder what I would be like if I was more outgoing?"…"Like what if I decided to try and lead in the group?"…and over the next 18 months…his character slowly acclimated into becoming a leader…[and] you could see it actually reflect in him, change him over time."

He also touched on other leadership skills gained from playing, saying "what you're really teaching is communication skills…You're teaching people leadership, problem-solving, cooperation. You're teaching them a lot of social skills that we don't get as much of anymore… [*D&D*] provides an opportunity for people to finally learn how to work with one another." Dungeons & Dungeons transforms participants by teaching norms, values, and

skills necessary for interaction in its parent culture, consistent with the function of ritual outlined by Davis-Floyd (2004[1992]).

Transmission of Norms

Radcliffe-Brown's definition of ritual is also dependent on transmission of social norms, adding that this transmission happens between generations (1952). My participant Levi, who learned how to play *Dungeons & Dragons* from his godfather, plays with his family during Thanksgiving and Christmas. These intergenerational campaigns allowed his godfather to teach the mechanics of the game, passing along the knowledge of the "ritual" itself. Alan, who has been playing for over 26 years, currently plays in a campaign with his daughters. His daughter struggles with social anxiety, and he initially agreed to play with her to help assuage the anxiety of playing with new people. Now that she feels more comfortable around the other players, he views playing as a time when he can talk to his kids. He mentioned that "[they] don't talk a whole lot outside of the *Dungeons & Dragons* stuff" and that he keeps playing because it's "one of the few activities that [he does] with [his] daughters." From Alan's perspective, his daughters often prefer to interact with people/content online rather than interacting with him. Playing with his daughters allows him to transmit norms and values of in-person communication and offers a comfortable safety net if his daughters need it. Not only do the mechanics of *Dungeons & Dragons* get passed down generationally, but the game can be used to help facilitate transmission of social norms through intergenerational play.

Safety Tools & Constructed Hierarchies

Like the above theorists, Shapiro's definition of ritual focuses on "controlled transformation" and the establishment of new hierarchies specific to the ritualized play space (2020). "Controlled transformation" in *Dungeons & Dragons* manifests through the implementation of boundaries/safety tools. Safety tools are tools that introduce structured boundaries into campaigns to ensure players' emotional and physical safety. Nancy stressed the importance of safety tools, expressing that "knowing what is a joke and what isn't a joke, especially in a game that has potential for really unsafe topics can be hard" and that safety tools can make that grey area easier to navigate. Nancy utilizes consent forms as a type of safety tool, where she "sends [the consent form] out to the players to ask them 'what topics are too sensitive?', or 'what might be too triggering for you?', so [she] can remove it or keep it at a minimum…" Chris also utilizes a consent form with his players, saying "that's where everybody can say anonymously…what bothers them…to make sure that…everybody feels safe and comfortable at your table". Safety tools ensure that

everyone playing feels safe around the table and provide structure to the game, allowing it to better function at transforming participants and transmitting social norms.

In addition to providing opportunities for controlled transformation, the game gives an opportunity for existing hierarchies to be broken down and rearranged, not unlike what occurs during the Jewish holiday Purim (Rubenstein, 1992). Emma, who is a resident assistant, mentioned that she plays in a campaign with her residents, saying "our relationship changes while we're playing the game, but then we sort of have to go back to that…outside relationship of resident and RA." Their existing power dynamic goes away during the game, replaced by one that puts them on equal footing.

While the game can equalize certain participants, it creates a different dynamic of hierarchization: DM vs. player. The dungeon master guides the narrative of the game, "refereeing" the players and ensuring that game rules are followed (Fine 1983). While *D&D* is inherently collaborative—and DMs work with players to construct the shared narrative of a campaign—they still maintain ultimate control of the story. When players stray too far from the structure of the narrative, the dungeon master is in charge of getting the campaign back on track. This redirection can be as simple as subtly directing players to choose a different option. Nancy, who both DMs and plays, touched on an instance where redirection was necessary, stating:

> "The very first day a player messed around and pushed my buttons a little bit and wanted to do any of the quests other than the one that I obviously planned for them that day…and when I told them that they couldn't do it, I told them in the way of "other people [got] to it before they [could]".

Redirection is integral to maintaining the structure of the game. Chris talked about the importance of ensuring players stay in line, mentioning that "you have to slowly guide them so that they hopefully don't just destroy it… give them little subtle hints and suggestions." If players are still persistent, he will "look at [them] and say 'well, do you really want to do that?' Maybe they do, and then we let the dice go." This balance can create serious emotional distress among players and DMs of a campaign. Later in his interview, Chris spoke on this dynamic, describing that players are "playing with something very personal to me, while at the same time trying to have a very personal experience [themselves]…[they're] going to destroy portions of my world. I'm going to break [their characters]…and it's a very emotional experience."

Safety tools and redirection maintain structure in the game, ensuring that players feel safe and that the story stays cohesive. This is aided by the establishment of new hierarchies during the game, providing a facilitator or "referee" (in the form of a DM) that creates a space of controlled transformation consistent with a ritualized play space.

Communitas

Dungeons & Dragons displays characteristics of both ritual and play and can thus be better framed as "ritualized play" than either category exclusively. Because *D&D* exists as a ritualized play space, players experience byproducts of engagement consistent with ritual. While participating in *Dungeons & Dragons* yields the ability to temporarily escape or continually reaffirm and transmit social norms, by far the greatest benefit of engaging in *Dungeons & Dragons* is gaining a sense of communitas. Communitas, per Turner's definition, is a feeling of deep togetherness people share from engaging in an event (1982). Feelings of communitas were experienced by every individual interviewed, though they manifested in different forms. Chris spoke about how bonds are formed in a campaign, saying:

> "I've watched kids who had never met one another…all of a sudden they have this common interest. They're like, 'I really want to try this, I really want to experience this together.' And at first…they're a little shy. They're like, 'oh, I don't. I don't know how to feel about this'…And within those boundaries, they started connecting with one another."

Nancy has even met some of her closest friends through playing, but they started as complete strangers:

> "A lot of them. I didn't know beforehand and so most of the time we ever interacted was in game…and it's seeing how other people play the characters and interact with yours, and like go out of their way to make sure that your character, and by extent you feel welcomed."

Augie spoke specifically about how these connections evolve over time, defining his experience as "a weekly thing we always do, where we talk a lot, joke around a lot and just like— spending seven hours with people like you're going to start building connections there and maintaining them" and that the game "becomes less individualistic as you start building a stronger community". The evolution of community over time is aided by shared narrative building through alternate selves (seeing how an individual's character interacts with others around the table), and the use of boundaries and in-game hierarchies (DMs utilizing safety tools to ensure the playing experience is positive).

While the playing experience should be a positive one, emotions experienced during the are not always so. Sometimes the game plays with high-stakes

emotions. Sometimes player characters die. When that happens, groups can often feel communitas in the face of this grief. Augie described one such experience, talking about a time when his party was debriefing after a particularly hard round of combat:

> "It was at the very tail end of that session…And we just had like a 15 minute conversation in character sitting around a campfire…being like "We just died" and…one of the other players was actually crying from it and that was just a moment, where it was after the combat actually happened, and it was just the aftermath of the characters coming together and I think that was one of those moments where it really felt like the characters were connecting."

Nancy mentioned a similar experience of communitas through grief, talking specifically about her character's actions impacting the game. She had dug up something that another character then consumed, leading to adverse effects for that character. She mentioned that she still has a photo of the "desperation and despair when [she] realized that [her] character's actions were the cause of someone else at the table's possible downfall." She mentioned that this encounter was "horrifying" and that it was "a moment where [they] thought [they] won. But [they] really did lose…and it's [in] those heart wrenching moments [where] everyone really is involved." As outlined above, players often feel a deep connection with their characters, and with the other characters and players in a campaign. Highly emotional moments like character death offer a chance for both players and characters to form deep communal bonds, consistent with communitas.

Dungeons & Dragons can be an incredibly high-stakes game for many players, and nowhere is this more evident than during in-game combat encounters. Levi talked about building communitas through combat, describing the final battle of his family's entire campaign:

> "[Our DM] gives us 15 minutes to plan…We're like, "okay, what resources do we have? What do we do?" And then that entire session took like 3 or 4 hours…it was so incredibly gratifying to see…all of the suspense that [our DM] built…and the fact that I still remember a lot of the details, I think that speaks to how impressive it was…it was something really really special."

Encounters like combat force players to collaborate with one another, and through that collaboration, deep communal bonds are formed.

Like Levi's example, these memories of deep communal bonds can stay in someone's mind for decades. When asked about a moment where he felt really connected to the other members of his campaign,

Alan's immediate thought was about a campaign he had played in high school over 25 years ago, where he and his friends fought an epic battle against a vampire.

Communitas doesn't just occur in a gratifying battle or when emotions are running high: it can also occur in what appears to be utter chaos. Emma described an encounter her party had, saying:

> "We were very much together in the fact that nothing was going right…one of our players…[is] turning into [a zombie]…and I'm tripping over my sword. And our main fighter…he just can't quite hit anything… and all of us—as like people outside of the game—are just laughing as everything goes to s*** in the game."

Brian also mentioned communitas in chaos, telling a story about his party trying to rescue a grub to raise as their own, and how it went "horribly wrong". He mentioned that "[his] character's arm got stuck…and then another creature came up and started attacking…" While this was happening, "guards saw through [their] illusion and started attacking [their] allies up above. [It was] pure chaos…We're like, 'Oh, no, this is going really wrong. Cause suddenly, just like— s**t hit the fan." When nothing is going as it should and players just aren't rolling correctly, communal bonds are integral to ensuring a positive playing experience.

The selections highlighted above are just a small portion of the anecdotes mentioned during interviews, and the fact that every single participant cited an example of communitas (in whatever form it may manifest) speaks to *D&D*'s power as a ritualized play space, and the greatest reward players gain from playing.

When Ritual Fails

While ritualized play spaces can be incredibly powerful, there are limits and constraints to Shapiro's theory, namely ritual failure. Ritual failure occurs when mistakes or obstacles prevent the ritual from serving its typical function. Schieffelin and Geertz characterize this as being performed incorrectly or tension between cultural values and participant behavior (Geertz, 1973; Schieffelin, 2007). The most notorious obstacle preventing a campaign from happening is scheduling. Thomas stated that "scheduling is famously horrendous for *D&D*, and it's impossible to actually get people together" and Nancy described scheduling as "the biggest enemy of *D&D*." Thomas elaborated on a potential root cause of this obstacle, saying:

> I think part of that is sometimes due to… differences and expectations of what the game will be …and that's both the strength and weakness of *D&D*…you can play the game a hundred different

ways. So, getting a group of people together who all are trying to play it for the same reason is doubly difficult.

Expectational differences don't just stop during the planning process of a campaign. These tensions can arise mid-campaign, causing friction between the Dungeon Master and the players.

Cliff touches on this concept as well, telling a story about his players ignoring the narrative in place:

> "they're supposed to go talk to this old lady…and rather than like trying to go up and like knock on the door to talk to the trapper lady, who would have openly given them the information…they, like, end up interrogating her, stabbing her in the gut and burning her house to the ground…the party members were just utter chaos…murder hobos, which is a *D&D* term like describing people who simply just want to kill everything."

The "murder hobo" archetype exists in players who view *Dungeons & Dragons* as a space of "ultimate freedom", where they can completely reject any semblance of narrative while playing the game in favor of just killing everything. This causes tension between the expectations and values set forth by the DM at the beginning of the session and the behavior of players during the campaign. Nancy touched on the player perspective of this tension, citing that "as a player. It's great. Your life is all in your control, and the DM has to f***ing deal with it." Cliff elaborated on what happens when players have this perspective on the game, saying:

> "If a player contradicts me, there's a huge power imbalance. They're quite literally living in the realm that I have created inside of my head, and it can create some friction…But when it comes down to it, I have final say…I am the DM. I am the god."

Ritual failure can and does occur within the confines of *D&D*, but one interviewee brought up the fact that *Dungeons & Dragons* might not be the best TTPRG for facilitating community. In other words, failure in the overall structure of the game itself. Paul mentioned that the game started as a war-game, where the sole focus was combat. While he brought up *D&D*'s evolution to focus more on the roleplay aspect, its wargame origin means that it wasn't created to handle the narrative storytelling aspect that is so crucial in transforming the players and creating a positive experience around the table. He said that "the key difference between *Dungeons & Dragons* and some other systems is…the way that the system is structured…built around combats and encounters, not around a true emotional arc," mentioning that "other tabletop role playing games…ask you to give a lot more in as far as your emotional consent and also your

emotional storytelling ability." He finished by saying that "you need to have really strong dungeon masters to help push a story and to give freedom to the players, to build an emotional moment like that."

Failures such as scheduling are failures to even play the game at all, while tension between players and the construction of the game itself is simply failure of the game's more ritual aspects. Players may certainly have fun killing every non-player character in their path, but that tension means that the ritual fails. Communitas isn't being built if players and DMs aren't all on the same page with one another. Similarly, players can have fun engaging in solely combat, but if the game isn't constructed around roleplaying, narrative storytelling, and emotional arcs, players lose the freedom to explore aspects of their identity, transform themselves, and ratify cultural values.

Conclusion

Dungeons & Dragons can be more than just a game. It can become a space of ritualized play, where elements of play and ritual merge to create a unique communal experience. The game provides players the opportunity to engage in a space separate from everyday life, where they have the freedom to explore a world unconstrained by the rules they operate by normally. This liminal space allows for collaborative storytelling and creating shared narratives, where players & DMs can work together to take the narrative in whatever direction they may choose. This escapism is aided through the use of characters as alternate selves, allowing players to process trauma, explore facets of their own identity, and even recreate moments they may not be able to experience outside the game. At the same time, *D&D* provides space for a group of people to converge around a common goal or a common "entity" (the game, the DM, etc.) and interact with it in a meaningful, "sacred" way. This can cause impactful transformation and shifting of social roles for players, where existing hierarchies vanish during the game in favor of establishing a new hierarchy: DM vs. player. The DM serves a key role in the campaign: safely and effectively facilitating controlled transformation of players. This controlled transformation further ratifies the social order players interact with outside the game, providing players a space separate from everyday society where they can learn norms and values integral to everyday life.

Most importantly, *Dungeons & Dragons* builds communitas and connections between players. This connection can manifest in total strangers becoming best friends. It can manifest in grieving lost characters or the outcome of actions within the game. It can be slaying dragons with your family sitting around the table with you. It can even look like being together in chaos, when it feels like nothing is together. However,

being "together" in *Dungeons & Dragons* isn't always a guarantee. Be it scheduling, conflicting expectations, or even the structure of the game itself, sometimes a campaign fails to ascend to the level of ritual. Sometimes it is just play. When it is "just play", often that experience is only enjoyable to one or two people in the room.

Much like how dice control the outcome of actions in game, sometimes *D&D* succeeds and sometimes it fails. When it succeeds, it transcends being simply play and becomes ritualized play, successfully challenging previously held notions of the relationship between the two types of events and becoming a new, third type of event. But, given the failures evidenced by participants interviewed, perhaps it is in fact not a ritualized play space at all— at least, not all of the time. In addition to failure threatening the concept of ritualized play's application to *D&D*, so too does the concept of the individual in relation to the game. While most of the game is played communally, so much of it is also independent. Players often treat character creation as a very private, personal event. They go home from sessions and create fan art, paint mini figurines, debrief the session's notes, and formulate potential character arcs that may not come to fruition. They "homebrew" spells, weapons, and monsters that don't exist within the framework provided by official game material. This independent "work" surrounding the game contradicts the idea of a ritualized play space as being rigid and separate from everyday life, blurring the lines between the two spaces. So perhaps *D&D* is a different, fourth thing: not ritual, not play, not ritualized play. More research should be done to investigate further on these potential other classifications of the game, but for now— most of the time— *D&D* is consistent with ritualized play. Ultimately, in "rolling for communitas" and examining whether *Dungeons & Dragons* is in fact a ritualized play space—where these experiences can and do happen— the outcome depends on who's around the table, their expectations of how a game should run, and how invested they are in working collaboratively with one another.

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Projection of Self: How Digital Artists Value Generative AI

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Abstract

Artificial intelligence technology, or AI, has existed for decades, yet it is only within the past few years that it has seen an explosion in accessibility. This research seeks to investigate the relationship that digital artists have with the value of generative AI. Through interviews with nine artists and two non-artist audience members, I found that AI's minimization of the production process prevents an artist's essential integration of the self into their work. Although artists did not value AI as an artistic medium, many expressed that AI could instead be valuable as a brainstorming tool. Through these findings, I provide new insight into the ongoing conversation regarding the integration of developing technologies into the lives of the general public.

Introduction

Developing technologies are changing how we think about, interact with, and understand each other. The recent exponential growth of generative artificial intelligence technologies has captured the attention of many people. The relatively cheap price and online accessibility has allowed these generative AI technologies to easily enter into the hands of many. With these tools, people can create high-resolution digital images with minimal effort or expense. This new accessibility is raising concerns for artists, as the new AI tools appear to be a potential threat for their domain of expertise.

This conflict motivated my investigation into the effects of generative AI on how artists ascribe value to their tools, process, and final product. How do the materials and making process contribute to, or influence, a projection of self as represented through artistic creation? Through my findings, I argue that digital artists will not value AI as a creative tool based on its ability—or lack thereof—to embody a projection of self. This is not to say that artists will find no value in generative AI at all, but rather, that they will find less value in it as a tool compared to the mediums currently being employed.

Social Life of Art and Technology

Across societies, art can be interpreted as "integral to the human experience" (Sütterlin et al. 2014:1). While there have been anthropological studies regarding the meaning behind artistic tools and products, "the action [of making] is usually overlooked" (Bunn 1999:15). Additionally, the relationship between social science and the making of art should not be "to describe the world, or to represent it, but to open up our perception to what is going on there so that we, in turn, can respond

to it" (Ingold 2013:7). How can we understand how certain artistic tools are valued, and by extension, the value of the processes that arise from these tools?

When technology is incorporated into the process of creating, or practicing, or maintaining a process that existed before the technology was introduced to it, it can cause friction within the associated community. This may lead to a dichotomy of "artisanal versus industrial" (Paredes 2018:143). On the other hand, a strict definition of what is authentic allows for the artists to remain empowered in their mastery and practice of their craft, especially within a "craft versus machine production" (Nicholas 2022:37). It is important to note that a sense of authenticity tends to be a deeply Western concept, and not without its discourses. In the exploration of art and the process of creation, it is valuable to say that "each thing is authentic because it is, it exists, on its own as well as in a larger universe of equally independent entities" (Handler 1986:3). With respect to this, an analysis of authenticity is not prevalent in this paper.

Much like how art can be considered as reflective of social and emotional experiences, technology too can be considered "products of social practices, actions and decisions" (Sartori & Bocca 2023:444). For example, AI and machinery in certain workplace settings ascribe value that can catalyze or define interactions between coworkers. The job's function, the technology in use, and the individuals who learn to use such equipment all contribute to the value of the current operation of tasks (Forsythe 1993; Hovens 2023). New technologies can define social discourse on a broader scale; modern and developing technologies can shape one's appearance and relation to their demographic identity, such as 'Western' technology changing perceptions of indigenous identities

(Conklin 1997). Additionally, technology can become the discourse itself: "artists have increasingly employed tools, methods, and aesthetics associated with scientific practice to produce forms of art" (Helmreich & Jones 2018:98). Technology can be as much a medium for understanding human development as art is.

Conversations surrounding AI's potential value are already widespread. Artificial intelligence is by no means a new phenomenon or a new topic of conversation: "The term 'artificial intelligence' was first coined in 1955 by the computer scientists John McCarthy, Marvin Minsky, Nathaniel Rochester and Claude Shannon" (Liu 2021:3). However, with the exponential growth of technology as a whole, as well as the surge in accessibility of generative AI, there has been new intrigue prompted in the topic—only within the past two years has "image generation experienced significant advancements as generative ML models leveraged larger and more diverse datasets to create coherent and high-resolution images" (Sanchez 2023:1). The discourse surrounding AI's potential uses and regulation, as well as the layman's opinions on its incorporations should be considered of equal worth in the conversations of value, as "all actors involved in the AI process—from start to finish—influence the construction of narratives and its power onto the public" (Sartori and Bocca 2023:445). Understanding the value of both AI and art are key for analyzing the relationship and social interactions had socially with both objects.

The intersection between social science, art, and developing technologies is relevant, both because of this concept of reciprocal transformation as well as the means of assigning value to tools and modes of making in a cultural context. Introducing technology and AI into typically human-centric positions can elucidate the internal dynamics at play, bringing to light new benefits and drawbacks that may otherwise have gone unnoticed (White and Katsuno 2023). Sanchez (2023) examined a similar question to my research with his study investigating why and how people are using text-to-image AI. He found that those who use text-to-image AI tend to be employed within one of the two related fields to generative AI—technology and art. Participants who used text-to-image AI usually did so out of curiosity, or for leisure; less so for any occupational reason. In fact, the least reported reason for utilizing text-to-image AI was "creation of design artifacts" (Sanchez 2023:8). Through additional investigations into the formatting of the text prompts, he found that "artist names are the primary type of specifiers used in TTI prompts" (Sanchez 2023:20). This desire to emulate artists "sparked controversy" due to the "legal ambiguity," ultimately leading Sanchez to conclude that "most of the ethical concerns related to TTI are legal matters" (Sanchez 2023:21). His study, while not focused directly upon the tensions between artists and AI, implies that locating means for AI to operate without encroaching on artists' intellectual property will ease this friction. Due to the relevance of Sanchez's study to the questions that I am investigating, his study will be a beneficial reference point.

Projection of Self

Clifford Geertz's article "Deep play: notes on the Balinese Cockfight" is an ethnographic exploration of how, through the projection of self onto a rooster, Balinese men are able to express their masculinity through the fights to the death that their roosters engage in. Geertz establishes plainly that this competition of masculine forces is "'really real' only to the cocks" where it is expected that one or both will be killed in the process of the fights (Geertz 2005 [1973]:79). It is the projection of the men onto their roosters that turns the cockfight into "a means of expression; its function is neither to assuage social passions, nor to heighten them … but, in a medium of feathers, blood, crowds, and money, to display them" (Geertz 2005 [1973]:79). The production of the fight is understood as symbolic of the self and an extension of the person; because of this, Geertz calls it art: "As any art form—for that, finally, is what we are dealing with—the cockfight renders ordinary, everyday experience comprehensible by presenting it in terms of acts and objects which have had their practical consequences removed" (Geertz 2005 [1973]:79). Geertz's lens applies to interactions between artist and art in that the production of the piece can be an emotional symbol of the self—an extension of the person and whatever aspect of themselves they believe is captured by their work. These symbols of self can allow for an audience to access understandings of the artist that may not have occurred between the two parties directly.

It is important here to acknowledge the differences between Geertz's theory on production of self versus the projection of self occurring with the artists being investigated. An artist's projection of self into their work occurs in distinct intervals with each artistic piece made, whereas Geertz's production of self is constant—the cock never stops being representative of the man. Whereas artists have a clear beginning and end to their 'making period' wherein the self is projected, there is no such clear-cut temporal boundaries for the Balinese men. Additionally, artists are consciously aware of their incorporation of self into their art in a way that differs from cockfighting. Artists can pick and choose which aspects of themselves are included into their work.

These essential differences are why this effect, when applied to artists, is referred to as 'projection of self' as opposed to 'production of self'.

In "The Importance of Materials", Stephanie Bunn establishes that the physicality of art, the assertion that "the use of the body, touch, the haptic system is fundamental to making" has the potential to invoke a closeness between artist and craft that is not necessarily captured through a simple anthropological analysis of an artist's tools (Bunn 1999:19). Bunn's perspective supports the notion that while tools are important to an artist's production process, they may simply exist as a bridge between the individual and their medium, as well as their final product. Like with Geertz's observations in "Deep play," Bunn's understanding of 'making' establishes the relationship between an artist and the process in which they create and incorporate themselves into their work. Bunn specifically emphasizes the making process as a location of further depth and significance. This puts digital artists and AI artists on a similar level in terms of material, in that the medium and the end product are incredibly similar, yet shows how they differ significantly due to the processes involved in their creation methods. Bunn's analysis, however, only focuses on the very tactile and raw elements of craft, before these objects have been whittled down or refined into more 'traditional' crafting materials. While these elements of relation to craft may still be applicable to digital artists, it provides an inherent difference in relationship and physicality. Digital art is already composed through a lens of technological modes; how much creative freedom could a digital artist have when they are forced to work within the confines of a highly mechanized and polished tool—a tool that they likely did not build or program themselves? While the literal tools themselves may not necessarily matter in the face of the final product, the meanings and values projected onto them as well as the different implications of their use certainly do.

Considering these lenses, we can get a better frame of reference for how digital artists interact with different mediums and methods of making through their ability to communicate a projection of self. Additionally, we can see that the impacts of technology have the potential to change how the projection of self occurs between digital art and AI art, and whether they are held by artists at the same level of value, or if that value differs between mediums.

Methods of Data Collection

The sample of this study consisted of digital artists, artists focused in other mediums, and two non-artist audience members. For the purposes of this study, I defined digital artists as those who employed computer-based technology at any point in their creative process. This included mediums like photography, tablet art, digital editing, et cetera. I located my participants through convenience sampling: reaching out to peers, friends, and faculty at Linfield University to inquire if they themselves wanted to participate, or if they knew anybody who fit my criteria and were interested in participation. Seeking out AI artists was less of a priority considering the newness of the medium, as well as the difficulty I faced in getting into contact with many of the AI artists I attempted to connect with.

I interviewed nine artists and two non-artists, all located through this method. I collected my data through interviews that took place either over Zoom, or in person. Thomas, George, Casey, Nolan, and Belle are the artists most focused on digital mediums. Julian, Zee, Allison, and Devon are the artists who showed a preference for non-digital art. Josh and Jacob are the non-artist audience members—they reported not considering themselves artists at all. I gave my participants the choice on whether they wanted to be provided a pseudonym in the final report. Of my 11 participants, only four indicated that they wanted a pseudonym. Thus, the names listed are a mix of real names and pseudonyms. My participants ranged in age from early adulthood to middle-aged, and they were predominantly located along the Pacific coast.

Some additional context for my results are as follows: generative AI refers to artificial intelligence tools that employ a key term or phrase as the input used to create new images or dialogue based upon the inputted prompt. Traditional art, cited from Sanchez [2023]'s definition, refers to "techniques and tools from art forms that pre-date AI art" (Sanchez 2023:9). Digital art and illustration refers to art that employs a digital medium during its creation process such as photography, tablet art, digital editing, etc.

What Defines Making?

In discussing the impacts of generative AI, I found two potential means of characterizing generative AI with regards to the process of making. Was generative AI to be thought of as the tool which artists can employ to create art? Or was generative AI to be thought of more as though it was the artist itself? I found both sides of this dichotomy to be equally compelling. AI as a tool felt more logical, considering it still needed human input to create anything at all. However, the machine does the work that a human artist would do—aside from the inspiration of the dialogue prompt—making it arguably as much of an artist as a person could be.

Through our conversations, the majority of the artists talked about generative AI in a way that suggested they thought of it as a tool. They referred to it with language that characterized it as such, directly calling it a tool that one could employ—and in discussions

specifically about the artistic process, they made it clear that they were distinguishing between a human using AI, versus the AI tool itself doing the creating. One artist, George, stated that "a generative AI artist could definitely feel something when they do make the art through AI. But … the actual process of the art being made by an AI … that has no feeling or thought expression behind it."

Generative AI was only ever referred to as if it were the artist when put into the dichotomy of 'human art' versus 'AI art'. Casey mentioned that she has seen people claim that AI art is not as valuable as art created by hand, a viewpoint that she seemed to agree with. Devon went so far in establishing how she believes that AI images should not even be considered art that she established that "the only things that can make art in this universe—on this planet; human beings make art." When questioned on this retrospective revision of astrological location, Devon stood by her point that she believes aliens could make art, but that generative AI could never do so.

If generative AI is thought of as the tool rather than as if it were a machine artist, this definition then calls into question whether the artists experienced similar distinctions between the employment of other artistic tools. If AI was simply to be thought of as a potential artistic tool, is there evidence for artists displaying such distinctions with other tools? I found there to be much more cohesion in attitudes and opinions towards more classic artistic tools than there was in the attitudes towards generative AI. The attitudes towards the making of art with different tools, different mediums, and different modes of creative processes only seemed to differ significantly when the comparison was made between human and AI art, and less so between different forms of human-art mediums. Most if not all of the artists expressed that they regularly made art in different mediums, yet many artists voiced apprehension towards experimenting with AI, or incorporating AI into their making processes.

Thomas and Julian both expressed that there was a different process involved between the different mediums, but that it was still 'their art' at the end of the day, and the medium differences only affected how they viewed the process, rather than reflecting upon the concept of making as a whole. Thomas stated, "I kind of feel like both come from the same part of the brain, of course." Julian, who works predominantly with mixed mediums in his art, expressed that he values the unpredictability of the human-art creation process, especially when it comes to his collages and finding the 'correct' pieces for what he is working on. He stated that he preferred the physical process of collecting the scraps for his collages rather than the digital aspect of editing and manipulating the pieces, because it is the aspect that to him felt the most authentic:

"The sort of images I'm looking for, or things that I find that I end up using in my art, are never what I'm exactly seeking out. And that's sort of the thrill and the play that I really enjoy while performing my art. I can go into it with a vision, but it never really turns out to be exactly what I want it to be. I really enjoy that part, and I … find a lot of fun in that [process] and don't really stress about [it] because it's always revealing something more about me than I really kind of go and [expect]"

The varying modes of human-art creation and the potential differences between them does not seem to impose the same issues that AI as a tool brings, but rather, it serves as a means of refining one's artistic vision and skill. Although this distance between human art and AI art is not reflected in the relationship between human art mediums, Thomas expressed that these baseline values are subject to change, as our idea of the 'typical' creation process changes alongside the growth of technology. Younger generations of artists, those who have grown up with this kind of technology, as well as those of future generations, will likely be more knowledgable with how to use novel technology for art. Furthermore, Thomas also expresses apprehension towards this fundamental baseline of understanding the creation process shifting with time: "It's [an] exciting time to be living through; a moment where something so fundamental is really changing. You know, [the] problem is that everything else is like that too. So, where's the anchor?"

Even as we define AI as being a tool, and not an artist, human artists express wariness towards AI's ability to act as though it were the artist. They are aware of AI's promise and potential, but the dissonance between artist, tool, and the process of making, prevents the art from being fully theirs. In regards to this, Julian asked, "Is it a tool that is just as much use as a paintbrush, or is it something that is completely obsolete because … we're stepping back and watching it create what it is. But, yet, we created that machine."

As Bunn discusses in her article, a significant portion of the value that exists within materials and the objects they can create is the means in which a person can employ these items. Without being the one controlling how the medium of generative AI creates, and simply bearing witness to the process, is the artist even the one creating anymore? My participants expressed similar concerns—they were unsure whether the inputting of the prompt created enough agency to warrant saying that they were the ones 'creating' the AI generated

image. However, this question did not seem to sway a tacit understanding that generative AI was the tool, not the artist.

In this, the understanding of making remains consistent. The artists are concerned with the AI tool's validity based on its ability—or lack thereof—to become imbibed with the projection of self. Because of the minimized input from the artist in 'rewriting' the material value, AI generated images do not hold much value as a means of creative expression. They are, as Geertz puts it, objects that have not had their 'practical consequences' removed.

Self-Exploration within the Creative Process

An artist's creative process gives them the ability to explore how they conceive of meaning, as well as how they relate to their own work. The projection of self into a product or an object is not an innocent or unbidden one by any means—while the actual action may not be understood as a 'projection of self,' it is clear that artists are aware that they are putting themselves into their work, whatever that means to them.

This projection of the self tends to occur the most during the actual creation process; the imbuing of meaning into the process of making. Julian expressed that art is meant to be an exploration of the uncertain—both of the craft as well as of this application of self. These explorations of self are meant to be unreserved, often to the point of discomfort. Thomas states that he believed that art should be uncomfortable, in that it should be so candidly personal that it embraces even the more uncomfortable aspects of self-expression. As a mode of production of the self, the process of making art encourages emotion and self-exploration throughout the journey towards the final product.

The motives for artistic expression additionally contribute to this projection of the self. Many of my participants distinguished between creating art as a profession versus making art as a hobby. The reasons an artist creates art contributes to how they interact with their mediums and what comes of their work. George, for example, stated that: "The wood burnings I primarily do as gifts, and that definitely has a different feel from my photography … I just take pictures of wildlife, or nature in general, and that's mostly for me." Inversely, Thomas stated that his more 'professional' medium was photography, and his drawing and painting "is purely personal, slower, and probably headier as well in terms of concept." With Zee stating that her collages are "very externally driven, versus ceramics, I have to make something out of this lump of dirt," it's established that the medium may guide the channels through which an artist draws inspiration.

Even acknowledging that certain mediums may change or influence an artists' connection with their work, none of my participants seemed all too willing to acknowledge that AI could be one of these mediums. Creating an AI image involves inputting an exact prompt, and adjusting the phrase until the generator creates something that the user has in mind. Nolan states that: "It'd just be easier and more time efficient to just create [the image] myself rather than fix … [or] edit the prompts for the AI art to fit in my exact needs." Adapting and learning to work within this phrase-inputting creative process seemed to not be worth the trouble. The reduced making process seems to prevent something essential within the images produced from the generative AI tool.

This highlights Casey's negative reaction to my asking how she would feel if someone compared her digital art to AI art. She had said, "I would feel surprised, and maybe confused, and also maybe a bit worried, because … when I think of AI artwork and people's reaction to it, the [word], you know, I often think of [is] 'unoriginal'" The implication of AI art is that, in the minimization of the making process, the ability for one to project themselves into the process of making is also minimized, leaving artwork that has nothing of personal value. Even when a person is inputting a prompt, my participants made it clear that the emotional involvement does not carry over into the machine's product. Without the ability to project the self into art, the product exists with less personal meaning. It remains simply as an object.

Fulfillment of Connection

Although the creation of AI art minimizes the making process and the means for an 'incorporation of self,' does AI art still 'contain meaning'? Thomas, who teaches photography, highlighted the importance of having the ability to read a picture and understand what is being said, so that one can contribute their own thoughts, feelings, and interpretations to the dialogue: "You can look at a photo and read it. Maybe you read it artistically. Maybe you read it editorially, maybe you read it academically, or maybe you just read it for narrative and feeling." The ability to engage with the dialogue of human art is not constrained to an artistic skill level. It can engage any kind of artist, with any level of training. Casey notes that she has seen a variety of artists from different technical backgrounds engaging in the same online art challenges, implying that a space of 'meaning' is freely accessible.

The ability for artists to engage in this conversation through and around their art is a key aspect in the projection of self through artwork. On this importance of dialogue as an important facet of human-made art, Julian brought to light how one's art can only

really be valued in relation to others; in dialogue with others: "[value is] very external in a way as well … I think it's way more rewarding to actually go out and see other people's artwork as just opposed to so fully focusing on my own." Engaging with the works of others is a key feature in how artists learn to interact with their art as well as others'. Alongside more traditional means of seeing art, such as going to museums or art galleries, social media can exist as an environment for these interactions to occur within. Most of my participants expressed that they have posted their work on social media before, but at a variety of frequencies, and for a handful of reasons. Some expressed that posting their art online was a means of documenting their artwork, with Thomas "[calling] it a visual diary." Others said that they use social media as a means of self-promotion: "I believe that's where our art world is going, where if you want to share and promote your artwork and you as an artist, the easiest and free way to do it is by doing it on social media" (Julian). Devon expressed she "constantly" commented on the art posts of others, usually praising their art, or seeking advice into their tools and process. Similarly, Casey mentioned how she is an audience to online art challenges, like Inktober and Still Here, Still Life. These art challenges usually provide prompts for artists to tackle in their own styles or approaches. Casey did not mention if she herself contributed any works to these challenges, but she did say, "I really try to go through [the posts] … that don't get as many likes, and that look like someone who hasn't been creating art for as long or isn't adhering to … traditionally accepted means of what's good or bad art." Social media can provide these avenues of connecting artists who may not have access to an art community in their day to day life.

In dialogue, we find that much of art's value is to communicate to others a feeling, idea, or interpretation from the artists' life or world. Effective art, therefore, tends to be art that can be read emotionally or intellectually—art that can spurn discussion. Zee affirms this by saying: "I find myself really drawn to like pieces where there's a clear message as well … [where] that message is really also quite clever." As art is often representative of the artist's understanding of the world and their navigation of it, it follows that some degree of emotion is present within the creation process, as well as within the product itself. Casey and George mention this explicitly, with Casey stating that "art is very human … To see the way someone … reveals how they see the world, or … what's going on inside their brain visually. I think that, for me, and maybe for a lot of people, is kind of the point of art." Similarly, George distinguished how emotions separate AI art from human art: "It's hard to sit down and make an art piece just because you're told to." Emotions seem to be the main motivational force for his creation of art.

Because the majority of conversation surrounding AI art is regarding its effectiveness as a tool rather than the emotional meaning of what it creates, the current discourse is already demonstrative of how AI art is not compelling in the same way that a human artist's work is. Because of this, there is very little motivation to search for the meaning within what an AI creates—and in its creations, it is only ever reproducing what already exists. My participants noted that there is a lack of conversation present within AI, due to an artist's inability to ascribe meaning to the process of creation: "[It just] makes it because it's told to" (George). An artist can have as much emotional inspiration as they want, but it is rendered void once run through generative AI. This may be a reason why many of my participants, despite staying relatively neutral with their language in relation to generative AI, described the products of generative AI with incredibly negative descriptors: 'fabricated', 'cold', 'heartless', 'soulless', 'unoriginal'. As addressed by Casey, when an artist's work is, hypothetically, compared to the images created by generative AI, it implies all of these descriptions apply to the artist's creation. Because AI minimizes the production of art and removes the ability for the artist to put themselves into their work, the results of AI are often too clean and perfect, leaving empty whatever subjective beauty the art has. Thomas stated that "some [AI art] is just beautiful and just gorgeous. But the thing is, of course it would be, because it's not made by a human, it's made by an algorithm that is somehow programmed via language." The lack of emotional input from an artist means that there is very little for an audience to connect to. Good art prompts an emotional or intellectual response in its audience. AI art does not invite an audience to analyze its artistic merit.

It is important to note that this overall dislike for AI art due to its dearth of emotional resonance is a conditional aspect. Human bias is a prevalent issue in other incarnations of AI tools. For most other AI software, there needs to be continued vigilance that human shortcomings or bigotry is not reflected in the AI's ability to complete tasks. For example, in the work of system builders, Forsythe [1993] observes that "some of the problems that the scientists attribute to the limitations of technology are actually reflections of the implicit assumptions and conceptual orientations of the system builders themselves" (Forsythe 1993:465). The difference with generative AI is that art is a highly emotional realm, and the creation of art is often meant to involve some sort of driving emotional force. It is emotion that is often analyzed for, and it is emotion

that is often embodied within art. Because AI does not reflect these emotional motivations, nor does it embody them into what is produced, and it does not spark conversations within audiences about these emotions.

The conversation, then, is centered around the use and application of the AI tool, rather than about the AI art itself. Conversations analyzing the meanings and emotions within the images that are AI generated are much less prevalent than the discourse surrounding the appropriate use of AI as a tool. Thomas reports having seen strong responses to generative AI art:

> "There'll be people who are militantly anti-AI. There already is a page I follow on Facebook—just put up a big announcement that said 'From this moment forward, no AI generated art is allowed,' and I've read comments under photos and people are really, really divided."

Additionally, he believes that the conversation about AI should be regarding what drives the desire for art: "I don't think that [AI is] going to be the thing that people love, because the thing that's missing in the conversation about AI is what does human nature want? And the majority of people, I don't think, want a cold, heartless world." Some of the artists mentioned that they were aware of the controversies surrounding AI art, and felt as though they did not want to get involved in either the discourse or the use of AI art itself because of the strong divides and "uproar" that they were witnessing (Julian). Online validation carries meaning, and in seeing more online controversy than cohesion on this subject, it causes AI to be further put in an undesirable light.

One of the main points of contention regarding AI is how often images from digital artists are employed to train AI programs. George mentioned that he recognized that AI primarily teaches its algorithm based off of digital artists' creations, and Julian stated that he believes AI's integration into the artistic community as a tool means that "we need to find a way where we're not stealing from other artists." This is a sentiment expressed within Sanchez's [2023] findings in his investigation on text-to-image AI; professional artists "accused companies of profiting from legal ambiguity" and "expressed concern about potential job displacement in the art industry" (Sanchez 2023:20). Only once these legal tensions have been resolved could AI potentially serve as an artistic tool that prompts more of this artistic dialogue.

As a sole creative tool, generative AI does not impart emotion or depth into what it creates. In this sense, AI art does not contain any 'meaning' outside of the discourses that surround its current use.

Ascribing Categories of Value

If AI art is not seen as 'meaning' anything, does it have any value when compared to human art and mediums? Does the AI tool have any value? In approaching value, there were three categories for means of ascribing value to art: inherent effort involved in the making process, monetary value, and social media value.

All of my participants indicated that being artists themselves helped them to better appreciate the value of the art that they saw other artists creating. The many years they have spent honing their skills in their selected medium of craft allow them to value art higher than they may have if they had not been artists. This knowledge of the effort involved in making art helps them to value art as a concept. Thomas states clearly that "this isn't just ... throw something down or snap a photo over your shoulder." Art is not something that should be instantaneous—the time spent practicing is an aspect of the value of the product made. Even the simple act of intention within making art is enough to create a sense of value in a piece: "It makes me feel happy to see people making art and not caring about the value. Because I think that any art is valuable" (Casey). Just as any art is valuable, anyone who has made any art has this experience of understanding how artistic effort creates value. Zee corroborates this idea by stating: "even if I didn't do art consistently, if I just tried at some point in my life, I think that's enough to get you to a place where you can experience [art] versus just [looking] at it." An understanding that the effort exerted in the creation of art brings inherent value to any piece is recognized by audiences as well. The medium of art that appealed most to Josh was sculpture, because "If … I don't have a conceptual way of figuring out how to [make] that without learning from someone, it's more cool." This artistic experience then becomes a key aspect of the making process that ascribes inherent value to any art piece.

Aside from the act of undergoing a creative process, another means of ascribing value to a piece of art is by giving it a price tag. While Josh expressed that some audiences believe that art seems to be priced in ways incongruent to the actual perceived worth of a piece, the artists seemed ambivalent to monetary value as having any worthwhile reflection on their art as they viewed it. Most, if not all of the artists expressed that money did not change how they emotionally connected to their work, but more so how they treated that artwork. Devon expressed that she has "a really hard time giving [art] up at the end of the process, 'cause it's like my baby," whereas Allison viewed the piece simply through a different lens; knowing that the commissioner "will … see it every day … I think that's making someone else happy." Of my participants who found an income in

art, only three expressed formal employment in the field, with Thomas and Belle as art teachers, and Casey as an illustrator. They did not express if there was a change in value between their sold pieces and the ones that they kept for themselves. Thus it is inferred that a sense of value can arise from art's ability to become a mode of income for an artist.

A third means of ascribing value suggested by my artists was that of social media. Casey talked about how the medium of a social media space often imparts its own value system based upon likes, comments, and other metrics that gauge interaction with a post. Different ways of interacting on social media can bestow different understandings of a work's external value based upon how 'popular' it is, regardless of how much time or effort went into its creation. Social media can ascribe value upon art that is not necessarily reflective of the piece itself: "It's really hard sometimes when you're posting on social media … and it becomes a … valued judgment of your art … depending on how many likes it gets or depending on if people comment" (Casey). Additionally, Devon posited that social media can be a biased playing field. She tends to comment more on posts featuring digital art because posts featuring physical art are not as readily located. She attributes this phenomenon partially to the changing likes and dislikes of an online viewer base—"cartoons are a very popular thing right now, like anime and and other like cartoons that adult people watch. So … that's influencing the style of a lot of people's art"—but she also links this occurrence to the "convenience" of digital art tools. She claims that "everyone's got a device in their hand and … you can be on the subway and drawing something on your phone or your iPad" (Devon). While digital art is not inherently understood as more valuable as an overall medium, its popularity in online spaces can be indicative of the means of how art can be ascribed value in different means.

In understanding the ways that human-made art is valued, we can begin to understand and answer the question: Is the tool of AI valuable? While tablets and other small devices can be a rather accessible means of creating art, it must be noted that digital art can come with accessibility hurdles. To make any kind of art, one needs a medium to work in, and most of the time, that medium will consist of items that need to be purchased. Regarding this financial hurdle involved in becoming a digital artist, Casey said, "I luckily have an iPad and so … for me now … it's zero dollars to … draw. On my iPad I use Procreate, which is … a $10 app, once. But then, for anyone who doesn't have that material, that's ridiculous. That's incredibly prohibitive." For artists who may not have access to other digital mediums, it would make sense if AI were the cheapest, fastest, and easiest way they could make what they are envisioning. Jacob,

who expressed he "obviously can't do art to save [his] life" reported that he used Midjourney, a generative AI program, to create an image of a "volcano … erupting with the sun's light." He was impressed at the quality of the image, especially considering it originated from "one sentence" (Jacob). Additionally, AI is a tool that is often found through browser sites. While some AI tools are paywalled, like GPT-4, some are still free to access as long as one has an internet connection. The ease in which detailed images are created paired with the relative ease of accessibility has the potential to assist those who may not have the financial or physical ability to make art through traditional mediums. Despite her indecision regarding generative AI, Zee emphasized this statement:

"I want to be open to the idea that maybe there's a group of people, a group of artists who in some way, shape, or form are unable to create art in a way that they want to in their heads … I want to allow for that possibility that there's a community I don't know about that [AI] could be really helpful for."

Even with these concerns, the majority of my participants were outwardly opposed to the inclusion of generative AI as it exists in the sphere of digital art. None of the artists wanted generative AI to remain as it is currently—all of them wanted generative AI to change in some way or form. Most of them believed that with guidelines, care, and moderation, generative AI could become a viable mode of artistic expression. When it is implemented into art as an assistive tool, such as repairing songs or being used as a brainstorming tool, as Julian and Thomas state respectively, generative AI becomes more valuable than if it is the sole creative tool. The only artist who held distaste for AI existing in the art field as a whole was Devon, who expressed that the time for the tool's beneficial integration has passed: "As soon as people started replacing or valuing AI art above, or as valuable as a human creation, and stopped hiring human creators in favor of AI, I think it's kind of done now. Nothing better can come of it at this point." In the same light, George stated that while the promise of AI is "cool," its existence as a potential threat to both the rate of commissions for human artists, as well as the monetary value of human-made art as a whole diminishes this 'coolness' factor. When AI becomes the most effective way to make images in a corporate setting, that is when it crosses a line: "when somebody is tasked with … generating an advertisement or a pamphlet, you know, not high-level stuff but … everyday stuff that people are employed to do" (Thomas). Casey expressed similar concerns of AI crossing this boundary: "Companies employing AI generated art rather than hiring artists … art is really

important, and artists are really important and should be paid and used. And I think that could go down a line of a lot of loss of originality, loss of new ideas."

Another one of the main concerns regarding AI's value arises from how AI learns. Some generative AI teaches itself from pre-existing content, most of which is taken without knowledge or consent from the original artists of the images. Because it can learn from what already exists, generative AI can replicate images or sounds as if the original artist had made them: "it's basically just stealing [the original artist's] idea" (Nolan). Using someone's art to train an AI, or using AI to reproduce someone's work, according to Belle is "like taking somebody's photo, taking somebody's illustrations, and you haven't asked permission." Zee occasionally assists in training AI by answering guiding questions on the AI's platform; teaching it to understand the information it encounters. Regarding this experience, she stated:

"It's incredibly interesting to interact with it in the way that I have been and just to be like, 'Oh my God, you don't know anything. You are a baby computer and I'm teaching you how to take over the world…' One made-up story about a T-Rex that wants to play basketball at a time." (Zee).

Regardless of the ethics regarding how AI learns, its mode of understanding the world calls into question whether anything it creates could be considered 'truly original.'

From the opinions of the artists, it does not seem as though AI's originality matters much in the face of its lack of meaning and lack of value outside of an accessibility or brainstorming tool. It is clear from comparing how the artist discussed human-made art and AI art, that they do not believe AI art, nor AI tools, have as much value as human art and traditional art tools on the basis of self-exploration, dialogue, and emotions.

Audience Perceptions

In order to better contextualize the tensions between artists and the rise of generative AI, I consulted two non-artist audience members. What would these participants have to say about how AI relates to art and to the artistic process? How might their perspectives determine the scale of this issue, both in how it relates to artists versus how it relates to audiences. All in all, do audiences care whether their art is made by AI?

The two non-artist participants I interviewed both originated from STEM fields—mechanical engineering and computer science. The first of these participants, Josh, cared very much about the issues that AI was posing in the realm of artistic creation, stating simply that AI "[is] just bad … it doesn't let humans be humans." The minimization of the creative process, to

him, meant that AI was 'bad'. On the other hand, my second participant, Jacob, was far less opinionated on generative AI when it came to art. When asked how he would feel if he hypothetically witnessed someone comparing human art to AI art, he was puzzled towards the basis of the question: "I'm confused why I would feel one way or the other about just someone saying like this style looks like this other style." Overall, Josh reported a much more negative opinion on generative AI, whereas Jacob seemed to feel more positively about it.

This variation in opinion on AI in relation to art may have been due to their relative proximities to art and artists in general. Josh reported that talked about art with artist friends "weekly to bi-weekly" and that they tend to let him in on their artistic processes, often expressing to him sentiments such as "I'm drawing this new character or I'm drawing this character from this thing here. I want to draw or I don't have any inspiration." Jacob did not report having conversations regarding art with his peers or other people, and he did not seem too confident that he encountered art very often in his day-to-day life—"I don't really look at visual art"—nor did he often have conversations about art: "I generally don't talk about art very much." He did report that he found art exposure through listening to music and through playing the video game *Geometry Dash*, but he did not seem too confident in claiming those as giving him a 'closeness to art'.

However, regardless of their varying closeness to art and artists, both of these non-artists participants were both quite familiar with the generative software. Josh shared how he had attempted to use generative AI to assist with visualizing a homework problem or graph, but he "just couldn't find anything that would do it right … and I just didn't end up using [it] and drew the figures myself." Jacob had used generative AI to make images to use in a D&D-esque roleplaying game: "I tried to make art that represented some of the scenes in the plot that I had made … It was ridiculously impressive." Compared to the majority of the artist participants, Josh and Jacob were quite familiar with AI. While this may not necessarily have been due to their STEM majors, their relation to technology and STEM parallels my findings with Sanchez's [2023].

Through his questionnaire, Sanchez found that most of his respondents originated from "two professional groups … Information Technology … and Art and culture" (Sanchez 2023:7). He surmised that this imbalance in responses was likely because "text-to-image generation is more likely to reach and interest professionals from its two most impacted domains: technology and art" (Sanchez 2023:7). These findings mirrored that of Sanchez's: Josh and Jacob originate more from the 'technological' side of the tension between art

and AI, whereas the artists originate from the 'art' side. Regardless of their stance, all of my participants cared about the topic considering their proximity to either side of the issue. Although I had not intended to make this comparison when seeking non-artist audience members to interview, Sanchez's findings help to corroborate my observations.

As mentioned earlier, although Jacob stood quite neutral in his responses in regard to the tensions between generative AI and artists, Josh expressed many of the same sentiments as my artists had. Josh felt incredibly negative about both the technology as well as the images it creates, stating that "it's using human knowledge that's been put into it and accrued to make something that mocks human knowledge." Much like the artists, Josh did not consider AI images to be an enjoyable or valid form of art, but he emphasized how AI can do things that humans would hesitate to make or refuse to make at all. Of all of my participants, Josh was the only one who expressed to such a degree the potential that generative AI has for creating immoral, "borderline [illegal]" images. He stated that "it's a resource-slash-ethics boundary of 'Will someone do this?' or 'Can I find someone to do this?' And [the] answer is, AI doesn't have any of those morals, and has a lot of resources" (Josh). While Josh expressed many of the same strong negative emotions as my artists did, above all, he seemed concerned with how technology encroaches upon what it means to be human—either through this morality aspect, or through the essence of creative thinking as a whole.

Fear of AI reducing or losing the creative process entirely is not a phenomenon exclusive to artists. Rather, it is AI's threat to creativity as a concept that is what makes it such a negative force. Jacob expressed to me that in the coming years, it is likely that AI will be having this effect on programmers too:

"I would say most enjoy programming, otherwise they probably wouldn't become programmers—and the process, not just like the final product … For me, it would actually be kind of boring if I … could just tell an AI like… 'Make me this super complex web app' and it just does it."

Technologies that increasingly reduce one's own abilities and thinking processes prevent a person from being able to learn and understand how those processes are achieved. It is not just reducing creativity in art, it is reducing creativity in problem solving: "It's [taking] away from … part of being human, that creativity, that freedom of thought. We're not having that because we're asking something else to do that mental power that we need to … have to function" (Josh).

Through the conversations had with Josh and Jacob, it is clear that non-artists care about AI as a new tool encroaching upon the process of making, whether that be regarding art or the creation of a different sort of product or result. Their care for it encroaching on art specifically likely comes with one's own proximity to art and artists in the first place.

Conclusion

From this data, we can conclude that digital artists do not value generative AI as an artistic tool that can convey this projection of self that is desired in human art. The function and nature of generative AI takes away many points of artist agencies; it reduces the making process, it steals from other artists' works in lieu of proper inspiration, and it exists on a level deemed too perfect to be anything made by a human artist. It is not currently treated as a typical mode of creation, as it is separated from other human modes of craft in how it is addressed. The dialogue surrounding generative AI is predominantly focused on how it can be most appropriately used and employed, rather than the artistic meaning and value of the works it creates. While an audience's opinions towards AI art likely varies due to one's proximity to art or technology, there is concern present regarding the integrity of the creative process with the rise of generative AI. AI does not yet have the ability to accommodate for what artists find the most valuable in their art and its meaning; it cannot yet have its 'practical consequences' removed.

My findings are mirrored by those in Sanchez's [2023] article. Despite the varying levels of involvement my participants had with AI, all of them displayed some degree of interest due to their proximity to either the 'art' or the 'technology' sides of this tension. Additionally, some of the artists expressed concern for the controversies of AI stealing other artist's works, just as Sanchez's artist participants did. One of the major differences in findings between Sanchez's work and my own is that Sanchez focuses much more on why people were using text-to-image AI, whereas my findings are more focused upon the emotions surrounding the tension between generative AI and digital artists. Yet, Sanchez's work serves as a valuable frame of reference for the dynamics that may exist within my own findings.

Although generative AI is not currently understood as an artistic medium, that does not mean that it will permanently be outcast as a mode of art. As the nature of the artistic process changes over time, generative AI may find a place within an artistic setting. When it is employed as a supplementary tool, rather than the sole creative force, generative AI is generally viewed in a more positive light. The simplistic nature of the tool as well as its accessibility can allow for people to experiment with art without having to commit to purchasing and practicing with more traditional mediums.

Additionally, generative AI has the potential to assist those who may struggle with other mediums due to financial or physical accessibility. It could be a means of making art for those who may be physically unable to use more traditional mediums. While AI may not be valued as an artistic tool that can convey this essential projection of self, that does not mean that this will remain the case. If generative AI's use in art is moderated carefully and candidly, and is employed in a way that does not steal from other human artists, there could be potential for its use as a more accepted mode of creating art.

Further research should be done in investigating the experiences and opinions of those who predominantly employ generative AI in their creative processes. As Sanchez mentions in his piece, those who use text-to-image AI tend to come from either technology or art occupations. Seeking out more individuals who use AI to generate images would add depth to the investigation of these tensions. Do these AI artists originate from traditional art backgrounds, or are they people who may not have had access to art before using generative AI? The experiences and opinions of more artists would allow for us to further understand how these dynamics exist between different kinds of artists and AI, as well as possibly introducing new aspects of these relationships. The issues of how we understand and engage with the process of making art is ever-changing, and with the recent rise of accessible generative AI, now is the time to investigate how we value these processes.

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Empowerment through Menstruation: An Examination of the Išnáthi Awíčhalowaŋpi Coming-of-Age Ceremony for Lakota Girls

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Abstract

This research examines the structure, operation, and impact of the *Išnáthi Awíčhalowaŋpi* coming-of-age ceremony, a sacred rite practiced by Lakota girls during their first menstruation, and how the transition to adulthood for girls is expressed through empowering ritual practices across many Native American cultures. Investigations of the processes and effects of coming-of-age ceremonies on inter-tribal relationships and social structure are highlighted to provide contextualized understandings of puberty customs. This work also focuses on the social, cultural, and historical factors involved in Native American perspectives of adolescence, menstruation, and cosmology. The impacts of colonization on Native American populations like the Lakota, provide context for contemporary efforts of revitalizing crucial cultural ceremonies and rituals. This analysis suggests that the *Išnáthi Awíčhalowaŋpi* ceremony is not simply a girl's puberty rite conducted for the recognition of adulthood, but an intricate, essential, and empowering cultural ceremony to the existence and cultural preservation of the Lakota people. The following research draws on information collected from established anthropological fieldwork, research journals, Lakota cultural perspectives, and historical publications.

Introduction

The developmental processes of adolescence, particularly among menstruating girls, mark a time of great change. However, this natural occurrence poses a lot of challenges for girls and women worldwide. For many individuals, the processes of adolescence have been observed as a period of difficulty in identity formation within the context of autonomy and relationships (Boyd et al. 2021:443). The difficulties young girls experience are largely related to existing societal beliefs, as seen through notions and roles of femininity and cultural expectations. Unfortunately, these factors may cause girls to be more vulnerable to, and have an increased risk of, psychological health problems. Girls' self-image and self-esteem can be dramatically affected during this phase. This process, however, can be a time of empowerment and self-discovery as girls understand their new developments.

Using indigenous feminist approaches focused on decolonization, cultural preservation, and indigenous sovereignty, this paper contextualizes how Lakota girls and women utilize cultural traditions to promote empowerment. It also presents a framework of Lakota history and cosmology in order to link the important roles of Lakota women to their maintenance of culture. The goal of this research is to both assess current understandings of girls' and women's empowerment among the Lakota and to explain that the maintenance of indigenous traditions can help preserve elements of Native American cultures.

To explore the relationships between girls' menstruation and the cultural preservation of the Lakota, this paper details the Lakota coming-of-age ceremony for girls and its impact on their transition into adulthood. The first section presents a literature review of Native American perspectives of and approaches to adolescence, puberty, and menstruation. Concepts related to puberty are studied through the examination of coming-of-age ceremonies among indigenous communities. It also examines the processes and impact of colonization on Native American cultures and populations. The section concludes with a discussion of contemporary efforts to preserve indigenous traditions that help empower girls through observances of coming-of-age ceremonies among the Lakota.

The next section provides an understanding of the present state of the Great Sioux Nation and the roles of the Lakota within their tribal system. A framework for understanding Lakota cosmology and the importance of women in their belief systems is then presented. This section analyzes a collection of ceremonies essential to Lakota religion. Following this is the section examing the *Išnáthi Awíčhalowaŋpi* coming-of-age ceremony for girls in Lakota culture. An extensive analysis of its formation and purpose is provided. The effects of various colonization efforts are explained to help understand the ceremony's revitalization today. Finally, the paper concludes with an examination of how the processes of the Lakota coming-of-age ceremony influence the development and empowerment of young girls and women.

Literature Review

Interpretations of Terminology and Labels

There are many labels an indigenous person may use to identify themselves. The terms "North American Indigenous", "Native American", "North American Indian", and "Indigenous North Americans" are used interchangeably as general labels for the descendants of the First Peoples, or Aboriginal peoples, of the United States. The term "adolescence" refers to the distinct multi-system transitional process that occurs between the beginning of puberty and the start of social independence, personal agency, or what can be referred to as "adulthood" (Curtis 2015:1-2). "Puberty" or "pubescence" refers to the physical and sexual maturation of the entire body; it begins at the end of childhood and initiates endocrinological, physical, psychological, cognitive, social, and emotional developments (Curtis 2015:8; Markstrom 2008:14-15). The terms "menses", "period", and "menstruation" refers to the release of blood and tissue from the uterine lining through the vagina. This process takes place between menarche, a girl's first menstrual cycle, and menopause, the end of one's menstrual cycle. Menstruation typically occurs every month for approximately three to seven days (Cleveland Clinic 2022). In many North American Indigenous cultures, this is referred to as one's "Moon", "Moon Time" or "Moon Time Cycle" (The Kwek Society 2024). "Puberty rites" and "rites" refer to ceremonial acts, customs, or practices that occur at varied phases of an individual's life. These rites are typically carried out in "coming-of-age" ceremonies, also called puberty ceremonies, where various rituals are performed. Coming-of-age ceremonies are dedicated to an individual who is transitioning from childhood to adolescence or adulthood; they can occur within a wide time frame during biological late childhood or adolescence (Barry and Schlegel 1980:133-136).

Coming-of-Age Ceremonies in Native North America

Native American ceremonies serve a variety of functions. Perhaps the most prominent is their promotion of the maintenance of sacred relationships among indigenous peoples and their creators and culture bearers. They are also believed to provide healing and protection and act as vital reminders of cultural values and societal bonds. Ceremonies differ among tribes and belief systems; however, coming-of-age ceremonies, puberty rites, and rites of passage are commonly recognized among a variety of North American Indigenous groups across the United States.

In many North American Indian cultures, the rites of passage for adolescence are carried out to keep individuals connected to their traditions, belief systems, and communities; the ways adolescent rites are observed vary depending on each indigenous nation, but most emphasize the importance of responsibility and the health of one's surrounding environment, community, mind, spirit, and body (Delgado 2015). Many indigenous cultures believe that obeying puberty customs secures the well-being and future of initiates and those around them. Coming-of-age observances are closely connected to Indigenous American cosmologies and belief systems that involve origin stories, core values, explanations for creation, and the intricate relationships among humans and the spiritual realm (Markstrom 2008:1-6). Coming-of-age ceremonies, in general, provide initiates with a feeling of security and psychological solace as they seek to understand the new roles they are expected to take on. They serve to recognize and celebrate the pivotal developmental stages of the lifespan.

Puberty ceremonies have multifaceted functions and help promote ideal development into adulthood. For female initiates, coming-of-age ceremonies emphasize character development based on desired traits, serve protective functions, and spiritually empower communities as a way of maintaining social cohesion (Markstrom 2008:2-3). In this way, the importance of girls and women in indigenous societies extends far beyond reproductive development. Data supplied by Kirahara (1984) suggests that female puberty rites are centered on genital maturation, and because of this, ruberty rites help girls recognize the importance of their existence based on the physical maturation of their bodies. Essentially, physical indicators, like menses, are not only indications of reproductive maturation but also symbolize much greater developments in one's personality and role in society. Therefore, a girl must recognize this change within herself, and her surrounding community must provide her with the proper support and guidance to continue life as a woman. Special attention is also brought to girls' self-esteem and self-purpose during puberty ceremonies. Additionally, various puberty rites involved in coming-of-age ceremonies assure girls that their perceived power and well-being are protected (Markstrom 2008:121). In summary, the functions of puberty ceremonies are representative of the high value of women and of the view that women possess life-giving qualities that aid in group maintenance and well-being (Markstrom 2008:121-122).

Views on Menstruation in Native American Cultures

In many North American Indian cultures, menstruating women and menstrual fluids are recognized as spiritually powerful. During menses, girls and women are in sacred states, and therefore, typically participate in ceremonies that involve three major sequences to protect and recognize their sacredness: separation,

transition, and incorporation (Gennep 1960:11; Powers 1980:55). These major sequences were first established in the early 1900s by German ethnographer Arnold van Gennep after his popularization of the term "rite of passage" and conducting extensive studies on rites of passage among different cultures. According to Gennep, separation involves the symbolic or physical removal of a menstruating girl from her society. Transition is exhibited when rituals are performed in a special location to symbolize the change from childhood to adulthood, and incorporation occurs when a girl rejoins her society (Powers 1980: 55). He labeled the time between each phase as the "liminal phase". This is when one's state of identity shifts to adjust to the next phase they are entering (Janusz and Walkiewicz 2018). Gennep explains in his book published in 1909, *The Rites of Passage*, that rites of passage in various cultures serve the same purpose. They are meant to separate initiates from their surrounding communities, prepare them for their new phase of life, and assist them in reentering society with their new life responsibilities and social positions (Janusz and Walkiewicz 2018; Markstrom 2008:5, 61-68). Gennep categorized a list of phases within the human lifespan in which rites of passage are observed. These include the events in a person's life cycle like birth, marriage, and death. Others include rites centered around education (like graduation from educational stages), religion (like baptism or someone's first confession), and coming-of-age rituals.

Oftentimes the ritual process for coming-of-age ceremonies requires girls to engage in rites that can continue for several days and sometimes several months. Initiates are expected to take on various roles during their ceremonies, often reflecting influential religious figures of their culture. The Apache Sunrise Dance, for example, is one of the most elaborate ceremonies of the Apache and is meant to connect girls with the supernatural world (Markstrom 2008:193). In the Sunrise Dance, a menstruating girl "becomes sacred" because of her period; it is her engagement in rituals that connect her to the primary female supernatural person of the Apaches, known as White Painted Woman (Markstrom 2008:193). These extended rites and rituals lead up to the transformation of the initiate into White Painted Woman and empower the initiate with desirable qualities of this important supernatural figure (Markstrom 2008:193-194). It is through the Apache girl's transformation and empowerment that she can share her blessings with others in public ceremonies. This coming-of-age ceremony enables girls to acquire a sense of identity and purpose in connection with their society and oral traditions.

The spiritual roles that women play in Indigenous North American cosmological constructions make

the time of menarche, according to several indigenous groups, a necessary stage in which girls connect to the spiritual realm. Several traditional Native American perspectives conceive a girl's first menstrual flow as "her most sensitive and impressionable hour" (Bol and Menard 2000:28). Thus, the activities and thoughts in which initiates engage in are essential to the direction of their future as women and for the benefit of their community and the world (Bol and Menard 2000:28). In many North American Indigenous cultures, Moon Time is empowering and symbolizes a time of regeneration and power of women's role as life-givers and strong leaders (Pember 2019). This power during menses is believed to manifest itself in the form of healing, purifying, and blessing abilities much like what is described in the Apache Sunrise Dance (Markstrom 2008:95). Menstruating girls and women are seen as vessels of supernatural power and must be respected in physical and spiritual forms (Powers 1980:57). Expressions of respect are essential and are observed differently among varying Indigenous populations. Because of the impact menstruating girls and women have on those around them, taboos and behavioral restrictions must be obeyed by both men and women (Markstrom 2008:77). Protective actions, like those for menstruation, menstrual fluids, and menstruating girls and women are reflective of perceptions of power, not necessarily based on perceptions of contamination, pollution, or impurity (Markstrom 2008:156; Mello 2004:37).

In the past, anthropological literature has interpreted rituals and ideologies associated with menstruation apart from their cultural context, leading to conclusions based on negative or "polluting" elements of menstruation, and deemed taboos associated with menstruation as symbols of a woman's defilement (Mello 2004:37; Powers 1980:54). Despite the presence of this idea in some societies, such a negative perspective toward menstruation does not exist in all societies. These conceptions have an extensive history in Western worldview and it is because this that the seclusion process in coming-of-age ceremonies is often interpreted as a sign of defilement and degradation.

Native American Views on Adolescence and Puberty

Many North American Indian groups consider the progression of a child to an adult as a key developmental transition of one's life, and such a transition is a crucial, empowering, and potentially vulnerable phase (Markstrom 2008:1-9). It is at this phase where adolescents, particularly adolescent girls, are seen as impressionable and adaptable. Adults, particularly women role models, utilize their influence during this impressionable state by teaching female initiates what it means to transition into womanhood. This includes

guidance on preserving indigenous morals and values, beliefs, attitudes, behaviors, and responsibilities (Delgado 2015). Pubescent girls entering into adulthood are surrounded by extreme social support and affirmation from kin and community before, during, and after their coming-of-age ceremonies (Markstrom 2008:6). The condition of pubescence is perceived as beneficial, as menstruating girls and women possess great spiritual power and serve as those who can bless others, give life, bring renewal, spread hope, and ensure the continuance of life and creation on Earth (Markstrom 2008:x-xi). These perspectives of adolescence are centered on the need for a supportive and cohesive community; young adults are expected to be skilled, organized, and devoted because these qualities are what help maintain the foundations of life in indigenous society.

Historical Perspective and Revitalization

The processes of colonization have seriously affected North American Indigenous peoples and their customs and continue to affect them today. This process began in the 15th century as diseases like smallpox, cholera, malaria, yellow fever, influenza, and many others destroyed entire Native populations during European contact (Markstrom 2008: 31-32; National Library of Medicine 2024). Deadly epidemics spread rapidly as Native Americans, who did not possess immunity to European diseases, were exposed through trade routes, infected neighboring tribes, warfare, and enslavement, resulting in the death of approximately 95 percent of the indigenous populations or 20 million people (Ehrenpreis 2022).

The kidnapping and enslavement of indigenous men, women, and children, starting as early as the 16th century, resulted in tensions among tribes as they began abandoning their homelands to escape conflict. As European Americans made their way through the territories of North America, and through the development of the United States government in the 18th century, treaties were negotiated and often broken from a lack of treaty protection. This left tribes to forfeit land claims and move to reservations.

Other factors include various military domination efforts, warfare, slavery, genocide, exploitation, forced displacement, and the nonconsensual sterilization of Native American women (Markstrom 2008:31; Power et al. 2021). Contemporary effects, continued through generational trauma and other destructive factors, are reflected in high rates of poverty, substance abuse, suicide rates, police brutality, public health instability, land management issues, and invasive environmental dangers like oil pipelines and limited access to clean water.

Generations of United States assimilation policies and federal restrictions led to the Native American population decline, and the devastation of cultural practices and customs. The removal of Native cultures and beliefs through the dominating Western perspective forced indigenous peoples to follow entirely different worldviews and lifestyles. Perhaps the most prominent example of this is the forced educational practices that increased in Native North America from the early 19th century to the late 20th century leaving children isolated from their families, removed from their culture, and stripped of their autonomy. Indigenous children in boarding schools were subject to abuse, taught lessons not relevant to their lifestyles, and punished for speaking their Native languages. They were also forced to remove their traditional clothing and cut their hair, and indigenous religious practices were forcibly replaced with Christianity (Hall 2015; Smithsonian Institute 2024; Markstrom 2008:31-34). As a result, children no longer acquired their customs or language, including coming-of-age ceremonies (Markstrom 2008:35). Children were unable to experience their traditional puberty and adolescent customs and were likely affected by Western perceptions of women and menstruation. Therefore, they did not establish models for family life, normative future preparation, and social relationships (Markstrom 2008:35).

Several contemporary movements and organizations have been established across the United States as a way to revitalize and strengthen North American Indigenous cultures. These movements seek to revitalize languages, oral histories, beliefs, and ceremonies (Hall 2015). The American Indian Movement, National Indian Youth Council, and other activist groups emerged during the Civil Rights Movement in the 1960s and 1970s. Some indigenous groups today are working to reclaim tribal menstruation ceremonies in efforts to empower Native American women (Pember 2019). Among these groups are the Families of Sisters in Spirit, Women of All Red Nations, Women Empowering Women for Indian Nations, and The Brave Heart Society.

The Brave Heart Society has operated since 1994 and has sought to revitalize the once prohibited and nearly lost *Isnati Awica Dowanpi* or *Ishna Ta Awi Cha Lowan*, the coming-of-age ceremony for girls among the Lakota on the Yankton Sioux Reservation (or Yankton Indian Reservation) in South Dakota (Running Strong for American Indian Youth 2024). The Brave Heart Society's efforts help empower and strengthen indigenous women. They seek to educate Lakota youth as a way of preserving their cultures for future generations. It is through this preservation that organizations like the Brave Heart Society can mend broken indigenous customs. Over 500 years of generational trauma have been inflicted upon indigenous populations, but it is through these efforts

that Native peoples can preserve, protect, empower, and promote self-determination and reestablish the traditions of their cultures.

The Great Sioux Nation

In the mid-seventeenth century, conflicts with the Ojibwe and Chippewas, and the effects of the Indian slave trade, forced the Great Sioux Nation to migrate west from their homes in the Mississippi Valley region to the present-day states of North Dakota, South Dakota, Montana, Wyoming, Colorado, and Nebraska. Historically the Sioux Nation, also known as *Oceti Sakowin*, or Seven Council Fires, was composed of seven major divisions or bands. These divisions were the Oglala, Sichangu, Miniconjou, Hunkpapa, Sihasapa (or Blackfoot), Itazipcho, and Oohenonpa; they were organized based on kinship, dialect, and geographic proximity and were joined together at a tribal level (DeMallie and Parks 1987:6; Hassrick 1964:3; Native Hope 2021).

All of the Sioux bands speak languages of the Siouan language family, Dakota, Lakota, and Nakota, and use these languages as labels of self-identification (Black Elk 1973:xvi). These languages are comprised of dialects. Some of the dialects, like those in the Dakota language, have sub-dialects. The Dakota, Nakota, and Lakota are divided into sub-groups. The Isantees or Santees, otherwise known as Dakota speakers, are subdivided into the Mdewakanton (Bdewakantunwan), Wahpetunwan (Wahpeton), Wahpekute, and Sisseton (Sissitunwan) and occupy the eastern portion of the Sioux homeland in Minnesota and Nebraska (South Dakota State Historical Society 2024). The Nakota, or Wiciyelas, occupy the center division in South Dakota, North Dakota, and Montana and are made of the Yanktons and the Yanktonais. The Tetons, or Lakota speakers, occupy the lands in North and South Dakota and are the largest of the three groups (Dominican University Rebecca Crown Library 2024). Because of their large size, the Lakota are divided into seven sub-bands. These are the Oglala, Brule, Two Kettle, Sans Arc, Blackfeet, Hunkpapa, and Minneconjou. These group separations are not fixed, rather they are fluid and people may identify with more than one group.

Today the Sioux are one of the ten largest indigenous tribal groupings in the United States. Originally, the Great Sioux Reservation, established under the Fort Laramie Treaty of 1868, included the sacred Black Hills in western South Dakota and eastern Wyoming. In 1889, however, the United States Congress reduced the Great Sioux Reservation into six smaller reservations. Over the course of the last century, there have been several changes made to the tribal territory claims of the Sioux Nation. Today, there are sixteen Sioux Nation reservations and communities, five are owned by the Lakota (Dominican University Rebecca Crown Library 2024). These Lakota reservations are the Pine Ridge Indian Reservation, Rosebud Indian Reservation, Lower Brule Indian Reservation, Standing Rock Reservation, and Cheyenne River Sioux Reservation. Some Lakota live in other reservations like the Yankton Indian Reservation and Lower Sioux Indian Reservation. These reservation lands are in parts of Nebraska and North and South Dakota. Life on the reservations is not always easy, as there are high poverty and unemployment rates, suicide rates, and inadequate public health resources. Reservation life does, however, allow the Sioux to practice and maintain their tribal traditions and beliefs.

The Lakota have worked hard to preserve their traditional cultural values and practices and are widely recognized as being one of the most powerful groups among the Plains tribes. They are known as strong defenders of their land rights against the United States and as masters of horseback riding, bison hunting, and living the nomadic lifestyle (Native Hope 2021). The Lakota are also known for their craftsmanship and artistry. Much of this was and is accomplished by women, whose beadwork and art are used as regalia for ceremonies and *powwows* (Native Hope 2021). *Powwows* are intertribal celebrations of culture, dance, song, crafts, food and pageantry (Indiana University Bloomington 2024). Cultural expressions like rituals and ceremonies among the Lakota are directly linked to extensive belief systems and cosmological constructions. Ceremonies are observed to maintain sacred relationships with their creator and culture and help to strengthen cultural values and societal bonds between members. The oral history of the Lakota is fundamental to understanding any aspect of their ceremonial lives.

Lakota Origin Stories and Cosmology

Sioux belief systems are largely centered around the cosmological idea that everything is interconnected. It is believed that humans and animals alike should behave in accordance with the rules of respect set by the spiritual beings of the universe. One must understand the importance of bison (buffalo) to comprehend Sioux oral histories and spiritual narratives. The pivotal role of buffalo (*tatanka*) in the Sioux's survival and landscape, and its place in their origin stories, makes them highly esteemed. *Tatanka* was and is the center of Sioux life. The Lakota used every part of the animal for food, shelter, clothing, medicine, tools, and ceremonial objects (Native Hope 2021). The buffalo's spiritual potency also contributes to its high honor. John (Fire) Lame Deer, a Mineconju-Lakota Sioux holy man, spiritual leader, and activist, expressed in Richard Erdoes's 1972 book *Lame Deer, Seeker of Visions* the connection between buffalo and the Sioux. He states, "The Buffalo was part

of us, his flesh and blood being absorbed by us until it became our own flesh and blood. [...] It was hard to say where the animals ended and the human began." Bison play a significant role in Lakota ceremonies, as their incorporation is essential to the effectiveness and protection of their cultural expressions. Other animals, like the horse (*sun'ka wakan*) who is connected to the spirit world and provided the Sioux with more efficient methods of hunting and traveling, are given sacred status, including the eagle, wolf, bear, and deer. (Native Hope 2021).

Wakan Tanka and White Buffalo Calf Woman

The Sioux, particularly the Lakota, believe *Wakan Tanka*, the Great Mystery or the Great Spirit, is an embodiment of the sacred and divine and created and sustains the entire universe (Black Elk 1973:xix; Hassrick 1964:245-246). Lakota origin stories state that the Lakota people emerged from the ground in the Black Hills, in present-day South Dakota, and were later greeted by White Buffalo Calf Woman. Her role among the Sioux is incredibly influential, as she served as a mediator between *Wakan Tanka* and the Sioux people. She took the form of a beautiful woman and could shift into a sacred buffalo calf (Black Elk 1973:9). She came to remind the Sioux of their relationship with *Wakan Tanka* and the rest of the world. White Buffalo Calf Woman identified as the healer, teacher, and spiritual guide who brought knowledge and guidance to the Lakota people and symbolizes the mother, sister, and feminine qualities of power. According to Teton Lakota oral tradition, White Buffalo Calf Woman told the Lakota women that their work and ability to create life would keep the tribe alive (Medicine 2001:141). She is often viewed as a female messiah, but she also encompasses the ideals of womanhood and acts as a role model for women (Markstrom 2008:314). Given that the Sioux's protecting deity and key figure is a woman, rather than a man, indicates their reverence for feminine qualities (Hassrick 1964:262-263; Medicine 2001:141). It was White Buffalo Calf Woman who brought the Lakota their sacred prayers and song, the sacred pipe, and the seven sacred rites, which are still used today (Black Elk 1973:4-6; Hassrick 1964:258-260).

The sacred pipe, a holy object to the Lakota people, acts as a direct link between humans and sacred beings and is perceived as a symbol of peace. When the pipe is used, sacred tobacco, or *kinnikinnik*, is smoked, and sacred prayers are made (Black Elk 1973:7). The Lakota were told by White Buffalo Calf Woman that the red stone bowl of the pipe represents the Earth, the wood stem of the pipe represents humans, and the twelve spotted eagle feathers represent all winged beings. White Buffalo Calf Woman gifted the Lakota a stone as well. This stone was adorned with a carving of

seven circles representing the seven sacred rites (Black Elk 1973:7). The sacred pipe is used in all of the seven sacred rites of the Lakota. These rites were given to them for their faithfulness and aid in maintaining their connection to *Wakan Tanka* (Hassrick 1964:259; Mark 2023). White Buffalo Calf Woman explained to them that the rites would maintain harmony and peace as long as the rituals were observed (Black Elk 1973:8-9; Mark 2023). The seven sacred rites also helped maintain the Lakota virtues: fortitude, generosity, kinship, prayer, respect, wisdom, and compassion (DeMallie and Parks 1987:162). The details of each rite must be adhered to properly; failure to do so could result in bad luck, ill health, and serious hardship.

The Seven Sacred Rites

The seven sacred rites of the Lakota are The Keeping of the Soul, The Purification Rite (*Inipi*), Crying for a Vision (*Hanblecheyapi*), The Sun Dance (*Wiwanyag Wachipi*), The Making of Relatives (*Hunkapi*), The Throwing of the Ball (*Tapa Wanka Yap*), and The Girls Coming of Age or Making a Buffalo Woman (*Ishna Ta Awi Cha Lowan*). The details of these rites are extensive; for an in-depth explanation of these ceremonies see *The Sacred Pipe: Black Elk's Account of the Seven Sacred Rites of the Oglala Sioux* by Joseph Brown and Black Elk.

The rite of the Keeping of the Soul recognizes death and purifies the souls of those who have died. This rite ensures the proper respect and love for the deceased (Black Elk 1973:10). A lock of hair, typically a braid, is taken from the deceased, purified with sweetgrass smoke, wrapped in a buckskin bundle, and the sacred pipe is smoked as prayers and songs are made (Black Elk, 1973:11-12; Mark 2023). This ritual allows the soul of the departed to travel through the universe and be with the great *Wakan Tanka*.

The Purification Rite commemorates the origin of the sweat lodge and is used to shed both physical and non-physical impurities and rid oneself of negative behaviors and attitudes like ignorance, laziness, or anxiety (Mark 2023). It also promotes togetherness and strong relationships, as several people will be in the lodge at once. Building the sweat lodge takes extreme effort and precision, as its construction is vital to the success of the ceremony. The sacred pipe is smoked before, during, and after the ceremony. The purification rite is commonly incorporated into other rites.

Crying for a Vision is performed when one is seeking guidance from the spiritual world. This process requires an individual to speak with a medicine person or shaman and offer a filled pipe, requesting guidance and prayer. Once this process is complete, a sweat lodge ceremony is performed. The individual wanting to seek a vision must then go into a sacred isolated place with

nothing but their pipe and *kinnikinnik*. Praying for a vision can take days. Those who receive visions, usually in the form of a dream or some sort of interpretive sign, are considered worthy and must have the vision interpreted by a medicine man after attending another sweat lodge ceremony (Black Elk 1973:44-66; Mark 2023).

The Sun Dance is held for four to eight days and is performed to observe the renewal of the Earth after winter, express gratitude for the gifts of *Wakan Tanka*, and renew the community (Black Elk 1973:67-100; Mark 2023). Appreciation and gratitude to *Wakan Tanka* are shown in the form of personal sacrifice. Community members must construct a sweat lodge, collect sacred objects (like sweet grass, buffalo tallow, buffalo calf hide, a buffalo skull, and eagle feathers), smoke the sacred pipe, purify themselves, and fast. A large pole, made from cottonwood, is placed in the center of a clearing in which dancing, singing, and drumming take place. Self-sacrificers, typically men, will pierce their flesh with sharp buffalo bone while some will tether their piercings to the pole as they continue dancing and dragging heavy buffalo skulls behind them. Although all of the sacred rites are equally important, the Sun Dance is the most significant of them all as it expresses the peoples' thanks to *Wakan Tanka* and White Buffalo Calf Woman for all that they have provided to the people.

The Making of Relatives is observed to create and maintain good relationships with others and represent the Sioux Nation as a peaceful ally (Black Elk 1973:101 & Mark 2023).

Participants smoke the sacred pipe together in a carefully constructed tipi over several days, formalizing closer relationships with one another, and using this to reflect the relationships the people have with *Wakan Tanka* (Mark 2023). The ceremony ends when participants paint their faces with red and blue paint, indicating that they are reborn and ready to embrace the new relationships they have just made.

Traditionally, in the Throwing of the Ball, a ball made of buffalo hide and hair would be passed to a young girl in the center of a court circle. This circle had the four cardinal directions marked, helping the young girl pass and return the ball to four groups of girls in each direction (Black Elk 1973:132-137). When the young girl had finished this, she would throw the ball up in the air and catch it. In doing so, she symbolically recognizes the presence of *Wakan Tanka* everywhere and has received *Wakan Tanka's* blessings (Mark 2023). The young girl symbolizes purity and carries the universe (symbolized by the ball made from buffalo hide) in her hands for all of her community and *Wakan Tanka* (Black Elk 1973:133). It is believed that the Throwing of the Ball originated with the sixth rite, The Girls Coming of Age, but uncertainty still surrounds this suggestion because the Throwing of the Ball must be carried out by a child prior to puberty (Markstrom 2008:317). Nevertheless, versions of this rite have occurred during a girl's *Išnáthi Awíčhalowaŋpi*.

Girls' Coming of Age Ceremony: Išnáthi Awíčhalowaŋpi

The Girls Coming of Age Ceremony or Making a Buffalo Woman, also called *Išnáthi Awíčhalowaŋpi*, *Ishna Ta Awi Cha Lowan*, or *Isnati Awica Dowanpi* purifies, blesses, and prepares girls for womanhood and ensures the success of future generations. *Išnáthi* translates as "to dwell alone," and refers to the act of menstruation and the separation and isolation of women during their menstrual cycles (Markstrom 2008:313). *Ishna Ta Awi Cha Lowan* translates as "Her Alone They Sing Over" while *Išnáthi Awíčhalowaŋpi* means "they sing over her first menses" (Markstrom 2008:318). This sacred rite is also called Making a Buffalo Woman because of the summons to the buffalo spirit during the rites (Powers 1986:101). The story of White Buffalo Calf Woman is especially influential and meaningfully tied to girls' coming-of-age ceremonies. Each aspect of the story holds significance and is used among the Lakota to commemorate the values that are taught and reinforced by her.

The First Ceremony

Black Elk recalls the story of the first *Išnáthi Awíčhalowaŋpi* conducted after Slow Buffalo, a Lakota man, had a vision. In this vision, Slow Buffalo witnessed a gathering of people create a buffalo wallow where a child was to be purified. He was then shown how to purify the child when the people morphed into a buffalo and a large bull began blowing red powder on the calf. The buffalo then moved toward the child, licked her, and continued blowing red powder on her. Slow Buffalo recognized that through this action the child would be purified and she would live on to "walk the sacred path as a leader of her people, and she would teach her children, too, to walk the path of life in a sacred manner" (Elk 1973:124). A few months after this vision, a fourteen-year-old girl named White Buffalo Cow Woman Appears had her first period and the first *Išnáthi Awíčhalowaŋpi* was held for her. The name of the first initiate of this ceremony is a clear indication of ceremonial importance, as their honored supernatural figure, White Buffalo Calf Woman, comes again to the Lakotas within the girl who carries her name (Markstrom 2008:321). The ceremony was conducted as a way of "preparing her for womanhood" and considered a "rite of purification" just as the buffalo "purify their children" and "prepare them for bearing fruit" (Elk 1973:118). The days in which the *Išnáthi Awíčhalowaŋpi* are held are considered sacred as they please *Wakan Tanka* and benefit all people. In describing the girl's preparation for womanhood, Black Elk stated:

"These rites are performed after the first menstrual period of a woman. They are important because it is at this time that a young girl becomes a woman, and she must understand the meaning of this change and must be instructed in the duties which she is now to fulfill. She should realize that this change which has taken place in her is a sacred thing, for now she will be as Mother Earth and will be able to bear children, which should also be brought up in a sacred manner. She should know, further, that each month when her period arrives she bears an influence with which she must be careful, for the presence of a woman in this condition may take away the power of a holy man. Thus, she should observe carefully the rites of purification [...] for these rites were given to us by *Wakan-Tanka* through a vision"

[Elk 1973:116].

The ceremony begins with a medicine person smoking the sacred pipe and women of the community, typically close family of the initiate, building a tipi outside of the camp circle. The tipi, as Black Elk states, is a sacred place where menstruating girls stay because they are in "pure" states and are soon to become women. The term "pure" in this context is not clearly defined and carries a somewhat amorphous meaning. The use of the word pure in English translation most likely does not hold the same definition it does in the Lakota language. The Lakota term appears to be related to the implied meaning or connotation of the words "sacred" or "holy", referred to as *wakan* or wakȟáŋ. The use of the words "pure", "sacred", and "holy" together or interchangeably are found throughout a variety of texts related to the Sioux. It is also commonly used in relation to ideas of goodness and being honorable or righteous.

White Buffalo Calf Woman stayed in the tipi for four days. The tipi is constructed in the same way as the *Hunkapi* rite and a collection of sacred objects is needed to be gathered in preparation for the ceremony. These included a buffalo skull, a wooden cup, cherries, water, sweet grass, sage, a pipe, Ree tobacco, *kinnikinnik*, a knife, a stone hatchet, and red and blue paint (Elk 1973:118). Medicine men, like Slow Buffalo, are provided offerings in exchange for their work in ceremonies. Traditionally, offerings come in the payment of horses and other precious gifts and is a crucial step towards conducting a successful ceremony. Women are involved in preparing the tipi while others are tasked with preparing the feasts that come after the ceremony. The preparation process lasts for a day.

After the day of preparation, the four-day ceremony begins and all of the equipment used in the rite, including the tipi, are purified with sweetgrass and the sacred pipe, just as Slow Buffalo did the first time. Prayers of purification are made to *Wakan Tanka* and Mother Earth (Elk 1973:119). As purification takes place, only the girl's closest relatives are allowed in the tipi. Tobacco is then offered to *Wakan Tanka* and the four cardinal directions. In the first ceremony, Slow Buffalo imitated the buffalo and demonstrated that he acquired the power of the buffalo by exhaling red smoke on the girl and inside of the tipi six times (Elk 1973:121-122). While this was taking place, Slow Buffalo continued to pray and purify himself and the others with sweetgrass. The stone hatchet was then taken to hollow out a depression in the ground. In this buffalo hollow, the shape of a cross was formed with tobacco that was then lined with blue paint. The blue paint is representative of the Heavens, while the tobacco represents Earth. It was through this action that the Heavens and the Earth could be united into one for the ceremony (Elk 1973:122; Markstrom 2008:319).

Slow Buffalo then placed the buffalo skull on the earth mound and painted it red. The eyes of the skull were filled with sweet grass and a wooden bowl of water with cherries was placed in front of the buffalo skull's mouth. The cherries represent the fruits of Mother Earth that trees bear; their branches grow into the sky, reaching the Heavens, and are considered very sacred (Elk 1973:123; Markstrom 2008:320). A bundle of sweet grass, cherry tree bark, and the hair of a buffalo was gathered so White Buffalo Cow Woman Appears could hold the bundle above her head. As she held these sacred items, Slow Buffalo stated:

"This which is over your head is like *Wakan-Tanka*, for when you stand you reach from Earth to Heaven; thus, anything above your head is like the Great Spirit. You are the tree of life. You will now be pure and holy, and may your generations to come be fruitful! Wherever your feet touch will be a sacred place, for now you will always carry with you a very great influence" [Elk 1973:123-124].

Slow Buffalo imitated the buffalo, pushing White Buffalo Cow Woman Appears to the bowl of water and cherries for the girl to take four sips. A piece of buffalo meat was then held up to the girl as Slow Buffalo said:

"White Buffalo Cow Woman Appears, you have prayed to *Wakan-Tanka*; you will now go forth among your people in a holy manner, and you will be an example to them. You will cherish those things which are most sacred in the universe; you will be as Mother Earth – humble and fruitful. May your steps, and those of your children be firm and sacred" [Elk 1973:126].

Slow Buffalo, nearing the end of the ceremony, offered a prayer with his pipe. As White Buffalo Cow Woman

Appears exited the tipi, the people of her community rushed to her and touched her because of her sacred and holy state. A large feast and a giveaway concluded the ceremony, where families gathered and the community celebrated. Black Elk emphasized in his retelling of the story that this rite of preparing a young girl for womanhood was "the source of much holiness, not only for [Lakota] women but also for the whole nation. The functions and rituals of the *Išnáthi Awíčhalowaŋpi* rituals have been modified over time, however, as the processes of colonization have affected the ways Lakota individuals express their culture.

The Processes of Colonization and their effect on the Lakota

Multiple factors of historical trauma were and continue to be highly destabilizing to Native lifestyles and peoples. Threats toward Lakota territory increased rapidly as expansionist policies in the 1800s created harsher land demands. Multiple treaties were created by white settlers as they continued to push west onto Lakota territory, but were broken, resulting in retaliation and resistance from the Sioux Nation (Rosebud Sioux Tribe 2023). Major battles between the Sioux Nation and the United States federal government ensued, some of the most well-known being the Grattan Massacre, also called the First Sioux War, Red Cloud's War, the Battle of the Little Bighorn, and the Wounded Knee Massacre.

As the Gold Rush began in the late 1840s, American prospectors used routes through the plains to reach California, but tensions increased as traffic on the trail grew rapidly (Cubbison 2016). On August 18, 1854, a sick cow traveling with Mormon settlers wandered into a Brule Sioux Camp, where it was killed and eaten by a Minniconjou man (Cubbison 2016). The owner of the cow reported the missing animal to the army. The Lakota offered to replace the animal, but the army waited for further intervention. Lieutenant John Grattan eventually led 29 men into Lakota territory and killed Conquering Bear, the Lakota Chief (History Nebraska 2024). The Lakota returned fire, killing Grattan and all of his men. The army sought revenge for Grattan's death and in 1855, returned to the village with 600 men (History Nebraska 2024). Despite the Lakota's pleas for peace and surrender, the army killed 86 people, captured 70, and destroyed the village (History Nebraska 2024). This battle marked the beginning of a series of conflicts between the Lakota and the United States up until the late 1800s.

From 1866 to 1868, Red Cloud's war was fought after the Sioux hoped to stop westward expansion into Wyoming and Montana. The Lakota and Cheyenne drove the army out of the Power River Basin after the U.S. Interior Department called on the Brule and Oglala Lakota to meet at Fort Laramie to negotiate new treaties (Ostlind 2014). Several battles and smaller attacks took place during the two-year conflict with the Sioux and Cheyenne being the ultimate victors. The Fort Laramie Treaty of 1868 helped put an end to Red Cloud's War but would result in further issues as the United States failed to uphold their side of the agreement (Cutlip 2018; Ostlind 2014). The Great Sioux Reservation was established under the treaty and designated the Black Hills, a sacred mountain range where the Sioux believe to have emerged into this world, as 'unceded Indian Territory' (Cutlip 2018). However, the United States backed out of the agreement when gold was discovered in 1874 during a U.S. army expedition through the Black Hills. The government tried to buy the hills, but the Sioux refused to sell. In 1876 a native settlement on the Little Bighorn River was attacked by the army as a form of retaliation, starting the Battle of the Little Bighorn (Cutlip 2018). The Lakota Sioux and Cheyenne won the battle, but the army continued seeking revenge. For the next few years, the U.S. army forced the Lakota back onto reservations and the expansion of the United States into native land continued.

Lakota resistance halted after the Wounded Knee Massacre in 1890 when the U.S. military deployed troops to the South Dakota Pine Ridge Reservation. This occurred after there were reports of people performing the Ghost Dance. The government's ban of the Ghost Dance in 1883 caused white settlers to become increasingly paranoid about armed uprisings, as they believed such ceremonies were suggestive of resistance. After arresting a band of Lakota members, and attempting to recover weapons from them, a gun was discharged and the soldiers opened fire (Library of Congress 2024). It is unclear which side fired first, but by the end of the shooting, over 100 Lakota men, women, and children were slaughtered (Library of Congress 2024).

The forced disconnection from land, cultural practices, and lifestyles through colonization served to remove sources of faith and meaning to various Native American tribes (Markstrom 2008:29). The annihilation of buffalo by the United States military, hunters, and ranchers occurred from 1865 to 1903 and proved to be one of the most devastating moments in history for the Lakota, and all Plains Indigenous groups. White settlers developed numerous strategies for conquering Plains Natives and clearing the lands for railroads and settlement. The decimation of the buffalo population proved most effective, removing their primary food source and most important spiritual and cultural figure. The US Fish and Wildlife Services estimates that 30,000,000 to 60,000,000 bison lived in North America when Europeans began arriving in the New World (Buffalo Field Campaign 2024). By 1890, there were

fewer than 1,000 buffalo left (Buffalo Field Campaign 2024). By the late 19th century, indigenous peoples were not allowed to leave their reservations, and were subject to hunger and poverty.

The establishment of reservation systems was accompanied by various waves of missionary efforts, boarding schools, and federal laws that sought to "Americanize" indigenous populations and forcibly assimilate them to European-based lifestyles. The boarding school era was especially damaging to indigenous youth, as they were separated from their families, communities, and cultures during important developmental stages. Federal Indian Boarding schools, or mission schools, were established near and on reservations and were usually operated by religious institutes. Christian and Catholic religious ideals were enforced and Native Americans were taught that their belief systems were entirely too "pagan" and "uncivilized". Throughout the boarding school process, as missionaries sought to change North American Indian religion, the Religious Crimes Code of 1883 formally denied Indians First Amendment protections for freedom of religion. It became illegal for Native North Americans to practice their religion. This meant that indigenous communities were denied access to ceremonial and historical sites, possessing and using their religious sacred objects, or worshiping through ceremonials and traditional rites.

One of the Lakota's primary religious figures, a woman with great power, was replaced by a dominant male figure whose religion historically enforces that women are inferior to men. Mission school programs were intended to indoctrinate girls with the ideals of Christian womanhood: domesticity, submissiveness, and purity (Devens 1992:228). Young girls in these boarding schools were presented with an alien worldview, behavior code, and language that they were expected to adhere to (Devens 1992:227). As opposed to Lakota women role models teaching young girls through supportive, empowering, and personal means, Lakota girls only had access to the missions' teachers who were often impersonal and insensitive (Devens 1992:229). Traditional systems of social support were absent, and cultural identity was weakened (Markstrom 2008:37). The implementation of various cultural, religious, and territory restrictions, like the Religious Crimes Code, caused serious reductions in the passed-down cultural knowledge of indigenous practices. The only choice Native American communities had during this time was to keep their dances and ceremonies underground or to completely stop their cultural practices out of fear for their safety and possible imprisonment. As a result, the *Išnáthi Awíčhalowaŋpi* was nearly forgotten.

It wasn't until 1978 that the Indian Child Welfare Act gave Native American families the legal right to reject their children's placement in a school and sought to protect indigenous children from being separated from their families. However, many boarding schools did not close until the 1980s and 1990s. 1978 also marked the year in which Native North Americans were legally given the right to religious freedom through the American Indian Religious Freedom Act. Once granted their religious freedom, Native tribes like the Lakota had to relearn what was left of their culture. This was difficult as language, oral traditions, and cultural customs had diminished as a result of decades of oppression.

Revitalization of Išnáthi Awíčhalowaŋpi

Starting in the 1960s and 1970s, large-scale movements toward self-determination and more united efforts supported by public policy and funding have helped in strengthening American Indian cultures (Markstrom 2008:39). This has resulted in a greater sense of empowerment among North American Indian societies. Schools and families have worked to incorporate forms of socialization, language programs, and cultural revitalization for youth (Markstrom 2008:39). There have been positive outcomes from this, particularly related to cultural preservation and the formation of ethnic identity.

The Brave Heart Society (*Cante Ohitika Okodakiciye*), comprised of mostly Dakota, Nakota, and Lakota members, is an intertribal organization that developed as a direct response to the existing issues present in Sioux communities (Spotted Eagle 2013:6). The organization was created in 1994 by a group of Yankton Sioux Oyate Reservation grandmothers, called the Unci (grandmother) Circle. The Brave Heart Society works alongside community members and other organizations and is primarily focused on the preservation and empowerment of traditional Sioux culture for girls and women. The organization is a product of both cultural revitalization and adaptations within the framework of indigenous feminism; it provides members with the ability to understand what has happened to them over time while contributing solutions to address contemporary problems (Spotted Eagle 2013: 5-6). The Brave Heart Society's mission centers on using both revived and preserved ceremonies, language, education, tribal values, and generational guidance through informal mentoring systems (Spotted Eagle 2013:42).

The revitalization of cultural traditions among the Lakota has served as a tool in the process of decolonization (Markstrom 2008:45). One of the ways the Brave Heart Society has done this is through the rehabilitation of the *Išnáthi Awíčhalowaŋpi* ceremony on the Yankton Sioux Reservation, starting in 1997. Today, the ceremony takes place near White Swan, South Dakota. Contemporary observances of this ceremony are not identical to the first ceremony that took place

with White Buffalo Calf Woman Appears. There are, however, several key components of a Lakota girl's coming-of-age that are regularly observed (Markstrom 2008:325). These components include seclusion, special clothing and adornments, instruction, and celebration. Also, in keeping with tradition, the ceremony is conducted by mothers and grandmothers of the community (Lakota Youth Development 2024). Today, Lakota, Nakota, and Dakota women are not entirely secluded during every menstrual cycle. Instead, they are required to remain apart from certain ceremonies. Community members may know when a girl is part of the *Išnáthi Awíčhalowaŋpi* ceremony or menstruating when she wears special clothing and adornments (Markstrom 2008:326).

The Brave Heart Society sets up a camp every year for the Išnáthi coming-of-age ceremony instead of conducting one every time a girl has her first period. Girls are instructed to build the camp tipi themselves, where all of the initiates stay together for four days (Nelson and Silva 2010). The tipis are typically surrounded by red sticks to protect the girls from wandering spirits that are drawn to the immense power the girls have during menstruation (Lakota Youth Development 2024). Initiates typically wear skirts or dresses and may have their faces painted red to indicate their new status as women (Markstrom 2008:324). A girl's morality is commonly represented by wearing a white vent plume from an eagle in her hair (Markstrom 2008:324).

Little anthropological research has been conducted concerning what occurs inside Lakota menstrual lodges during a girl's initial isolation; there are, however, select accounts by former initiates. Nellie Zelda Star Boy Menard, a Lakota elder, was 15 years old when she had her coming-of-age ceremony in 1925 (Bol and Menard 2000:25). In the 1980s, Menard transcribed what took place in her tipi:

> "I am to stay in this tent with my grandmother. [...] Grandma took a little ax, cut into the ground, made a little dug out about 4 inches deep, she put loose dirt in, then got some sage and made a bed. All I had to wear was [a] dress and underskirt. I sat on these sage[s], [and] when [I was] too uncomfortable she [would] take the soiled sage and the dirt where blood soaked through, then put fresh in. If I itched anywhere I can't scratch. I had to use a special little forked stick. During the day all I did was sit and do [...] beadwork. [...] Of course I was [cleaned] up every so often. Wash and Eat. I cannot look outside or go near any men or boys. [On the fourth day] grandma boiled sage and [bathed] me with the sage water, then she wiped me off with sage – no towel. I put on all new clean clothes. [...] They burned all my dresses and underskirt. They burned 8 dresses and about 10

slips but no pants. A man gave a talk first, then he told me I was a woman now and said always try to do right. [...] After that they had the ceremony – *a ma Iowaŋpi* [Buffalo Ceremony] and throwing the ball."

Frieda Big Road, an Oglala Lakota *Unci* from the Pine Ridge reservation, explains that instead of using sage beds today, some girls are expected to use moon pads that they must learn to make before they begin their coming-of-age ceremony (Marcus 2020). Moon pads are a reusable, washable, and zero-waste period product typically made out of fabrics like cotton or fleece. They are used in an effort to revive coming-of-age ceremony traditions and to move away from chemically-treated disposable feminine products (Marcus 2020). This process allows girls to become familiar with honoring and working with menstrual blood in accordance with tradition and by not disposing of it through means of flushing (Marus 2020).

The girls are also taught how to make their own leather medicine bags. In the *Išnáthi Awíčhalowaŋpi* today, girls create quill work, are taught the roles and responsibilities of what it means to be Lakota women, and are not allowed to feed themselves (Lakota Youth Development 2024). Like Menard in the 1920s, girls are not allowed to touch themselves and must use a cherry stick to scratch (Lakota Youth Development 2024). Only mothers or other women, like aunts, in the camp can brush and braid the girls' hair, clothe them, and feed them. Marla Bull Bear, a Lakota woman whose daughter participated in a coming-of-age ceremony explained the reason for this: "It's treating them like a baby one last time before they become women. No longer would she be my little girl to feed anymore. You really begin to start the foundation of what that adult relationship is with a mother and daughter" (Nelson and Silva 2010).

On the second day of the ceremony, the girls gather traditional herbs and medicine such as yellow cornflowers, buffalo berries, wildflowers, and women's sage for the bouquets they carry at the ceremony (Nelson and Silva 2010). Young boys keep fires in the camp burning, but men are not allowed in the camp. Young boys are also assigned duties like singing to the girls outside of their tipi to wake them in the mornings (Nelson and Silva 2010). The girls are also taught how to make traditional ceremonial foods. Older Isnati girls join these ceremonies to teach initiates cultural traditions like singing ceremonial songs and beading. Initiates are also instructed on subjects like modesty, pregnancy, and relationships, as well as mental health-related topics like suicide or depression (Nelson and Silva 2010). The Brave Heart Society makes great efforts to bring professionals,

like nutritionists and mental health professionals, to teach girls about nourishing their bodies and addressing issues like incest, sexual abuse, and domestic violence.

On the third and fourth day, each girl spends time with their mother or aunt in the tipi; the older woman bathes the girl in sage water, talks to her about her birth and childhood, and discusses her future (Nelson and Silva 2010). The girls are given ribbon dresses from elder women, as well as moccasins and beaded regalia. All of the quill and beadwork that the girls made over the four days are gathered and the girls are then reintroduced to their community. They are presented to the tribe as women while ceremony songs are sung, and a giveaway takes place with the items the girls made. The giveaway items are gifted to those who helped with the ceremony. Some girls receive new names in their families, but this does not always occur. The ceremony ends as the girls feed family and community members and thank those who have helped them (Lakota Youth Development 2024).

Empowerment through Puberty Rites

The empowerment of indigenous women as influential advocates of change can help strengthen their communities and nations against social, political, environmental, and cultural challenges. Positive social changes can be initiated by utilizing cultural knowledge. Promoting self-determination and women's participation and leadership in indigenous organizations can help to heal and strengthen future generations. This can also be reinforced by women's involvement in social gatherings and community-based ceremonies.

The maintenance and cohesion of community and familial social structure is supported through the observances of *Išnáthi Awíčhalowaŋpi* rituals. The involvement of the community allows members to recognize the importance of life-giving abilities and to value the teachings and themes associated with a girl's coming-of-age. Through the incorporation of celebrations, feasting, and giveaways, initiates are embraced by their community and reincorporated into society as young women. Their new roles as women are highly regarded among their communities, especially among other women. Motherhood is not necessarily fundamentally required or expected of initiates; motherhood is certainly not the emphasis of the ceremony's importance. It is the *ability* of women to create life that is honored. The power and influence women carry, particularly through their ability to have children and sustain life, is one way in which they feel empowered. Author Vi Waln, a Sicangu Lakota woman living on the Rosebud Reservation, explains this concept by stating:

"Females are the life-givers. Women are the portal between the spirit and physical worlds. Without women, humanity would die out. Our power allows us to give birth and ensure humanity lives on. A young woman who is menstruating carries the power of life and death. Every month our female body prepares to bring new life into the physical world. When the female ovary releases an egg into the uterus, the menstrual lining is ready to nourish a potential human child. But when the egg is not fertilized, the menstrual cycle begins and releases the life-giving nutrients contained in the blood out of the womb. So, a monthly period can be thought of as a type of death. It's difficult to articulate the power in life giving menstrual blood as also carrying the energy of death. Still, the combination of life and death energy in one cycle is powerful."

Adherence to "natural" or "spiritual law" in ancestral teachings of menstrual taboos is another way Lakota women feel empowered. The perceived power women carry as they are menstruating is believed to be able to overpower ceremonial altars and the spiritual energy of a ceremony or ritual (Waln 2018). Therefore, menstruating women must stay away from ceremonies like those of the seven sacred rites. The act of separating oneself from ceremonies during menstruation is seen as a form of self-respect. It is believed that women must understand and respect their power by doing this. In this way, Lakota girls and women can develop greater self-identity and confidence. Essentially, menstruation can be seen as a process in which women can understand their strength and power as life-givers.

The magically positive properties of menstrual blood are another avenue to understanding women's empowerment through menstruation and puberty ceremonies. The patriarchal stigma surrounding menstruation, menstruating women, and menstrual blood is largely based on connotations of uncleanliness, defilement, impurity, shame, and embarrassment (Marcus 2020; Mello 2004:37; Powers 1980:54). These beliefs about menstruation and period blood pose threats to women's self-esteem and personal understandings of their bodies. Lakota puberty rites fight against these notions teaching young girls to embrace their newly acquired powers and explore the beauty of womanhood through a new perspective (Marcus 2020).

The role women play in a girl's coming-of-age is highly valued (DeMallie and Parks 1987:161-162). Women not only participate but also organize rituals and make ritual and giveaway items. The preservation of the Sioux way of life is largely centered on the acknowledgment of women and their roles in Sioux mythology and cosmology (Mello 2004:38). The mythical presence of White Buffalo

Calf Woman is constantly invoked by most Lakota people, male and female, and indicates high esteem in which women are held in Sioux culture (Mello 2004:38). The expression of their culture and ceremonies enables Lakota girls and women to understand and accept their power, strength, and courage. It is through this that the Lakota continue to create and support entire generations of confident women.

Conclusion

Išnáthi Awíčhalowaŋpi

The preservation of Lakota coming-of-age ceremonies for girls is essential to the empowerment of future generations of Indigenous women. By protecting cultural traditions, individuals are able to understand and value cultural heritage and ethnic identity. Preservation initiatives of the Lakota aid in maintaining and revitalizing cultural heritage, nurturing communities, and help to strengthen the confidence of young women.

The processes of adolescence and menstruation can be difficult to overcome, but through the support of other women and communities, the Lakota have been able to positively influence their girls and women in a world that has severely diminished their culture and autonomy. The *Išnáthi Awíčhalowaŋpi* puberty ceremony reflects the complexity of the spiritual and cultural practices that exist within Lakota culture. This sacred rite demonstrates the perseverance and strength of Indigenous women throughout history and poses as an existing example of empowerment through the processes of menstruation and adolescence.

Perhaps this calls for personal cultural reflection; perhaps non-indigenous women can reflect on their experiences of adolescence and menstruation and empower themselves through their natural abilities. By understanding, empathizing with, and supporting other cultures, women as a collective can nurture their connections with menstruation and reclaim their strength. Similar introspection can be accomplished among non-menstruating people. Non-discriminatory environments and social norms can be formed as positive understandings of menstruation and menstrual blood are promoted throughout communities. Realizing the relationships between cultural awareness and self-cognizance can be accomplished by learning about other cultures and their practices. In this way, society can begin to shape a more positive worldview. It is through the universal experience of menstruation that the confidence and well-being of women is uplifted and a woman's monthly cycle can be separated from fear, shame, embarrassment, and guilt.

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K'tl'egh'i hnuqulnesh, to Tell about What Remains of the Past: Environmental and Cultural Perspectives on the Kachemak Tradition to Dena'ina Transition in the Cook Inlet

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Abstract

There were two major archaeological cultures within the Cook Inlet region of Southern Alaska during the last two thousand years. The Kachemak tradition inhabited the region from 3,000 years ago, until around 1,500 to 1,000 years ago. The later Dena'ina are dated to arrive during the same period as the Kachemak exodus, 1,500 to 1,000 years ago depending on site locations. Shifting climate patterns associated with glacial cycles and warming/cooling periods between 500 and 1,500 years before present (B.P.) occur during these population shifts, alongside notable sea level changes. The motivation for these migrations can then be explained by environmental forces changing the local ecology of the Cook Inlet. Cultural subsistence adaptations vary between the Kachemak and Dena'ina, with the former being maritime-focused and the latter being more terrestrial-focused. This research paper presents the destabilization of the Cook Inlet environment along with differing cultural subsistence adaptations as the primary motivators for the emigration of the Kachemak and immigration of the Dena'ina to the Cook Inlet.

Introduction

The Cook Inlet in the south-central region of Alaska is one of the most environmentally diverse, and subsequently culturally diverse regions in the Arctic. For most of its history, it has been the site of numerous cultural groups that called it home, with the earliest settlement dated between 7,500 and 10,000 years before present (Kari et al.:15). Within the past two thousand years specifically, there have been numerous migrations into and out of the Cook Inlet. The major players in these migrations were the Kachemak tradition, originating out of Kodiak Island, and the Dena'ina, migrating from west of the Alaska Range into the Inlet. Kachemak occupation of the inlet is dated between 3,000 and 1,000 B.P., variance in data can push the date back further (Yesner 1992: 169-172)(Workman 1998:151-154). The Dena'ina inhabited the same region, excluding Kodiak Island, from 1,000 B.P. and onwards, though some evidence suggest occupation dating as far back as 1,500 B.P. These two cultures have some overlap in the inlet in certain regions, possibly interacting for only a short time before the complete disappearance of the Kachemak from the region's archaeological record. Following the Kachemak's disappearance, the Dena'ina spread further throughout the inlet, arriving in some places during the Kachemak emigration, but with denser populations following in the centuries afterward (Mills 1994:128-131)(Yesner 1992: 169-172)(Workman 1998:151-154).

The cause for these migrations is still hotly debated within the academic community and are likely a result of many factors beyond a singular theory.

When reviewing these migrations in relation to cultural subsistence practices and regional environmental data, a theme of shifting subsistence and environmental stress arises. Climatic shifts that break from the normal pattern occur at multiple points in time within the inlet, and throughout the world. These are correlated to the same time as these migrations. Alongside this, the subsistence strategies differ greatly between the Kachemak and the Dena'ina, with the former being a marine-based system and the latter being a terrestrial-based system. The destabilization of the local environment due to fluctuating temperatures may have led to greater strain on food resources, forcing cultures like the Kachemak that were more dependent on environmentally sensitive resources to relocate to more reliable regions. With the presence of the Kachemak waning, the Dena'ina had their chance at a more productive environment, especially when concerning their primary focus on terrestrial resources.
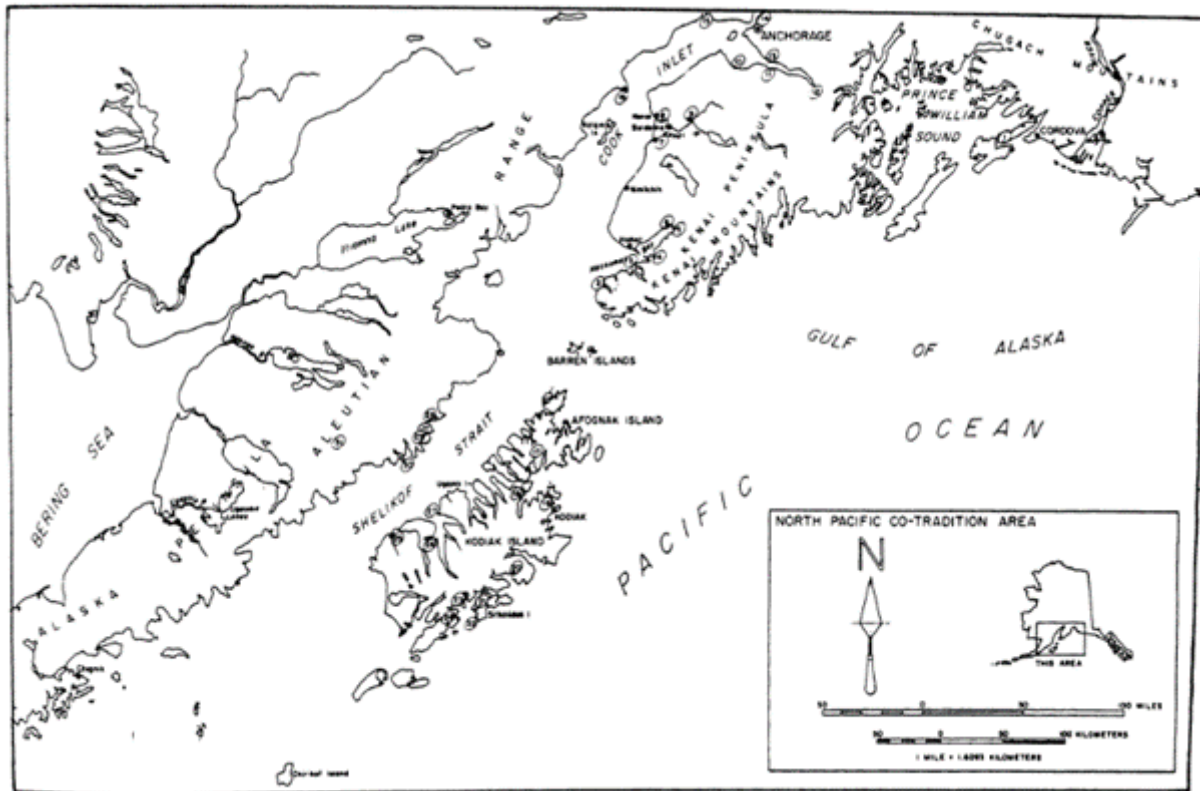
Figure 1. A map of south-central Alaska, concerning notable areas part of the discussion. (Workman 1998:147).

Ecology

Geography, Weather, and Resources

This study takes place primarily within the south-central region of Alaska. There are two overarching climate patterns in the area in contemporary times. The territory west of the Alaska Range, the climate is a maritime-continental zone, where the climate ranges between both maritime-dominated and continental-dominated aspects depending on the seasons. This region sees an average temperature range of between sixty and negative ten degrees Fahrenheit. Precipitation on the western side of the Alaska Range is around 60 inches a year, with a large portion of it coming in the form of snow (Anonymous 2024:2). The ecology is largely defined by forests composed of white spruce, black spruce, hemlock, and alder, with the landscape defined by mountain ranges, meandering rivers, meadows, and bogs (Gaul 2018:26-28). Animal resources are abundant during different seasons, and include various species of trout and salmon, alongside brown and black bear, migratory birds such as ducks and geese, caribou, moose, Dall sheep, ground birds like ptarmigan and grouse, bald eagles, peregrine falcons, and ravens (Gaul 2018:26-28). In addition, the area is densely populated with furbearers such as lynx, red foxes, coyotes, minks, weasels, wolverines, river otters, and beavers (Gaul 2018:27-28).

The other climate zone lies east of the Alaska Range and surrounds the Cook Inlet. This area is defined as a transitional zone between maritime and continental aspects but does not oscillate between different ecological tones, rather being a consistent combination of the two. Average temperatures range between 60 and 0 degrees Fahrenheit. The local geography is defined by thick woodlands of a similar nature to the maritime-continental zone, along with large river systems and mountainous terrain (Anonymous 2024:1-2). Precipitation in this region is around 150 inches annually, mostly snow (Anonymous 2024:2). The animal resources found in this area are the same as on the other side of the Alaska Range, but also contain a significantly higher percentage of marine resources. These resources are mostly marine mammals, such as sea lions, beluga whales, harbor seals, and porpoises (Gaul 2018:27), and smaller resources like mollusks and shellfish (Yesner 1992:171-173). Both climate zones also feature various exploitable plant resources, with berries being a staple to the local diet and environment. Common berry species include wild blueberry, salmonberry, nagoonberry, raspberry, crowberry, and others (Gaul 2018:27-28).

While these two regions are the primary focus of the project, the southern coastal area of Alaska also needs to be considered. Specifically, the maritime environment of the Kodiak Archipelago, off of the south coast of Alaska east of the Alaskan Peninsula, and south of the Kenai Peninsula, need to be considered due to their place as the origin point of the Kachemak (Workman 1998:154). The Kodiak Archipelago is home to a similar array of animals and plants, with the exception of moose and caribou. Notably, this region contains Sitka spruce in comparison to the rest of the study area (Yesner 1992:171). Kodiak Island is a part of the maritime ecological zone, with temperatures ranging between 60 and 20 degrees Fahrenheit annually, and a yearly rainfall of around 150 inches (Anonymous 2024:2).

The North Pacific Maritime Stability Model

The defining feature of subsistence on the Gulf of Alaska is described by Dr. David Yesner as the "North Pacific Maritime Stability Model"(NPMSM) (Yesner 1992:176-181). This theory analyzes cultural evolution in relation to environmental and subsistence factors in the North Pacific and is a tool through which analysis of local conditions in Kodiak Island and Cook Inlet can be conducted. Lacking the perennial ice that is found in other coastal regions in the Arctic, the number of resources available to local populations is much higher than in other Arctic regions (Yesner 1992: 168). Coinciding with the availability of these resources, the North Pacific Maritime Stability Model allows for a degree of predictability when estimating food resources, allowing populations to effectively predict resource availability depending on the location and season. This then helps the cultures in question to maintain a stable population. With the North Pacific Maritime Stability Model in mind, the emergence of permanent or semi-permanent settlement of populations becomes possible in the North Pacific. The availability of these resources should be considered as the guiding standard by which the local populations live by, and disruption due to climatic shifts or geological activity should be considered whenever evaluating sudden population shifts.

Geological and Glacial Activity

The focus of this study is concerned with the destabilization of the local environments, and their effects on the local populations of south-central Alaska. Since the end of the last glacial maximum, the environment has been in constant flux. The aforementioned NPMSM highlights stability in terms of slow change over thousands of years but is disrupted by higher climactic variance. During the past two thousand years there have been two major worldwide environmental shifts. Between 1100 B.P. and 800 B.P., there was a major warming event known as the Medieval Warm Period (Mann et al. 1998:113-116). This period resulted in a higher average temperatures, causing environmental havoc across the world. Within a few centuries though, the Little Ice Age began to set in and reverse the course. Temperatures throughout the world plummeted to the lowest average in millennia (Mann et al. 1998:113-116), with a pronounced effect in the Arctic and sub-arctic. The changes are reflected in various lakebed sediments analyzed in south-central Alaska, with yearly trends in pollen and other formations changing in response to these temperature changes (Hu et al. 2001)(Loso 2008)(Wooler et al. 2012). Major glacial retreat during the Medieval Warm Period is evidenced in the Kenai Fjords on the eastern side of the Peninsula, causing major local geographical changes within the period (Santos et al. 2010:110-11). Glacial advance during the Little Ice Age in the College Fjord of Kenai exemplifies the dynamic nature of the region (Santos et al. 2010:110-111). Geological activity is a key part of the local environment, especially when considering its effect on local populations. Rising and falling sea levels were driven both by the frequent earthquakes in the region and the freezing and releasing of glacial water (Mann et al. 1998:119-123). Alongside these effects, the volcanic nature of south Alaska could produce noticeable effects on local subsistence populations, in both physical and psychological aspects (Mann et al. 1998:124-125). There have been up to fourteen major volcanic eruptions in south Alaska within the last twelve thousand years (Mann et al. 1998:112), along with numerous earthquakes and tsunamis.

When concerning the effects of local ecology, the dynamics of the landscape and seas have helped shape the cultures that have risen, migrated, and fallen in the region for the last three thousand years.

Emigration of the Kachemak

The Kachemak Tradition existed 3,000 to 1,000 years ago on Kodiak Island and the Cook Inlet. It is a maritime resource-based culture with a semi-permanent settlement pattern. There are two major divisions of the Kachemak tradition, the Riverine of the northern Cook Inlet and the Maritime of the coastal regions. These two subcultures differentiate only in subsistence focus (river versus open water) and regional location. The Kachemak population grew in both settlement density and resource extraction over time. Pressure from the overharvesting of resources and environmental destabilization is evidenced in the archaeological record, providing context for the Kachemak's emigration from the Cook Inlet.

Kachemak Origins, Settlement, and Subsistence Patterns

The Kachemak tradition arose from Kodiak Island in the Gulf of Alaska, although the archaeological culture

is named after Kachemak Bay on the southern tip of the Kenai Peninsula, where the first sites of this culture were discovered (Workman 1998:154). Evidence of the Kachemak is found on Kodiak Island, and northwards on the Kenai Peninsula. Their territory extends from the Kenai Peninsula and onwards throughout the Cook Inlet, as far north as the Susitna River drainage that extends from the Alaskan Range (Gaul 2018: 37-39). The Cook Inlet is part of the previously discussed continental-maritime transitional climate zone, while Kodiak Island is a part of the maritime climate zone. While the origins of the Kachemak cannot be precisely determined, there are some theories that help explain their history through trade items and cultural connections. Artifacts found in the Kachemak context outside of their normal cultural practice suggest possible trade and population relations with people in the Bering Strait, the Norton Culture, and Alutiiq-speaking populations in the contemporary period(Clark 1992:7)(Clark 1982:126)(Erlandson 1992: 42-62). These associations are then comparable with settlement patterns found throughout the Kodiak Archipelago and the Kachemak region, lending themselves to theories on cultural exchange. (Erlandson 1992: 42-62).

The Kachemak inhabit the region under the North Pacific Maritime Stability Model, providing diverse and reliable marine resources to local populations. Relying on archaeological digs on the Kodiak Archipelago and within the Cook Inlet, a reconstruction of settlement and subsistence is possible. Dr. Jon Erlandson and his colleagues developed a model to analyze the patterns of Alutiiq settlement on Kodiak Island, and subsequently the Kachemak tradition. While resources are abundant throughout the year under the North Pacific Maritime Stability Model, the available resources differ seasonally. In order to maintain a constant influx of provisions, settlements need to either become cyclically occupied, with smaller satellite villages for resource collection, or entirely mobile for effective foraging. Settlements in an area with high resource density likely had a core village population that only needed to send out short-range excursions for resource extractions. These higher-density settlements then also could allow for more hands to work in resource exploitation. Less resource-rich sites inversely required more effort and movement to maintain the same level of resource production. These less prosperous settlements were likely to be mobile and smaller in population. A key unifying factor between these settlement patterns is the focus on the winter encampment as the cornerstone of subsistence and residency. The winter settlement is often the site with the best access to resources, so that one does not have to risk themselves in longer ventures during the harsher winter months, and is the site of most food storage

for cultures with the available technology (Erlandson 1992: 45-47). Kachemak settlements appear to follow the Alutiiq settlement model, although they have a distinct lack of permanent storage facilities (Workman 1998: 152). The lack of available storage technology reminiscent of the Alutiiq people is then an anomaly when using the Alutiiq settlement model, suggesting some possible dissonance between the two. In any case, the lack of apparent storage technology provides an unstable factor in the life of the Kachemak, as they do not have emergency food supplies saved in the case of natural disasters.

> "[S]torage pits and other facilities, for example stone slab boxes, are conspicuously rare in Kachemak Bay sites. Moss (1992:7) has suggested lack of emphasis on food storage facilities is a characteristic of Aleut/ Alutiiq subsistence pursuits when contrasted with the Tlingit area" (Workman 1998:152).

Growth of new settlements may outstrip the local resources for the population according to Erlandson's theory, resulting in satellite villages that have broken off from the main settlement in order to find a less stressful resource environment. With the consistent lack of storage technology, the need for a constant food source would dominate the operation of a village. Over time, the success of the satellite-village system challenged regional stability in resources, as satellite villages could compete with parent villages, leading to increased trade and warfare. The spread of satellite villages seeking better and safer resource opportunities would then spread out, leading to the Kachemak's presence from Kodiak to the Susitna drainage, if the model proposed by Erlandson is correct (Erlandson 1992:46-47).

The resources extracted by the Kachemak under this system were focused almost exclusively on maritime resources. The Fox Farm site (SEL-041) in Kachemak Bay contains a faunal assemblage that displays a near total reliance on marine mammals, aligning with other finds detailing Kachemak subsistence. Porpoises and seals make up for over ninety percent of faunal remains in some layers. Along with the focus on large marine mammals, smaller percentages of sea otters, sea lions, whales, marmot/porcupine, Washington butter clams, Pacific littleneck clams, Greenland cockle, and various birds are found in the assemblage. The Fox Farm faunal inventory has very few, often no inclusion of terrestrial mammals such as caribou and bear that would become more apparent in the diet of later cultures (Yesner 1992:173). The Three Saints site (KOD-401) on Kodiak Island provides similar evidence for Kachemak subsistence, with fifty percent of the faunal assemblage composed of a combination of fur and harbor seals. In an

anomalous turn, within the faunal assemblage at Three Saints, 29.7% of the remains belonged to foxes (Clark 1970:86).

While the ability to acquire food resources in the North Pacific Maritime Stability Model is abundant, long-term preservation and storage of food is a different story. There is a notable lack of storage pits, smokers, and other storage technology that is found in other cultures later in the region (Workman 1998:152)(Gaul 2008:39). Lack of ability to store food would require a constant need for new food sources, and lead to subsistence instability whenever environmental or human factors disrupted the amount of food available. The Kachemak's specialization in marine resources allowed for the growth of a large, and relatively stable population on the coast of Kodiak Island and the Cook Inlet, while also accentuating a weakness in stability in the face of unpredictable conditions.

Riverine versus Marine Kachemak

While the majority of the Kachemak practiced a marine focus, there was an offshoot known as the Riverine Kachemak. This was a contemporary cousin to the Marine Kachemak tradition, sharing many cultural similarities, with a difference in subsistence being the dividing factor between the two. The Marine Kachemak primarily inhabited the Kodiak Archipelago and the southern portion of the Cook Inlet, where exposure to open water is much more accessible. Kachemak Bay is located on the southern tip of the Kenai Peninsula, and is marked for its extreme wealth in marine resources. Kachemak Bay's productivity is up to three times as much as the surrounding areas. In contrast to this highly productive maritime environment, however, Kachemak Bay lacks major salmon streams that are found throughout the southern Alaskan coast (Workman 1998:149).

The use of salmon is the defining factor between the Maritime and Riverine Kachemak. Most of the Riverine Kachemak's residence sites are found on major rivers like the Kenai and Susitna River drainages. When contrasting the Fox Farm site to Riverine sites, there is a notable difference in the types of fish, evidenced by remains and harvesting implements. Most of the fish found at the Fox Farm site were sea fish, notably halibut. Salmon is included in the site, but not to the same degree as the Riverine sites (Yesner 1992:174). Salmon provide a stable yearly resource that is productive enough to sustain entire communities alone. The severe lack of salmon in the Fox Farm site, and other Marine sites, lends itself to the lack of availability and technology to store the large amounts of salmon that come in at once. Marine resources still account for between 50-60% of subsistence in the Riverine region, with a large focus on fish rather than mammals (Reger

1998:166). The other forty percent, then, is found in the local terrestrial mammals; these would be caribou, moose, mountain goats, black and brown bears, beaver, porcupine, muskrat, fox, snowshoe hare, mink, and river otter. Though these are thought to be the most likely candidates for Riverine subsistence, terrestrial remains are still difficult to ascertain in the record (Workman 1998:149)(Reger 1998:166). In a considerable difference from many of the Alutiiq patterned sites, the Riverine also display some signs of storage adaptation. Though these are not as widespread or defined as the later Dena'ina techniques, pits inside residences at the Moose River site near the Kenai River contain remains of fish vertebrae, suggesting possible storage (Reger 1998:166).
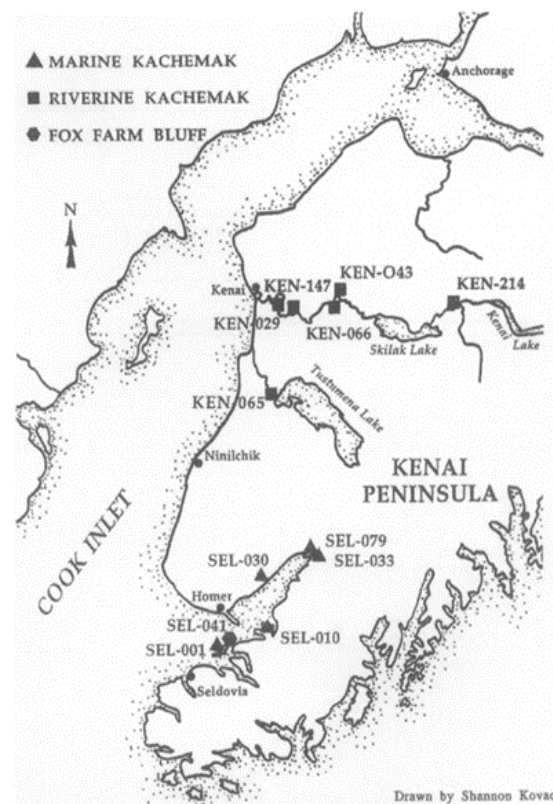

Figure 2. Marine and Riverine Kachemak sites on the Kenai Peninsula (Workman and Worman 2010:91)

Marine Kachemak Decline and Emigration

The motivations and timing of the Kachemak's exodus from the Cook Inlet are highly debated. Dates of Kachemak termination lie anywhere between 1,500 B.P. and 1,000 B.P. (Workman and Workman 2010: 92), depending on the method of dating and location of the site. The range of dates suggests that the emigration of the Kachemak may have been a gradual process over generations, and that there was not a singular event to push said emigration. It is more likely that the emigration was the result of multiple pressures upon the Kachemak

during the period. The two defining factors for this transition are both intrinsically connected to subsistence practices, with one being the overexertion of vulnerable local resources, and the other being the destabilization of subsistence sources due to environmental shifts in the region.

Regional exertion of resources to a burdensome level is evidenced in multiple locations, but most dramatically at the Fox Farm site (SEL-041). Site SEL-041 contains evidence of both Kachemak and later Dena'ina habitation, the Kachemak's residence correlating to the Kachemak II (3,000 B.P.) and Kachemak III (1,300 to 2,000 B.P.) periods. There are twelve stratigraphic layers of Kachemak occupation at the Fox Farm site, with two strata on top corresponding to Dena'ina occupation. When examining the faunal assemblages at the site, Kachemak layers thirteen through nine show a relatively low amount of identifiable faunal remains (NISPs), ranging from 161 in layer thirteen, and peaking at 586 specimens in layer twelve. Moving upwards through the layers, nearly every layer rising in the stratigraphy is marked with a massive jump in NISPs; 959 (Layer 8), 1025 (L7), 644 (L6), 1460 (L5), 1656 (L4), 2132 (L3). Preservation of the upper layers may have been aided by the changing water levels submerging lower layers, as evidenced in Yesner's study. The submergence of the lower layers by the shifting water table could reduce the chances of preservation in lower layers, leading to an apparent increasing trend of remains, but the effects of such changes are marginal in the face of the sheer number of remains found. The general trend of resource intensification is then maintained (Yesner 1992:174).

When concerning the transition between layers seven and three, there is a dramatic increase in marine mammal harvesting. Porpoise NISPs in layer seven number at 16.9 percent of the total mass found, while in layer three the porpoise NISPs increase to 37.9 percent. This increase is also reflected in seal harvesting, with layer seven at 40.0 percent of remains belonging to them, while in layer three it is a staggering 54.9 percent. In the same period of time, there is a drop off in the harvesting of sea otter and marmot/porcupine; 7.8% (L8), 4.7% (L7), 1.7% (L3) and 37.1% (L7) to 3.4% (L3) respectively (Yesner 1992:173).

The subsistence focus on large, marine mammals can be attributed to cultural adaptation to a usually abundant resource. As a marine-oriented society, marine mammals provide some of the highest calorie densities in a single instance, placing a higher value on them than smaller mammals and fish. Along with this, the increasing population of Alutiiq settlements at the time would encourage people to place more emphasis on such calorie-rich harvests. Notable increases in both residence sizes and carbon 14 densities in sites suggest the growth and stability of the Kachemak prior to their sudden abandonment of the region.

"The most marked increase occurs in the last 1500 years, when the number of C-14 components expands dramatically. This suggests that population may have grown rapidly during late Kachemak and Alutiiq times, at least in the Kodiak and Prince William Sound areas where most of the dated sites are located. The progressive increase in C-14 components through time may be due partly to differential preservation, but our data suggest that population growth was a major contributing factor." (Erlandson 1992:47)

With a notable lack of proper salmon runs in Kachemak Bay, the only method of acquiring high-density calories would be marine mammals. In combination with the region's burgeoning population, overharvesting of local resources is a possible influence. Subsistence stress is also evidenced by the growth of infant mortality rates during this period, as well as osteological evidence of malnutrition (Workman 1998:152). Researcher Frederica de Laguna argues that an increase of dog remains during the same time suggests that there was subsistence stress, as residents were to eat their dogs to maintain health (Workman 1998:156).

Beyond the human causes of the Kachemak exodus, the period between 1,500 and 1,000 B.P. shows an increase in environmental instability. Between 1,900 B.P. and 1,400 B.P, a neoglacial period occurred, driving glacial advancement in the subarctic. This neo-glaciation caused subsistence problems for the Kachemak, in the form of stream siltation, disrupting fish spawning, and glacial scouring of tidal zones, destroying the marine ecosystem within (Workman 1998:152). Immediately afterward, temperatures reverse their course towards the Medieval Warm Period, causing massive glacial melt. Such temperature shifts can affect local resource populations that are sensitive to temperature changes. David H. Mann cites cooling temperatures of the Little Ice Age to have a possible effect on salmon populations, with lower temperatures correlating with higher spawn amounts. Along with this, the warming period would have the effect of driving salmon populations down (Mann et al. 1998:116-119). Marine mammals and shellfish are also evidenced to be affected by rising sea temperatures, especially concerning diseases. The relative increase in temperature at this time period may have increased the likelihood and range of infectious diseases, leading to higher chances of destabilizing the local animal populations. This pattern has been repeated in recent history, with a 2004 outbreak of disease, causing havoc among local animal populations in the south Alaskan

coast. This event would not have been possible without rising sea temperatures expanding the range of the culprit shellfish and disease (Burek et al. 2008:127-129).

Sea levels during this time were in constant flux, as glaciers advanced and retreated on a cyclical basis, and tectonic activity resulting in earthquakes and tsunamis reshaped the coastal environment in a matter of minutes. Previous earthquakes in the archaeological record have been modeled after the 1964 earthquake, arguing for a sea level change of between 0.5m and 11.5m in the Kenai Peninsula area during a single event (Crowell and Mann 1996:19). These fluctuations were the result of the land rising and falling in the throes of isostatic rebound. Mann (Mann et al. 1998:121-122) outlines these changes as the following;

> "Radiocarbon dates on drift logs in raised barrier beaches, conifer stumps now in the intertidal zone, and marine shells now in freshwater marshes indicate that after 2.5 ka three marine transgressions occurred in Icy Strait. Their timing correlates with periods of glacial advance in nearby Glacier Bay (Goodwin 1988). The earliest occurred 2.4-2.0 ka, the second 1.6-1.4 ka, and the third after 0.8 ka. The second transgression reached at least 5 m above preexisting sea level[s] and the third transgression which accompanied the LIA was at least 6 m above modern sea level[s] in Icy Strait."

These fluctuating sea level changes very well could have caused environmental havoc during the later Kachemak period, making already strenuous situations more dire. Substantial evidence also suggests a geological event that had an effect on sea level changes between 1,300 and 500 B.P., likely with a correlation to geological activity near the Copper River in B.P. 900 (Mann et al. 1998:122). This geological activity would be the source of both earthquakes and tsunamis in the Kenai Peninsula and Prince William Sound area during the Kachemak's time period. Tectonic activity and sea level changes then goes on to affect subsistence activities and would have instantaneous consequences for coastal peoples.

The increasing disparity of nutrition within the Marine Kachemak's diet and exploitation of particular key food times then foment instability within the later Kachemak's subsistence practices and likely was a motivating factor for their exodus back to Kodiak Island. These anthropogenic issues in combination with geological and environmental effects then go on to create an environment that is no longer able to sustain the Marine Kachemak's lifestyle. The motivations for the Marine's abandonment are also applicable to the Riverine, though their different subsistence focus provided some insulation from environmental effects.

Riverine Exodus

The subsistence practices that the Riverine Kachemak focused on provided a more stable environment to thrive in during the temperature cycles of the past two thousand years. As stated previously, the Riverine Kachemak's subsistence was composed of a high density of salmon and use of terrestrial animals in comparison to their marine counterparts to the south. The shifting environmental factors that pushed the Marine Kachemak back to Kodiak Island likely had similar effects on the Riverine, although to a lesser extent. Organic data for the Riverine is uncommon, with evidence of tool technology and settlement being the primary methods from which the Riverine's livelihood is modeled after.

Riverine technology evidenced their focus on the harvesting of anadromous fish, with the development of netting within the Kachemak II period and an increase in notched pebble weights (Workman 1998:156). Osteological analysis revealed that around 50-60% of the Riverine diet is based on anadromous fish, providing evidence for the Riverines' more diverse diet (Reger 1998:166). When considering this information with little evidence of food storage technology, the tenuous conditions of subsistence within the Riverine system is apparent. The only evidence of Riverine food storage is a possible pit in a residence at the Moose Creek site (Reger 1998:166). Although the Riverine had a more insulated subsistence system than the Marine, the decline of salmon availability from environmental and geological processes would destabilize a key food source. With a keystone species then unreliable, survival on more supplemental food sources would not be possible with the large, sedentary societies that the Kachemak had built

With little knowledge about the Riverine Kachemak, the only method of analyzing their exodus is through speculation with evidence. We know that their emigration aligns with their Marine cousins to the south, and both of their subsistence practices are vulnerable to environmental shifts that were occurring during the time. A climactic shift from a glacial maximum at 600 C.E. to a slowly warming environment could disrupt the vital salmon runs with siltation, along with increased geological activity discouraging behavior to recover from disasters, may have been the deciding factors in the Riverine exodus.

Kachemak Conclusions

The Marine and Riverine Kachemaks were two traditions of the same culture, operating during the same time period in the Cook Inlet. Both traditions had connections to the Kodiak Archipelago and have left no detectable descendants within the Cook Inlet. The date for their abandonment is calculated as early as 1,500 B.P. and as late as 1,000 B.P. Before the abandonment

of Kachemak sites, there is significant evidence for both resource over-extraction, possibly in correlation with a growing population, and sudden signs of malnutrition. This period also saw a large amount of tectonic and climate activity, possibly leading to the destabilization of the local food chain. With cultures focused primarily on the harvesting of marine resources and a lack of widespread food storage technology, the shifting environment of the Cook Inlet during this time provides an explanation for the unseating of the Kachemak after three thousand years of habitation.

Arrival of the Dena'ina

The Dena'ina are an Athapaskan-speaking culture group, originating out of the forests and hills of Southwestern Alaska, west of the Alaska Range. While some dates of the Kachemak and Dena'ina appear to overlap, it is generally considered that there was little to no contact between the two culture groups. The earliest date for Dena'ina arrival is 1,500 B.P., mostly in the upper Cook Inlet in the Susitna River drainage. By 1,000 B.P., the Dena'ina appear to have cemented their presence within the Cook Inlet. Motivations for the Dena'ina are multifaceted, with oral history suggesting environmental factors, and archaeological and linguistic data outlining their arrival. The Dena'ina's subsistence system provides a more stable basis to withstand environmental factors that drove away the Kachemak, and allows for a diverse resource extraction strategy to avoid the same fate. Along with this, their arrival occurs within an environmental shift back towards cooler conditions, both motivating their arrival into the Inlet and restoring stability to anadromous fish populations. The arrival of the Dena'ina in the Cook Inlet appears to be a logical maneuver to take advantage of a more prosperous land that was recently vacated.

Dena'ina Settlement Practices, Trade, and Subsistence

Since the Dena'ina are the current group in the Cook Inlet, historical records and oral history have allowed for detailed documentation of their culture in comparison to the Kachemak. The Dena'ina focus primarily on terrestrial resources such as caribou, porcupine, bear, and moose, and also place a heavy emphasis on the seasonal salmon runs that occur throughout much of the Cook Inlet. Salmon is the cornerstone of Dena'ina subsistence, with the seasonal smoking and storage of salmon in pits being the key to the Dena'ina's success throughout the year. The storage of salmon is the basis from which Dena'ina society is organized, with power structures and settlement based around the acquisition and control of salmon supplies (Kari et al. 2003:22).

Dena'ina society is organized around twelve matrilineal clans divided into two unnamed moieties.

They practice matrilineal descent, patrilocality, and are exogamous. Each Dena'ina household is made up of a single clan, residing in the communal house called the *Nichił*. *Nichił* are made up of several families united by men of the same clan, and are led by the *Qeshqa*, the "Rich Man" or "Master of the Cache". The *Qeshqa* performs the role of both economic organization (hunting/fishing/trade) and social enforcement (instruction, settling disputes, defense organization). The villagers that live in the *Nichił* are known as *Nakilaqa*, or "clan helpers"(Kari et al. 2003:22)(Gaul 2018:2-4). Villages contain several different *Nichił* representing different clans. Multiple villages exist within the boundaries of twelve regional and thirteen local bands. Regional bands are based on the region that the village resides in, while local bands operate within the boundaries of the regional bands to offer further identity to individuals. The *Nichił* is inhabited for most of the year, with a primary focus on winter, when food storage and redistribution takes place. Fishing occurred in camps near the *Nichił*, and hunting parties are sent out from the *Nichił* onto hunting trails and residences during the fall (Kari et al. 2003:22-23).

One of the most complex facets of Dena'ina life is the pattern of seasonal trade, formed out of their semi-sedentary lifestyle. The available resources within the Cook Inlet vary widely depending on location. This is expressed with the terms *Ełnen Bunkda* and *Ełnen Tukda*, meaning "The Mother of the Earth" and "The Father of the Earth" respectively. These describe two major different regional resources, which are then used as the basis of trade. *Ełnen Bunkda* describes coastal and marine regions in Dena'ina territory, since the processing of marine resources is perceived as feminine work. The area referred to as *Ełnen Bunkda* is around Tyonek, on the western coast of the Cook Inlet. *Ełnen Tukda* in turn is associated with the terrestrial resources, land mammals, and furbearers especially, which the hunting and harvesting of is strongly coded as masculine work. The region most strongly associated with this is the Susitna River basin in the northern region of the Cook Inlet. Villages located within their respective regional subsistence "parentage" term often focused more on the resources at hand, and then proceeded to trade excess goods with trading partners (*Sluchin*), generally from the opposing subsistence region to access resources that were not as readily available in their own territory. Although trade occurs throughout the year, the month analogous to the Euro-American November is known as "Visitors" (*Qatggentdałna*). This is a time for trade, potlatches, stories, and occasional short hunting trips (Kari et al. 2003:22-27).

While most items of subsistence can be found throughout both regions, environment-specific animals like beluga whales and caribou are more regionally

concentrated. A yearly subsistence cycle starts with the harvesting of birds, trout, and beaver in the spring. This is also the time when coastal towns focused on harvesting marine mammals such as harbor seals and beluga whales, and fished for eulachon. Marine mammal hunting is conducted from kayaks, and fishing for both eulachon and salmon is conducted with weirs and complex river platforms (Kari et al. 23, 64-65)(Gaul 2018:39). The summer then marks the beginning all-important salmon run, where villages spread out into family owned fishing camps to harvest salmon for most of the spring and summer. The onset of fall is defined by the hunting of moose, caribou, sheep, and black and brown bears. Hunting continued into winter, when trading of regional resources took place, with caches of salmon and hunts allowing the Dena'ina to live in relative abundance until the next cycle began in the spring (Kari et al. 2003:22-25).

Along with their diverse array of food resources, Dena'ina storage technology is much more prevalent and complex than what was found in the previous Kachemak societies. Peter Kalifornsky, a Dena'ina man who worked to preserve oral traditions, recollects the preservation of clams by submerging them in beluga and seal oil, and then storing them in a beluga stomach (Kalifornsky 1991:213). Salmon was primarily stored in underground pits (*ełnen tugh* in the Kenai dialect) kept cold by the perpetual permafrost, from which the *Qeshqa* would ration to his *Nichił* during the winter (Gaul 2018:38). The daily ration of salmon was "a piece of dry fish as big as from the meaty part of your palm at the base of your thumb to the tips of your middle finger" (Kalifornsky 1991:209).

Figure 3. Map of the Dena'ina Cook Inlet and Dialects (Gaul 2018:4)

Dena'ina Migration, Methods, and Reasons

During the Kachemak occupation of the Cook Inlet, the Dena'ina resided on the western side of the Alaska Range. The Stony River drainage region north of Iliamna Lake is considered the homeland of Dena'ina, as recorded in some oral traditions (Gaul 2018:32). During this time, the Dena'ina had no direct access to marine resources, so their subsistence was based on riverine and terrestrial resources. As the first millennium C.E. approached, evidence of Dena'ina arrival in the Cook Inlet began to appear in the Susitna River drainage. Some sites can be dated as far back as 1,500 B.P., although the density of these sites does not reach total coverage until around 1,000 B.P. There are two proposed methods of Dena'ina migration into the Cook Inlet. One proposed group migrated from the west in the Stony River region across the Alaska Range, into the Iliamna region, and further up the coast towards Tyonek. This is most heavily supported by linguistic analysis by James Kari (Kari et al. 2003:13-14)(Gaul 2018:36). The second path is proposed to be from across the Talkeetna mountains to the east along the Copper River (Kari et al. 2003:14). The two paths of migration are also supported by analyzing place-names, and then comparing them to the archaeological record. The place-name for the location of Old Tyonek and its surrounding villages (*Tubughnenq'*, "Beach Land") has been suggested by James Kari as one of the first locations of settlement, due to the pattern of beaches being named in languages other than Dena'ina (Kari et al. 2003: 56-58). The second path of migration has been suggested as coming from the northeast of the Cook Inlet near the territory of the Ahtna in the Copper River basin. The main claim to this theory is the linguistic similarity between Ahtna and the upper Cook Inlet dialects of the Dena'ina (Kari et al. 2003:10-14).

Subsistence in the Cook Inlet points towards a primary focus on terrestrial game animals rather than salmon during the earlier years of Dena'ina occupation (Kari et al. 2003:16). Around 1,000 B.P sedentism begins to become apparent Dena'ina archaeological record, along with the proposed development of weir and dam technology to better take advantage of local fish populations (Kari et al. 2003:15-16)(Gaul 2018:38). This was also the time when more advanced storage techniques were developed by the Dena'ina, allowing for more reliable storage.

The reasons for why the Dena'ina migrated into the area are subject to debate. Environmental motivations seem to be the most likely motivator, with the Dena'ina's subsistence strategies providing a more stable basis for success in the Cook Inlet in comparison to the Kachemak. In addition, changing environmental factors outside of the Cook Inlet may have driven the Dena'ina to seek a more stable resource center.

A recurring theme in Dena'ina oral literature that helps explain these migrations is starvation. As suggested by Gaul, Peter Kalifornsky's stories *Imagination* and *The Dena'ina Clans* both offer insight into Dena'ina migration to the Cook Inlet (Gaul 2018:32-33). It should be considered that Dena'ina oral history recounts their presence in the Cook Inlet since time immemorial. *Imagination* details this arrival, first by noting that there were no more game animals to hunt; "And whatever village they came to, those people too said 'Where are the animals?' So they went among the mountains." With famine across the land, the Dena'ina sought to restore the animals, or to flee to somewhere where they may be found. They traveled until they acquired guidance from a man who was able to help them (Kalifornsky 1991:72-75);

> "So he went with them, with his little cane, among the mountains, until he came with them to the last mountain, which was nothing but an unscalable rock wall. Singing his four names, with his cane he struck at the mountain. And that mountain split open, and went in with them, singing… Those people went along with him and went through the mountain with them. And there was a great big county there. On one side was the mountain cliff, and on the other side was the ocean… Then he struck his cane on the cliff. And the mountain split open. Then he motioned all the animals that way and they all moved through the mountain."

Evidenced in this story is a tale of starvation, travel through the mountains to a land of abundance at the sea, and the establishment of a pass back to the hinterland. The origin story of the Dena'ina Clans, as pointed out by Gaul, references the arrival of the Nulchina clan due to freezing conditions, and the people seeking a warmer place to live (Gaul 2018:33).

By aligning this oral history with the archaeological data, it is possible to place a temporal and physical setting for this event. The earliest arrival of the Dena'ina in the Cook Inlet is dated to be around the same time as the 1,500 B.P. glaciation event (Workman 1998:152), the same one that began the Kachemak's decline. Starvation in the Kachemak catalog as previously mentioned occurs just as the first possible arrival of the Dena'ina, suggesting that environmental factors were not localized to just one culture. After the 1,500 B.P. glacial maximum, the slow onset of the Medieval Warm Period began to set in. Aligning archaeological data with the oral history of the Nilchina clan, their arrival from a "frozen cloud" to a warmer place of bountiful resources appears to concern the effects of the 1,500 B.P. glacial maximum. This temporal and climactic alignment also occurs in *Imagination*, where the starvation period could be placed at this same time of growing environmental instability, and the same time as their arrival across the mountains to a bountiful land by the sea as their entry into the Cook Inlet. The increase of Dena'ina occupation in the Cook Inlet after 1,000 B.P. is also aligned with an apparent increase in the strength of salmon runs (Workman and Workman 2010:95). This suggests that during the time of increased Dena'ina presence, the subsistence prospects of the region were growing.

Returning to the Fox Farm site in Kachemak Bay, layers one and two are part of the Dena'ina occupation period. In layer two, the Dena'ina are shown to have harvested 16.7% of their faunal assemblage in both porcupine and caribou. In comparison, Kachemak residence in the preceding layer displays a 3.4% harvesting of porcupine and no traceable caribou at all. Layers one and two also evidence a growing Dena'ina population; with 128 NISPs for layer two, and 681 NISPs for layer one. The Dena'ina presence is marked by both a higher amount of subsistence diversity and population growth, likely aiding in their occupation of the Cook Inlet following the Kachemak (Yesner 1992:173).

The arrival of the Dena'ina within the Cook Inlet was a result of the same shifting conditions that motivated the Kachemak to abandon the area. With a large difference in technology and subsistence practices, the Dena'ina likely had a better chance at surviving in the shifting environment. Oral and archaeological data have both suggested that the arrival of the Dena'ina within the Inlet aligns with recorded climatic shifts within both the region and throughout the world.

Discussion and Conclusions

The Kachemak and Dena'ina cultures are two different cultures that have taken advantage of the diverse resources available in the Cook Inlet. The Kachemak had a presence in the Inlet for over three thousand years, owing much of their success to the relative stability of marine resources in the area. During the first half of the first millennium though, conditions began to change. Temperatures shifted from a glacial maximum to relative stability, and then dove into a warming trend, leading to the destabilization of local resources within the Inlet. In combination with this, the large population of the Kachemak specialized in a small number of food resources, likely leading to overharvesting and famine. The lack of food storage technology made environmental disasters to become more dire than in other cultures with emergency storage. The collapse of local food production, along with increasing tectonic activity, may have been the final motivators for the Kachemak's abandonment of the region.

Just as the Kachemak left with the last of their people, the Dena'ina people began to migrate into the

inlet. With their adaptations towards a more diverse food system and storage technology, the Dena'ina were able to thrive in the newly vacated Inlet. Fleeing from their own environmental disasters across the Alaska Range, the Dena'ina established themselves just in time to see a surge of fish populations, to which they adapted to efficiently. Their oral histories recount stories of starvation and flight from the cold to a warmer and protected space, aligning with both climatic and archaeological data. The Dena'ina thrived due to their culture's adaptation to the interior of Alaska, with storage and terrestrial resources being fundamental to their success.

The causes for these migrations are many, but ecological factors and cultural adaptation appear to be the most influential. Environmental and cultural factors are often the core reasons for why people may choose to migrate to a new location, but in this context, they are of special significance. In an attempt to discover what may have pushed the Kachemak to leave their home of three thousand years, and to bring in the Dena'ina to their modern home, I hope that I have helped to *K'tl'egh'i hnuqulnesh*, to "tell of what remains of the past" (Kalifornsky 1991:7).

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