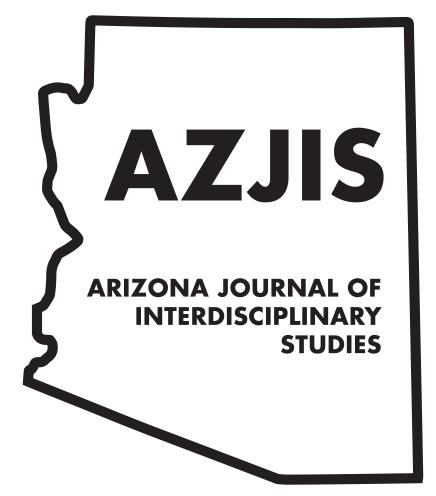
ARIZONA JOURNAL OF INTERDISCIPLINARY STUDIES

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ARIZONA JOURNAL OF INTERDISCIPLINARY STUDIES VOLUME 6 | FALL 2017

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Preface

This issue of the Arizona Journal of Interdisciplinary Studies placed emphasis and importance on the timeliness and creativity of student work. The research and creative pieces put forward demonstrate the interconnectedness of all disciplines, and how none truly stand alone. With both rigorous research and creative writing, art and social science come together.

In our articles, we see the interaction between the Seminole Tribe of Florida and their environment; the artistic and geometrical qualities of prehistoric fossils; race relations, rhetoric and policy; and poetic meditations on the challenges of home and silence.

A very special thanks goes to our contributors, and the high quality work they put forth. This journal rises with the efforts of the students who contribute their time and creative energy. We thank them for their willingness and their courage to put their hard work forward for publication, some for the first time.

I would like to extend my personal gratitude to the editors that made this journal possible, through their recruitment and editing efforts. Thanks go to Jennifer Stern and Kestrel Smith for their dedication to publishing a journal of quality.

Last but not least, this journal would not be possible without the aid and support of Confluencenter and its staff, whose belief in creative student engagement across the disciplines makes this journal not only possible, but a beacon among campus publications. Special thanks goes to Lesa Langan-Du Berry and Riccy Partida for working so closely alongside us throughout the compilation and publication process.

It was an honor to pilot this year's Arizona Journal of Interdisciplinary Studies, I hope the lessons shared in these written works stay with you beyond the turning of the last page.

Teresa Anastasia Velasco Editor-In-Chief

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Introduction

On behalf of the Confluencenter for Creative Inquiry, we are delighted to support the Arizona Journal of Interdisciplinary Studies. The journal reflects student's intellectual curiosity about interdisciplinary research and creative activities across our campus. It also echoes the Confluencenter's mission and values: collaboration and innovation, creativity and discovery, community and public engagement.

The Arizona Journal of Interdisciplinary Studies is linked to the Confluencenter's history. When the center was created, the founding editors Emma Kleiner and Lauren Johnston approached center leadership with the idea of producing a journal. A formal partnership materialized which has produced six issues thus far.

We are extremely proud to be part of this editorial effort. The Arizona Journal of Interdisciplinary Studies is a testimony to the commitment, dedication and resilience of a visionary group of students who believe that critical inquiry is capable of transcending borders, disciplines and intellectual differences.

Join me in congratulating this excellent group of students as we look forward to a long and lasting collaboration.

Javier Duran, Ph.D. Director Confluencenter for Creative Inquiry

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The Seminole Tribe of Florida: Keeping the Everglades Wet

by Jake Colton Golden

Deep yellow eyes peer out from underneath the water as an airboat cruises the surface. Mangroves extend their roots further down into the peat, reaching depths and adding strength. The sawgrass sways in the wind as a park ranger and researcher navigate through endless water alleys. A storm approaches with looming thunderclouds overhead; today's work might be ending, but an enduring struggle seems to never leave. The Everglades remains a mysterious, but fascinating place. Comprising most of Southern Florida, the Everglades are a unique ecosystem. Throughout the history of the United States, the "Glades," as some may call them, have been a hindrance and refuge depending on the perspective. White settlement encroached upon the land early on, seeing little value in preserving the muddy swamps. The Native American tribes and peoples that are living there are civilized and hold onto livelihoods based upon the Glades. However, it would be the Seminole Tribe of Florida who would become the leader in protecting the sacred land. An ecosystem connected to the seas and fertile soil inland is called a home by many. While great tasks have been completed through water management to secure this area, new threats are arising. Keeping the Everglades wet may be the only lifeline for South Florida. Protection of the sacred Everglades is the cornerstone not only for the tribe, but also for future health of Florida. Climate change is a primary shaker in this system. Through the threat of sea level rise and saltwater intrusion, the Everglades are at risk of further depletion and possible disappearance. This monstrosity will have ripple effects across the state of Florida and affect societies and peoples. The key element to aid in its protection is water. Under the comprehensive Everglades Restoration Plan and the Seminole's Water Rights Compact with the state, protection of this ecosystem is more feasible and serves as a route to climate adaptation.

Before discussing the Everglades and the Seminole Tribe, there needs to be a brief discussion on the threat of climate change, particularly sea level rise. While this is one of the most pressing physical issues facing the state of Florida, where both the Glades and the Seminole reside, sea level rise is at risk of permanently damaging the Florida coast. Many cases studies focus on the impacts of sea level rise, but the most pertinent case rests with the city of Miami and Miami-Dade County. Miami represents a growing problem with coastal cities trying to adapt and mitigate rising waters. It serves as a paradigm of fighting a war of attrition with the environment, where more than likely Mother Nature will win out in the long haul. Miami, along with much of the Eastern Seaboard is experiencing sea-level rise first hand. Estimates by agencies like U.S. Army Corps of Engineers (USACE), National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA) predict that by 2100, sea-level rise will increase from eight inches to a high of six feet that has the potential to affect roughly 2.5 million people.¹ NASA showcases, through its data collection and expertise, that the melting of ice caps and oceanic thermal expansion has expedited the level of rising seas.² Without being burdened down by the science, it can be thought of as going to a restaurant and ordering a drink filled with ice. This would exemplify the carbon, ice and sea levels prior to the Industrial Revolution. However, as someone is eating and enjoying their meal, the room begins to warm and the ice starts to melt just as the ice caps and glaciers are melting today. Without regard, the meal continues, but by the end, all the ice has melted, and though the volume has increased, the taste of the drink is soured, so to say, by sitting in a warm environment for an extended period of time. A simple explanation, it nonetheless illustrates the overall point that this phenomenon is occurring. In recent years, Miami has become prone to high flooding. Streets flood regularly and during "king tides," known as sunny-day flooding, water levels rise exponentially. The geology of Miami and most of South Florida sits atop of porous limestone. Within six feet of sea level and a limestone foundation presents extreme susceptibility to flooding. Not only do rising tides encroach on Miami's roads, but also the limestone allows the water to be pushed upwards through the sewer systems, bringing polluted water to the surface during king tides. Rising tides are causing larger problems for the city's water supply.

The previous infrastructure of underground pipes became useless as it reversed, accelerated, and helped the flooding by pushing water through the sewer system to the streets but has since been accommodated by the installation of one-way flex valves and pumps to push the water back out to Biscayne Bay.³ Although the 2014

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¹ David Kamp, "Can Miami Beach Survive Global Warming?" Vanity Fair, November 10, 2015. Accessed April 12, 2017. http://www.vanityfair.com/news/2015/11/miami-beach-global-warming

² NASA, "A Blanket Around the Earth," NASA Global Climate Change. Accessed April 12, 2017 http://climate. nasa.gov/causes/

³ Sam Price-Waldman, "Is Miami Beach Doomed?" The Atlantic, February 8, 2016. Accessed April 12, 2017. http://www.theatlantic.com/video/index/460332/is-miami-beach-doomed/

Miami-Dade County Water Quality Report notes no increased levels of contaminates,⁴ the long-term effects of continued seawater encroachment could increase water pollutants and other water problems. Tests completed in the past few years at various discharge sites throughout the city have shown an increase in fecal matter and other pollutants; however, the natural cycle of tidal flushing is keeping the dirty water from building up in the bay.⁵ It may not seem like a concern now, but that polluted water is headed back to the coral reefs, and the lingering pollution will negatively affect the ecosystem and the city as it maintains growth.

City managers are seeing an increase in the groundwater table,⁶ making the county even more susceptible to heavy downpours since salinity-control structures are at equilibrium and new wells and pumps are needed to send water back to the ocean as salt water continually encroaches.⁷ With this continuance, salt-water intrusion will affect the guality of drinking water in the Biscayne Aguifer and the production of agriculture in region, of which South Florida consumes 3 billion gallons per day from the aquifer and the Everglades.⁸ Continued flooding of saltwater in the Everglades region could result in faster depreciation of the limestone and the swift erosion of the peat soil, both of which would open up a path for saltwater intrusion farther inland.⁹ The erosion of peat soil occurs when salt enters the soil and dries it out while also harming the structural integrity of grasses that it is supporting. When wave-like action occurs, the dried peat is washed away. This is accelerated through the use of groundwater pumping, in which the Biscayne Aquifer is unconfined and weighs less than salt-water, allowing the pressure from sea level rise to intrude in a degrading Everglades system (a change in hydrostatic pressure).¹⁰ Though the ecosystem would be damaged, the main concern for the people is the quality of

⁴ Miami-Dade County Water & Sewer Department, "2014 Water Quality Report," City of Miami. January 1, 2015. Accessed April 12, 2017. http://www.miamidade.gov/water/library/reports/water-quality-2014.pdf

⁵ Jenny Staletovich, "Miami Beach king tides flush human waste into bay, study finds," Miami Herald, Miami, FL, May 16, 2016. Accessed April 12, 2017 http://www.miamiherald.com/news/local/environment/article77978817.html

⁶ Randy Rogers, "Miami-Dade County Shores Up for the Rising Tide," Sustainable City Network, January 6, 2016. Accessed April 12, 2017 http://www.sustainablecitynetwork.com/topic_channels/environmental/ article_0f47318e-a9b8-11e5-b67d-2b1622f4435d.html

⁷ Jeff Goodell, "Goodbye Miami," The Rolling Stone, June 20, 2013. Accessed April 12, 2017 http://www.rollingstone.com/politics/news/why-the-city-of-miami-is-doomed-to-drown-20130620

⁸ Ibid.

⁹ Jenny Staletovich, "Beyond the High Tides, South Florida's Water is Changing," Miami Herald, Miami Beach, FL. October 25, 2015. Accessed April 12, 2017. http://www.miamiherald.com/news/local/environment/ article41416653.html

¹⁰ Stephen Davis, "Sea level rise, South Florida and the Everglades," The Everglades Foundation, Palmetto Bay, FL, December 1, 2015. Accessed April 12, 2017 http://www.evergladesfoundation.org/2015/12/01/sea-levelrise-south-florida-and-the-everglades/

their drinking water. By pressing farther inland and through continued sea level rise, the saltwater would be able to infiltrate the high water table, effectively shutting down well fields. Thus, there is an estimated \$10 billion Everglades restoration plan to counter the effects of flooding.¹¹ Allowing the deprecation of the Everglades to continue by not combatting sea level rise only increases the failure of an ecosystem that holds a majority of the freshwater for South Florida.

However, for the Seminoles, the health of the Glades means something different. The issues surrounding Miami affect more than the city proper. Issues like the erosion of soil and saltwater intrusion will affect the inland communities as well. The Everglades were an untamed wilderness prior to colonial settlement. Ales Hrdlicka, a Floridian anthropologist in 1920, described the lands as such:

Of the few as yet but very imperfectly explored regions in the United States, the largest perhaps the southernmost part of Florida below the 26th degree of northern latitude. This is particularly true of the central and western portions of region, which inland are an unmapped wilderness of everglades and cypress swamps, and off-shore a maze of low mangrove "keys" or islands, mostly unnamed and uncharted, with channels, "rivers" and "bays" about them which are known only a few of the trappers and hunters who have a greater part of their life in that region.¹²

The Glades and the Florida peninsula traded hands between European powers once Spanish explorers "discovered" the region. Although Seminole were living there upon European arrival, the Glades acted as lands under a colonial flag. The tribe separated itself from the Creek Confederacy of Alabama and Georgia and the Yamasee Tribe of the Carolinas,¹³ where they found a new homeland in present-day Florida. The Seminole Tribe of Florida today stems from those that fled into the most remote portions of the Glades during the American peninsular takeover. It would not be until the 1800s, centuries after its colonial discovery, that white settlers would attribute value to the Everglades. Under the possession of the United States, post-War of 1812, explorers and settlers used maps of days past to evaluate the condition of the Glades for future settlement. However, the Indigenous peoples living

¹¹ Joey Flechas and Jenny Staletovich, "Miami Beach's Battle to Stem Rising Tides," Miami Herald, Miami Beach, FL. October 23, 2015. Accessed April 12, 2017. http://www.miamiherald.com/news/local/community/miamidade/miami-beach/article41141856.html

¹² J.E. Dovell, "The Everglades Before Reclamation," Florida Historical Quarterly. Vol. 26. No. 1. July 1947. Pg. 1. Accessed April 12, 2017. http://www.jstor.org/stable/30138629

¹³ Barbara Monahan, "Florida's Seminole Indian Land Claims Agreement: Vehicle for an Innovative Water Rights Compact," American Indian Law Review, vol. 15 no.2. 1990/1991. University of Oklahoma College of Law. Pg.344. Accessed April 12, 2017. http://www.jstor.org/stable/20068682

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in the region held the best land. Thus, the 1830s and 1840s was a time of Indian Removal from their ancestral homelands by the U.S. federal government. Under the direction of President Andrew Jackson, the Indian Removal Act was signed in 1830 to systematically relocate Southeastern Tribes to the West. The Seminole proved to be the toughest case of removal, leading to a series of conflicts known as the Seminole Wars. A series of conflicts begun in the early 1800s that lasted through the 1850s, the Seminole Wars resulted in the majority of the tribe being relocated to Indian Territory and the Floridian peninsula opening up to white encroachment. ¹⁴

As the Seminoles retreated further into the Glades their populations declined, settlers, the federal government, and the soon to be state legislature were scheming on how to reclaim the land for human consumption. Reclamation of the land would make room for agriculture due to productive fertile peat soils with the establishment of plantations of sugar, olives, oranges, limes and coffee at the expense of slave labor.¹⁵ In order for a productive plantation economy to thrive, the swamps needed to be drained. The Overflowed Land Grant Act was "signed by President Fillmore on September 28, 1850. Its only provision was that the proceeds of the sale of any of the lands so granted should be applied exclusively to the purposes of reclaiming the swamp and overflowed land."¹⁶ This also helped establish the Internal Improvement Fund for the state, which managed the sale of lands to improve overland transportation routes by land and waterways.¹⁷

Nearly a century after the passage of the act in 1850, in 1964, the Indian Claims Commission found that the Seminole held aboriginal land rights as of 1820.¹⁸ Throughout the late 1800s and early 1900s, the federal government had reserved lands in the Everglades for the remaining Seminole and neighboring Miccosukee Tribe; however, continued population growth of the Florida peninsula caused further excavation of the Glades with the Internal Improvement Fund building canals and drainage ditches.¹⁹ Roughly twenty years after the passage of the Indian Reorganization Act of 1934, and coincidentally the creation of the Everglades National Park in 1934, the Seminole Tribe of Florida became federally recognized

¹⁴ J.E. Dovell, "The Everglades Before Reclamation," pg. 28

¹⁵ Ibid. pg.34

¹⁶ Ibid. pg. 37

¹⁷ Ibid. pg. 38

Allison Dussias, "The Seminole Tribe of Florida and the Everglades Ecosystem: Refuge and Resource,"
 Florida International University Law Review, vol.9 no.2. Spring 2014. Pg.230. Accessed April 12, 2017. http://
 ecollections.law.fu.edu/lawreview/vol9/iss2/7

¹⁹ Ibid. pg.234

in 1957.²⁰ After years of land claims disputes due to the creation of the Everglades National Park and federal recognition of the tribe, the Seminole, today, hold six separate reserved lands in Florida. There are three primary reservations, Brighton (north of Lake Okeechobee), Hollywood (situated between Miami and Fort Lauderdale), and the centrally located Big Cypress in the Everglades.

There is a traditional belief that the health of the Everglades represents the health of the Seminole. Minnie Moore Willson, a longtime friend and historian of the Seminole Tribe captures the essence of the socio-ecological relationship, "We love this land more than all the rest of the world. An Indian who would not love the land that holds the graves of his fathers is worse than the beasts of the forest."²¹ She continues with the state's obligation to maintain this healthy relationship, "When Florida accepted the gift of the Everglades country from the national government in 1855, she accepted the Indian as part of the possessions. Until Florida is ready to repudiate her title to this grant of 'swamp and over-flowed lands' she cannot repudiate her obligations to her Seminole population."²² Following in the footsteps of past ancestors, the Seminole Tribe went to battle, this time for their water rights.

The battle began in 1948 after hurricanes damaged lands and increased flooding in inland Florida. It was determined to continue the prolonged excavation of the Glades in the name of flood control by the predecessor to the present-day South Florida Water Management District (SFWMD).²³ The flood-control measures resulted in the creation of three interconnected conservation areas that exist today within the Everglades, but also included Seminole reservation lands that were set aside. Thus, in 1950 the Water Management District was granted a flowage easement that cut through Seminole cattle reservation lands in Big Cypress and the levee project would flood some of the hunting grounds during the rainy seasons.²⁴ Therefore, this notion and the completion of the project were without regard to Seminole sovereignty or compensation. The tribe filed lawsuits against the state and the water district in the 1970s and 1980s to assert rights to land claims, of which came the Seminole Indian Land Claims Settlement Act of 1987. The Act clarified land claims

²⁰ Harry Kersey, Jr, "The East Big Cypress Case, 1948-1987: Environmental Politics, Law, and Florida Seminole Tribal Sovereignty," Florida Historical Quarterly. Vol. 69. NO. 4. April 1991. Pg.458 Accessed April 12, 2017. http://www.jstor.org/stable/30147555

²¹ Minnie Moore-Willson, "The Seminole Indians of Florida," Florida Historical Quarterly, vol.7 no.1. July 1928. Pg.85. Accessed April 12, 2017. http://www.jstor.org/stable/30150811

²² Ibid. pg. 86

²³ Harry Kersey, Jr, "The East Big Cypress Case, 1948-1987." Pg. 460

²⁴ Ibid.

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between the tribe, state, and the soon-to-be SFWMD through exchanges of land and monetary compensations and inclusion of tribal land as held in federal trust; however, the most noteworthy aspect was the Water Rights Compact, which granted the Seminole "right to withdraw as much water on a per-acre basis as the highest priority users in the district, in return for which the Seminoles agreed to be bound by the substantive requirements of a regulatory system concerning water use, surface water management, and other environmental requirements."²⁵

The Water Rights Compact is an extraordinary piece of legislation. Prior to 1987, the Seminole Tribe was subjected the state's water permitting system under the Florida Water Resources Act of 1972; however, conflicts quickly arose due to the nature of state and tribal sovereignty. Past flooding of tribal lands and diversion of water away from the reservation by state civilian landowners, and minimal, if any at all, consultation with the tribe on water management, led the Seminole to seek out litigation regarding permanent water rights.²⁶ Uniquely, the tribe sought out its claims by petitioning the court to determine rights based upon the Winters Doctrine. Traditionally, eastern states, those east of the 100th meridian of the U.S. relied upon riparian water rights where landowners could use the water at given amounts based on their location by a water resource like a river. In the western states, the doctrine of prior appropriation was adopted, which called for "first in time, first in right," as long as there was beneficial use of the water allocation. The Winters Doctrine was adopted to allocate water to tribal reservations on a "time immemorial reserved rights" basis. This doctrine helped alleviate water struggles of many western tribes, but had not been applied to eastern tribes. In pursuing this Compact, the tribe wanted guaranteed reserved rights to satisfy tribal needs and develop their lands while the state hoped to gain an enforceable commitment from the Seminole to abide by Florida water laws and quality standards.²⁷ Ultimately, the tribe gained perpetual federal water rights for consumptive uses and eliminated the permitting process for the Seminole reservations; therefore, the Compact placed Seminole water use to follow "essential terms and principles of the state system."²⁸

This means that the tribe retains its sovereignty in water policy and development

²⁵ Harry Kersey, Jr, "The East Big Cypress Case, 1948-1987." Pg. 474

²⁶ Jim Shore and Jerry Straus, "THE SEMINOLE WATER RIGHTS COMPACT AND THE SEMINOLE INDIAN LAND CLAIMSSETTLEMENT ACT OF 1987," Journal of Land Use and Environmental Law, vol.6 no.1. Winter 1990. pg.10. Florida State University College of Law. Accessed April 12, 2017. http://www.jstor.org/stable/42842568

²⁷ Ibid. p. 11

²⁸ Barbara Monahan, "Florida's Seminole Indian Land Claims Agreement." Pg. 361

so long as it complies with the Compact and is by no measure under state administrative control. Failure to comply can be challenged by the state or the SFWMD in federal court, where the tribal processes are better protected. Adoption of a Tribal Water Code and office were requirements as well as providing reasonable assurances to the SFWMD that planned water use will not adversely impact current water supplies or harm the surrounding environment, thus, the tribe was mandated to bring its current facilities and infrastructure into compliance.²⁹ The Compact calls for a tribal groundwater preference with many of the same terms applied to it as to consumptive use. This also clarified potential problems with third party permitting, in which the tribe can object to a state civilian permit if it will negatively impact tribal water or land and civilian landowners can submit complaints and potential litigation to the SFWMD if the tribe adversely impacts them.³⁰ Thus, the Water Rights Compact of 1987 was revolutionary in that it was the first tripartite agreement on federally recognized and protected tribal water rights in the eastern United States. It established a cooperative arrangement between state and tribal entities to ensure an adequate water supply to all parties with assurances to protect the surrounding environment. By evoking and successfully adjudicating the Seminole water rights under the Winters Doctrine, the tribe set precedence for future eastern tribal water settlements.

Operating both legally and within their sovereignty, the Seminole focused on the Brighton Reservation water augmentation project since the Compact was effective immediately. The Brighton project aimed to bolster and upgrade the tribe's allocation of fifteen percent of the water running from Lake Okeechobee to the Indian Prairie Basin so as to provide for cattle ranching and citrus grove agriculture.³¹ Pumping systems were installed to properly allocate the amount needed while flood control measures were undertaken by the tribe to accommodate for future flood management. A resolution was quickly found between non-Indian citrus growers and tribes that called for sharing of pumps at the common boundaries.³² Though, it is necessary to point out that at the time of the compact signing, the Seminole Tribe was not required to limit its water use in times of drought or in dry seasons across the state. Land was also acquired post-Compact, but the Compact did not distinguish if newly acquired land was applied to Compact principles.³³ These issues would

²⁹ Jim Shore and Jerry Straus, "THE SEMINOLE WATER RIGHTS COMPACT." Pg. 15

³⁰ Ibid. Pg. 18

³¹ Barbara Monahan, "Florida's Seminole Indian Land Claims Agreement." Pg. 366

³² Barbara Monahan, "Florida's Seminole Indian Land Claims Agreement." Pg.367 33 Ibid.

obviously affect non-Indian users and are a set of controversial issues. However, these issues would have to be settled at a later date as establishing water quality standards for the tribe and the Glades became their next step.

As the Water Rights Compact was being finalized, the U.S. Environmental Protection Agency (EPA) was amending the Clean Water Act (CWA) to provide tribal communities the opportunity to begin administering CWA programs on tribal reservations. The amendment allows tribes to petition the EPA to administer water quality standards on reservations. This in effect forces the EPA to acknowledge their tribal sovereignty, if approved.³⁴ The Seminole, in the 1990s, sought and were awarded CWA quality standards in order to preserve religious, cultural, recreational, and commercial activities that are prevalent upon a healthy Everglades ecosystem.³⁵ Thus, ecosystem protection is of the highest priority and a one-size-fits-all approach for the tribe is inadequate; therefore, separate water quality standards were developed for each Seminole reservation. By pursuing this route, the tribe recognizes the connections between water resources on the reservation and the overall health of the entire Everglades ecosystem.³⁶

Through this mechanism, the tribe established categories of designated use of water within communities. The most important being Class 2, which protects water for fish and wildlife and recreational activities. The Seminole Water Commission aims to preserve these Class 2 water uses in good quality under the ruling, "For the conservation of the habitat of culturally important fish and wildlife and for the conservation of culturally important plant life, in order to protect the right of each member of the Tribe to carry on hunting, fishing and other traditional Seminole cultural practices."³⁷ By designating water uses as culturally/religiously important (highly significant water bodies), the tribe can impose stricter quality standards on these resource bodies and to some degree on the resource bodies that impact the former. This allows the tribe to monitor the quality of water coming from and going to the reservations and to request higher standards play a critical role in the Everglades restoration.

The United States Congress enacted the Comprehensive Everglades Restoration Plan (CERP) in 2000, authorized through the approval of the Water Resources

36 Ibid. pg. 248

³⁴ Allison Dussias, "The Seminole Tribe of Florida and the Everglades Ecosystem." Pg.242

³⁵ Ibid. pg.241

³⁷ Ibid. pg. 244

Development Act of the same year. This would begin the long-standing commitment by the federal government to begin reversing its role towards the Glades. While the Glades were deemed ready to be named a national park in 1934, it would not be until 1947 that the Everglades became a U.S. National Park due to land acquisition and financing. The "River of Grass" or "Grassy Waters," as called by the Seminole, was the first park unit to be designated this status solely for its biological diversity and not just iconic landscapes or monuments. However, due to human improvements like irrigation and drainage of the ecosystem by the Internal Improvement Fund since 1948, the park has been reduced to half its size, clean water flows have been reduced, and continue to face ecological deterioration from water availability competitions.³⁸

The Seminole Tribe began a restoration project in 1996, approved in 1998, in partnership with the U.S. Army Corps of Engineers (USACE) for the Big Cypress National Preserve (BCNP). Since this project was approved prior to the adoption of the CERP, it is not subject to approval by Congress for federal funding, which must administer approved funds to CERP projects. Truly, the BCNP project commenced to reverse the trends of increasing phosphorus loads from upstream agricultural activities near Lake Okeechobee that were coming into contact with water bodies on the Big Cypress Reservation.³⁹ The project would influence the CERP's overall goals and simultaneously work to "restore more natural flows of water, including sheetflow; improve water quality; and establish more natural hydroperiods in the South Florida ecosystem."⁴⁰ The Seminole and the USACE agreed to a 50/50 cost sharing of the projects, in which this system is currently in place for CERP projects with cost sharing between SFWMD and USACE.⁴¹

Today the BCNP is nearly complete. The project consisted of just over 4,100 acres and relied upon Seminole water quality standards to reduce agricultural runoff while the USACE built more conveyance and storage systems, and canals to fulfill the rehydrating of the wetlands on the preserve.⁴² This critical project coupled with CERP provides some hope for the Glades. It is important to note that the SFWMD and the Seminole have continued shared values in protecting and managing the Everglades.

42 Ibid pg.248

³⁸ Jane Graham, "Jump-Starting Everglades Restoration via Tools for Interim Progress," Natural Resources & Environment, vol.27 no.4. Spring 2013. American Bar Association. Pg.7. Accessed April 12, 2017. http://www. jstor.org/stable/24426039

³⁹ Allison Dussias, "The Seminole Tribe of Florida and the Everglades Ecosystem: pg.243

⁴⁰ USACE and SFWMD, "Central and Southern Florida Project: Comprehensive Everglades Restoration Plan, Pre-CERP Baseline," USACE Jacksonville District. April 2005. Pg.1

⁴¹ Allison Dussias, "The Seminole Tribe of Florida and the Everglades Ecosystem." Pg.247

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The tribe was very aware from the onset of its water rights that issues like pollutants from upstream would not only impact their reservation adversely, but if those pollutants continued downstream, it could cause negative impacts to the ecosystem. This is one reason why the tribe established cultural and religious use of water to impose stricter standards so the overall health of the Glades ecosystem would be protected now and for future generations.

Even the CERP Final Draft of 2005 illustrates that Seminole water allocations must be considered and are protected by federal and state law,⁴³ demonstrating the effectiveness of the Water Rights Compact to influence Everglades restoration projects. Tribal sovereignty is further confirmed in the CERP through the Savings Clause, which guarantees that any water lost to implement the CERP projects will not be replaced, eliminated, or transferred...including the Seminole water entitlements.⁴⁴ Essentially this follows in line with the SFWMD implementation of "water reservations" and minimum flows and levels (MFL). It demonstrates that water used for CERP projects is entitled to the Everglades for natural uses and the water lost cannot be replaced with existing sources or allocations. This means there is a strong conservation approach buried within the plan since new water supply sources would need to be found in order to replace the lost water to the Glades. The clause calls for the continuation of the tripartite agreement and cooperation among resource managers when developing CERP projects. Though, the Seminole may be on their own for future project implementation.

The tribe has a presence in several groups concerning the Everglades, as well as hosting their own organizations. While environmental quality is of the highest concern, the Seminole have been in disagreement over the USACE's project implementation considerations. Since the tribe has a seat at the table in these matters, it has voiced concern over short-sighted and narrowly approached projects under CERP, believing the ecosystem connectedness between projects is being outstripped by quick project planning to move on to other issues.⁴⁵ As seen from their historical socio-ecological relationship with the Glades and the ability of the USACE to be methodical and conservative in management, the two are creating tensions. Without disregard to the USACE known engineering approach, other problems are at play for CERP projects. Since the real estate crash of 2008 and

⁴³ USACE and SFWMD, "Central and Southern Florida Project." pg.9

⁴⁴ USACE and SFWMD, "Central and Southern Florida Project." Appendix B

⁴⁵ Allison Dussias, "The Seminole Tribe of Florida and the Everglades Ecosystem." Pg.252

proceeding property tax cuts for homeowners by legislators, the SFWMD, which relies upon property value assessments for most of its funding, has drastically reduced its annual budget.⁴⁶ This negatively affects funding for CERP projects, especially when they entail the 50/50 cost principle. The management district also establishes water reservations, for the protection of fish and wildlife, and MFLs, equivalent to in-stream flow requirements; however, many of the water bodies associated with these tools are linked to CERP projects.⁴⁷ Therefore, the inability to properly fund these projects is causing slow progression of restoration plans. Since the population of South Florida relies heavily upon fresh water found in the Glades' ecosystem, water managers have turned to conservation practices to save water while waiting for funding opportunities. Thus, the Seminole Tribe is left alone to continue with restoration projects on reservation lands.

Bringing this back to the issue of Miami and sea-level rise, the crisis of Everglades restoration and the health of the Seminole could be in disrepair. As discussed early on, saltwater intrusion is adversely affecting peat soils, groundwater wells, and water quality as it spreads further inland and rises higher. However, the natural ecosystem of the Everglades could help mitigate these effects and lead to adaptation strategies, but there needs to be perseverance of completing CERP projects with due time and consideration. The rising seas will affect the Seminole on the coastal reservations but will also begin to affect their agricultural production and their water quality.

Fighting for nearly two centuries, the unconquered people, known as the Seminole Tribe of Florida, have seen federal and state recognition of their sovereignty over the 20th century through policy. It has reasserted its rights to its lands and to its waters by re-territorializing itself in the state of Florida. Using their sovereignty and invoking the spirituality to never surrender, the Seminole have successfully taken back portions of their homeland and are restoring them to elegance and prevalence once again. Through the management of water, the Seminole Tribe has created hope for an ecosystem they have relied upon for survival. New challenges are arising that will need to be triumphed, but cities and tribes must learn from one another and continue cooperative agreements to restore the Everglades because the health of this ecosystem not only affects the Seminole but creates hope for South Florida to overcome this climate change dilemma. Keeping the Everglades wet means keeping the Seminole and South Florida flourishing.

⁴⁶ Jane Graham, "Jump-Starting Everglades Restoration." Pg. 8

⁴⁷ Jane Graham, "Jump-Starting Everglades Restoration." Pg. 10

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Prehistoric Patterns: A Mathematical and Metaphorical Investigation of Fossils

Mackenzie Harrison edited by Philip Doi, MS

While examining the delicate curves of a seashell or a gnarled oak branch, you may discover spirals, lines, or branching shapes—patterns of growth or simple structural observations. You may notice that the seashell looks like a snail shell, or that the oak branch resembles blood vessels, leading to connections you did not know existed. Fascinating, right?

Patterns and symmetry create a satisfying sense of order and unity, connecting us to the natural world. Drawing and observation help us explore this sense of order and our inherent attraction to pattern. We examine an object's properties and recreate them on paper to learn more about the object and the world around us. For example, Leonardo DaVinci's drawings of plants that investigated spiral growth aimed to "understand the forces and processes underlying their forms" to connect morphology and physiology.¹ Drawing is a way of seeing the world and learning from it, applying what we see to our own lives.

Leonardo DaVinci's observational drawings, which investigated the connections between nature and mathematics informed my investigation of the hidden mathematical patterns in fossils. By drawing fossils and analyzing their properties, I found that they are mathematically significant and combine the biological world with the mathematical one. Through drawing, I discovered that ammonites imitate the famed Fibonacci sequence and connect to modern landscape mapping. I also discovered that fish fossils contain symmetry and fractals in their fins that relate to modern fields of Physics and Mathematics such as Chaos and Group theory. Finding the mathematical significance of fossils through drawing integrates patterns, symmetry and beauty with a new understanding of an object to connect personal perceptions with the natural world.

Introduction: The Beauty of Symmetry

Symmetry is a form of beauty. Beauty, as defined by Plato, "is always an aspect

¹ Capra, Fritjof, "Learning from Leonardo" (San Francisco: Berrett-Koehler Publishers, 2014) 3.

of the good," and "in the beautiful and good, proportion is involved."² What Plato was referring to in "proportion" was symmetry; it implies good proportions and therefore is an aspect of beauty. Symmetry creates "themes of proportion...used by Greek and Gothic architects"³ to amaze and inspire those who see the finished product and admire its beauty. Additionally, the mental aspect of the appreciation of symmetry or pattern is "that of perceiving relationships."⁴ We, the viewers, look at a fossil of a fish, and see symmetry in its backbone. By closer inspection, we also see through this symmetry the relationship between fin and torso, bone and branch, and form and function. The aesthetic pleasure comes from realizing the "interconnecting paths"⁵ of symmetries, patterns, and mathematical theorems. For example, ammonites, ancient nautilus-like creatures that swam in the oceans near Madagascar, have similar shell patterns to modern snails, and both patterns follow the Fibonacci sequence. Fish fossils display fractal patterns that resemble tree branches and hyperbolic graphs. Overall, these interconnecting paths show the relationships between mathematics and nature that have been preserved for millions of years. They show beauty in time, beauty in creation, and beauty in calculation and investigation.

Fossils and Fibonacci: Mathematical Patterns in Ammonites

Ammonites have mathematical proportions and patterns within their shells.

Through drawing, I found that the most obvious mathematical pattern in an ammonite shell is the Fibonacci sequence, a series of numbers developed by the mathematician Leonardo Bonacci in the 13th century. The Fibonacci sequence is a repeating pattern of numbers, represented by the equation $x_{n+1} = x_n + x_{n-1}$ for n > 1. The base for this recursive definition is $x_0 = 0$ and $x_1 = 1$, and so, the following numbers in the recursive pattern will be $x_2 = 1$, $x_3 = 2$, $x_4 = 3$, $x_4 = 5$, $x_5 = 13$, and so on. Each number

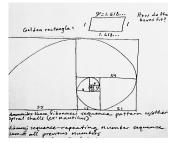


Figure 1: Ammonites share the Fibonacci sequence (a number sequence involving the sums of previous numbers) with other spiral shells. This physical and numerical pattern has appeared continuously in nature throughout time.

in the sequence is the sum of the two numbers before it. In Figure 1, this pattern

² Hon, Gloria, "From Summetria to Symmetry: The Making of a Revolutionary Scientific Concept" (Pittsburgh: Springer, 2008) 94.

³ Ghyka, Matilda, "The Geometry of Art and Life" (New York: Sheed and Ward, 1946) xi.

⁴ Huntley, H.E., "The Divine Proportion; A study in Mathematical Beauty" (New York: Dover Publications, 1970) 118,143.

⁵ Ibid.



of numbers appears in the ammonite shell as it spirals out. Rendering boxes that follow the sequence creates a logarithmic spiral. The shell spirals out continuously, so there is a continuous addition of width (Figure 2).

Investigating ammonite fossils by drawing helped me find the Fibonacci sequence in not only ancient organisms but also modern

Figure 2: Outward spiraling of ammonite shell

mapping. The Moiré pattern, which is used to map landscapes, derives from the Fibonacci sequence. The ammonite imitates the spiral of the Moiré pattern, in which

two textures with black and white components are placed on top of each other by "forming the union or intersection of the black pointsets."⁶ The Moiré pattern creates a new perspective on contour maps and is a visual representation of applied mathematics (Figure 3). Therefore, drawing reveals a relationship between the Fibonacci spiral of an ammonite and mathematical landscape mapping.

The logarithmic spiral of the Fibonacci sequence creates an "immediate appeal to the

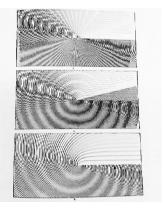


Figure 3: Fibonacci's spiral in the Moiré pattern

eye,"⁷ and also has mathematical appeal. The sum of the series of segments within the Fibonacci spiral adds up to "precisely Phi times OA,"⁸ where Phi is given as

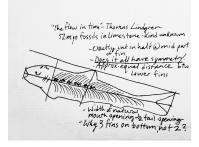


Figure 4: Phi in the ammonite shell (Huntley)

 φ = 1.6180..., and OA is φ ^{,0} = 1, as seen in Figure 4.

Phi represents the "Golden Ratio," a number that appears in many natural objects, such as pinecones and broccoli. The Golden Ratio and logarithmic spiral represent the growth of organic life as "gravitation is held to prevail in the physical world."⁹ If the Golden Ratio or a logarithmic spiral represent "ideal growth," they

⁶ Pickover, Clifford "The Pattern Book: Fractals, Art and Nature" (Singapore: World ScientificPublishing, 1995) vii-46.

⁷ Huntley, H.E., "The Divine Proportion; A study in Mathematical Beauty" (New York: Dover Publications, 1970) 67,68.

⁸ Ibid.

⁹ Cook, Sir Theodore Andrea "The Curves of Life" (New York: Dover Publications, 1979) 6.

could provide insight into the commercial production of crops, the innerworkings of plants, and the growth of organisms that died out millions of years ago.

Fractals in Fish: Connections to Mathematics and Physics

Fish fossils provide fascinating mathematical insights into fractals, which are intertwined with Chaos theory and Group theory. While sketching the fish, I noticed

that each fin branched out continuously. Each bone of the fossilized fish's fin divides once, then twice, then thrice from its origin, to form a pattern seen in tree branches and blood vessels. This branching pattern resembles a fractal, a mathematical and visual pattern that infinitely repeats itself. Fish fossils contain naturally-occurring fractals, but fractals also exist in modern computer design and art. The drawings shown in Figures 5 and 6 render tree-like patterns that imitate computer-generated fractals (Figure 7).

Fractals, while not only describing similarities in shape between different organisms, such as the fins of fish and tree branches, also apply to modern physics and mathematics. Chaos theory, the study of how small changes in the universe have large impacts, and fractal geometry, "go hand in hand." Fractals and Chaos Theory incorporate "intricately-shaped objects,"¹⁰ and the fact that "chaotic processes often produce fractal patterns." Investigation of



Figure 5: Bones in fossilized fish fins divide into halves, then smaller branches.

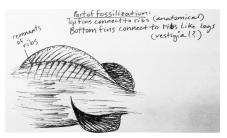


Figure 6: Fins branch like trees into fractal patterns

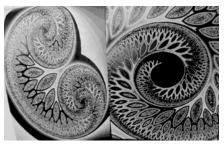


Figure 7: Computer-generated fractals

fish fins through drawing leads to new insights into patterns within them and their relationship to mathematics.

The patterns and symmetry found in fish fossils also connect to the

¹⁰ Pickover, Clifford "The Pattern Book: Fractals, Art and Nature" (Singapore: World Scientific Publishing, 1995) viii.

mathematical field of Group theory, which investigates visual symmetry in relation to groups. A group consists of elements that have algebraic operations applied to them. A group (G,*) consists of a set G and a binary operator * defined on G (a calculation that involves an order pair from $G \times G$, such as multiplication or division of two numbers from a number system) defined so that the following four rules are true:¹¹

- 1. If a and b are elements of the set G (i.e. $a, b \in G$), then a * b is also an element of G ($a, b \in G$).
- 2. Using the associative property, if a, b, and c are elements of G(a, b, $c \in G$), then (a * b) * c = a * (b * c).
- G contains an identity e with respect to the operation *, so that for every x ∈ G (x as an element of G), we have e * x = x * e = x. For example, 0 is an identity, so adding 4 and 0 means 4+0 = 0+4 = 4.
- 4. Inverses exist for values within G.

In group theory, mapping groups and their elements creates patterns. For example, a hyperbolic group generates images akin to fractals when mapped on a vector space. The fractal-like nature of hyperbolic groups mimic the symmetries found in the fish fossils (Figure 8), providing insight into group theory and the mathematical definitions of symmetry.

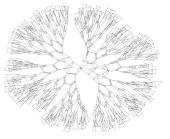


Figure 8: Hyperbolic set symmetry (Feydy-ENS Canche)

Through the Eyes: The Appeal and Aesthetics of Patterns and Symmetry

Investigation of Fibonacci sequences in ammonites and fractals in fish fins through drawing explores the inherent appeal of patterns and symmetry. Patterns and symmetry appear in art, architecture, and nature. Patterns in nature are especially important in art, as modern artists have a "growing fascination with symmetry and repetition in design."¹² Therefore, the Fibonacci spiral and fractals seen in fossils appeal to a wide audience.

Additionally, drawing natural patterns and symmetries is aesthetically pleasing to the artist. It is satisfying for the eye to render an object with a perfect balance of shape and geometry that can fit inside familiar figures (Figures 9 and 10). An ammonite's shell splits nearly equally into quadrants, and each chamber of the shell radiates to the outer edge, creating a perfect circle in the center.

¹¹ Kennerly, Sam "A crash course in Group Theory" (Mathematic Journals, 2010) 3.

¹² Pickover, Clifford "The Pattern Book: Fractals, Art and Nature" (Singapore: World Scientific Publishing, 1995) vii.

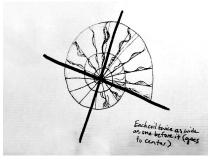


Figure 9: The internal chambers of an ammonite shell appear to start from a single origin point and radiate outward with nearly even width.

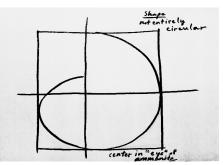


Figure 10: Curvature and symmetry: The ammonite's overall shape is not entirely circular, but it can fit inside symmetrical geometric shapes such as rectangles.

Symmetry and pattern have a special place in aesthetic pleasure. Symmetry, defined as the "exact correspondence of a form,"¹³ appeals to the creator in drawing, and to the viewer in viewing.

As the creator of a drawing, symmetrical shapes entice me, because they

create a feeling of perfection and unity. While rendering the form of a fish fossil (Figure 11), the symmetry present in the vertebrae and the curves of the body fascinates me. The spinal cord in this particular fossil cut the distance from the top of the dorsal fin to the belly precisely in half. The apex of the dorsal fin perfectly divides the fish vertically. Looking at the proportions and symmetries of the fish

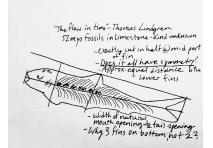


Figure 11: Symmetry in fish fossils- width of mouth equals ½ width of tail aperture, some fossils can be divided in half precisely from tip of dorsal fin.

while drawing it helped me gain a holistic perspective of its form through drawing.

Through the practice of artists such as Leonardo DaVinci, observational drawing leads to understanding. The physical acts of drawing and careful observation allow both the artist and viewer to find the Fibonacci sequence in ammonites and fractals in fish fossils and relate them to modern mathematics. Connecting two seemingly unrelated things through drawing, mathematics and fossils, creates a new form of understanding and a new form of unity. When combined with the philosophy of beauty and symmetry's role in aesthetics, both artist and viewer gain insight into different fields of study and the natural world itself.

¹³ Field, Michael "Symmetry in Chaos." (Philadelphia, Society for Industrial and Applied Mathematics:2009) 3.

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"Orange is the new white: Trump's 'Brand' of whiteness, its transformation of the brown body, and its effect on immigration policy and socioracial ideology in the United States"

by James Myers III

Trump's "Brand" of Whiteness

The first aspect of importance of what is posed as Trump's "brand" of whiteness is that it is not a new phenomenon originating organically. Rather, it is a continued variant of the socioracial ideology of whiteness which has been predominant within institutions, both public and private, and communities, temporally and spatially, throughout the United States (Roediger 2002; Foley 2002; Lipsitz 2002). Although this variant shares characteristics with particular forms of whiteness that have preceded it, and which exist concurrently, such as white, fringe conservatives' vehement opposition to Mexican, Central American, and Middle Eastern/Muslim¹ immigrants (i.e., brown bodies) (Cha-Jua 2010; Oliviero 2011; Nevins 2010, 118-154), the significant shift in these areas has been the implementation of these ideological tenets as not only the official federal position, but specifically, and especially, that of the president's.

Complementary to this federal institutionalization of anti-brownness², there is also a crystallization of the boundaries of whiteness. In contrast, other forms of whiteness have utilized integration and inclusion of non-white persons to maintain, and gain, sociopolitical and economic power in order to readapt to material conditions in a fluid nature, discretely marking and unmarking criteria of inclusion as needed (Sasson-Levy 2013; Reed 2013). Instead, the current paradigm is centered around a defense of this power, focusing on the exclusion of brown bodies. As can be

The use of "Middle Eastern/Muslim" throughout this paper is used in an effort to provide an efficient reference term for a large swath of persons. Although extremely diverse, it is cumbersome to be specific. Moreover, among the proponents of this brand of whiteness, these persons are constantly subjectified as such, and are thus analyzed here in this way.

^{2 &}quot;Brownness" here works to present the behavioral, phenotypical, and worldview-based characteristics which are associated and attributed to brown bodies, in this case particularly those related to Middle Eastern/ Muslim brown bodies. It serves as the counterpart to that which is understood as "whiteness."

seen within Trump's cabinet³ and supporters⁴, as well as rhetoric and policies targeting brown persons, there is little attempt towards non-white inclusion, benevolent, Machiavellian, or otherwise. Alternatively, there is a fundamental passive understanding, and tacit acceptance, thatTrump's "America" is at most a white one, and at least one that offers no quarter for those who are brown. In further contrast to this fluid, habitus-based whiteness (Sasson-Levy 2013, 28-30, 36-37), the ossification of these boundaries of whiteness (which define Trump's conceptualization of what is "American," a point that will be elaborated upon below) occurs through the oppositionality of oneself to that which is "brown" (i.e., foreign, relating to either Middle Eastern/Muslim or Mexican/Central American persons) (Fusté 2010, 814). The ultimate result of this rigidification of socioracial categorization is a worldview which enacts a more blatant process of separation, especially between white and non-white (in this case, brown) communities, both inside and outside of the United States.

Where within this "brand" of whiteness, categorical brownness becomes more restrictive and rigid, the opposite appears to be true for categorical whiteness in that it now works to be expanded to that which is simply "American." As stated above concerning Trump's implicit conceptualization of "America," the composition of which is predominantly white, this concept, with a prominent demographic backing, also lends itself to define that which is "American." Thus, essentially, there is a cessation of any further ethnic self-identification and a direct, assumptive prescription of that which is white, especially persons, with the state (Sasson-Levy 2013, 46; Heyman 2008). Therefore, although most omit the identifier "white," the intentional adoption of this particular descriptor, asserting oneself as a "white American," exhibits, at the very least, a tacit recognition of the privileged status of a white person in the United States, and their desire to be treated with such regard (Sasson-Levy 2013, 36, 44). Furthermore, as Josiah Heyman argues, this anti-brown, anti-immigrant, defensive whiteness seeks to preserve a sociocultural and economic whiteness-based conceptualization of "America," idealized during the 1950s (Heyman 2008, 314); a utopia which continues to be sought after, as exhibited by Trump's promise to "Make America Great Again" (Trump 2017, "Inaugural Address"). Moreover, along with

³ Trump's cabinet is the most white and male dominant cabinet since the presidency of Ronald Reagan (Lee 2017).

⁴ Andrew McGill. "The Trump Bloc." The Atlantic, September 14, 2016, accessed on March 15, 2017. https://www.theatlantic.com/politics/archive/2016/09/dissecting-donald-trumps-support/499739/. Alec Tyson. "Behind Trump's victory: Divisions by race, gender, education." Pew Research Center, November 9, 2016, accessed on March 15, 2017. http://www.pewresearch.org/fact-tank/2016/11/09/behindtrumps-victory- divisions-by-race-gender-education/.

the 1950s, as Heyman offers, this period of "greatness" also references the overtly white supremacist, genocidal Jacksonian America (Trump, "Remarks on the 250th Anniversary of the Birth of Andrew Jackson in Nashville, Tennessee"; Turner 2008), and the neoliberal golden age of President Ronald Reagan.

The emergence of such a worldview, both historically and contemporarily, is primarily driven by a modification of material conditions (Reed 2008, 50). At the forefront of this material shift are the changing demographics of the United States, with a significant rise of brown (e.g., Latinx^{5 6} and Middle Eastern/Muslim American and immigrant) communities⁷ being the most critical. Changing demographics threaten particular groups' (e.g. poor and middle-class white Americans)⁸ access to resources in general, but especially within the context of a widening inequality gap⁹, wherein there is continually more for holders of capital to protect, with those being increasingly economically disenfranchised fighting harder than ever to keep the little that they have. A product of this has been the construction of the brown body as a scapegoat for the cause of this inequality (Trump 2017, "Joint Address to Congress"). Used by both the political and economic elite as a diversion, this

7 Arab American Institute Foundation. "Demographics." Washington, D.C., 2014.

Pew Research Center. "Muslim Americans: No Signs of Growth in Alienation or Support for Extremism." Washington, D.C., 2011.

Renee Stepler. "Statistical Portrait of Hispanics in the United States." Pew Research Center, April, 2016, accessed on March 15, 2017. http://www.pewhispanic.org/2016/04/19/statistical-portrait-of-hispanics-in-the-unitedstates-key-charts/#hispanic-pop.

8 Jed Kolko. "Trump Was Stronger Where The Economy Is Weaker." FiveThirtyEight, November 10, 2016, accessed on March 15, 2017. https://fivethirtyeight.com/features/trump-was-stronger-where-the-economyisweaker/.

Nate Silver. "Education, Not Income, Predicted Who Would Vote For Trump." FiveThirtyEight, November 22, 2016, accessed on March 15, 2017. http://fivethirtyeight.com/features/education-not-income-predicted-whowould-vote-for-trump/.

9 Estelle Sommeiller, Mark Price, and Ellis Wazeter. "Income inequality in the U.S. by state, metropolitan area, and county." Washington D.C.: Economic Policy Institute, 2016.

Institute for Policy Studies. Data and Chart Pack. Washington D.C., 2016.

⁵ The use of "Latinx" throughout this paper works to replace Latino in attempt to eliminate the inherent binary gendering of Latina/o.

⁶ In addition, although Latinx typically refers to those who originate, or are descendent of those from Latin America, for sake of space and readability this term primarily serves as a place holder for Mexican and Central American, due to these groups' predominance in the United States.

Jens Manuel Krogstad. "Key facts about how the U.S. Hispanic population is changing." Pew Research Center, September 8, 2016, accessed on March 15, 2017. http://www.pewresearch.org/fact-tank/2016/09/08/ keyfacts-about-how-the-u-s-hispanic-population-is-changing/.

Alec MacGillis and Propublica. "The Original Underclass." The Atlantic, September 2016, accessed on March 15, 2017. https://www.theatlantic.com/magazine/archive/2016/09/the-original- underclass/492731/.

Eduardo Porter. "Where Were Trump's Votes? Where the Jobs Weren't." The New York Times, December 13, 2016, accessed on March 15, 2017. https://www.nytimes.com/2016/12/13/business/economy/jobs-economyvoters.html.

scapegoat narrative is widespread among the continually disenfranchised white persons as a mechanism to unify, along socioracial lines, against the perceived threat to their livelihood that becomes personified within the brown-bodied immigrant (Arnold & Romanova 2013, 89). At the same time, this unity is not only marked by socioracial distinctions, but also sociocultural ones - in effect working to preserve whiteness-based ways of being (Heyman 2008, 314), as well as access to geographic space and economic resources. At last, this particularly anti-brown, pro-white unity is the result of the abovementioned crystallization of socioracial categories (Sasson-Levy 2013, 32), ultimately leading to the primary mode of distinction, and criteria for exclusion, being based on phenotypical expression (e.g., brown skin).

The Production of a National Threat

So far, it has been established that Trump's "brand" of whiteness is a distinct variant of both historical and contemporary forms of whiteness, as well as the particularities which make it so, fundamentally; however, there are still major distinctions which have substantial implications. The first of these is the formal integration of Middle Eastern/Muslim persons as a threat to national immigration, and as an object of suspicious citizenship. As indicated by the vast majority of immigrants coming into the United States being of Mexican and Central American origin¹⁰, this bloc of people, including native-born Latinx (and indigenous Americans (Daly 2014; Miller 2014) (due to their shared phenotypical and cultural associations with these immigrants), has been primarily targeted for suspicion of illegitimate presence in the country, and has therefore become a threat to idealized conceptualizations of the national body (Heyman 2008). Coopting this role within Trump's whiteness are Middle Eastern/Muslim immigrants, as well their American-born counterparts.

Beginning with the Palestinian-Israeli conflicts of the 1970s, which has been exacerbated by the United States' ardent support of Israel and is continually worsening through the prolonged "War on Terror," the Middle Eastern/Muslim person in the United States has become an overly racialized, inherently foreign subject who is tied to both terrorism and anti-white efforts (Fusté 2010, 812-814; Arnold & Romanova 2013, 90). Expanding this ascriptive role from possible terrorist

¹⁰ Since 1960, besides European immigrants, the population of (im)migrants in the United States has been largely from Latin America (specifically Central America and México) (MPI Data Hub 2015).

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to immigratory threat carries with it the characterization of Middle Eastern/Muslim persons as posing a particular threat to whiteness-based sociocultural and economic livelihoods (Arnold & Romanova, 2013, 90) as well as physical ones. Correspondingly, this characterization as a terroristic immigrant is compounded within contextual narratives of war and conflict with these persons in foreign theaters (e.g., Syria) (Fusté 2010, 812). The ultimate result of this process of constructing Middle Eastern/ Muslim persons as an immigratory threat is the elimination of any distinction between Middle Eastern/Muslim persons and those who are Mexican, Central American, and Latinx American. The elimination of this distinction yields a singular brown body that is both the target of suspicion and violence. An example of this, highlighting specifically how the Middle Eastern/Muslim brown body becomes an immigratory threat, is Trump's "Muslim Ban," or "Executive Order on Protecting the Nation from Foreign Terrorist Entry into the United States," which bars legal entry into the country to persons from seven Muslim-majority nations, asserting the presupposition that radical terrorists are more than a fringe group (Trump 2017g).

The second distinction which carries significant weight within this "brand" of whiteness is that of its tendency to utilize, resonate, and reciprocate sentiments of blatant dehumanization toward, specifically, brown-bodied persons. Noticing the socioracially divisive aspect of Trump's rhetoric and proposed policies, as well as the mimicked behavior of other Republican candidates, during the 2016 presidential election, Nour Kteily and Emile Bruneau attempted to gauge the sociopsychology of meta-dehumanization¹¹ and meta-prejudice¹² experienced by Latinx-Americans and Arabs/Muslims¹³ in the United States caused by the actions and rhetoric of Donald Trump, as well as the dehumanization and prejudice which was held by white Americans (who also tended to support Trump) toward Mexican immigrants and Arabs/Muslims (2017). The critical importance in identifying dehumanization as a distinctive factor within Trump's whiteness is found within its nature to create hostility toward the targeted group, leading to both structural and physical violence (Kteily & Bruneau 2017, 87, 93; Theodore 2011). To examine these sentiments, Kteily & Bruneau asked participants to place their own socioracial group, as well as Mexican

^{11 &}quot;Meta-dehumanization" is defined by Kteily & Bruneau as being the feeling of being (blatantly) dehumanized (2017, 88).

^{12 &}quot;Meta-prejudice" is defined by Kteily & Bruneau as being the feeling of being disliked (2017, 88).

¹³ The deviation from "Middle Eastern/Muslim" to "Arab/Muslim" is only due to the specific use of "Arab/ Muslim" by Kteily & Bruneau. "Arab/Muslim" was not borrowed for this paper for the reason that it does not include Iran/Iranians, and other non-Arab persons from the Middle East.

immigrants and Arabs/Muslims, on the Ascent of Man evolutionary scale, to rate characteristic associations with each group, as well as their passive and active support for the rhetoric and policies of Donald Trump (2017, 87-88, 93). It should be further noted that the ascription of (socio) racially-based characteristics that are oppositionally defined by whiteness is derivative of historical overt racism (Turner 2008, 214).

The critical aspect of this work is that it attempts to quantify the expressed dehumanization of Mexican immigrants, Latinx Americans, and Arab/Muslim persons by Donald Trump, both through flippant remarks about, and sober policies against, these groups (Kteily & Bruneau 2017, 87-88, 92-93). On the level of rhetoric, two of Trump's first speeches offer a cross-section of the dialectical, internal-external forces which are facing the nation, two of which are socioracial in nature - the representative violent criminals of Latinx gang members and radical Middle Eastern/ Muslim terrorists (Trump 2017, "Inaugural Address", "Address to Congress"). In addition, these sentiments are materialized through the primary executive orders on "Protecting the Nation from Foreign Terrorist Entry into the United States," which creates a specialized office to manage the effects of the violent crimes committed by immigrants, which according to Trump, are heavily underreported (Trump 2017e, g, "Address to Congress").

The real effect of this rhetoric and policy based degradation is twofold, both in that Latinx Americans and Middle Eastern/Muslim Americans experience a direct sense of dehumanization and exclusion by the President of the United States, and the resonation of these sentiments, through policy and rhetoric endorsement among supporters of Trump (Kteily & Bruneau 2017, 95-96, 99-100). As can be seen within the particular aspects of both Trump's speech and executive orders, there is a significant level of dehumanization which is being imparted directly by Trump himself, but there also appears to be a mirroring among his supporters (Kteily & Bruneau 2017, 87). Although Kteily & Bruneau are clear that matched sentiments of dehumanization and prejudice among Trump supporters with that of Trump's policies and rhetoric are merely correlationally associated, it is still at least partially true that the utilization of this "brand" of whiteness resonated enough with his bloc of voters, so much so that other Republican candidates adopted the same approach in an attempt to win over undecided voters (2017, 87, 100, 102), and that which ultimately elected him president.

Additionally, besides simply being a factor of electoral support, the resonated sentiments of dehumanization and prejudice amongst Trump supporters offers a much more implicative result. Beyond dormant prejudice and candidate preference, Kteily & Bruneau's study exhibits that along with these sentiments came a prominent willingness to actively support legislation which would manifest, materially, particular goals of their socioracial ideology (2017, 90-93), such as Trump's executive orders on limiting legal entrance of persons from Muslim majority countries, the increase of border protection beyond the construction of a wall, and the targeting of crime related to immigrants (Trump 2017b-e, g).

However, what should be highlighted here is not simply the fact that a president is moreor-less openly promoting blatantly dehumanizing and prejudicial ideations to those who support him (and in effect to the nation and world), but that these actions are having a tremendous effect on the people they are targeting, with the expression of these sentiments fully received and felt (Kteily & Bruneau 2017, 95-96, 99-100). The reality of this is more than mere hurt feelings; it is that there is now tangible hostility toward these groups, which has the serious possibility of becoming aggressively violent (Kteily & Bruneau 2017, 93; Arnold & Romanova 2013, 80; Southern Poverty Law Center 2017, 67-68). Beyond this rather exceptional realm of interpersonal and intergroup violence (the avoidance of which effectively excuses those who hold these sentiments but do not necessarily act on them), there is yet the more common, remorseless, but less perceptible, ignorance of the structural factors that are inherent within the laws which exclude and exploit these targeted persons (Turner 2008, 199; Sasson-Levy 2013, 42). Now that it is clear that both Trump and his supporters are actively, and at best passively, aiding in the dehumanization of Latinx and Middle Eastern/Muslim Americans and immigrants, it must be then understood what they are becoming if they are not then human (or worthy of the recognition of their humanity or human rights).

"And some, I assume, are good people": The Transformation of the Brown Body

Previous sections have established that Latinx, Central American, and Mexican Americans and immigrants, indigenous Americans, and Middle Eastern/Muslim Americans and immigrants have been lumped together into a singular subject, primarily through phenotypical and cultural associations. The above exploration then leaves the following to establish and detail just how this conglomerate is subjectified under Trump's "brand" of whiteness. To synopsize this subjectivity is to explain that these groups are stripped of their sociocultural distinctions and contextual existences in order to reconceptualize and produce them as an antipanacean, quasi-unified "brown body" which is, at its core, a threat to national security, a subversion of idealized notions of citizenship, and a physical threat to the national body. It should also be noted that these particular threats are borrowed from historical and concurrent modes of anti-immigrant whiteness. Although focusing on threats to national security, threatening social and economic aspects of the brown body are also prevalent in the overall perceptive risk factors associated with these persons within Trump's whiteness. The transformation of this quasi-unified brown body as an "enemy of the state," however, does not materialize without cause. It develops out of various, interconnected processes which act as the nexus between these two individual groups of brown bodies.

One of the most defining of these processes is the of creation of the brown body as an agent of violence and terrorism. In focusing on the Middle Eastern/ Muslim portion of this guasiunified brown body, it can be seen that, especially following the attacks of September 11, 2001, there has been a particular association of these peoples with terroristic activity, ultimately leading to a federal strong-border initiative which was focused on deterring entrance of terrorists (Sasson-Levy 2013, 41; Fusté 2010, 814-815; Alimahomed 2011; U.S. Border Patrol 2015). Along with this absurd recasting of the Latinx brown body as a potential terrorist (Fusté 2010, 815), it has, more importantly, become the unfortunate, and unwarranted, target of heavily and rampantly enforced terrorist-focused border and immigration policy. It is then as violent criminals (or more specifically as "rapists" and "murderers," according to President Trump) (The Washington Post 2015; Arnold & Romanova 2013, 93) that Latinx, Mexican, and Central American persons become terrorists within this terrorism-based, strong-border paradigm. Thus, particularly through the increase of Border Patrol agents and the proposition of a border wall (Trump 2017c), and the known tendency of Trump supporters to actively support such initiatives (Kteily & Bruneau 2017, 90-91), one can see a continued, and even expanded, front against the brown body as a terrorist and violent criminal, an "enemy of the state," within Trump's "brand" of whiteness.

It is therefore as an "enemy of the state," constructed through perceived

threats of terrorism and violent crime, that the brown body becomes a direct danger to the national body. The primary factor which creates such a danger is the perceived threat that these persons have to national order and security, a point which was reiterated exhaustively throughout Trump's Attorney General appointee Jeff Sessions' announcement of a "new era" of (criminal) immigration policy (Heyman 2008, 324; Sessions 2017). Furthermore, threats of national security within this paradigm are not limited to the physical (despite its predominance), but includes also the socioeconomic. As detailed above, Trump's whiteness, with its promise to "Make America Great Again," works to revive a sociocultural, socioeconomic, and, ultimately, socioracial whiteness-based utopia. Referred to as "Americanness" by Heyman, the same fundamental utopian ideal exists within Trump's "brand" of whiteness, including, especially, the notion that as there is an increase in brown bodies, there is also an increased risk to national prosperity - a point which has been heavily stressed within this "brand" of whiteness (2008, 323; Sessions 2017; Trump 2017, "Joint Address to Congress"). So it is in this way that the brown body then becomes not only a threat to the physicality of the national body but also to its reproductive ability by means of a usurpation of economic resources and a compromising of the material capacity of (white) citizens to produce and maintain families.

Effectively, the notions of terrorism and violent crime associated with the brown body, and its conceptualization as a security threat to the national socioeconomic and physical bodies, are abstract and stereotypical fears which reinforce individual prejudices. However, within Trump's "brand" of whiteness, these ideational fears are materialized through both formal policy commitment by the President and his cabinet and a dramatically increased (threat of) surveillance of brown bodies (Trump 2017c-e, g). Under this surveillance, not only do brown bodies become objects of suspicion within the purely social realm, thus policing this whiteness through social marginalization, but they also become formal targets of this institutionalized socioracial ideological agenda (Fusté 2010, 818). It is this conceptualized threat of the brown body, as well as purely socioeconomic threatbased variants of it, that have prompted, and continue do so at a tremendous rate, extensive physical and technological surveillance of brown bodies throughout border regions (Heyman 2008). As mentioned above, this surveillance is primarily motivated by anti-terrorist efforts (U.S. Border Patrol 2015), but as the recent past (post-9/11) shows, Latinx-American and immigrant communities are predominantly affected, the primary justification of this being their perceived heightened levels of violence - what President Trump has called "American Carnage" (Heyman 2008 310, 319; Trump 2017, "Inaugural Address"). Therefore, in this way, further expansion of the border surveillance apparatus sustains a Foucauldian panopticon constructed around threats of (Middle Eastern-based) terrorism at the border that extends far into the interior, and which rarely limits itself to actual threats of terrorism but rather maintains a focus on the quasi-unified brown body as a whole. Likewise, as Philip Kretsedemas has suggested, the implementation of local law enforcement and civil servants within federal agencies' efforts against immigration (through primarily racial profiling), such as those recently enacted (Trump 2017b, d-f), have the potential to realize exclusionary socioracial ideological goals by way of an escalated, unified, and "streamlined" immigration enforcement effort and capacity for detainment and deportation (Kretsedemas 2008, 568; Sessions 2017).

At last, it is critical to partially understand the incitement of these processes to transform the brown body as being caused by economic and demographic material changes throughout the United States, driven extensively by settlement of these migrants within communities which have been predominantly white (Donato, Stainback, and Bankston 2010; Hirschman & Massey 2010). As Adolph Reed poses, and as the socioeconomic breakdown of Trump's white base indicates, reactions to maintaining the material status quo enact socioracial sentiments of distinction and exclusion (2008, 49-50). By recognizing this material explanation, previously discussed notions of the brown body threatening prosperity and national security are better understood. Moreover, this explanation is a possible causative one, working among others to transform the brown body into an object of threat and violence, a conceptualization which appears to be informing the current executive position on immigration policy.

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by Mackenzie Raetz

HOME

- 1 a: one's place of residence: domicile
 - b: house
- 2: the social unit formed by a family living together
- 3 a: a familiar or usual setting: congenial environment; also: the focus of one's domestic attention <home is where the heart is>
 b: habitat
- 4 a: a place of origin <salmon returning to their home to spawn>; also: one's own country <having troubles at home and abroad>

b: <u>headquarters</u> 2 < home of the dance company>

- 5: an establishment providing residence and care for people with special needs <*homes for the elderly*>
- 6: the objective in various games; *especially*: <u>home plate</u>

But first, a focus on clichés:

They say that home is where the heart is, But they also say a house divided cannot stand. So what am I to do when I'm torn between two parts of myself?

Then again, a house is not always a home, Though what makes it one, I couldn't say. Is it the people within or one's attachment to the place? Either way, I digress.

Sile

Every strike to my body, my psyche, my self But I do not bruise, Every cut, every slash But I do not scar.

> I am platinum. I am steel. I am unbreakable.

But how dare I articulate my silences How dare I speak my mind, my pain, my self I am not a statistic, not one of many, not one in four.

I cannot – No, will not be reduced to a number, a quantity, a fragment By words and fists.

> I have worth I have violence I have power in my words

> > And in my silence-

nces.

-Yes, in my silence,

In what I don't say as much as what I do Because I prefer the creation of culture to overexposure.

The truth is, There is more power given to the word Fire Than to the cry Rape And though I've never experienced that particular brand of hell, Far too many have.

But I won't shut my mouth Because someone else has had it worse Someone else has gone through more.

Yellow

Yellow fades just as any other color, maybe even more. Maybe it's because it shines more brightly, or maybe it's because it's more noticeable against the stark background of life. But inevitably, the yellow will fade, because nothing lasts.

I. But why focus on that?

Because while it still shines brightly, while the vibrancy is there, it's impossible to tear your eyes away from it. Maybe in the way that you can't look away from a car wreck, except the wreck hasn't happened yet; but you know it's inevitable, because inevitability is much easier to process than uncertainty.

II. If you insist the negative will happen, are you still disappointed when it doesn't?

Does it matter that you were wrong? Or does the soothing of that sting come with the relief that you were, that maybe the world isn't as twisted as you thought in your bout of chiffon cynicism.

III. But we focus on it anyway.

Some yellows are still bright, constantly reminding others – no, let's be honest with ourselves, reminding you of your own faded shade, that cynicism creeping in once again as you're reminded of what once was. Once you were in love – in love with all shades: sunshine streaming in through your window, illuminating the pages of a book.

IV. Where did it all go?

Now that saffron has transitioned from daisies and sunny skies to desert mountains stretching endlessly across the topaz sky, stuck in limbo somewhere between sunset and twilight.

But still, there's a light that you can see, another hue that you can barely make out: the sun rising in the distance. Because between these shades of yellow, there exists blues and reds, and that variation is what makes life colorful.

V. How can you enjoy yellow when that's all you ever see?

Either way, once the colors are muddied, and nothing is clear (nothing is red and blue or even yellow) you'll cast me aside, because that's what everyone else did, does, will do.

And the truth is, no matter what you say, you are no different from them, him, her, me.

Because I push people away just as much as they leave.

No, more than they leave.

Because I am so afraid to be left to myself that being the reason for disappearance seems like it should be easier, because at least then I can blame myself, at least then I have someone to blame and it's me and everything should be easier.

Silences II.

There are breathless moments. For a second – no, a minute, maybe more, everything freezes. Everything stops.

Your breath stops in your chest and your heart stops beating for a minute – no, it must be only a second, because I'm still alive.

But in that second, you feel nothing. The calm before the storm, to return to the clichés – the moment of suspension in which nothing hits, nothing passes,

Until, finally, it does.

And it's a split second before the real strike, but it hurts far more.

Because in that second – no, that minute, and for much longer afterwards, your heart spikes in your chest and your ribs crack from its pounding.

But the truth is, you'll hurt yourself much worse in the days to come, and you'll hurt those who love you even more for even longer.

Because why would you do that to yourself? Haven't you been through enough? But you still can't help wondering.

Did that really happen? What did I do to deserve this?

What did you do to deserve this?

Because we learn from our childhoods and that is why I'll never have kids of my own.

The world spins as slowly as ever, and my mouth runs dry.

Nothing.

I sit in your Goodwill jacket and your nondescript shoes; they exhibit wear from the previous owner, even though you've patched them up twice. Sometimes, you trip over the loose soles.

Occasionally I'll dream of anger and nothingness, or moonlight and terror, but usually when I awake the same complacency settles in like an itinerant on a bus seat, home if only for the night.

Different night, different bus, same repetition, same routine.

"I loved him once," I whisper in the darkness.

"I know."

"I think I did," I correct myself, frailty coloring my voice sienna to match our desert sky.

"You did."

"I don't think he loved me," I add; an unrelated thought, as though his love was barely tangential to mine.

"Maybe."

"He didn't." This I'm sure of.

He wasn't home, but you are.

FALL TOPICS

The Seminole Tribe of Florida: Keeping the Everglades Wet Jake Colton Golden

Prehistoric Patterns: A Mathematical and Metaphorical Investigation of Fossils Mackenzie Harrison

Orange is the New White: Trump's 'Brand' of Whiteness, Its Transformation of the Brown Body, and Its Effect on Immigration Policy and Socioracial Ideaology in the United States Derek Heemsbergen

Home Mackenzie Raetz



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