



INSIDE ENGLISH 1010

A Journal of First-Year Writing

Amy Doerr | Alyssa Halls | Logan Hardenberger | Abigail Hawke
Ryan Luethje | Jovan Marsh | Olivia Poore | Julianne Vicari

Volume 7 | 2023

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UNIVERSITY OF WYOMING | DEPARTMENT OF ENGLISH

INSIDE ENGLISH 1010

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Welcome to the 2022-2023 issue of *Inside English 1010*!

The past year has been one of both continuity and change in our first-year writing program at the University of Wyoming. Ashley and I took on leadership of the English 1010 program in summer 2022, and we would like to thank our predecessor, Nancy Small, whose steady and innovative direction over the past five years – through some deeply challenging times – has given us a strong foundation from which to both maintain and evolve the first-year writing program at UW. Thank you, Nancy, for all you’ve done.

We are proud to publish this issue of *Inside English 1010*, which features some of the best work produced by students in our first-year writing program. The range of the writing here is impressive and reflects some curricular changes made for the 2022-2023 academic year, specifically, a new assignment – the Brief Rhetorical Analysis – and a modified Expos assignment. These new assignments occasioned some wonderful thinking and writing unfolding in essays like “The Truth Burns: Smokey Bear’s Take on Forest Fire Prevention” and “Climate Change Finds Unlikely Ally in Botanical Gardens.” Other assignments carried forward from last year, including the Researched Argument and Public Genre Assignment, respectively, found students engaging with different forms of rhetorical action and argument, represented here in the argument, “Prison Reform in the United States,” and the personal narrative, “The Bead Box.” We are delighted to share this work with readers.

As always, we publish only a sampling of the fine work done in English 1010 this year while recognizing that so many students have enriched our classes with their strong writing and impressed us with their commitment to growth as writers and thinkers. Thank you to all of the students who submitted their work to be considered for publication in *Inside English 1010*!

This issue could not exist without the leadership and diligence of Grace Boulanger, our program’s Assistant Director and the lead editor of this issue of *Inside English 1010*. During spring 2023, Grace organized an impressive editorial staff and provided the project management vision needed to complete a project of this magnitude. Janie Marino developed the cover and offered design help. Several other 1010 instructors, including Janna Gentry, Sylvie Hansen, Brandyn Parker, Greg Ronco, Sydney Schmidt, and Justin Yeung served on the editorial board, reviewing manuscripts and providing editorial feedback for authors. We are grateful for all they have done to shape and develop this issue.

Inside English 1010

We extend a special thanks to our 1010 instructors, especially our graduate instructors. Your commitment and ongoing effort to teach and inspire our students is itself inspiring, and we are grateful to work in a community of teachers that has risen to the challenge of curricular change without ever losing sight of students' well-being. Finally, we thank Shelby Hutson and Allison Gernant for their ongoing mentorship for graduate instructors teaching in the English 1010 program. One would be hard pressed to find better mentors and human beings, and we are endlessly grateful for their wisdom, generosity, and good counsel.

We hope you enjoy the writing you will find in this issue.

Sincerely,

Michael Knieval and Ashley Burchett

Letter from the Editors

There are a host of contributors when putting together a journal to showcase student writing at any institution. I would like to first extend a thank you to the students whose exemplary work is featured in this journal, and next I say thank you to the instructors of English 1010 whose teaching and individual coaching of each student makes this journal possible. Thank you to my colleagues who served on the editorial board as assistant editors and submission readers. Without your time, reading, and recommendations I would be lost. And finally, thank you to the faculty advisors whose guidance has helped chart the course for this year's volume of *Inside English 1010*. And finally, thank you, reader, for reading this collection of work. The reader is the final contributor to any published text, and we appreciate your time, perusal, and hopefully enjoyment of our students' work.

This journal showcases some of the best student writing to come out of English 1010 in the past academic school year. We are delighted this year to add an additional genre to reflect the curricular changes in English 1010. This new genre, the Brief Rhetorical Analysis, serves as an entry point for students to think about how texts connect readers, how readers are connected to each other, and how communities are created around texts. The eight selections offered in this journal amplify that sentiment. Each student contribution in this volume asks readers to consider how we are connected to one another, and challenge us to ask ourselves *what will it take to regain community wholeness and health?* I am delighted to say that these contributions demonstrate not just excellent writing, but a deep-seated hope in our ability to be better and do better by one another, our larger communities, and environments.

As an Assistant Editor of *Inside English 1010*, I feel supremely honored to have had the opportunity to work alongside my fellow colleagues and cohort members to construct this body of exemplary student writing. The editorial board of this journal is a rag-tag group of individuals; we come from all walks of life, carrying with us a wide array of beliefs, experiences and perspectives that inspire not only our teaching practices, but also how we interact with one another in this lifetime. During my involvement with this journal, I have time and time again become inspired by the patience, investment, and unwavering dedication 1010 instructors have for their students. Editorial deliberation is no easy task; our board spent hours consuming and pondering several student submissions that span four unique genres, carefully weighing the nuance and subtle artistry behind each and every student submission. The concept of growth is the thread that thematically binds this journal together. Of the student work represented here, the human desire to do better and to *be* better—to do right by ourselves, by others, and by our planet—is the overwhelming topic worthy of discussion. My genuine belief is that this edition of

Inside English 1010

Inside English 1010 candidly captures the can-do attitude of a new generation of learners, thinkers, doers and dreamers.

Sincerely,

Grace Boulanger, Megan Landre, and Addison Gloeb

How to Use Inside English 1010

Inside English 1010 showcases work in a variety of genres taught in English 1010. The essays included in this journal were written by University of Wyoming students in the calendar year preceding publication and were recommended by instructors who feel this work represents some of the best their students produced.

Reading this introduction, you are probably enrolled in English 1010, and likely haven't written in some—or even all—of these genres before. *Inside English 1010* is a resource designed for you; these essays will clarify evaluation criteria for the major assignments and will model rhetorical strategies that you will learn and practice in your own writing this semester.

While you read the Brief Rhetorical Analyses consider how the writer uses textual evidence to support their claims about the use of *logos*, *ethos*, and *pathos*. Are they supporting their argument using evidence like words, images, colors, and image blocking? Do you notice how the writer builds their argument from general observations to specific textual evidence?

As you read the Expos Essays, pay particular attention to the writers' use of summary, paraphrase, and direct quotation. Can you follow the arguments of the articles being summarized? How do the writers indicate which points are most important? How do visuals and layouts contribute productively to the essays?

What topics have writers chosen for their Researched Arguments, and how have these topics been narrowed into specific arguments? What kind of evidence do the writers use to support their claims, and how do these claims build towards their theses? How are paragraphs organized? What makes the introductions and conclusions effective?

How do the writers incorporate personal experience and *pathos* into their Public Genre Assignments (PGAs), and what other types of evidence do they use? How is the writing style of the PGA different from the Researched Argument? How do writers engage storytelling and adapt their approaches for different audiences?

Examining strong work in these genres will help you recognize what is and isn't effective in your own writing. Use these essays as models and inspirations, and to remind you that you have multiple paths—including some you may creatively craft!—for all kinds of writing.

TABLE *of* CONTENTS

Contributor Biographies	10
Brief Rhetorical Analysis	11
Expos	20
Researched Argument	34
Public Genre Assignment: Storytelling	45

Contributor Biographies

Brief Rhetorical Analysis

Logan Hardenberger (omitted by author)

Julianne Vicari is an undergraduate student majoring in dance. She hopes to earn a BFA in dance science. This influenced her decision to write about dance, in particular, her love for ballet.

Expos

Alyssa Halls is an undergraduate student studying Environment/Natural Resources with a concurrent English major and a minor in painting. She hopes to enter the field of bioremediation as a writer and is currently working at the Williams Conservatory and the Collins Lab. Her interests and passions are deeply incorporated into her Expos on the growth of climate science research in botanical gardens.

Ryan Luethje is a current first-year student at the University of Wyoming and was born and raised in Santa Clara, CA. Pursuing a degree in Marketing, he plans to become a product manager after he graduates. Ryan chose to focus on Sea Turtles since they are his favorite species and he wanted to bring awareness to a major factor impacting them.

Researched Argument

Abigail Hawke (omitted by author)

Olivia Poore is an undergraduate studying Environmental Systems Science, Environment and Natural Resources, and Wildlife Biology. The topic chosen for the researched argument has no relation to her studies; however, she felt this was an important topic to shed light upon.

PGA: Storytelling

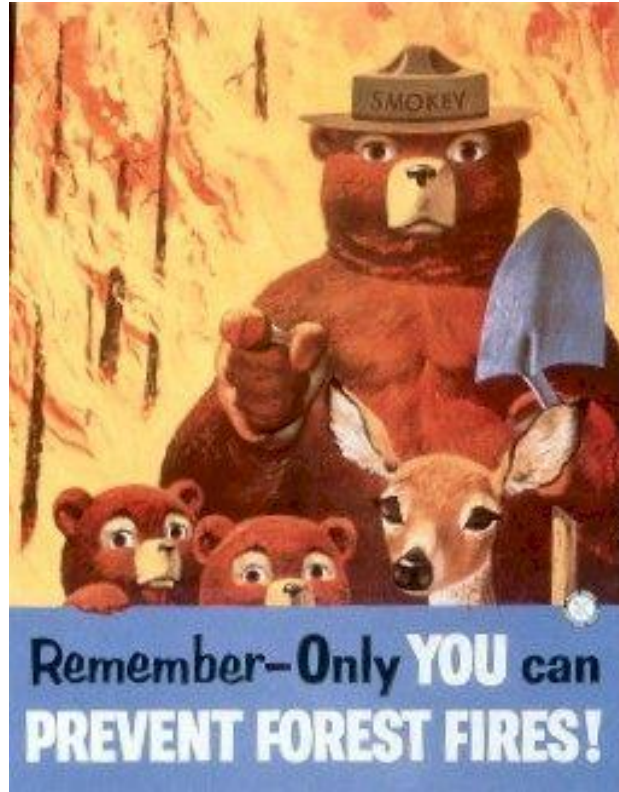
Amy Doerr is a first-year student at the University of Wyoming, and is pursuing a BA in General Studies. Amy was born in Casper, WY. She is an avid beader and enjoys sharing and teaching this art form. A deep love of family, music, and art inspired her to write “The Bead Box.”

Jovan Marsh is a student-athlete from Chicago, Illinois studying Psychology with a minor in sustainability, and sociology. Jovan's research interests stand between the human brain chemistry/ functions and objective societal norms. The heavy influence of football in Jovan's life led him to writing about this life-changing opportunity, and of achieving the goal of being a first-generation college graduate while receiving a free college education.

BRIEF RHETORICAL ANALYSIS

The Truth Burns: Smokey the Bear's Take on Forest Fire Prevention

by Logan Hardenberger



Appendix 1: Smokey the Bear Ad

In 2019, 87% of forest fires were caused by humans (Now More Than Ever). Irresponsible people have caused 6,300,275 acres to be burned in the United States (National Interagency Fire Center). Through the use of ethos, logos, and pathos, Smokey the Bear's campaign for forest fire prevention sends a strong message regarding fire safety and reckless activity of campers across America. Smokey's long history and influential presence from the 1940s to even now is only so strong because of the message Smokey stands for. As the ad is targeted towards nature loving Americans, it appeals to the animal lovers by making them think of the consequences forest fires can have. This ad shows ethos through the speaker, Smokey Bear, who is an iconic American activist for forest fire prevention. He gives the audience a reason to listen. Logos is shown in the text of the ad, showing that logically, only a change in how we act around fire can stop reckless forest fires. Pathos gives this ad the most significance, the element of "why should I care?" of the PSA. The Ad Council argues that all Americans have a responsibility when it comes to fire safety through a twisted visual of animals in front of their burning homes with the rhetorical appeals, ethos, logos, and most importantly pathos.

The visual to go with the public service announcement is a drawing with four characters: two baby bears, a deer, and Smokey Bear himself. The background has sparse trees among the vibrant orange flames. All of the animal characters share a somber look at the viewer, which is accompanied by the message “Remember-Only YOU can PREVENT FOREST FIRES!” with strong emphasis on the audience, ‘you’ (Figure 1). Smokey looks directly in the camera, shovel in one hand, the other pointing towards the audience. The gesture makes the ad more personal because it implies specifically that anyone who looks at the ad is responsible for national forests. The art style of the ad is very cartoonish and cute. The style of art is juxtaposed by the more serious message about forest fire prevention. The style is almost Disney-like, which makes the animals extremely adorable and likable.

This public service advertisement appeals to the ethos of the audience with the speaker being Smokey the Bear himself. Both in the ad and in the view of the audience, Smokey serves as a guiding figure, trying to encourage both the audience and the other woodland creatures to have safer habits when it comes to camping and fires in nature. Smokey the Bear is one of many public service announcements that the Ad Council has endorsed (Wildfire Prevention). In actuality, Smokey the Bear was a real bear who was orphaned in a forest fire (Naylor). He has been in the public eye for over seventy-five years. Smokey’s influence grew far and wide. Disney let Smokey the Bear’s campaign use Bambi characters to promote fire safety (Grennan). This is significant because Disney as a company is deeply concerned with copyright infringement. The fact that Disney let their characters be used by this campaign shows how important it is.

The message of the image provides *logos* with the text that specifies an advocacy for wildfire prevention. Prior to 1983, forest fires were not federally tracked. However, when the bear cub was injured from the fire in 1950, the news about him spread nationwide and soon enough people wanted an update on his recovery (Climate Change Indicators). This very real tragedy turned heads and had the public come together in the spirit of forest fire prevention. Smokey the Bear is the longest running American public service announcement and it is not difficult to see why (Wildfire Prevention). This PSA is also effective because it isolates the reader as responsible; there is no room for the bystander effect. The bystander effect is when people fail to help in a situation where they assume someone else will do something. By specifying that the viewers’ help is directly needed, it eliminates the possibility of shifting the blame to anyone other than the viewer. The concrete facts make the *logos* effective; it allows the audience to see the real effects of forest fires on the wildlife in their areas. The ad makes the viewer see the forest in flames, seeing not only the animals affected by the fires, but the ecosystems too. While naturally occurring fires can benefit an ecosystem, the irregularity of current forest fires creates poor conditions in said ecosystems (Goldfarb). The increase of warm seasons makes the seasons for fires longer and

harsher on the environment. The fluctuation and unpredictability of wildfires is all the more reason this advertisement should be taken seriously, which adds to the logos of the advertisement.

The pathos of this Smokey Bear visual is easily the most compelling of all. The audience of this ad is American people who go out in nature and people who camp. The animals have a very clear look of sadness on their faces, the kind of looks meant to tug at the heartstrings. The art style feels soft and makes the characters look endearing in order to compel the audience to help. The expressions are not just sad, they almost plead for help, as if the rhetorical “you” is the last hope for preventing such travesties from happening in the future. The mere visual of sad animals is not this ad’s only contribution to pathos. Smokey’s authoritative pose and direct eye contact with the audience makes anyone viewing it feel the need to take responsibility for their behavior in nature. The stance Smokey is in demands attention. He stands very tall in a stance of confidence as if to say “I know you can help.”

Given the extensive history and long, drawn-out battle against forest fires, Smokey the Bear will always be an icon in the American eye. From the tragic start to the fulfilling purpose he once served, Smokey the Bear will remain a beacon for activists trying to stop forest fires all over the country. Using logos to hold the audience accountable, ethos to show Smokey’s integrity, and pathos to make viewers empathize all together makes this campaign a powerful source. Any media can be visually appealing or can aim to inform, but this campaign uses each rhetorical appeal to drive the point home and that is why it is such an effective ad. The significance of this ad goes beyond awareness of forest fires; the message employs the audience, being American people, to act on this very real issue. In 2021 alone, 49,020 fires were caused by humans (National Interagency Fire Center). Unless the objective “YOU” can help to prevent forest fires, the amount of forests burned and ecosystems devastated will only continue to grow.

Inside English 1010

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Effortless Dancing with Gaynor Minden

by Julianne Vicari



Appendix 1: *Gaynor Minden* Advertisement

“It is amazing what goes into making something effortless” (Neff, n.d.). No dancer would describe ballet as easy or effortless. It takes a lot of hard work and strength to dance. Dancing on pointe is even more challenging. It requires enormous amounts of strength, control, and skill. *Gaynor Minden* states through the above slogan that it is possible for dancing to look effortless. The ad implies that in order to achieve effortless dancing, you need to be wearing *Gaynor Minden* pointe shoes. This ad is targeting a specific audience – ballet dancers. The goal of this ad is not to reach a persuade a general audience to buy *Gaynor Minden* pointe shoes. The authors designed the ad specifically to reach pointe dancers who would be interested in buying *Gaynor Minden* pointe shoes. *Gaynor Minden* uses a well-known professional ballerina to endorse their product. Her fame and recognition in the dance world make her a valuable, well-chosen representative for their brand. This ad evokes the audience’s desire to dance as beautifully as the professional ballet dancer. In order to achieve this desire, one must buy and wear *Gaynor Minden* pointe shoes. This *Gaynor Minden* ad is primarily using the appeal of *ethos* to promote their product by relying on the

fame of the prima ballerina and stating that wearing this brand of pointe shoes will make you a prima ballerina. By wearing *Gaynor Minden* point shoes, a dancer can achieve the position of first soloist.

The focus point of the *Gaynor Minden* ad is a beautiful picture of a ballerina performing on stage in the ballet *Giselle*. The targeted audience would easily recognize this particular ballet. Even if a person is not a dancer, a reader can tell that the ballerina has talent in her craft because the reader can see that the ballerina is the main ballerina on stage. Her dancing is the focus of the image, while the rest of the dancers are in the background and not drawing attention. The background is dark, while the dancer and the pointe shoes are lighter and highlighted by a spotlight. The bright white of the dancer contrasted by the dark shadows of the background make her and the shoes the immediate focus point when looking at the ad. Above the image the words “It is amazing what goes into making something effortless” (Neff, n.d.) are printed. Immediately, the reader will realize that what the dancer is performing is challenging, but with her talent (and shoes!) she is making it look easy and effortless. Below the image is a description naming the dancer and her professional company.

All three rhetorical appeals work together to convince the reader that this shoe is reliable, and they should feel comfortable and confident relying on it for their professional needs. This ad uses a stunning visual image to entice their audience to examine the ad closely. The featured ballerina Ekaterina Kondaurouva is performing on stage in her *Gaynor Minden* pointe shoes. This is how the ad appeals to *ethos*, by showcasing a ballerina who is recognized in the dance community. She looks graceful and perfectly posed to show off her pointe shoes. Her white tutu against the ad’s dark background creates a visual contrast that draws the reader’s eyes to the ballerina. It highlights how elegantly she is dancing in her pointe shoes. This is an example of how the rhetorical appeal of *pathos* is portrayed in this advertisement. The image stirs up an emotion inside the reader because of how beautiful the ballerina looks. The reader is left in awe of the ballerina’s gorgeous looks and lines and their desire is to look just like the dancer. The audience is led to believe that in order to look just like the image, they need to wear *Gaynor Minden* pointe shoes when they dance. This is how the ad appeals to *logos*, by connecting the product with performance. All the appeals work together to persuade the audience that wearing *Gaynor Minden* pointe shoes will result in beautiful and effortless dancing, like the picture portrays.

The second primary appeal in this ad is *logos*. The rhetorical appeal of *logos* is demonstrated in the use of *Gaynor Minden*’s tagline, “It is amazing what goes into making something effortless” (Neff, n.d.). The company is stating that effortless dancing is possible and in order to achieve effortless dancing, one needs to be dancing in *Gaynor Minden* pointe shoes. *Gaynor Minden* is written in the middle of the ad near the pointe shoes, guiding the reader from the pointe shoes to the brand name. The ad is also making the connection that by wearing this special brand of pointe

shoes, a dancer can attain the role of soloist. These shoes will help you become a successful soloist dancer, just as they have done for Ekaterina. The ad has connected the product with a tangible outcome by alluding to the idea that by wearing these pointe shoes, one will become a soloist dancer.

The most important appeal in this advertisement is *ethos*, otherwise known as the appeal to authority. This is the ad's strongest persuasive element because the brand's desired audience is familiar with this ballerina, so they will feel better about using and purchasing these shoes. Since Ekaterina is a professional soloist dancer and "has been wearing *Gaynor Minden* pointe shoes since 2006." (Neff, n.d.), she should have the knowledge and credentials to endorse *Gaynor Minden* pointe shoes. It also shows that *Gaynor Minden* pointe shoes are reliable and an excellent brand of pointe shoes that even professional ballerinas wear long-term. *Gaynor Minden* is using the fame of Ekaterina and the Kirov Ballet to help build support for and attract attention to their product in the dance world. This is an excellent example of how the rhetorical appeal of *ethos* is being used in this advertisement.

All three of the rhetorical appeals: *ethos*, *pathos* and *logos* are used in this ad to sell *Gaynor Minden* pointe shoes. However, the appeal of *ethos* is the primary rhetorical appeal used in this advertisement. The designers of this ad included a beautiful picture to draw the reader into the advertisement and the tagline words were carefully chosen to portray the appeal of these shoes, but it is the authority of the celebrity dancer that clearly gets the message across to the audience. Without the professional dancer's endorsement, the words and imagery lose their strength. If the ballerina was not a well-known and respected dancer, the appeals of *logos* and *pathos* would not have such a lasting impact on the reader. The ad would fail to persuade its audience to purchase *Gaynor Minden* pointe shoes.

Inside English 1010

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EXPOS

Climate Research Finds Unlikely Ally in Botanical Gardens

by Alyssa Halls

To determine the future of flora across the globe, scientists begin looking to botanical gardens as a stage for climate change studies. Here's why.



The Cherry Tree Preservation Forest at the Tama Forest Science Garden near Mt. Takao, Japan, photo by FFPRI

Deep in the Tama Forest Science Garden lies a horticultural treasure. The Cherry Tree Preservation Forest is one of the largest collections of cherry tree varieties in the world, some of which have been in cultivation for over 400 years (Tama Forest Science Garden 2022). Data on flowering times of 17 taxa of cherry trees collected from 25 years of record-keeping at this botanical garden have given biologists Richard B. Primack and Abraham J. Miller-Rushing important insight into climatic trends and their observable effects. In the case of this study, which concluded in 2005, the results show that flowering times have shifted significantly, with the cherry flowers popping an average of five and a half days earlier than they did in 1981. This corresponds directly with a 1.8°C (35°F) temperature increase recorded in the months of February and March between 1981 and 2005 (Primack & Miller-Rushing 310). What stands out in this study is the variety of specimens tested under the same environmental conditions – this was made possible by the incredible biodiversity present in the Tama Forest Garden.



Richard B. Primack & Abraham Miller-Rushing, photo by Cheryl Carlin

According to a more recent paper by Primack and Miller-Rushing, conducting research at places such as the Cherry Tree Preservation Garden can provide answers to critical questions about climate change and its effect on plants. “Which species will be vulnerable? Which will thrive?” the biologists ask. “The behavior of plants in botanical gardens can provide insights into how species will respond in the wild,” (Primack & Miller-Rushing 304). Botanical gardens, by their nature are meticulously maintained environments with diverse plant specimens that receive a high level of care, and collections of records that often span multiple decades. They also have deep-rooted connections with the global community and passionate, knowledgeable people who manage them. It is these qualities that Primack and Miller-Rushing examined in determining whether climate change research could find a new home amongst the flowers.

While botanical gardens are not universally viewed as places of science, they have a long history of involvement in the scientific community. Many herbaria – organized, meticulously labeled collections of dried plants – such as the Arnold Arboretum Herbarium at Harvard University, have been collecting data and specimens from their own maintained gardens for over a hundred years. And this data is meaningful. As Primack and Miller-Rushing attest, “[Staff members] of botanical gardens are knowledgeable about plant identification, morphology, physiology, and ecology, because of their training and experience, which increases the reliability of their observations and makes them valuable members of interdisciplinary research teams,” (Primack & Miller-Rushing 305). In other words, the people who manage botanical gardens aren’t your typical backyard gardeners; they typically have at least a bachelor’s degree in the life sciences – likely Biology, Botany, or Horticulture – and put a high value on precision and regularity when it comes to keeping records and collecting specimens.



Aerial view of Arnold Arboretum, photo by Harvard University Press

You might think that a dried-up plant couldn't provide a great deal of insight into climate change in present times. However, biologists can collect data such as the density and size of stomata (pores) on preserved leaves and compare this information with data collected from living specimens of the very same plant. This allows them to determine whether increased carbon dioxide concentrations have caused individual or even evolutionary responses within a species (Primack & Miller-Rushing 309). Water use efficiency can also be tracked in a similar way. As carbon dioxide levels rise, and changes in temperature and rainfall patterns become more drastic, information of this kind, obtained in a scientific manner from botanical gardens throughout the world, has the potential to become increasingly valuable.



Harvard University Herbaria collected species *Baccharis neglecta*, or false willow, photo by Barnabus Daru

Climate change can influence populations of plants in unexpected ways. Consider the issue of invasive and endangered species. As shifts in temperature and weather patterns occur, certain species will thrive, and others will struggle. An example of this phenomenon is currently taking place across Eastern North America in the form of garlic mustard and black swallowwort, which have only recently begun to take over huge swaths of land previously dominated by other species (Primack & Miller-Rushing 310). But how can we detect invasive proclivities in plants that have never displayed this behavior, and do so in an environment that both mimics a natural habitat and limits the risk of a plant spreading? It seems botanical gardens have an answer for this problem as well.



The invasive habits of black swallowwort, photo by University of New Hampshire

Primack and Miller-Rushing argue that botanical gardens sit in a perfect position for determining whether species have the potential to become invasive in a new climatic environment by monitoring changes in their growth habits. Garden managers also have the opportunity to test something called “assisted migration,” in which a rare species is transplanted into a new environment that, in light of environmental changes, better matches its ideal growing conditions (Primack & Miller-Rushing 310). Because botanical gardens are situated in a multitude of diverse climates throughout the world, they are well-suited to the task of matching climatic shifts with changes in the growth habits of plants. In addition to observing these trends, they could actually play an active role in identifying new invasive species and preventing the extinction of native or otherwise precious flora.



Honeysuckle *Lonicera tartarica*, photo from Wikimedia Commons

Another way that botanical gardens can participate in climate research is through contributions to phenological observations. When a species or variety of plant is grown and observed in many different locations (not necessarily by professionals), this bootleg form of research is called a phenological garden. This is not your traditional community garden, but rather a set of data collected over a large area to study the effects of natural cycles on a certain type of plant. One of the most extensive phenological projects ever undertaken was one that involved collections from over 2,000 individual people, ranging from USDA staff to private gardeners, over the course of 37 years.

This project involved two kinds of lilac (*Syringa vulgaris* and *Syringa x chinensis*) and two cultivars of honeysuckle (*Lonicera tartarica* and *Lonicera korolkowii* var. *zebelli*). Dutiful observations were recorded regarding the growth of leaves and flowers. At the conclusion of the study in 1994, it was determined that plants across the country put on leaves and flowers a full week earlier than they did in 1957 (Primack & Miller-Rushing, 307). If the staff at botanical gardens can put to use the connections they have with one another, with the scientific community at large, and with the public to promote and participate in studies such as this one, then climate-related research can be conducted continuously, without funding, and over vast areas.



A family participates in phenological research, photo by the National Phenological Network

Looking at botanical gardens through the lens of climate science allows us to see how well-adapted these institutions are to this sort of research. The amount of care that is bestowed upon both the grounds and the floral specimens makes it possible to conduct experiments over the course of long periods of time without the interference of unpredictable variables such as logging, development, and other such issues that may affect results elsewhere. When combined with current observations, the immense stockpile of trustworthy records held in botanical gardens could fuel climate science for decades. And if you consider the far-reaching effects of citizen science, which staff at established gardens have the opportunity to participate in, it is clear that botanical gardens already hold an important position on the climate change research team.

However, if you ask Richard B. Primack and Abraham J. Miller-Rushing, the role that botanical gardens play in environmental research is poised to change. “[Research] at botanical gardens is particularly well situated to move beyond simply evaluating species responses to climate change,” stated the biologists. “This work can help us to identify which species will thrive under changing climate conditions and which may be conservation priorities, among the most pressing climate-related questions in ecology” (Primack & Miller-Rushing 311).

Despite strong evidence that sound science can emerge from this sort of research, uncertainties remain. If botanical gardens are to open their doors to more studies pertaining to climate change, will they be able to provide meaningful insight into the *actual* responses and fitness of plant species in “natural” settings? This is the perpetual struggle of scientific studies which attempt to answer questions about individual species within complex ecosystems – it is simply impossible to isolate a species from the whole without removing important biological influences that play a part in its survival. However, without controlled environments, variables degrade the

Inside English 1010

scientific process. To this end, perhaps there are ways that botanical gardens can improve research spaces to better emulate natural conditions. Ultimately, when we look at the relationship between climate science and botanical gardens, it seems - if you'll excuse my pun - that there is plenty of room to grow.



The orchid show at the New York Botanical Garden, photo by Sai Mokhtari

Inside English 1010

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New Treatment Decreases Death Rates in Sea Turtles Exposed to Red Tides

by Ryan Luethje

Florida is filled with many unique and interesting sea creatures that call it home; however, a deadly natural phenomenon called Red Tides kills many of these sea creatures every year. To help alleviate the problem, a group of scientists, Perrault et al, studied the effectiveness of a new treatment for Brevetoxicosis (a disease that originates from typically ingesting a neurotoxin called brevetoxin) in their article “Use of intravenous lipid emulsion therapy as a novel treatment for Brevetoxicosis in Sea Turtles” recently published in Scientific Reports. They found that Intravenous Lipid Emulsion Therapy (ILE) was a better treatment for Brevetoxicosis in Sea Turtles than Standard and Supportive Care (SSC)/Dehydration Therapy.

What are Red Tides?

Red Tides are algal blooms (*Karenia brevis*) that have been happening since the nineteenth century and that produce a type of neurotoxin called brevetoxins. The researchers stated that "Red tides...appear to be increasing in frequency, duration, and geographic range; however, it is unclear if this is due to nutrient runoff, aquaculture production, alterations in ocean temperatures, weather patterns, currents, and/or increased monitoring efforts" (Perrault et al. 4). This increase in frequency is not only disturbing but increases the need for a better and faster treatment for Brevetoxicosis.



Photo Credit: Miriam Godfrey

How Brevetoxins from Algal Blooms Impact Sea Turtles

One of the most impacted species of Red Tides are Sea Turtles. When Sea Turtles encounter Red Tides, they get brevetoxins in their system, typically through ingestion, that paralyze them. These paralyzed Sea Turtles either drown or get stranded on shore. Scientists have normally treated Brevetoxicosis through Dehydration Therapy or through Standard and Supportive Care (SSC); however, these treatments are not highly effective and take a long time to work. As a result, a recent research study sought to test a new form of treatment, called ILE that is showing promise.



Photo Credit: Miriam Godfrey

What is Intravenous Lipid Emulsion (ILE) and What Does It Do?

ILE is short for Intravenous Lipid (Fatty Acid) Emulsion and helps to detoxify brevetoxins from Sea Turtles by “draw[ing] toxins out of tissues [and] allowing them to bind to lipids in the bloodstream or prevent[ing] toxins from reaching target tissues....[these] Brevetoxins bound to the lipids from ILE would then likely be elimi-

nated through the liver, bile, and feces” (Perrault et al. 2). In simple terms, ILE is a drug that forces brevetoxins out of the body. ILE was the main drug tested in the study and was tested on three species of Sea Turtles: Loggerheads (*Caretta Caretta*-shown above), Kemps Ridleys (*Lepidochelys Kempii*), and Green Turtles (*Chelonia Mydas*). Loggerheads and Kemps Ridleys were shown to be the most impacted by brevetoxins in comparison to the other Sea Turtle species tested.

Limitations of Study Notice

All the Sea Turtles in the study were treated for any secondary conditions they had such as, “metabolic acidosis, spirorchiid infection, pneumonia, malnutrition” (Perrault et al. 8). These extra treatments may have had some effect on the study, however, the data derived from the study showed that the treatments likely had negligible effect on the results.

How Well ILE Performed Compared to SSC/ Dehydration Therapy

ILE, throughout the entire study, performed much better than Dehydration Therapy or SSC. Perrault et al. for example, found that the overall survival rate for Sea Turtles that received ILE was 94% (17/18) while the overall survival rate for Sea Turtles that received Dehydration Therapy/SSC was only 47% (46/99) (Perrault et al 4). This significant improvement in survival rate was not the only thing that got scientists excited about ILE as a new treatment. Sea Turtles that received ILE also recovered much faster and were detoxified much faster than their counterparts who did not. For example, brevetoxins in blood plasma were reduced by

Average amount of brevetoxins in Sea Turtles upon admission to Rehabilitation Center (Perrault et. al. 5):

- Kemp Ridleys had a mean of 41.2 ng PbTx-3/mL (Which is a lot and very detrimental to the Sea Turtle)
- Loggerheads having a mean of 32.8 ng PbTx-3/mL (Which is a lot and very detrimental to the Sea Turtle)
- Green Turtles having a mean of 10 ng PbTx-3/mL (Which is not a whole lot, but still detrimental to the Sea Turtle)

50% by the 290-hour treatment mark while it took an additional 115 hours for SSC/Dehydration therapy to do the same.



Photo Credit: Brian Bohlman/ Clinic For The Rehabilitation Of Wildlife (CROW)

Sea Turtle Symptoms of Brevetoxicosis and How ILE Helps

The worst thing about being sick is the symptoms. Coughing, a runny nose, a high fever, etc. are all terrible to experience. ILE helped alleviate the symptoms of Brevetoxicosis, in Sea Turtles, improving their “blink reflex, ability to hold up head and flippers, circling, clasper reflex, [and] vent tone” (Perrault et al. 3). All these symptoms must be cured before a Sea turtle can be released which is why a faster treatment is so critical. ILE alleviated all

symptoms, except swelling, in twenty-four to forty-eight hours while it took SSC/Dehydration Therapy seven days or more. The scientists also stated that 25 mg of ILE per kg of body mass is the recommended amount for treating Sea Turtles; however, 50 mg ILE/kg to 100 mg ILE/kg could be used to help a turtle recover faster (Perrault et al. 5). This discovery is not only completely new and shocking but will help many Sea Turtles and other animals have a higher chance of survival and recover faster.

Can ILE be Used to Treat Other Animals?

ILE is not only effective in Sea Turtles, but it is also effective in treating a wide range of other animal species. Through years of research, “The successful use of ILE to treat neurotoxicity has been documented in numerous other species including rats treated with methamphetamine, domestic dogs with bromethalin toxicosis, [and in] domestic cats with permethrin toxicosis” (Perrault et al. 8). All in all, ILE is a drug that helps save the lives of our furry family members and the majestic creatures of our oceans, but what about humans?

(Data for ILE) Percent drop in brevetoxin concentrations in Sea Turtles after one hour (Perrault et al. 2):

- 18.6% in Loggerheads on average
- 24.2% in Kemp's Ridleys on average
- 70.5% in Green Turtles on average

(Data for ILE) Brevetoxin concentrations in Sea Turtles after 168 hours (Perrault et al. 2):

- 90.1% decrease in Loggerheads in comparison to brevetoxins on intake (On average)
- 93.8% decrease in Kemp Ridleys in comparison to brevetoxins on intake (On average)
- No data was provided for Green Turtles

Do Red Tides Affect Humans and Does ILE Help?

Humans are also impacted by Red Tides, and ILE has been shown to be effective in treating humans as well. These incredible results were documented when “Humans given bupivacaine followed by ILE, [had] plasma concentrations [that] were 20.6% and 14.3% lower 20 and 30 min after drug delivery” (Perrault et al. 5). This decrease is substantial and shows that ILE is effective in treating humans with Brevetoxicosis; however, the likelihood of a person getting exposed to brevetoxins is slim.



Photo Credit: Shanemyersphoto

Future Impact of Study

Algal blooms are still a huge problem in Florida and the root cause of them is still unknown; however, the scientists that conducted the research have several theories such as Red Tides being “due to nutrient runoff, aquaculture production, alterations in ocean temperatures, weather patterns, currents, and/or increased monitoring efforts” (Perrault et al. 4). Despite these inconclusive theories, ILE is limiting these algal blooms’ impact by decreasing the amount of marine life killed each year. Rehabilitation facilities in Florida and around the world can now use ILE to have a higher chance at saving every Sea Turtle that is affected by Brevetoxicosis. For those who love Sea Turtles, they can be content that there will be many more to see in the wild.



Photo Credit: Clearwater Marine Aquarium

Study Approval

The study was performed with every detail accounted in mind and “was authorized under Florida Fish and Wildlife Conservation Commission Marine Turtle Permits #146 and #211 and Loggerhead Marine Life Center’s Animal Welfare Committee Protocol #2019–001; [they] performed all animal handling and collection in accordance with these relevant guidelines and regulations.” (Perrault et al. 10). They also used data from other studies that assessed drugs such as SSC and Dehydration Therapy.

Inside English 1010

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RESEARCHED ARGUMENT

The Usage of Bite Marks as Forensic Evidence

by Abigail Hawke

Odontology has been in use as evidence in criminal trials for nearly two thousand years, with the first known case utilizing odontology dating back to the Roman Empire (History of Forensic Odontology). Forensic odontology is the science of applying dentistry as evidence in criminal trials (University of Maryland). Forensic odontology has multiple methods to identify and supply evidence, but the one with the highest error rate is the analysis of bite marks. The use of bite marks as evidence in court dates back to the Salem Witch Trials when Reverend George Burroughs was wrongly convicted in court and executed (Beety and Oliva 1776). The most common modern applications of the analysis of bite marks are instances with bite marks on a person's skin. Teeth are often used for self-defense in combat situations between an assailant and a victim. For example, biting is known to occur in cases of sexual violence when the assailant attempts to express dominance (National Library of Medicine). A bite mark is often considered unique to an individual, much like DNA or a fingerprint. When analyzing a bite mark, the structural and anatomical features of the bite mark can be used to identify a person. Comparisons of possible suspect's bite marks are made, which include characteristics such as dental arch size and shape, tooth positions, and unique characteristics (National Library of Medicine). Forensic odontology can be highly useful in the identification and even prosecution of criminals. However, due to the nature of the human skin, when bite mark evidence is collected faults in the data can occur. The usage of bite marks as evidence by prosecutors in criminal trials needs to be more tightly regulated as bite marks have been proven to contribute to the wrongful conviction of dozens of people, are easily mistaken by experts, and perpetuates harmful stereotypes against sexual minorities.

Bite marks have been proven to contribute to the wrongful conviction of dozens people, and has even sent multiple people to death row, although they were later exonerated. Faulty forensic evidence is not a new concept, whether it is because of scientific errors, limited technology, or fraud. One of the more famous instances of error was the case of Ray Krone. He became known as the "snaggle-tooth killer" when an impression of his jagged teeth was found in a styrofoam cup, and this impression was said to match the bite marks on the breast and neck of a kidnapped and murdered victim. Krone was first convicted in 1992. He was later able to win a retrial, reducing his death sentence to life in prison. He was convicted almost entirely based on the bite mark identification. Without the bite mark evidence, there was almost no case against Krone (Olivia and Beety 1783). In 2002, Krone was finally released when DNA analysis was done on saliva found at the scene (Maule). This was an instance where the supposed perpetrator was able

to avoid a death sentence, but this is not always the case—others have been sent to death row on faulty evidence, taking innocent lives. Even more have spent large portions of their lives in prison to only later be acquitted. When people's lives are on the line, relying on faulty evidence should not be an option.

Bite marks have been proven to be faulty in multiple cases, and a large part of this may be due to the difficulty of forensic odontology as a science. When collecting the evidence, extreme care must be taken; due to the nature of human skin, as more time passes the integrity of the evidence decreases. If evidence needs to be collected, quick recognition and action must be taken to ensure the most accurate evidence. When the bite is on a person, especially a malleable part of the body, such as breasts or buttocks, distortion of the mark is more likely, and documentation of the evidence becomes more difficult (Sambeck). Photography is the most common form of documentation of bite marks, though photographic distortion is a common outcome, so a skilled photographer is recommended (Hinchliffe 365). Access to a skilled photographer may not be feasible for every odontologist. Another common form of documentation is dental impressions of the bitten area. When the victim is still alive, consent is needed for this process. This adds another factor, complicating the process further. There is likely trauma accompanied with the bite mark, so documentation of a bite mark on a live victim is more complex.

With so many possibilities for error, it brings up the question of how many errors are made. In 2010, S.L. Avon, C. Victor, J.T. Mayhall, and R.E. Wood conducted a study on the error rates in bite mark analysis. Their study consisted of three groups: dentists with no experience in forensics, dentists with interest in forensic odontology, and board-certified diplomats of the American Board of Forensic Odontology. Each participant was given 18 completely documented bite marks on human skin and 3 paired sets of human denture molds. Across all groups, the most common error was the incorrect identification of the suspect. Each group erred in some form, with the board-certified group with slightly lower error rates. They conclude that error rates may be influenced by the individual examiners and the bite mark evidence available (Avon et al., 54). Their study "...demonstrates that even under carefully controlled conditions, albeit in a forced-decision model, errors in interpretation occur even amongst the most experienced analysts" (Avon et al., 1). This proves the high level of difficulty behind bite mark analysis and how easily critical blunders can be made.

Those who argue for the use of bite marks as evidence like to bring up the case of Ted Bundy. Ted Bundy became infamous when he was convicted in 1979, with his trial being the first-ever nationally televised trial in the U.S. (Sambeck). A forensic odontologist, Dr. Richard Souviron testified that Bundy's teeth matched the bite marks found on one of his victims. At 42, he was given the death penalty and sentenced to the electric chair. However, according to Dr. Niki Osborne, a forensic research scientist based in New Zealand, the bite mark evidence should not

have even been used in his case. She stated that determining that it was indeed Ted Bundy's teeth was a, "...scientifically impossible statement to make" (Sambeck). In Ted Bundy's case, there was a multitude of other pieces of evidence that also pointed toward his guilt, so the bite mark was not the sole factor in his conviction.

However, like the example of Ray Krone, there are cases when a bite mark is the only piece of evidence. When mistakes are so common, it cannot be the only factor in someone's conviction. Another argument for bite marks is that all evidence can be manipulated or corrupted, so biases can present in any form of evidence. Any form of evidence can be used or interpreted incorrectly by the investigator or the court. However, bite marks differ from other evidence in their error rates. A disproportionate amount of wrongful convictions can be attributed to bite mark evidence (Olivia and Beety 1782). When the collection is almost entirely left up to the discretion of the odontologist, mistakes are much more common.

Forensic odontology, especially bite marks, is very difficult as a science, but it also continues to perpetuate harmful stereotypes. According to Jennifer and Valena, "...forensic odontologists have also advanced the unfounded and stigmatizing claim that bite marks are more common in crimes involving sexual minorities" (1785). Courts have allowed bite mark experts' biases to influence their work. An example of this is a case involving Dr. West and a lesbian couple that demonstrates these underlying stereotypes. Dr. West has been proven to be at fault for multiple wrong convictions, including this case. In March 2000, Leight Stubbs and Tammy Vance made a call to report that their friend, Kimberley Williams, was unconscious and had stopped breathing. Upon arrival, paramedics found a large amount of swelling and bruising and what appeared to be teeth and scratch marks on her breasts (Olivia and Beety 1786). Dr. West, the local attorney's office dentist and forensic odontologist, was called in. He then nonconsensually searched William's whole body, including her vulva. During this examination, he found a supposed bite mark on her thigh that no one else on the inspection team had been able to find. He said that while he was unable to conclude about who had bitten her, he could not rule out Stubbs as a suspect. He also concluded that a part of her labia had been bitten off in what he said may have been, "...an episode of 'intense' oral sex" (Olivia and Beety 1786). Dr. West is merely a dentist and did not have the authority nor expertise to make that judgment, but he was still allowed to present this in court. He did not stop there; he continued to insinuate that the very presence of the bite marks was evidence of homosexual assault. When questioned further on this topic directly in court, Dr. West stated:

In male homosexuality, in those cases of violence, there seems to be a much greater propensity of bite marks. In female homosexual activity, I haven't had enough experience or read anything in the literature, but it's documented that male homosexual activity is much greater in bite marks. (Olivia and Beety 1787)

He had no such evidence for this statement and was blatant with his biases in court, but his evidence was still used. According to Alicia Maule, “Bite mark analysis is particularly troubling because of the almost complete absence of validated rules, regulations, or processes for accreditation that establish standards for experts or the testimony they provide” (Maule). A system that allows such a flawed evidence collection method needs to have more regulation. There is very little regulation surrounding how bite mark evidence is collected, so when it is left up to the abilities of the odontologist, biases like these are allowed to run rampant.

The usage of bite marks as evidence in criminal court trials has been continually proven unreliable. There have been dozens of people sent to jail or worse, sentenced to death, on faulty evidence. Dozens of innocent people could have been saved if there were more regulations on odontologists. Studies have proven that even experts in the field make grave mistakes. It continues to perpetuate harmful stereotypes, especially those involving sexual minorities like lesbians. Continuing to allow such an inconsistent form of evidence is extremely reckless and detrimental to the integrity of court systems.

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Prison Reform in the United States

by Olivia Poore

The United States has a highly complex prison system history, and a topic that has come up over recent years is prison reform within the United States. In this paper, prison reform is any change made to improve people's lives inside prisons. However, prison reform is also complicated and may have different answers leading to the question posed in this researched argument: “would prison reform in the United States help rehabilitation rates and the mental health of prisoners?” There are a large number of lenses to explore when discussing this argument. First, the prison system’s history is vital to understanding where the shift from rehabilitation to mass incarceration has occurred. Another is that mental health within the prison system has drastically and detrimentally affected those incarcerated. By making the mental health issue part of the reforms, improvement to the prison system can be made for the better. Also, how other countries’ prisons handle prison could be implemented in the United States. Finally, looking at the current state and federal aid in reforms is essential, along with prison reform rehabilitation efforts and the positive effect on the community. Although prison reform on as large of a scale as the United States would be difficult, there is potential for more remarkable rehabilitation for prisoners through reform efforts. This paper presents the argument for prison reform in the United States.

The mass incarceration situation throughout the U.S. has a historical background, and it is essential to understand how the system is today. This shift toward mass incarceration started in the late 1960s and early 1970s, resulting in a mass incarceration issue in the United States. Cullen and others mention this shift: “The U.S. incarcerates more people than any nation in the world, including China” (Cullen, 2018). Research has shown how high the United States prison population is compared to all other countries, showing the seriousness of the situation. Cullen also discusses how the United States’ approach to punishment in prisons often lacks public safety rationale, inflicts overly harsh sentences, and disproportionately affects minorities. Before this shift, United States prisons had a primary goal of rehabilitation, believing that positive personal change in inmates could help with post-incarceration success and could reduce crime. However, most rehabilitation goals were abandoned in the era of mass incarceration. The rehabilitation goals were abandoned partly due to the overcrowded facilities, which increased crime, violence, and sexual assault rates. In addition, with inmates under these crowded conditions, a larger population suffers from profoundly adverse physical and psychological effects. These conditions do not rehabilitate prisoners, nor does it help set them up to be more productive members of society. Understanding the history of prisons in the United States is essential to comprehending current prison issues and reform efforts.

To further understand the current issues faced by prisons in the United States, it is vital to acknowledge inmate mental health because this is a leading issue within the prison system. Wilper et al. (2009) conducted a study focusing on the prevalence of chronic illnesses and mental illness issues within the prison population in the United States. The study determined that mental illness is a significant issue throughout the prison population. Ahalt et al. (2020) research also acknowledged the mental health issues within the United States incarcerated individuals population. Another journal article from Rich et al. (2014) discussed how mental health could be a part of the conversation when dealing with prison reform. It outlines how untreated mental illnesses can create a situation where a recently released individual cannot access the necessary resources and appointments. The journal recommends more in-depth behavioral health treatment when discussing prison reform. In addition, when insurance plans incentivize providers to meet the mental health needs of recently released individuals, it helps them get the care they need. These steps can increase healthcare use and reduce incarceration and recidivism by treating these common underlying conditions (Rich et al., 2014). Understanding how mental health affects the prison system and how to reduce it is essential when looking at incarceration rates and re-offence rates. Therefore, mental illness within the prison population is crucial when examining prison reform within the United States.

After acknowledging the shift in the U.S. prison system, it is crucial to understand what can be done in the present day to change the shift. The study by Ahalt et al. (2020) focuses on the positives and negatives of implementing the Norwegian Correctional Service system in four U.S. correctional facilities. This study implemented Norway's correctional approach as inspiration for American reforms. The Norwegian Correctional Service "believes that people go to court to get punished, and they go to prison to become better neighbors" (Ahalt, 2020). The Norwegian approach is a starkly different viewpoint from what the United States has, and learning about this viewpoint could help the U.S. with its mass incarceration problem. Norway leans into this mindset, demonstrated by having its officers trained to play an active role in residents' rehabilitation. The officers' involvement includes using positive incentives, motivational interviewing, intensive mentorship, engaging residents in health-focused programming, and positive socialization. A survey determined that inmates said the intervention positively changed their incarceration experience and prepared them for life back in the community after their sentence. Participants' responses ultimately showed that health-promoting, humane, and rehabilitation-focused prison environments create a safer environment in prison and outside of prison (Ahalt et al., 2020). Acknowledging how a foreign prison approach in the United States affects the prison population is very important, helping show practical applications of potential United States prison reform.

Some measures have been taken at the state and federal levels to aid in reforms. At the state level, as discussed by the Sentencing Project, reforms have been made to reduce the scale of

incarceration, along with the impact of consequences that accompany a felony conviction (Porter & Ghandnoosh, 2021). As discussed in the “Prison Reform” article, many different reforms have been implemented at the federal level. The reforms cover a large bandwidth from inmates’ arrival to their return home. Topics of the federal level reforms include encouraging inmates to develop marketable job skills to reforming and strengthening federal halfway houses (*Prison Reform*, 2022). These reforms, both at the state and federal levels, have positively impacted inmates. The positive impact on the inmates indicates that reforms work and could be worth it for the well-being of prisoners and all those involved in the prison system.

Prison reform efforts in the United States could also help inmates’ rehabilitation efforts, which ultimately help the community when these individuals are released back into society. Serving time in prison does not necessarily help when inmates are reintroduced back into society and often leads to a reoffence. The reoffence rate in prisons is very high within the United States. Common reasons for reoffence include lack of affordable housing, difficulty finding employment, and mental and physical health care (Herscovitz et al., 2021). Through prison reform, inmates can be set up for success while in prison to thrive after they are released back into society. These different prisons have proved to improve inmates’ skills to be successful. It is essential to acknowledge the potential benefits that widespread prison reform would have on the prison population. Being open to improvement would also acknowledge the problem with rehabilitation and reform efforts.

Although prison reform within the United States would be beneficial, only some Americans are on board due to the cost effects. The central pressure point is when it comes to cost, which most of the opposition says is too high and unrealistic. The Department of Justice’s General Report stated a lack of adequate and effective release preparation programming. The money issue is that the bill would lower the inmate-to-officer ratio, which would require paying and training more correctional officers, which is a factor in the cost. Ultimately, country-wide prison reform would cost a lot upfront but could end up paying for itself in the long run. If fewer people are reoffending, the correctional facilities have fewer inmates, resulting in cost savings. The average per-inmate cost of incarceration is \$31,286 per year (Manager et al., 2022). Lowering the reoffending rate results in fewer people in the prison system, ultimately saving taxpayers money and benefiting all Americans.

Prison reform within the United States is complicated and challenging to execute on a large scale. However, the benefits could help prisoners and society in the long run. Central claims in this paper discussed the history of the United States prison system, the mental health of incarcerated individuals, and the options for improvement through reform. Other main claims included how other countries handled their prisons, examining the results of the foreign tactics applied in the United States prison system, the current state and federal aid in reforms, prison reform rehabilitation efforts, and the positive effect on the community. The issues with prisons should not

be overlooked and should be a wake-up call for the government and the public to do whatever they can to help these reform efforts. Research has shown room for significant improvement within society and the prison system with prison reform actions. However, prison reform efforts are needed by many: from the general population to lawmakers. For example, the public could start donating money to organizations advocating prison reform, donating supplies, and volunteering in prisons. On the government side, politicians could lobby for the changes they wish to see in the system, get hands-on experience, and visit prisons to understand the issues, bring awareness to people, and motivate other members to do the same. Eventually, 95% of prisoners currently incarcerated will be released back into the public, according to the Congressional Research Service. Improving the lives of prisoners through prison reform will ultimately help them assimilate back into society when their time comes.

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PGA: STORYTELLING

The Bead Box

by Amy Doerr

When I was a small child, one of my favorite things was playing in my grandmother's bead box. The first time I laid eyes on it, magic sparked in my heart. My inner raccoon sat straight up and inspected the box, her eyes shimmering with elation. The box itself was a gem Nana brought back from a trip to Italy. It was made of a dark teak wood, elaborately carved with biblical themes. It was large and smooth and reeked of coolness. Thousands of baubles were nestled in different sections of the cobalt blue lined box. There were glass, ceramic, and acrylic beads in every color of the rainbow, some with blown glass birds, and cat eyes.

My mom was always supportive of the obsession that was blooming within me; looking back I believe that the raccoon gene was inherited. Her own box is rich with shades of gold and scarlet rubies. She encouraged me to pursue my passion, helping me find books to learn stitches.

After my daughters were born, I was a stay-at-home mom. I did not have a lot of free time or money but I invested in a colorful quilted box and filled it with my riches. I began meticulously stringing beads. Pewter, ebony, brilliant greens, purples, and yellow beads were arranged in sequences of assorted shapes and textures on silky cords and strings.

Unfortunately, through a series of poor life choices, I ended up being incarcerated. When I first arrived, there were no active beaders. One day, as I was scanning a craft catalog, to my pure delight, there they were. My favorite glass seed beads, size eleven, in a spectrum of colors. I had to have them. Along with the beads, I ordered a small beading loom and a nondescript box to store them in. Eventually, beading caught on in the population. A gaggle of raccoons emerged, gathering and rejoicing over the polished droplets. We were sorting, stringing and plotting. Vendors were vetted and contacted to obtain a wider variety of "The Precious."

I organized a small army to do a fundraiser for the organization "Heifer International," a global non-profit working to eliminate poverty and hunger through viable, value-based holistic community development. Hundreds of writing pens were peyote-stitched and adorned with a variety of designs. There were patterns of staggered diamonds, glowing moons, and shimmery stars, footprints in brown sugar sand and candy stripes in every color. Each pen was completed with a squishy foam grip. Over \$1500 dollars were donated to that charity. It felt wonderful to be a part of something that not only allowed us an artistic avenue, but allowed us to give back to people who needed a hand-up. We put our differences, personal agendas, and opinions aside to help others, and surprisingly, we also helped ourselves. The effort highlighted that we were

growing as individuals and that we saw a way to overcome some of the prejudices we held and mistakes we had made. It brought together a group of people who had been through some serious troubles in a joyful, beautiful way. The project created a circle of people unified by our love for our art.

My family became the focus of my attention. My moms and dads, daughters, and granddaughters would all receive hundreds of bracelets, earrings, necklaces, boxes, and anything else I could come up with. When I visited them via video, I saw beadwork throughout their houses. Their windows and shelves sparkled with brilliant hues, art that was designed especially for them. My mom and daughters almost always wore something that I had made them when I saw them. Beads are a tangible element to link us together, even though physically we are apart.

As my work progressed, my love of music began to spill over into my designs, and Hippie Raccoon was born. She whipped out her tie-dyed apron, added waxed thread to her worn needle, and began to create small black velvet bags with Grateful Dead bears on them, fringes dangling from the pouches like stars falling from the skies. Then came the “Steal-Your-Face” chapter, items with the iconic Grateful Dead emblem also known as a “stealie,” which includes a thirteen-point lightning bolt contained within a circle in the center of a skull. For the celebration of fifty years of Grateful Dead music, I created a large piece channeling the artwork used to promote the tour. I was inspired by lyrics from the song “Scarlet Begonias,” which used the line “the sky was yellow and the sun was blue” to create a piece that depicted a dancing bear under a lemon yellow sky and a turquoise sun.

My boyfriend, Brian, began taking my pieces with him when he was following the band on his vacation time. He was in an airport in San Francisco when he ran into a fellow Dead Head. Susan was a professor at a university in Maryland. Brian gave her a few pieces of my work. A few months later she sent me a beautiful “thank you” note, and shared with me that she had forwarded some of my work to a friend who had direct ties to the Grateful Dead. My work was auctioned off to benefit a non-profit that works with people in the music industry who have fallen on hard times. Again, it felt wonderful to share my art and help people at the same time.

My most recent inspiration has been the work of Vincent van Gogh. I designed a triangle box and a sun catcher with long, complicated fringes invoking the painting “The Starry Night.” These projects were made to honor the two most important people in my life: my mom, and my brother. I wanted them to have the best work I could create because they are the best family anybody could have. It is my way of showing them the love and beauty they have shown me, and to thank them for teaching me to appreciate a star even on the darkest of nights.

Beads are a blessing. My bead box runneth over. It is not carved of teak, nor colorful, or quilted. One of the many lessons I have learned is that it is what is on the inside that matters. For some

people, beads or bead boxes might seem frivolous, inconsequential, or even worthless. For me they are a way of life, joining the women and men of my tribe, like a rosary passed down from generation to generation. Each bead carefully connected, prayed for, and cherished by loving hands, coming together in a circle at the end. I hold the faith that my people can see that something so small and seemingly useless may actually have the power to connect with one another and inspire those in their own lives.

The First of 20

by Jovan Marsh

November 23, 2019, my junior year football season concluded. Between that Saturday afternoon and the evening of December 7th I had talked to twenty-seven different coaches, from nineteen different universities. Every day I would be in class and would hear my name being called over the intercom requesting my presence in my coach's office. Every day I would leave class wondering what coach from which university is interested in me today. This simple walk would make my day. I loved thinking about my future and achieving the milestone I set out for myself, to not only become a Division One athlete; but to go to college for free and graduate with my bachelors degree. Trotting to his office with an eclipsing-grin I was almost frolicking with joy and anticipation down the hallway.

However, this particular day I was tired of being called down to the office just for college coaches to ask me how I was doing and to "Get a good look at me." That is what colleges do: they invite you down to the office to see how you look in person, how your body frame is, how long your arms are, they look at your stature, they want to see if you can pass the "eye-test". I have previously walked away from countless meetings with coaches' cards. Which lead me to complain to my friend Aniya about how annoyed I was with this constant pattern of talking to coaches at these big schools/universities and never receiving an offer to play there. I come from a football family. We grow up watching college football all day on Saturdays, I have played football since I was five years old, and I plan to play football on national TV on Sundays one day. I had already talked to the biggest schools I could think of, University of Michigan, Louisville, Oklahoma, Wisconsin, Northwestern, Penn State ... etc. I knew I had the capabilities to play at the next level and in the pros, but I was getting frustrated with time. Aniya told me, "Don't worry about it too much your offer is coming, you just have to be patient." I knew she was right, but my patience was running thin. I would look on social media and see other players from around the Chicagoland area receiving offers from schools that had just come and spoke with me.

December 8, 2019, we are in chemistry class going over review for the upcoming test. I once again got a call over the intercom requesting my presence in my coach's office. This time my trip to the office is not as gleeful. I walked down with a mean mug and visible frustration on my face. I scrape the walls as I walk past as if I am outlining the curves and sutures in the tile. I had to give myself a pep talk before I walked into that office with a solemn grimace on my face. All I could think about was my dream university coming to the school just to tell me "It is nice to

finally meet you we will stay in touch.” when all I wanted to hear was “we would like to offer you a full-ride scholarship to come play football at the university of...”

Finally, I arrive at my coaches’ office. Before entering, I take a deep breath in and breathe out a large sigh preparing myself for anything disappointing and everything positive that was potentially about to happen once I walk through that door. I walk in and it is a heavyset man (Coach Espo) and a medium-build bald man about 6 foot 2 in stature (Coach Dante Wright). These men are dressed in brown and black sweatsuits with the initials WMU on their chest. I shook their hands, and they told me they are with the University of Western Michigan. I play it accordingly as usual; I stand up and give them a smile as I shake their hands. However, this time they asked me to do something a bit different. Coach Wright asked me to stand back-to-back against him and spread my arms out in comparison to his. My wingspan was indeed longer than his. After that we all sit down, coach Espo from Western Michigan proceeds to ask me the usual common questions, how I was doing, do I see myself playing football in college, and if so, at what position.

After he asked me about six questions he stopped and looked at me. At this point we were both looking at each other in the eyes with a suspenseful silence filling the room. I assume this was a test to see how serious I was taking this meeting, and how serious I took my future. Especially considering most of the questions he asked pertained to future academic, athletic, or professional events. He then leans in and rests his elbows on the desk, looks me in my eyes and says, “Well Jovan, you did it. We want to offer you a full ride scholarship to come play football at the University of Western Michigan. I know this was a dream of yours and now you can call your mom and tell her it has come true.” for a second I sit there in shock and disbelief. Slowly an uncontrollable smile creeps across my face. I look at coach Espo, look at coach Wright and then turn my head to my head coach and continue to smile. The only words my mouth could formulate at the time was “Thank you, thank you so much.” He responded back by saying “You earned it” firmly, I shook his hand and quickly exited the room. I barely made it down the hallway before I snuck into the bathroom and burst into tears of joy. Breathing a huge sigh of relief, I could not wait to call my mom and let her know the good news. It felt as if a huge weight had been lifted off my shoulders and I felt blessed as ever to make my mother proud. I had received my first division one scholarship offer which created an insurmountable joy, and an everlasting memory.

This memory was forever sketched into the hippocampus of my brain and that feeling of internal joy was the feeling of genuine happiness I do not often experience these days. Fast-forwarding to April 18, 2020. Covid-19 is in full effect worldwide and I received a call from another college coach. This time, the call was from the defensive coordinator at the University of Wyoming, Jay Sawvel. I was out with a couple of my friends social distancing and tossing the football around to

try and stay active during this quarantine period. I call timeout and go to check my phone and see I have a missed call from an unknown number in the 307-area code. Instantly I go to my voicemail box where I see I have a new message. I raise the phone up to my ear as the strong Chicago wind pierces through the phone, and into my eardrum. I run into this port-a-potty to find shelter from the pressing wind. I listen carefully, as the voicemail said; “Hey, how you doing Jovan? This is Coach Sawvel; I am the D (Defensive) coordinator at the University of Wyoming. I was trying to get in touch with you, I hope you are doing well. Give me a call back when you get a chance, I’ll give you a call back in a bit here... I’ll talk to you soon, take care now.” Listening to that voicemail brought back the same nostalgic feeling I once experienced in my high school coach’s office when I received my first offer.

Impatiently, I called back without hesitation and was excited to hear from him to see what he had to say. Coach Sawvel extended a full-ride scholarship offer to me and I had remained in ‘awe.’ The biggest division-I scholarship I had received! This was the moment I knew my dreams were this much closer to coming true. Towards the end of my recruitment, I fell in-love with the culture of the Wyoming Cowboys and trusted the coaches I talked to. I researched some of the bachelor programs and knew instantly this was the place for me. When my time came to commit, I was filled with poke-pride! That day was just as memorable as the day my recruitment journey started and I am forever grateful for the opportunities I was blessed to have.