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Branches: A University of Maine Farmington Anthology
Celebrating Work from Students Across the Arts & Humanities, Sciences, and Education

University of Maine at Farmington

Gretchen Legler (ed.)

Joseph W. McDonnell

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Foreword

President Joseph W. McDonnell

The University of Maine at Farmington traces its origin to an academy that educated teachers. Since its inception 159 years ago, great teaching has been woven into UMF’s culture. The faculty at UMF has reflected upon their teaching methods and practices in a publication titled, Teaching Matters. We thought this year we might focus on the fruit of that teaching by publishing the work of our students from across the university, in the arts, humanities, sciences, social sciences, and education. We wanted to show that these diverse disciplines are all connected like branches on a tree.

At University of Maine Farmington, we encourage students to compile their academic work by developing portfolios, like artists. An artist does not just say “I completed art courses, received high grades, and obtained a college degree.” As significant as these achievements may be, they risk mistaking the map for the territory. We want to see the artist’s work, her paintings, sketches, sculptures, and installations. The courses, grades, and degree all signify learning, but in themselves do not show the fruits of an education.

Artists are not the only ones who can develop portfolios. Every student in every discipline can develop a body of work – their stories, reflections, memoirs, poetry, plays, insights, analyses, experiments, reports, journals, compositions, teaching plans, and policy proposals. These are the demonstrable results of learning. Over the course of a four-year degree, students can develop a portfolio with thirty or forty different works to add to their portfolio.

The students who contributed to this publication of Branches have shared with us but a single item in their portfolios. I want to thank these students for sharing their work and thank their faculty mentors who guided and encouraged these students. The close interaction between faculty and students at Farmington results in mentorship that inspires students to do innovative work. Finally, I want to express my appreciation to Professor Gretchen Legler for editing this inaugural edition.
Editor's Note

It’s been a delight to edit Branches, an anthology celebrating the creative and scholarly work of our students. I’ve taught here for more than 20 years and have always known UMF as a great place to teach and learn, but this anthology offers me a different perspective on the magic that happens at UMF and reinforces my faith in the vital importance of a liberal arts education.

Branches showcases student work from across the “disciplines” that make up the interconnected web of learning at a liberal arts university such as UMF. Reading through it, you’ll see what a vibrant intellectual and creative community we have created; all the branches of the tree of knowledge complement and inform one another, creating an organic whole that is truly more than the sum of its parts. This vision of an education has its roots in Classical Greece, where philosophers believed that knowledge gained through broad study across the arts, sciences, and philosophy was essential for creating free citizens who would be able to function productively in society by making their own informed choices based on critical thinking, rather than on unfounded beliefs or superstitions.

Dividing intellectual inquiry into disciplines is sometimes seen as artificially sectioning off areas of knowledge that we all know are actually intertwined. The good news is that none of the gifted colleagues I have taught with for two decades jealously guards the boundaries of their discipline. Instead, we work hard with one another and with our students to weave creative webs between our areas of expertise. Some of our happiest moments as professors come when students experience that magical AHA! moment, seeing how their work in literature connects to their work in psychology, or how their work in art has everything to do with their work in biology or mathematics. These are moments experts call “deep learning,” when students truly integrate their intellectual and creative experiences and create new knowledge. These moments of blossoming are ones that each student comes to individually, in their own way, at their own pace over the course of their four year educational journey.

The students who have work in this anthology have demonstrated their love of learning, their mastery of content, their intellectual dexterity, their writing skills, their creativity, their ability to draw connections between complex and diverse ideas, and they’ve spoken loudly to their passion for the world they are educating themselves to be citizens of. They care, and they are already using their educations to make a difference. Visual Arts and New Media major Emma Wallace says it perhaps more succinctly than I ever could: “My work often focuses on the questions of morality, trauma, personal growth, and consciousness, and each media has its own way of revealing these stories. Art is my way of searching for meaning in life. Not just as a career or calling, but as a way of making sense of our shared existence.”

Branches showcases the work of just a handful of our talented students, but it tells the bigger story of how important the work is that we do at UMF, which, by the way, is still one of our country’s best and most affordable places to get a quality four-year liberal arts education.
This director's concept of *Romeo and Juliet* by William Shakespeare means to remove the original time and place from *Romeo and Juliet*, transporting it to a whole new invented world centered around the play's events. It is a colorful, neon, atmospheric world that blurs the lines between reality and performance. The setting of the performance is the masquerade ball at Capulet manor from the play. The audience is in the performance space as if they were attending this masquerade ball and are encouraged to attend wearing attire appropriate for such an event. They are also encouraged to bring their own masquerade masks, but masks would also be supplied at the door. Crew and house members would be dressed up as servants of the Capulet household to have a fully immersive experience. If this was performed in a theatre, the audience—now partygoers—would be free to roam around the stage or performance space rather than be seated. However, this could be adapted to be performed in any space. The partygoers need to be able to roam around as if at an actual masquerade ball. The actors will then perform the entirety of the play in this space around the partygoers. The partygoers then observe the performance from the masquerade ball. This is meant to be completely immersive as if stepping out of time into an otherworldly place.

**Setting and Set**

While this performance can be adapted to many different spaces, there is a general set concept. The setting of the performance is the Capulet manor as if it were the masquerade ball in the play. Because it is the Capulet manor, the set or performance space should be primarily red. Red is the color of the Capulets and color is instrumental to the universe this performance is trying to create. If possible, the floor should be painted to have a black and white checkerboard pattern. This will create an uncomfortable feeling, especially in contrast to the immense amount of color in the rest of the performance. It also represents the conflict within the show. The decor of the space should be maximalist and full of color. Colorful string lights are envisioned around the space. There needs to be a large staircase either in the performance space or constructed as well as a few places where actors can leave and enter for their scenes.

This performance is meant to create a space outside of time so there is no period guideline for any props or set decoration. Props and set decorations will contradict each other in their time period. This is an abstract and absurdist world being created. These contradictions will create dissonance for the audience, further placing them outside of time and space. This should be very intentional. The mixing of time periods should not feel random or silly. While this performance is meant to be very out of the ordinary, its ridiculousness should be taken seriously and with intent.
Masquerade Masks and Color Palettes

The most important part of the world this performance is trying to create is the color palettes. There is often color coding in renditions of Romeo and Juliet to show allegiances and conflict. This color coding will be used heavily in this performance. A lot of detail will go into what colors each character will wear. Because the setting of the performance is a masquerade ball, each main character will have a specific mask created for them. These masks must be distinctive as the performance space will be quite busy with partygoers and they need to be easily identifiable within this crowd.

This concept began as masquerade mask designs and blossomed into a full performance. These masks are vital. Each character has been associated with an animal that felt representative of their character. The rest of their costumes would be designed around these mask designs. There will also be no costume changes.

Paris is represented by the snake. His design has two snakes, one eating its own tail as it comes down the nose bridge of the mask. The base of the mask has a snake skin pattern on it as well. He is an understated and dangerous character. These snakes reflect this. His color is purple as he is affiliated with the Prince with accents of red and pink to show his chosen alignment toward the Capulets and Juliet.

Juliet is represented by a hummingbird as she is seen as sweet and innocent. The beak of the mask mimics a plague mask implying something sinister and foreboding. Her mask is pink to express her weakening loyalty to the Capulets with a bit of blue to represent Romeo. Her mask is covered in feathers and is meant to be very dramatic with an emphasis on her eyes.

Romeo’s mask is a rabbit, an unsettling, sinister yet unsuspecting creature. His mask is full of shades of blue but has many touches of pink scattered throughout to show his conflicting loyalties. There are large white whiskers for added drama.

Tybalt has a striking red cat mask with harsh angles and large curly whiskers. Tybalt is dangerous and fiercely loyal to the Capulets. His mask represents this with a bit of cartoon devil imagery as well.

Mercutio is a neon green lion with a prominent mane to represent his bold personality. His color is green to show he is unaffiliated yet aligned with the Montagues. He has some purple as he is related to the prince.

Benvolio is a whimsical blue wolf as he has the most loyalty to the Montagues. He is a wolf in sheep’s clothing and this mask means to express this.
Falling Dreams: Looping Animation

Emma Wallace

Whether or not I want to make has never been the question. I hardly have to wonder what my next project will be either, as there’s always something to be made. But more often than not I’m asking myself why should I make, why me and why now? I observe, always thinking before I leap into the next project. In the end, my work always reflects this internal wonder and questioning. Now more than ever we should question the world around us. What better way than through art?

My main focus is animation and film, but I work in a variety of media, including installation, painting, photography, illustration, and so on. With such a wide portfolio of styles, it's often the tone of the piece that makes my work my own. I've always had a lot of questions, there’s a lot I want to explore in this life. Everything around me can be applied to my work. With this in mind I have collected inspirations throughout my life and academic career. Each question, each fear, every experience is made universal within art. My work often focuses on the questions of morality, trauma, personal growth, and consciousness, and each media has its own way of revealing these stories. Art is my way of searching for meaning in life. Not just as a career or calling, but as a way of making sense of our shared existence. In order to bring the viewer to the conceptual space of each piece, I utilize the core elements of any medium: the symbols, colors, and motions.

An example of work that embodies these general themes is my Falling Dreams looping animation. In this frame by frame digital animation I drew a soft pink flower/figure falling into an uncanny pool of floating teal water. The flower/figure rests upon the water against a solid black background. While floating the figure transforms from a flower bulb into a human figure. Once fully human the figure peers down at their reflection in the water only to fall through the water starting the “loop” over as she turns back into a falling flower. This brief animation is shown looping in the gallery to be seen for as long as each viewer would like to watch. This piece carries ties to reincarnation, self-discovery, and dream-like versions of ourselves. I chose a loop to present this allegory to reinforce the ideas of rebirth and death. The pastel colors were selected individually for purpose, pink for naivety, teal for serenity, and yellow light for life. The sketchy strokes were selected to further this surreal tone. Art can be a healing thing, and through pieces like this I aim to leave a lasting impression, and for some, I hope to create a safe space for audiences to look inwardly. This piece was made with a more gentle approach that not all of my work will have.

Another animation style I enjoy working in is stop motion.Animating physical objects in a real setting allows me to utilize miniatures and found objects into my work, some of my favorite
materials. I’m fascinated by the idea that a little red button could be a plate in the world of mice, and that a flashlight in my hands is all the light needed to illuminate the stage of a miniature performance. Playing with scale in this way is one of my favorite elements to creating that suspension of disbelief that animation fosters so well. Some of my favorite miniatures in my studio come from unknown places, others from my own childhood, and there are even some I made myself. There’s always something I need to create, and more often than not it’s too grand for me to truly capture; miniatures allow me to shrink down stories and subject matter into a pocket-sized space for conversation.

One of my stop motions, which started out as an animation with a very abstract plot, is now a short film about questioning childhood care. The stop motion animation I eventually made was still somewhat silly, but it couldn’t help develop a story of its own. The animation featured the snow-gloved hands of a “caretaker” who would delicately proceed to feed a miniature “pig” creature (a LEGO piglet). Each step of caring for the “animal” involved painstakingly careful procedures. First collecting special tools (human tweezers, and pocket scissors), which were soaked, cleaned, and then used to collect and snip the pig’s dinner (a coin-sized carrot). The steps of this little dinner were as bizarre as they were similar to real human steps of making a meal or feeding a pet. However, the procedure is more reminiscent of prepping for a human surgery in the amount of caution that is shown. The pigs, though small toys, move as though alive. As odd as this is to watch, suspension of disbelief allows the viewer to pay attention and perhaps even care. I often find that only stop motion can create such odd and wonderful moments as this.

Through small worlds and large topics, there is always something to excavate further, something to bring to life. I think a lot about the viewer of my work. Not as a viewer of my work in particular, or some other ego-driven thought, but as another person. This person may have gone through similar experiences to mine, and they might relate to some other element of my work for their own reasons, or maybe our lives have been incredibly different in all ways. Either way, my goal will always be to make work that translates on a human level and evolves into a place for care and conversation. The experience I create for a viewer will always be my main priority, no matter how minuscule or humongous the art becomes.
Nervous System

Ana Rogers

My works exist to encourage critical thinking that can be transposed onto everyday life and to communicate the experience of being so inundated by diverse narratives in contemporary culture that individuals begin to lose connection with their individuality, desires, and needs resulting in emotional and even social disconnection. To explore these concepts, my works combine fragments of medical imagery, such as the nervous system, uterus, or even tumors, made from materials of our everyday lives, such as plastic and stuffed animals, or through labor-intensive techniques, such as embroidery. While these elements may seem to act as disparate parts, my work builds on a rich history of critical theory that has attempted to explore what it means to be an individual and a human under capitalism.

The experiences of being human under capitalism and our relationship with our bodies are often ignored by studies of capitalism. My works explicitly explore how the increase in opposing messages, images, and narratives under capitalism leads to a lack of grand narratives, something that connects and gives meaning to everything. Under these conditions, like commodities that advertising companies can connect with concepts (i.e. prestige or status) unrelated to the product, the human body becomes something that can have any meaning or narrative attached to it. The lack of grand narratives also allows the concepts of individuality associated with the body to be undermined by technology; the body's needs, desires, and appearances are so mediated through technology that the body merely becomes an extension of technology. This fragmentation and erasure of the body and the disconnection between labor and laborer characterize the experience of contemporary culture.

In order to focus on the experiences of the body, all of my pieces use medical imagery because of its ability to achieve a two-fold impact on the viewer. Firstly, this imagery inherently connects the viewer to the concept of the human, immediately drawing the conversation to the experiences of the body. However, these images also represent a version of the human that is so far removed from what we think of as human – devoid of emotions, personality, consciousness, and idiosyncrasies – that we struggle to see them as wholly human and see them almost as part machine. When everyday objects contrast these images, it helps to focus the conversation on how the body becomes an object and how emotional, social, and physical disconnection has become an element of our daily lives.

Two pieces, Nervous System and Family of Objects, couple this type of imagery with labor-intensive techniques. Nervous System is a life-sized embroidered depiction of the nervous system that spans eight different-sized canvases. The yellow embroidery contrasts the dark gray silhouette of the human form and the matte black background. Family of Objects is a quilted, patchwork,
stuffed uterus made from pieces of stuffed animals. Each square is connected to the other by hand-stitched "Xs." The uterus is presented on a bookshelf next to a Hershey's Bar, a box of Marlboro cigarettes, a speculum, an empty shelf where baby formula should have been, and a purse toy, all labeled with price tags. Both of these pieces use traditionally feminine techniques like sewing and embroidery. These labor-intensive processes directly connect the maker and the process of making the product, highlighting how everyday production alienates the producer. In other words, emphasizing the maker's importance in labor-intensive processes makes the disconnection between laborer and goods even more apparent because, with the everyday object, one cannot recognize the hand of the laborer or the process in the final form. Furthermore, it acts as a form of activism against the power of the global market and harkens back to the arts and crafts movement, which was both dependent on women and dismissive of them. It represents the paradoxical nature of liberation through craft and its ultimate participation in the capitalist system. While not drawing the viewer to a specific conclusion, it forces them to consider the relationships between various concepts and associations, encouraging critical thinking. Both of these pieces explore the relationship between commodification and labor.

Beyond just labor-intensive processes, I also incorporate found objects with the medical imagery because it provides context to the piece that clearly situates it in everyday experiences that the viewers can relate to. For example, *Teratoma* is a large, 9" x 12" x 10" sculpture of a germ cell tumor. The sculpture is composed of a wire frame with a plaster bandage overtop. On top of the plaster are layers of melted plastic wrap, torn, dripping, and layered in various spots. The plastic wrap is painted with pinks, reds, and grays to mimic the flesh of a tumor. Embedded in layers of plastic are sculpted teeth, tufts of synthetic plastic hair, and bits of bone made from plastic. In this piece, the material plays a significant role in understanding it. The use of plastic in the piece connects it clearly to capitalism and excess. Plastic has been essential to capitalism since its invention and inspired an entirely new mindset where material wealth was abundant. This utopian vision of plastic quickly became a reality as plastic items became an integral part of the consumerist culture. When the ideas that plastic represents are presented with imagery of a tumor, one makes the connection between how tumors grow and never stop and the concepts of abundance, a core component of capitalism and materialism.

In the end, my art functions as a way to present relations between various ideas about labor, contemporary society, identity, desires, needs, and capitalism so that the viewer can work to untangle the meaning and interpretations of the piece. My pieces make the viewer responsible for thinking critically about the art piece and, in exchange, the contemporary world around them. Critical thinking is at the core of revolutionary action, and my art aims to bring the awareness necessary for revolution.
That day was otherworldly because the atmosphere felt heavier than usual and the February wind only vaguely cut through Bernadette’s ragged stockings. Yes, the wind was bizarre, somehow screaming, loathsome, but also holding everything in Lourdes quaintly still as it laced through the stony arches of the grotto. Washed over in divine light, Bernadette beheld Our Lady of Lourdes, the gentle mother dove, with an incredulous amalgam of wonder and fear, so strange, yet so familiar.

Bernadette’s exhumation, so many years after her death, found her face looking familiar and supple as the day her soul ascended. The Bishop informed the Sister, “The wind was stolen from her lungs by tuberculosis, but there is no reason for fear if you love God. Look how He has cared for her, even after death.” The Sister imagined her screaming blood into open palms and receiving Last Rites from a bygone priest. *Blessed art thou amongst women,* the Sister recited softly as she set her gaze where the corpse’s fingers rested statically in prayer, ornately laced.

I could’ve sworn I saw her, Bernadette Soubirous, at the dyke bar last Sunday, laced up tight in a corset and chatting up the butchy bartender. Those wide-set eyes were so familiar, like those of a woman who has witnessed something utterly indescribable. A true modern lady, though, she wore her hair in a dark bun with a severe middle part. Girls eddied about her like wind but she had her unwavering sights set on the beauty behind the bar. Her voice a scream under the music and swarming conversations, I could barely make out the bartender’s soft rejection and something in Bernadette’s face like misplaced fear.

She turned her Marian eyes to me. Something like panic bloomed in my stomach, though I had no reason to fear what she might say to me as she laced her way through the cliques and couples and scarcely screamed in my ear but leaned her head lightly on my shoulder and whispered a phrase so familiar that even my drunkenness could not override its triteness: “Let’s go.” As we left, the pure, cool wind brushed away the congested bar air and tangled in the loose hair strands of the sainted lady.

There was a safeness embedded deep in the hands of the sainted lady and when she held mine I felt all apprehension and fear wither and disintegrate on the surface of my skin. Dovelike, it was carried away by the unrelenting wind as Bernadette guided me into the fern-laced forest trail headed off the side of the main road; familiar like an enchanting dream. The trees screamed
secrets among themselves in esoteric tongues. I might’ve cried out, but she radiated the light of a lady who had seen Heaven in the form of a familiar woman. Fear was no obstacle as she laid herself on the soft earth of the forest and unlaced her corset, naked to the night wind.

Her flesh echoed that familiar refrain: *take, eat, this is my body*. Every cell of it screaming silently into the chapel of the wind. I feared that her skin would blister over the adjacent swath of Queen Anne’s Lace.

What fool corrupts the body of such a hallowed woman?
A Confession of Cain

In loving memory of Nathaniel Scott Jacklin

Karly Jacklin

“I didn’t want this to happen,” I tell my brother, Taylor, as we exit a silver van in a near-empty parking lot. An hour earlier, he was picking me up from the airport, but now, somewhere deep in the stomach of the hospital that stands before us, our brother is dying.

“I know,” Taylor says.

“I didn’t want him to actually die. He wasn’t even sick when I said it. Three whole years passed.” I choke on the words as they fall, wet and foamy, out of my mouth.

“His cancer was always going to come back,” Taylor pauses, seemingly contemplating whether or not he should tack on the next part of his statement. He clears his throat, decides that he should say it: “You knew that, and you still did what you did.”

A sickening cry bubbles up in my throat and leaves my lips like a howl. “He was going to be the exception.”

For better or for worse, my brother had seemingly always been exempt to the universe’s natural bend: he graduated from Columbia University with a whopping 1.7 GPA, didn’t get kicked out, and—even more impressively—had gotten back in to Columbia’s teacher’s college for graduate school; he’d kept his full head of hair into his forties until a round of radiation made him lose it; he’d dodged the family diabetic gene; he’d been a high school teacher who found a way to come up with the funds for courtside tickets to the US fucking Open. Was I expected to think that he, of all people, would not find a way to avoid the natural progression of a glioblastoma? It certainly never felt out of the realm of possibilities.

“I wish you’d gotten here, like, a day earlier,” Taylor’s voice pulls me out of my spiraling thoughts. “When we were all still deluding ourselves into believing that, too.”

“Is he going to die?” I ask.

“I don’t know,” Taylor says. His voice is unstable, quiet. He pulls me into a hug before pointing over my shoulder to a strip mall across the street. A law office in the middle of it all bears a tall, neon sign emblazoned with a strange logo. Law Tigers, it reads, Motorcycle Lawyers. “But look at that.”

He turns away from me, starting toward the hospital. I kick pieces of gravel as I walk: just a lame attempt to disturb something peaceful out of misery alone.
The hospital smells overwhelmingly sanitized, and it is cold enough to raise the hair on my arms. I pull my jacket tight around my core. I notice a Starbucks kiosk nestled against a wall, and for a moment, I forget where I am. I come back all too quickly. I am in no airport, no Barnes & Noble, no big name chain grocery store. I am in the hospital and my brother is dying.

“ID?” The employee at the front desk asks. I hand my driver’s license to him.

“Yep. It looks like you,” he says, placing the card back into my open palm. He is too jovial, and this upsets me further. I want to reach across the counter and shake him, tell him to have some reverence, that there are people dying in this building.

Upstairs, the hallway is long and made to look like it is not a hospital, but a house. I am assaulted by the memory of Nate’s oldest daughter’s birth: the smell of a baby mixed in with that same sterile scent I am put off by now; the fear that I might drop her, and the way it was conquered by the joy of being able to hold a brand new person.

Taylor places his hand in the middle of my back as if to herd me forward, to force me to face the truth of Nate’s condition. I wonder, for a split second, if he is able to read my mind; if he is hearing the way I am internally chanting some hymn that says: “I do not want to do this.”

Taylor stops moving me toward the door for a moment, and he squeezes my shoulders tightly.

“He just looks sleepy,” he says. “He just looks sleepy.”

He turns the handle. The room is crowded. So crowded, in fact, that it looks a little ridiculous. There aren’t enough chairs, and so my mother has taken to sitting on the floor. She looks like a child, her knees upright and flush to her chest. It looks wrong, like something I can’t fully comprehend.

The sounds of Nate’s breathing are worse than anything I could have imagined. They sound more than just labored; they sound feral. I have never heard a noise so terrible before, and I am scared. I am scared in a way that I have never felt before and that I hope, in this moment, that I will never feel again. This fear is enough to convince me to shut my eyelids and hold them closed long enough to imagine Nate has already died, like he has been embalmed and is merely a waxy husk of himself—jaw wired shut and body stiff and cold; but when I open my eyes, he is only in his bed, his body made celestial. He is caved in and leaning. No longer a man, but something bigger. Something brighter. He is a waning crescent moon. I steady my breathing before sitting down with him. I hold his hand. I am too scared to lay my guilt out before him alone, and so the room stays full.

“I’m sorry for being a bitch for, like, twenty years straight.”

He squeezes my hand, two heavy pulses. This, too, is language: determined, intentional. Forgiveness, perhaps.

“I love you,” I say.

His eyes float open, pulled from the morphine for mere seconds: “I love you, too. I’ll be fine.”
House Work

Jocelyn Royalty

There was no one but Eliza Hall who could do the work. And there was so much work to do: Mr. Langston liked the floors buffed, not shiny. He liked his coffee piping hot and from a fresh pot. He liked his shoes lined up in perfectly straight lines like little soldiers about to go to war. He liked dinner to last forty minutes and dessert to last twenty. Two minutes to say grace. Three minutes between courses for him to have a few measured sips of wine and pat his mouth with a napkin.

Eliza did not know exactly what it was that Mr. Langston did—only that he was gone for most of the day, his suited figure departing in the blue-dark morning and returning again in the blue-dark night. She had never seen his eyes in the sunlight, she realized in September while she was washing dishes. She liked to see people’s eyes in the sunlight. How the shadows of their irises became so clear in the brightness. Once, she had been in love with a woman whose eyes looked like canyons when she faced the sun: big, tall, ochre slabs of rock like the ones she’d seen when she was twelve, on a sleeper car passing through Utah. Now, she was not in love with anyone. She could hear the soft pattering of Mr. Langston’s socked feet on the floor above her, the gentle murmur of his radio playing Smoke! Smoke! Smoke! (That Cigarette). All summer long, that song had been playing. Sometimes Eliza found herself humming it without really meaning to, her lips pulled to the chorus.

Later, she knew, she would hear the click of his typewriter, that soft sound like someone holding back tears over and over again. It was the third of the month—Mr. Langston would be almost out of ribbon. Tomorrow she would have to walk to the rich part of town where the office supply shop was. She didn’t like it in there. All of the eyes on her. The air that heaved with metal and ink.

The boy had been standing by the door for a while now. She could see his small body out of the corner of her eye, half-hidden behind the doorframe. “You can come out from there,” she said, and slowly he moved forward.

“I wanna help,” he said. His voice was so small, so mouselike and musical that Eliza wanted to kneel next to him and wrap him up in her arms. But she was not his mother. She was not anyone’s mother. She unfolded the stepstool that she used to reach the high cabinets and lifted the boy onto it, his chin now sink-level.

“You can dry,” she said, and the boy said, “Dry.”

“Yes,” said Eliza. “Like this.” She rubbed the dishcloth, the linen printed with initials she didn’t recognize, in wide circles against the inside of a bowl. The boy mimicked her gestures, slow
and precise. “Dry,” he said to the damp and soapy kitchenware, “dry,” as if saying that word alone was enough to make it true.

He was nearly four now. Already, though, his face had the solemn sadness of his father’s. His name was Bartholemew, but he couldn’t pronounce it. When he was younger, he called himself “you.” You want juice, he told Eliza when he was thirsty. You don’t want to play. You sad. Every statement was an accusation, accidentally. Now, he called himself “Arth”—“Arth Lan Stun,” if you asked him his full name. His father dressed him in sweaters and plaid pants like a little professor. He liked to draw birds, like the ones that flew in formation over Fort Allen Park. He liked cookies and the color pink and the secret cups of coffee that Eliza gave him sometimes. Arth’s mother was dead. Mr. Langston had explained this to her when she was hired. A car crash, he’d said, on the way home from the grocery. She had died in an intersection surrounded by oranges and plums and bread flour. A sweet-smelling death, at least. Eliza hoped this would comfort Arth when he was older. When he understood.

For now, he talked about his mother like she was away on some long vacation. “Momma coming home,” he told Eliza as he stacked plates in rattling towers on the countertop. “Soon.”

“Yeah?” said Eliza.

“Yeah,” said Arth. “And then we going to the toy shop. And Momma lets me pick out the bear I want. That’s the rule. When she come home I get a bear.” Eliza had heard quite a bit about the bears. She’d seen them, too, placed evenly around the perimeter of Arth’s bed when she said goodnight to him. To guard him while he slept, he’d told Eliza once. She had said yes, of course, because if she were as small as Arth she would want to be guarded, too. She’d watched him as he slept that night, this strange child ringed with stuffed animals. All of their black button eyes glowed like cats, or reptiles, or the taillights of a dozen cars all parked close together.
Queer existence, much like contemporary epistolary communication, exists in flux with conventional understanding. Over the past century of technological development and worldwide integration, the once ubiquitous age of letter-writing has seemingly passed. The craft of letter-writing has diverged from the once commonplace letter-writing manuals to a form of communication that carries this tradition intuitively while also emerging through the late 20th and 21st century as individually distinct.

Despite this opportunity of individual distinction, a clear tradition has surfaced of the ways that letter-writing offers intimate, unique space for queer communications. Within the writing of the letter the epistoler can tap into a world of nuanced self expression that allows for the cultivation of deep intimacy. This public yet private envelope of open possibility has cultivated a lineage that is indicative of queer opportunity: that which is marked as reverie and affirmation. Within the correspondence of Pat Parker and Audre Lorde, this queer opportunity is distinct and can be seen as representative as the ways that affirmation manifests between epistolers.

The space of the letter provides a radical opening for exploration in queer imagination. Given this correspondence exists between two people immersed in private world, the opportunity for invention opens within the intimate space. The traditions of the queer letter suggest it to be as much a communicative document as it is an explorative document. The sense of queer imagination primarily takes two separate forms. The first is through reverie, an at times utopic imagining of a life that could be lived. This imagined life often negates the status quo in lieu of a queer future that the epistoler may live. This future is one that both centers their queerness as well as one that opposes their current state. The other mode of the letter’s queer imagination is through affirmation. This manifests through the epistolers offering to one another an acknowledgment of their circumstances that exists in opposition to the societal narrative. As opposed to the fantasy of the reverie, this affirmation utilizes the private space of the letter for reality to be reconceptualized through the shared queer eyes of the epistolers. This affirmation is typically done in a manner to negate the overarching narratives of the society: an avowal of the selves within the letter.

Audre Lorde and Pat Parker are two Black lesbian women who first met in 1969 and began a frequent letter exchange beginning in 1974 that continued for the next 15 years of their lives. These women were poets, scholars, and activists who frequently engaged in affirmation throughout their exchanges. This mode is exemplified through a letter penned on February 6th,
1988 where Lorde writes, “Pat, I respect your decision about chemotherapy. ANY DECISION WE MAKE ABOUT OUR OWN BODIES AFTER CONSIDERING FACTS IS THE RIGHT DECISION!” This response comments on Parker’s previously experienced discomfort with multiple people within her life insisting on specific modes of treatments for Parker’s breast cancer, a condition that Lorde shared within her life. As opposed to commenting on the debate or responding to Parker’s concern that Lorde would disapprove of her treatment, Lorde crafts a powerful declaration of love and autonomy. Not only through direct words of respect, but also through the craft choice of capital letters to emphasize the importance of autonomy within Parker’s decision-making.

Lorde affirms not only through the uplifting of Parker’s autonomy and power to make trustworthy decisions about her body but also through the ways that she communicates the shared struggle between both women. Lorde affirms Parker’s state of unease through the identification of Lorde’s own self-affirmation of their shared experience of breast cancer. She continues, “We’re in a fucking war, baby, we’re warriors and we got scars . . . The fact that we’re writing these letters to each other is a triumph, Pat, I feel it and want you to feel it too. You been doing what you came to do, sweetheart, and I think you changed the world.” Lorde emphasizes the sensation of being a “warrior” against breast cancer and emphasizes that the intimate space created between them in the form of the letter is in itself a “triumph,” affirming the very space of the letter as radical and meaningful.

Lorde elevates the tension Parker feels through the constant opinion on her breast cancer as not only an interpersonal issue with the advice-givers but rather indicative of society’s devaluation of cancer and specifically of the devaluation of Black lesbians. She writes, “BULLSHIT on it’s our anger that caused our cancers! How much strontium-90 and racism have you absorbed today? I feel it’s my anger that has helped keep me alive and what else are we supposed to erect against their homophobic racist sexist poison - a submissive grin? WE WERE NEVER MEANT TO SURVIVE so under the circumstances, girlfriend, I think we’ve done pretty well” (Sister Love: The Letters of Audre Lorde and Pat Parker 1974-1989, 89-90). Lorde punctuates again with capitalized remarks that emphasize the resilience of the two women alongside the assertion that their righteous anger toward the oppressive American institutions does not in any way contribute to the diagnosis of breast cancer. The consistent usage of plural pronouns and Lorde’s use of “girlfriend” demonstrates the unifying quality of the letter that seeks to combat the isolation that Parker reports feeling after coping with her diagnosis. Lorde challenges the narrative that anger worsens cancer diagnosis by offering the alternative that “it’s my anger that has helped keep me alive.” Lorde affirms Parker not only through their shared experiences but also through her gesture toward the very act of survival against systems against one’s self.

The sense of affirmation exists in the intimate space of the queer letter. Shared between the two women as Black lesbians who have experienced society’s opposition to their survival, this intimate space unites the deep sensibilities of both resistance and love. Through the imaginative, private space that exists between Pat Parker and Audre Lorde through correspondence, their own realities and lived experiences become the dominant discourse.
Joel, a brutal survivor hardened by a devastating fungal pandemic, is forced to endure everything thrown his way by the ravaged world that surrounds him. Many people became engrossed in this plot in the Spring of 2023 when HBO launched its hit series *The Last of Us*. However, this plot arc was originally deployed in Naughty Dog’s *The Last of Us (TLOU)* video game franchise in 2013. Yet in many circles, both casual and academic, story-driven video games are not given the same assumption of complexity that is so freely awarded to written works or televised dramas—despite many of the same narrative strategies being utilized by both writers and game creators to enact emotionally affective bonds between readers, gamers, and characters. In fact, *TLOU* draws upon rhetorical techniques found within written works such as the exploitation of player empathy—a dynamic illuminated by Moral Foundation Theory—and ultimately demonstrates that video games are deserving of sustained critical analysis.

When most people think of video games, they conjure simplistic platformers such as the Mario franchise or the games it inspired. In fact, narrative-based video games have evolved immensely during the many decades since their original text-only form with *Colossal Cave Adventure* (Crowth, 1976). Working within this story-based lineage and falling under the genre of survival-horror, the narrative of *TLOU* exposes the player to situations containing varying levels of outright violence and questionable moral decisions. The 20-30 hours of required effort needed to complete the game is a sizeable length of time for a player to be immersed in a singular, cohesive story. Comparatively, it takes the average reader a mere ten hours or so to read a 300-page novel. If authors can create empathetic bonds with potential for high emotional impact within that stretch of time, the same can surely be said of a visually cinematic story three times the length.

Player-empathy traditionally serves as a source of fuel for horror components within linear survival-horror games. To take one canonical example, the utilization of empathy in *Resident Evil 4* (Capcom, 2005) contributes to a tense and frightening atmosphere as the game developers slightly skew the odds of each moment of conflict in the favor of the player-character (PC). The player’s empathy for the wellbeing of the PC is what enables threats to the PC’s safety to become far more alarming. Through the marriage of third-person shooter combat with a zombie apocalypse narrative, *TLOU* inhabits a similar empathetic space. The creators of *TLOU* utilize the player’s empathy towards their PC to go beyond simply increasing the stress of each fight or propelling the horror components contained within the narrative. *TLOU* follows protagonist and main PC Joel Miller, alongside feisty

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1. I will use this acronym to refer to the first game rather than the franchise as a whole.
assist-character Ellie Williams, on an apocalyptic cross-country trek to the Firefly\(^2\) Lab. They are armed with the goal to aid in the creation of a cure for a fictional fungal infection (to which Ellie is immune) that plagues this version of America.

However, the emotional core of the story centers around the complicated and multifaceted, yet initially tenuous, bond between Ellie and Joel—as well as the extent to which the two characters will go to keep each other safe. When they arrive at the Firefly Lab, Joel is informed that Ellie is being prepped for a life-ending surgery removing a mutated fungus from her brain to reverse-engineer a vaccine. In that moment, Joel decides that Ellie’s life is not a price he is willing to pay for a cure. He ends up rescuing a sedated Ellie but slaughters several people in the hospital—including Marlene\(^3\) and immensely valuable surgeons. When Ellie wakes up, he lies and tells her that several others were immune and that she was not needed by the Fireflies. Once the two return to Jackson County,\(^4\) Ellie confronts Joel and asks him to swear that everything he said about the Fireflies was true. In this moment, he pointedly lies once more, thereby betraying her trust.

The application of a Moral Foundation Theory (MFT) domain illuminates the moral negotiation within the player while searching for justification of Joel’s actions. Hodge et al.\(^5\) have developed a useful categorization of the MFT domains, specifically regarding in-group loyalty/betrayal (214). This can be meaningfully applied to the final hour of *TLOU* during which Marlene informs Joel that Ellie must die for the cure. The MFT domain comes into play when considering the fact that Marlene, while head of the Fireflies and not necessarily a member of Joel’s inner circle, is still a living, sentient human being with free-will—that is, a part of the same, much larger “in-group.” Marlene’s willingness to sacrifice Ellie’s life registers as a colossal breach of loyalty after devoting multiple hours to an intense bond with Joel.

Additionally, Marlene’s apparent betrayal allows the player to begin empathetically justifying the later course of action that Joel takes when he murders countless other living humans in the name of saving Ellie—thus embodying the game’s complex moral negotiation. The player’s subsequent justification of Joel’s actions, seemingly disregarding his lack of socially appropriate morals, extends the role of player empathy beyond what is traditionally found in the survival-horror genre. So, while Joel is not a good man—a fact that the player should be constantly cognizant of—after spending nearly 20 hours with him in *TLOU*, the player begins to adopt his perspective on the situations at hand due to the bond that forms between player and character.

Analysis of questionable character actions within *TLOU* reveals that the effect of the bond between player and character is very similar to that between reader and character. As the player-character relationship develops across hours of several emotionally-exhaustive inhabitation by the player, the application of moral justification becomes intertwined with biases and leads to an inaccurate, manipulated understanding of the true narrative. Thus, the role of player-empathy is extended beyond the traditional role in survival-horror video games and forces the player to question their own willingness to morally negotiate in *TLOU*’s problematic moral context.

\(^2\) The Fireflies are a fictitious and rebellious faction that opposes military oppression within the
Quarantine Zones. They seek to restore government control and are popularly viewed by players as an antagonistic force.

3 Leader of the Fireflies, temporary caregiver for Ellie, and once-ally with Tommy Miller (Joel’s brother).

4 Jackson County is one of the several locations that Ellie and Joel travel through on their way to the Firefly Lab and also where Tommy lives with his wife, Maria.

Education has long been a road marker for the separation between the haves and have-nots, the country folk and city folk, Black and white. A degree-holding urban schoolteacher can attract the hostility of the rural lower class, regardless of the help they can provide. In past centuries schooling, being a privilege, has been a clear sign that someone is better off. Though there are many personal benefits to education, when put into a social and class context, it becomes a dividing force. In two canonical American texts; Washington Irving’s *The Legend of Sleepy Hollow* and W.E.B. Dubois’ *The Souls of Black Folk*; this hostility towards the educated (and the educators) is shown to cross both racial and regional lines.

The first important divider between educators and the people they must teach is the issue of class. Looking back to 1820, in *The Legend of Sleepy Hollow*, this classism inherent in early American education is explored. Ichabod Crane is a fish out of water, a “Native of Connecticut, a State which supplies the Union with pioneers for the mind… and sends forth yearly its legions of frontier woodmen and country schoolmasters” (Irving 5). Teachers of that time are missionary-like, dispatched to bring knowledge to the still-untamed wilderness territory. Education here is a civilizing force, and the educated have a responsibility to the country to teach all of its backwards yokels.

Crane is unable to fully integrate into the community of Sleepy Hollow because of his privilege. The cultural reasoning is that:

*The schoolmaster is generally a man of some importance in the female circle of a rural neighborhood; being considered a kind of idle, gentlemanlike personage, of vastly superior taste and accomplishments to the rough country swains, and, indeed, inferior in learning only to the parson. (Irving 7)*

Crane becomes the target of local tough guy Brom Bones, who launches a campaign of “boorish practical jokes” against Crane, where Brom “smoked out his singing-school by stopping up the chimney; broke into the schoolhouse at night… turned everything topsy-turvy” (Irving 16). Crane becomes the easiest target for the airing of grievances against the classism of education.

If there can be so much resentment simply because of regional differences, then it stands to reason that education becomes doubly controversial once the issue of race is involved. In his collection of essays, *The Souls of Black Folk*, W.E.B. Dubois discusses the problem of education for freed slaves in the Reconstruction Era. In the essay “Of the Coming of John,” Dubois tells the
tale of a young Black man who travels to the North to seek out an education. John Jones is initially a bit of a country bumpkin: “He did not know how to study; he had no idea of thoroughness; and with his tardiness, carelessness, and appalling good humor, we were sore perplexed” (Dubois 523). This implies that schooling might be able to fix all of these character defects, and turn a simple hayseed into a respectable intellectual.

Here is the transformative power of education: how much it changes John, ostensibly for the better. Yet some of these traits, such as awareness of oppression, may cause conflict when he returns to a racist society. When John is threatened with expulsion, he begins to make a drastic change in himself, in order to be worthy of the privilege of learning. He returns to school and applies himself fully to the work, transforming into a more civilized and aware person.

Now and then his boots shone, and a new dignity crept into his walk… he first noticed now the oppression that had not seemed oppression before… he felt angry now when men did not call him ‘Mister,’ he clenched his hands at the ‘Jim Crow’ cars, and chafed at the color-line that hemmed in him and his (Dubois 525).

As education changes John’s mind, it raises his status, and this new perspective on the world has caused him to view himself as a first-class citizen, and being an educated man means that he now expects to be respected. Education has helped John, but that does not mean that there won’t be consequences for his new sense of ‘superiority.’

These social consequences are immediate, and create a clear divide between John and the people who used to be his peers, as well as drawing hostility from racist white locals. When John returns to the South, to his hometown, he returns with the idea of being an educator and thus a civilizing force, coming into conflict with his neighbors.

This silent, cold man,—was this John?... ‘Seemed monstus stuck up,’ complained a Baptist sister. But the white postmaster from the edge of the crowd expressed the opinion of his folks plainly. “That damn N*****,’ said he, as he shouldered the mail and arranged his tobacco, “has gone North and got plum full o’ fool notions; but they won’t work in Altamaha” (Dubois 529).

John is too educated, too refined, to be a proper part of the community. He never reconciles this separation, eventually realizing that “every step he made offended someone,” which leads him to being dismissed from a teaching job for rocking the boat with revolutionary ideas (Dubois 531).

Both Ichabod Crane and John Jones are detached educators. While Crane has it easier due to a lack of racial barriers, they are both still viewed as arrogant. This view is supported by the fact that Crane and John both come to their towns with the goal of civilizing, assuming that the locals need something that only teachers can provide. In a time when education is not considered a right but a privilege, the presence of an educator is not the great unifying force that it’s intended to be. When class is such a pervasive factor in society, everything can still become a contentious distinction.
Bibliography


Running back or backstroke? The impact of a male athlete’s status on perceptions of gender nonconforming behavior

Brandon C. Martin

Introduction

The judgment of social status for men in Western culture is determined by conformity to preconceived standards of masculinity, surrounding values of dominance, competitiveness, and opposition.1-10 Sport has been a historic platform for masculine expectations,1,2,4,7,9,11,12 enabling reinforcement and active engagement in traditional masculine values of power, dominance, and strength,1,2,4,7,9 and gender role conflict (i.e., restricted emotionality, success, power, and dominance),13 and plays an important role in the development of men during adolescence.1,14

During adolescence, boys face increased expectations to conform to masculine norms.15-17 The ability to demonstrate sport competence and prowess is an important aspect in many young men’s social status, identity, self-worth, and perceived masculinity, and is dependent on excelling in the right, masculine, sports (i.e., football, hockey, soccer),1,14 that feature physical contact, face-to-face opposition, and strength and aggression.3-5,7-10,18 However, little is known as to how an adolescent male athlete might be perceived, \ if they engage in a masculine sport but \ appear feminine or gender nonconforming. It has been suggested that those seen as athletic are given greater flexibility with their masculinity,19-21 but further research is needed to examine to what extent flexibility is afforded to an adolescent male athlete.

Adolescence is also a time where males experience peak policing of masculinity (POM),20-26 by reasserting gender norms or insulting a man’s masculinity through social punishment.1,3,14,23,25,27-35 Similarly, conformity to masculine norms is at its highest levels of endorsement for young men in their early twenties22,24 and lessens with age.24,40-47 However, there is an interest in evaluating if POM shifts throughout the aging process, and if age influences the perceptions of gender nonconformity of a male presented in a masculine space (sport), in a time of life where conformity expectations are highest (adolescence).

Thus, the current study addressed the following hypotheses:

1. The vignette target’s sport (H1a) and status (H1b) will predict perceived masculinity; swimming and varsity star will predict higher perceived masculinity.
2. Participants’ own conformity to masculine norms (H2a), gender role conflict (H2b), and POM experiences (H2c) will predict perceived masculinity of the target; greater endorsement and experiences will predict lower perceived masculinity.
3. Participants’ age will predict conformity to masculine norms (H3a), gender role conflict (H3b), and POM experiences (H3c); greater age will predict lower endorsement and experiences.
Method

American, male-identifying participants were recruited through Amazon Mechanical Turk in the spring of 2021. Participants in Study 1 (N = 81, Mage = 38.3, SDage = 10.3) simply ranked ten sports and ten fashion accessories as masculine or gender-neutral10. Study 2 (N = 198, 72.2% White; Mage = 37.3, SDage = 11.2) utilized a between-subjects design that randomly assigned participants with a vignette of an athlete, manipulating for sport and team status (junior varsity backup or senior varsity star). Based on Study 1, football (masculine) or swimming (gender-neutral) were chosen as the comparison sports, and pink nail polish was chosen as the gender nonconforming behavior. Participants rated the vignette athlete (i.e., how masculine, athletic) on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), and also answered questions about their own adherence to masculine norms, masculine gender role conflict, and experiences being the perpetrator (agent) and target of masculinity policing,34

Results and Discussion

To evaluate whether the target’s sport (H1a) and status (H1b) would predict perceived masculinity, a two-way ANCOVA was conducted to control for age, conformity to masculine norms, gender role conflict, and POM. While sport was non-significant (p = .077), a main effect for perceived masculinity of the target and status was found, F(1, 153) = 5.47, p = .021, η2 = .034, supporting H1b. Gender-neutral sports are typically rated more masculine than feminine,6,47-49 and sport participation in general, reflected by its historical value and engagement with masculine values,1,2,4,7-9,11,12 could explain the non-significance of sport on perceived masculinity. Intriguingly, the gender nonconforming behavior did not seem to be perceived differently as a function of the target’s sport. H1b does offer support for men with greater social status to be afforded flexibility in their masculinity,19-21 but this requires further attention.

To evaluate whether participants’ own conformity to masculine norms (H2a), gender role conflict (H2b), and POM experiences (H2c) would predict lower perceived masculinity of the target, a multiple linear regression was conducted. Conformity to masculine norms, gender role conflict, and POM experiences predicted perceived masculinity of the target, explaining 14.5% of the variance, R2 = .15, Adj. R2 = .11, F(7, 169) = 4.09, p < .001. For gender role conflict, greater restricted emotionality predicted lower perceived masculinity (β = -.25, p = .004). Surprisingly, greater POM experiences as a target and agent were related to greater perceived masculinity (β = .38, p < .001), opposite of H2c. No support was found for conformity to masculine norms on perceived masculinity (H2a) (β = -.03, p = .73).

To evaluate whether participants’ age would predict their conformity to masculine norms (H3a), gender role conflict (H3b), and POM experiences (H3c), linear regressions were conducted. Participant age predicted being the target of POM experiences (β = -.20, p < .01), which decreased with greater age, R2 = .04, Adj. R2 = .03, F(1, 183) = 7.43, p < .01, but did not predict agent (p = .10) or emotional impact (p = .08). Participant age also did not predict conformity to masculine norms (p = .76) or gender role conflict (p8 = .26-.64).
Opposite to H2c, those with greater POM experiences perceived the target as more masculine. Maybe an older sample (Mage = 37.3), past adolescence where POM and conformity are highest,1,3,14,20,22-35 are more likely to perceive the target on the basis of their sport participation rather than their gender nonconforming behavior. Decreasing POM experiences with greater age, evidenced in H3a, and decreased expectation to conform to masculine norms with age24,40-47 could provide additional support for this (lack of) effect for H2c; however, conformity to masculine norms did not significantly change with age (H3b). Therefore, future research should continue to evaluate how age, conformity to masculine norms, and POM experiences may interact to influence masculinity and perceptions of other men.

Note: This work is a revised version of a Senior Thesis from spring 2021, which was supported by the Wilson Scholar Program. The original Senior Thesis is posted, and can be accessed, on ScholarWorks: https://scholarworks.umf.maine.edu/undergraduate_theses/1/

References
To: The Office of Governor Janet Mills

From: Mariah Langton, Maine Policy Scholar, The University of Maine at Farmington 2018-19

Subject: TRIO Programs on The University of Maine System Campuses

Issue: By definition, first-generation college students are students in college degree programs who do not have a parent with a four-year degree. These students made up 44.0% of the Fall 2018 incoming students in University of Maine System campuses. This is almost half of the entering student body, and yet, many of these students are still struggling throughout their college career. This is due to a variety of reasons that are closely related to being a first-generation college student. To combat these issues and to help these students, each UMaine system campus, excluding the University of Maine at Machias, has a TRIO program, usually under the name of Student Support Services, on campus. They are available for first-generation college students to take part in throughout their college career.

TRIO is a federally funded program that President Lyndon B. Johnson started that helps students from disadvantaged backgrounds, such as first-generation students, obtain a college degree. TRIO Support Services offer a variety of resources including free tutoring, mentoring, and other programs that vary from campus to campus. However, TRIO programs are limited in funding and in the number of students they can serve. Due to this, many first-generation students still struggle due to their inability to access these programs and the resources they offer, or if they are in the programs, the resources that are available may vary due to a lack of funding.

First-generation students, as I mentioned before, face many challenges that other students are less likely to have. Many of these issues stem from financial and familial issues. Oftentimes, these students experience something called “Achievement Guilt,” which is when a student feels guilty for being at college getting an education that their other family members did not get to experience. This could lead to students feeling like they need to minimize their academic success when it comes to talking to family members. This could also pertain to the guilt of first-generation students who are also low-income, which is usually more than half of the students. For example, at the University of Maine at Augusta, their TRIO program serves 360 students, 63% of whom are both first-generation
and low-income. They may feel achievement guilt on a different level because they may feel guilty that they are not contributing as much to the household while they are away at school.

However, the biggest issue these students face is financial. Almost 25% of first-generation students surveyed at the University of Maine at Farmington work multiple jobs on top of taking classes. Students surveyed identified financial issues and trouble paying for school as one of their biggest stressors. If we want these students to succeed, and we do when you consider that they make up close to half of all students in the public university system, then we need to provide both them and the TRIO programs with more support.

**Maine Policies in Place Today:** Currently, there is only one Maine policy that relates directly to first-generation students. The law, 20-A §10013 is a requirement that all schools in the University of Maine System and the Community College system submit a yearly report that summarizes data such as graduation rates for first-generation students compared to those students who are not first-generation. This law also required the schools to report on what services they provided to the students, such as tutors, peer mentors, or financial advising. In regards to that, the programs must come up with a plan to raise first-generation graduation and enrollment rates. While it is not a law or a policy, National First-Generation Student Day is celebrated on November 8th every year. At the University of Maine at Farmington, we had our 3rd annual First-Gen Celebration. This is a full-day event where both non-first-generation students and first-generation students can learn more about first-generation students by sharing their college journey stories, creating collaborative art displays, and a variety of other events throughout campus. It is a day that brings awareness to those students who often go unnoticed and unrecognized for how they power through the daily struggles they face. Other than the above described law and the First Gen Day event, there is no policy or tradition on the state-level that focuses on first-generation students, which shows how invisible they can be, not only to the college campus but to the state as well. There are plenty of policies that apply to the entire UMaine system, but as mentioned earlier, these students are at a disadvantage. They need support systems that are supported financially and they need to feel supported and valued by the campus and by the state.

**Recommendations:**

- Allot additional funding for the University of Maine System specifically for first-generation students. This money should go to expanding support services such as peer mentors that are offered to all first-generation students, not only the students that are in TRIO programs.
- Recognize First-Generation Day in the state of Maine. This will bring more awareness to this group of students and hopefully encourage campuses to celebrate/recognize the day in various ways, possibly following the University of Maine at Farmington’s tradition.
- Focus more on National TRIO day, which is February 28th. While TRIO programs from across the state have a set up in the State House around that day in the Hall of Flags, attendance from Legislators has not been great in the past. If there is more talk about the importance of this day

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1 Hinkley, Brianna, et. al., 2019.
and meeting the people that are there for TRIO day from across the state, more legislators may become aware of the importance of this subgroup of students.

- Create a subcommittee in the Education Department that focuses on first-generation students. This subcommittee would not only be for college students, rather, the committee would focus on children from preschool up throughout college in order to make sure that they are receiving the support they need which may include more access to TRIO programs throughout the state.

**Works Cited**


Learning Birth-Eight-Years Old Literacy Methods In Nature

Emma Goltz

Hiking up mountains like Mt. Battie in Camden, Maine, with roots and stones in my way, taught me perseverance courage. Watching for owls and other birds taught me patience and important identification skills. Watching fawns prance gleefully in our backyard taught me about play and whimsy. Additionally, sometimes nature taught me lessons that were harder to swallow. Walking barefoot on the beach over sharp rocks taught me to be more prepared, while seeing roadkill on the side of my road taught me how temporary life can be. Above all, nature and learning outside has taught me about community and how we are all connected. It has helped me develop a relationship with the natural world, which is so needed in this age of climate change. The impact of these experiences is deep and long-lasting.

How exciting for me then when I came to UMF and in my Sophomore literacy class with Professor Cara Furman a big focus was on teaching literacy outside. There we talked about how all of these concepts and conversations with children about nature lead to a richer understanding of the world around us. Further, and the focus of her class, engagement with nature can be used to influence skills like storytelling, a critical piece of early childhood literacy and literature education.

We don’t remember everything that happened that semester but we can all tell the story of the day a tree fell in the woods behind us while Dr. Furman wrapped up class. In nature the child’s language
and ability to communicate that language can make strides in a way that doesn’t always happen with such ease inside. Describing a stick or the spring air, we could cultivate vocabulary and practice adjectives. The beauty of the outdoors is that it invites us to make meaningful literacy moments happen with children.

Here I offer just a few nature-based literacy lessons popular with me and my peers. For each, I begin with a summary and the step-by-step directions for anyone to try.

1. **Creating Alphabet Book with Naturally-Occurring Letters**
To help children make connections between letters of the alphabet and the real-world, in this activity children look around the natural environment to see the connections of lines and half shapes that are used to create letters.

- Read different alphabet books, especially those that show letters made out of other materials/animals, etc.
- Talk about what each letter looks like, what lines you need to make it, if there are half circles or other shapes you can find in nature that occur in the alphabet letters.
- Explain that you can make letters, or see letters made in your natural world, if you just look hard enough and are aware of what the letters look like/are made of.
- Go outside and look for a few examples of natural letters as a group and talk about what you see; take some pictures.
- The teacher could then assign different letters to each of the children or assign groups of letters to small or large groups of children to look for.
- Ask them to walk around in the natural environment and look for the letters, taking pictures of natural letter formations to show the whole group.
- Use pictures to create a class alphabet book.

2. **This is a Stick (Making Stories from Nature)**
Describe item (such as a stick) collaboratively to learn more about it. This activity also helps children to work on vocabulary and description skills as well as builds connections between words and their meanings.

- Go outside with your class and let them wander, looking for natural objects, such as sticks or stones. Having this discovery period facilitates engagement.
- Allow students to participate in helping pick the object to focus on.
- Once there has been an object chosen, gather the students in a circle and place the chosen object in the center.
- Have students make observations and think quietly about how they would describe the object.
- Next, have students go around the circle and each choose a descriptive word to share about the object.
-The teacher records the descriptive words the students share, as these could be used in the future for stories about the object of focus.
- The teacher can be a guide and support students that are stuck when describing the object, by asking prompting questions, often about different senses that the object interacts with.

3. Self-Portrait and Story
How do you present yourself to others? How do others present themselves to you? This activity helps children better understand themselves and become more comfortable with using descriptive and comparative language, while also forging connections between children in the process. Bonus, this activity came from Kristen Bullard, another UMF alumn!
- Take your class to an outdoor space abundant with different natural materials, such as leaves, acorns, sticks, stones, and pinecones.
- Tell children they will be using natural items to make a picture of themselves. For some groups of children, it might be helpful to have an example self portrait.
- Give students ample time to collect and create their portraits.
- As they finish, announce that it is time to view the gallery of self portraits and have students carefully walk around to see everyone’s art.
- Finally, gather the students and have them reflect on their creative progress and how their portrait differs from their peers by using descriptive language.

As a student in Dr. Furman’s ECH 201 class and then later as a teaching assistant in the same class, we routinely found opportunities to ask questions about how we could deepen learning experiences about literacy for children. When we transitioned to having some classes outside, those questions broadened and expanded in depth, allowing us to critically think about how to encourage intentional literacy learning opportunities in nature. Moving outside, we had to come up with creative solutions on how to teach areas of literacy that we previously had routinely done inside. By thinking critically, we found new ways of teaching and new ways of engaging children in their learning.

In my last semester at UMF, I interned at the Bowdoin College Children’s Center in Brunswick, Maine, where there is an emphasis on outdoor discovery and learning. While the school avoids more conventional academic teaching, I learned how the children were absorbing new literacy content every day through their elaborate storytelling in nature and through listening to their teacher’s descriptive language usage. Today, as a new graduate of UMF, I continue to use the lessons learned in Dr. Furman’s class and our different experiences together as I remember to keep a creative and observant mind when I bring children outside. I recognize how there is so much for the outdoors to teach us and to integrate into literacy education, for both children and educators alike.

Literacy education doesn’t have to always happen within the four walls of a classroom. Literacy and children’s literature education can happen outside as well, where children can thrive as they craft stories and learn essential skills that help contribute to their academic focused milestones.
I think back to what nature has given me, as a student and teacher and make it central for my students going forward.

**Note:** A special thanks to Professor Patti Bailie, whose wisdom and experience with nature-based education inspired and supported us.
“Educators see students doing hard work, while students see themselves serving hard time.” (Grumstrup, 2022 quoting Flantzer, 2003). Are students doing hard work or are they struggling under the massive workloads and the prison-like structures of schools? Across the country, there are millions of children who attend school at various levels who are struggling with oppressive conditions, including lack of mental health professionals, large class sizes, punitive consequences for behavior, and low funding (Rehabilitation Enables Dreams, 2023). The problems don't stop at just the students; the teachers and staff are also facing issues that are making it harder for them to do their jobs.

One factor that makes schools feel more like prison-like institutions is the presence of armed police. School should be a place of education and enlightenment, not a place that is guarded and watched by hawklike officers. Not too long ago, we could have hardly imagined having police officers in schools; now this is commonplace. Students can now even receive tickets for school infractions. This is extremely problematic, as it adds stress that is being placed on the heads of those who should be free to soar in the classroom.

Mental health is another contributing factor that makes schools feel more like institutions, as more and more teens are having to deal with mental health problems from COVID-19. According to recent data, 37 percent of high school students reported they experienced poor mental health during the COVID-19 pandemic, and 44 percent reported they persistently felt sad or hopeless during 2020. (CDC, 2021). There is a nationwide lack of people certified to help students understand what is happening and how they can treat it, including within schools.

Another issue that is leading to schools feeling more like institutions is large classes. This creates problems as teachers are forced to divide their time among more students, resulting in less one-on-one work and more undesirable behavior as students struggle with a weaker support system. When reading an article about a 7th grade teacher’s experience with school it was interesting to see a quote by one of his students “Why is school like prison? We don’t have any freedom here. The teachers just order us around, and tell us what to do, and if we do anything they don’t like, we get punished for it” (Mulder, 2016). This is an interesting quote as it paints a picture of life as a student required to show up to school every day and do the work that is assigned. Students in the same article agreed and added how they wanted more input into what happens in school. The role of teachers should not be to police, but rather instead to open the minds of students and educate them on the world around them.
Who knows how to catch better, the fisherman or the fish? I would argue that you must ask both of them. This applies to education as well, as student input is crucial to better understanding what they need and how to better accommodate them in the classrooms. Another factor is giving teachers enough time to plan, both individually and with colleagues. This would ensure that there is much better information being shared, and it would also allow access to the wealth of information that is now available thanks to the internet. Merritt (2016) found teachers have an average of 45 minutes of planning time per day within contract hours (range 12 to 80 minutes for elementary and 30 to 96 minutes for secondary). This article puts into perspective how little time teachers are being given to planning out their days. No wonder schools are feeling like prisons. Teachers are lacking the time that they need to communicate and be effective.

This also brings up another problem, as lack of time for planning leads to teachers having to do lots of unpaid work outside of school; forcing them to do more work increases burnout. Forty-four percent of teachers say they "always" or "very often" feel burned out at work, outpacing all other industries nationally (average of 30%). Additionally, college and university workers have the next-highest burnout level, at 35%, making educators among the most burned out groups in the U.S. (Gallup, 2022). We need teachers to be healthy and ready to teach the next generations. Teachers are being overworked and underpaid and this is leading to worsening schooling and schools themselves turning into prisons for students.

History has shown that improvements in education have had beneficial impacts on students and the country as a whole. However, we need to have awareness about what is going on before we can change it. All across the country, there are schools and students begging for help, there are teacher shortages everywhere, and getting a good education still remains a challenge for some. School can no longer be a prison full of strict rules and harsh consequences for students. There needs to be a massive change in how we perceive and deal with behavioral issues. A major step would be to focus on restorative justice and instead of just suspending someone or chastising them for their actions, create a way in which they can learn from their mistakes and that they see the wrong in their actions. This would help to produce much more empathetic students and make schools feel safer and more friendly.

Schools should be places of education, where kids are able to learn about the world in a safe and constructive way. As a future educator, I must ask myself how I can help to better the lives of my students and their peers. We need reform for future generations to learn and grow, not lose rights and be forced to do hours of busy work. Teachers also need more prep time and money. It is horrific to think that one of the most important jobs in this country has the highest burnout rate. Change is like fire. Just as you would fan flames to make them grow and burn stronger, you must fan the flames of change to make it grow. We as future educators and current educators need to step up and start fanning the flame if we ever hope to see the change that is needed.

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Gallup. (2022). K-12 workers have highest burnout rate in U.S. 
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Teachers aim to engage, excite, and inspire students and to open the door to new opportunities to take their learning and apply it to their lives. That is what Three-Act Tasks accomplish. A Three-Act Task starts by introducing students to a problem through a visual prompt. Students then proceed through a series of steps designed to pique their curiosity, encourage their mathematical thinking, and allow them to share strategies for solving the problem. The key part of the Three-Act Task is the ability for students to engage in mathematical discourse as they answer the main question in all Three-Act Tasks: “What do you notice?” and “What do you wonder?”.

My favorite part about the Three-Act Task is the opportunity it gives to students to make connections with the outside world in the classroom during math time. In my elementary education STEM block, I was immersed into a world of four separate yet united classes; those were Design and Technology, Science Education, Mathematics Education, and Advanced Practicum and Seminar. I was introduced to Three-Act Tasks during my Mathematics Education course. It was used as a warmup to start the class and to create a conversation around the day's topics. As a class, we explored graphing, counting, geometry, estimation and so many more topics through Three-Act Tasks.

To extend our learning, we connected Three-Act Tasks to our work in our Design and Technology class. In this class we explored classroom applications such as SeeSaw, Padlet, and Google Applications. We had the tools to create the perfect Three-Act Task. For my Three-Act Task design, I used Seesaw to create student work pages that allowed for independent work as well as a Google slide that the teacher could use to display the Three-Act Task.

The topic I chose to base my Three-Act Task on was counting to answer “How Many?” questions. It was based on a Kindergarten Common Core State Standard, and covered things such as numbers 1-20 and counting many objects. The theme I chose was counting fish in a circle underwater. I started the task by showing students six different colored fish in groups of three circled in a connecting circle. Students were not only looking for the number, but they were looking for patterns with regards to the number of colors and amount of fish of each color. Students were also given a Seesaw activity with a similar underwater theme and area to draw, type, or record their answer to the questions. The slide deck with the pictures would also be shown at the same time as students are answering the questions on Seesaw.

As a class, we presented our Three-Act Tasks to each other and were able to receive feedback and make improvements as needed. One of my favorite things about the UMF Education Department and professors is the time set aside for peer feedback. As future educators we must be
responsive and reflective. After we made improvements to our Three-Act Task, a small group of us presented at the Association of Teachers of Mathematics in Maine (ATOMIM) conference. At this conference, we presented to teachers and teacher-leaders from across Maine.

Presenting at the ATOMIM conference was an amazing experience; having the chance to share different ways to introduce material to students with current Maine teachers was an opportunity that allowed me to learn and reflect on what I could do as a future teacher, and to research and explore alternative ways of teaching mathematics to my students.

In the fall of 2022, I was hired as a long-term substitute teacher in 1st grade in a district in Maine, three months before the start of my student teaching. This allowed me to establish my routines within my classroom and set expectations from day one. As a teacher in my district, I had to align professional development goals with our curriculum, and my first one was integrating math talks into our daily lessons. A math talk is a 10-minute activity that activates students’ thinking brains as they use multiple strategies to solve problems. Students are also given the opportunity to explain their answers and make connections between the real world and mathematics. In my classroom I use Three-Act Tasks regularly during our math talk time. It is a fabulous way to warm up their brains prior to our math lesson.

Through Three-Act Tasks my students and I have explored topics such as addition and subtraction, measurement, place value, graphing, and data. I can introduce and inspire my mathematicians and watch their excitement as they answer questions such as “What do you notice?” and “What do you wonder?”

Two to three times a week, I use the resources below to find Three-Act Tasks that bring students through critical thinking and start their math brains, especially after a busy recess and lunch. My students' favorite part is looking at the first visual and guessing the math connection for the day. They enjoy the small element of surprise; they not only understand the content, but they are familiar with the first visual. In regards to the Three-Act Task I designed, my students loved the theme of fish. They were able to make connections between colored fish they had seen before or fish that they have at home.

Their favorite Three-Act Task comes from Graham Fletcher, an incredible math educator. Below are links below to his Three-Act Task collection that ranges in difficulty and is subject-based. The task my students ask for frequently is Popping of Balloons, which focuses on building fluency through 10. This task has students listen to the popping of balloons to determine how many are left.

The collaboration across the STEM block classes gave me the opportunity to explore, create, and reflect on the development of Three-Act Tasks in an elementary classroom and be able to see the benefits of critical thinking at an early age, and apply this in my own teaching.

Included here are links and QR Codes where you can find resources for Three Act Tasks.
Where to Find Three-Act Tasks

Three-Act Tack Filing Cabinet - Graham Fletcher
https://gfletchy.com/3-act-lessons/

Popping Balloons - Graham Fletcher
https://gfletchy.com/popping-balloons/

Tap into Teen Minds
https://tapintoteenminds.com/3act-math/

Under the Dome
https://mikewiernicki.com/3-act-tasks/

Dan Myer
https://docs.google.com/spreadsheets/d/1jXSt_CoDzyDFeJimZxnhgVtQEsfQouLWNNC6Z4/edit#gid=0

My Three Act Task
https://docs.google.com/presentation/d/1ZYuMr1kJODxbRy6gC9HWM-t04-a08iyxbcUc-i7wtH4/edit?usp=sharing
Re-connecting rivers: dam removal as a method of habitat restoration

Tess Gioia

The now free-flowing Temple Stream at the site of the former Walton’s Mill Dam, November 2022. Credit: M. Nemeth, Atlantic Salmon Federation

River impoundment through dam construction exerts a profound impact on river habitats—and is very prevalent, with over 600 dams existing today in the state of Maine. Dams vary in size and have been constructed for a variety of purposes, such as generating power or controlling water storage, but all share similar consequences for physical habitats and biological communities. With growing recognition of detrimental impacts, dam removal has become a widespread strategy to restore river ecosystems and re-establish connectivity within watersheds. Here, we review the primary impacts of dams on riverine habitats and communities, and evaluate the immediate effects of dam removal through the lens of a local restoration project: the removal of the Walton’s Mill Dam on Temple Stream in West Farmington.

Habitat implications of the Walton’s Mill Dam can be examined through the impacts of dams studied elsewhere across the world. Many studies have noted distinct changes in the sediment and organic material, both upstream and downstream of dams (Asaeda and Rashid 2012, Bednarek
Small, fine particles of sediments are suspended in turbulent river water until settling out at slower flows, and river impoundments accumulate large amounts of silt and sand sized particles as the river slows (Liermann et al. 2012 and Bednarek 2001). This can both lower the efficiency of the dam and its ability to hold water (Bednarek 2001 and Asaeda and Rashid 2012) as well as bury important habitats like boulders and large woody debris that provide shelter for organisms (Bednarek 2001). Downstream, the sediment-starved sections of river may have “armored” substrate, where only large sediments exist, limiting habitat for aquatic plants and insects (Bednarek 2001).

In addition to sediments, large amounts of nutrients are trapped within the reservoir (Asaeda and Rashid 2012, Bednarek 2001, Carr et al. 2020, and Maavara et al. 2020). Reservoirs retain important nutrients like carbon, phosphorus, nitrogen, and silica; phosphorous in particular can increase primary productivity, and can in some cases result in cyanobacteria blooms which may release toxins (Maavara et al. 2020 and Asaeda and Rashid 2012). At the same time that nutrients may become overabundant in the reservoir, the dam starves the reaches downstream of necessary nutrients and limits downstream productivity (Bednarek 2001). In most forested watersheds, a large amount of large organic debris is stored in dammed reservoirs, producing a hotspot for decomposition and microbial activity. Most of this microbial activity produces greenhouse gases (carbon dioxide and methane), and dammed reservoirs can be meaningful sources of greenhouse gas emissions (Maavara et al. 2020 and Nilson and Berggren 2000).

Dissolved oxygen (DO) and temperature can also be affected by the placement of a dam (Bednarek 2001, Carr et al. 2020, Liermann et al. 2012). Within the reservoir, temperature stratification may occur in the slow-moving water (Bednarek 2001). This can lead to varying DO levels, including possible anoxia (lack of oxygen) at the bottom of the reservoir due to microbial activity. Downstream, depending on where the water flows out of the reservoir (either the bottom or top of the dam), downstream water temperatures can be either above or below the typical temperature regime. This impacts local organisms that are originally adapted to a different temperature regime; for example, many salmon do not thrive in warm temperatures, so they may completely avoid this part of the watershed (Liermann et al. 2012).

Many studies also found that dams reduced the amount and intensity of floods in the area, and may disconnect the flood plain and restrict the ability of fish and insects to move into protected flood plain habitats (Asaeda and Rashid 2012, Bednarek 2001, Nilson and Berggren 2000, and Takahashi and Nakamura 2011). For example, Takahashi and Nakamura (2011) found that peak floods had a lower maximum value than historic flows, as well as a general decrease in the frequency of floods (Takahashi and Nakamura 2011). This also has implications for animals, such as fish species, that cue to flow events to signal migrations.

The removal of a dam like the Walton’s Mill Dam will have an immediate change in both upstream and downstream morphology. Firstly, due to the large amount of sediment trapped within the impoundment walls, the initial breaching must have released a massive amount to the downstream regions. There can be both positive and negative effects of this sudden release. Nutrients can finally be released to downstream portions, revitalizing nutrient ratios that are so
important to primary productivity (Asaeda and Rashid 2012). However, the amount of nutrients trapped behind the impoundment could overload this system. According to Asaeda and Rashid (2012), after testing sediments released from a dam in the downstream portion of a watershed, the total amounts of phosphorus and nitrogen were hundreds of times higher than normal concentrations. This can, like in the case of nutrients trapped in the impoundment, cause a large spike in primary productivity (Nilson and Berggren 2000 and Maavara et al. 2020).

The release of sediments to downstream locations is important to restore previous landscapes, since sediment starvation can erode important river features like point bars, riffles, pools, and cutbanks (Bednarek 2001). However, the immediate release of a large amounts of sediments can also damage currently established habitats and food sources that have taken advantage of slow flowing water (Bednarek 2001). Another positive of sediment release is the potential for more riparian plants to re-establish along the river’s edge, both within the former impoundment and downstream (Asaeda and Rashid 2012), which can further stabilize river banks. Based on the literature, within a year the impoundment and downstream reaches should have increased complexity in stream morphology (more bends and bars, for instance), and plant communities should re-colonize the exposed sediments from the drawn-down reservoir. The plant community composition strongly depends on the existing seedbank in the sediments, and can augmented by planting native species, as is being done in the former Temple Stream reservoir.

The methods of removal and restoration can have a large impact on the success of a project. Slowly drawing down a reservoir can prevent overload of nutrients and sediments from scouring the area, and it can be important to monitor for any contaminants that may have concentrated over time in the impoundment (Asaeda and Rashid 2012, Bednarek 2001, and Maavara et al. 2020). Slow drawdown would also allow for a more gradual temperature and dissolved oxygen change for downstream areas than an immediate release of water would. Continuous monitoring of water quality along the stream for temperature, DO, total nitrogen and phosphorus, and flow rates will allow scientists to ensure that the project is not causing harm to the ecosystem, based on the literature cited. Once the dam has been fully depleted, continuous monitoring to ensure constant movement of sediments and organic material will be important to prevent natural (or animal-induced) damming from happening. Monitoring for salmon species as a key species will be important, since the project revolves around their ability to migrate as an endangered organism. If more salmon are seen moving through Temple Stream, this will be a good indication that restoration efforts are working properly.

Literature Cited


The geologic history of Maine is complex and preserves a drawn-out, often enigmatic history of continental collisions, mountain-building, volcanism, and glaciation. “Maine,” as we know it now, was not always the forest-covered, glacially-rounded, tectonically-quiet landscape we know today. Our state was assembled over hundreds of millions of years through the collision of small, microcontinental landmasses against the ancient margin of eastern North America. These collisions pushed up the Appalachian Mountains, once rivaling the modern Alps in elevation, culminating in the creation of Pangea, Earth’s most recent supercontinent. Once Pangea split apart to create the
modern Atlantic Ocean, remnants of the ancient Appalachian Mountains were spread across the Atlantic basin. Today, we can find pieces of them in North America, North Africa, the British Isles, Scandinavia, and even as far south as Mexico.

The University of Maine Farmington is uniquely situated near classic bedrock exposures that many geologists have used to reconstruct the history of the Appalachian Mountains. One of these exposures, just 30 minutes west of campus, is located on Bald and Saddleback Wind mountains, where the remnants of an ancient ocean basin are exposed. Geologists refer to this basin as the Central Maine Basin, part of the larger Iapetus Ocean, the predecessor of the modern Atlantic. The Central Maine Basin existed roughly from the beginning of the Ordovician Period (beginning ~485 million years ago) to the middle of the Devonian Period (~400 million years ago), when it was closed by the collision of the Avalon microcontinent with eastern North America during an event geologists refer to as the Acadian Orogeny. This “orogeny,” or mountain-building event, is responsible for much of Maine’s modern geologic structure.

Bedrock exposures on Bald and Saddleback Wind mountains consist of a sequence of metamorphosed sedimentary rock geologists refer to as turbidites. Turbidites are deposited as gravity-driven slurries of sediment that tumble down submerged continental shelves and settle on the ocean bottom, creating alternating layers of mud and sand. Over time, the exposures on Bald and Saddleback Wind mountains were turned to mudstone and sandstone, then folded and metamorphosed into schist and quartzite by the colliding Avalon microcontinent, which buried and deformed these rocks deep within the Earth. During this mountain-building event, many of the sedimentary layers were repeated on thrust faults, or faults that push older rocks over younger rock and repeat strata. These faults are the direct result of the compressive forces that push up mountains, and they are fundamental in assembling mountain systems worldwide.

During the 2017-2018 school year new reconnaissance geologic mapping efforts were undertaken on Saddleback Wind Mountain to better understand its geologic history, as well as its relationship to adjacent Bald Mountain, where basic geologic relationships had previously been established. The primary mapping objective was to establish whether strata on Saddleback Wind Mountain were repeated on thrust faults like strata are on Bald Mountain. Many of these thrust faults are “cryptic,” in that there is no exposed fault surface. Therefore, faults are inferred based on repeated sequences of meta-sedimentary rock. The second objective was to collect samples for detrital zircon U-Pb geochronology, a technique that uses radioactive uranium and its decay-product, lead, in the mineral zircon to “date” the age of a mineral. Historically, rocks exposed on Bald Mountain and Saddleback Wind were thought to have been deposited during the Devonian Period (between 419 and 359 million years ago) similar to Devonian strata exposed in northern Maine.

The results of this new mapping established that cryptic thrust faults are indeed present on Saddleback Wind Mountain. An extraordinary new sequence, which we refer to as the Royal Flush Sequence, which emphasizes the sheer luck of encountering an outcrop of this quality, is thrice exposed on the eastern flank of the mountain. The occurrence of this distinctive package of schist and quartzite beds in three parallel belts demands the presence of two intervening cryptic thrust faults. Each package becomes thinner towards the top of the pile, the top-most of which is totally sheared out by a subsequent fault. On this basis, we argue that the observed thinning is the result of
compression during Acadian mountain-building, rather than thinning related to sedimentary deposition. Clearly, this style of thrust-faulting is characteristic of strata on Bald and Saddleback Wind mountains, and may characterize much of the Acadian deformation throughout sedimentary strata of western Maine and New Hampshire. Further, new ages calculated from rock samples collected on Saddleback Wind and from supposedly similar strata in New Vineyard suggest Late Ordovician (450 million years old) and Silurian (between 420 to 430 million years old) depositional ages for these rocks, not Devonian as previously assumed. Our geochronology results strongly suggest that existing models of the stratigraphy and structural geology of west-central Maine need to be reconsidered.

As mentioned at the beginning of this contribution, the geology of Maine is enigmatic. Bedrock exposures are hidden underneath vast forests and extensive glacial deposits, and we can only do so much to determine how Maine and the Northern Appalachians were assembled in the deep past. Our results only elucidate a small portion of this geologic history, but, as we’ve demonstrated above, even minor investigations of local, “backyard” geology are critical to understanding larger mountain systems. Future researchers should continue detrital zircon U-Pb geochronology work throughout Maine to better reconstruct its geologic history, and small-scale mapping investigations should complement this to create a more detailed account of the structures that pushed up our state’s once vast mountains.
In the Spring of 2023, University of Maine at Farmington’s MAT 304: College Geometry class was asked to individually select what they wanted to learn about geometry by Professor Daniel Jackson (Jackson, 2023). Since the majority of the class was made up of Secondary Education majors, the discussion turned into a project on how to create real world applications of their geometry interests for K-12 education while incorporating the idea of Democratic curriculum (Apple & Beane, 2007). Interests included real-world applications, ancient structure sustainability and durability, incorporations of physical models, and noticing and interpreting geometry of the world around us. As a class, a lesson plan was created for analyzing sustainability of ancient structures by considering geometric stability and durability of construction materials.

The MAT 304 class utilized technological tools such as ChatGPT 3.5 (OpenAI, 2022) and were able to create three K-12 classroom learning outcomes that incorporated the class’ interests. Those learning outcomes include:

1. Students will develop an understanding and appreciation of how geometry shapes the world around us.
2. Students will collaborate to apply geometric principles to solve real-world problems and create physical models.
3. Students will use critical thinking and effective communication to analyze and communicate about geometric concepts.

By using the pedagogical methods of project-based learning (Bell, 2010), the lesson includes a 3D model that students create themselves as well as a creative media presentation of individual and collective work. Our entire portfolio for this activity can be accessed by scanning the included QR code with your mobile phone camera.
A lot of the math that we are learning in classrooms today neither provides a lot of hands-on learning nor shows a lot of realistic real-world problems (Boaler, 2016). The most common questions that students ask are why they need to know this or where they are going to use this. In our UMF classroom, we wanted to figure out a way for K-12 students to want to learn math and be able to recognize it when they walk outside of the classroom. This is when as a class we brainstormed what our learning goals would be for this activity. Whenever we have to build something we are using shapes, measurements, and angles so we want students to be able to recognize and appreciate how this influences the world around us. We wanted the activity to incorporate a real-world situation for students to be able to work on with their peers and one that provided hands-on learning. Having students collaborate on a hands-on activity will further help solidify their understanding by applying their knowledge in a different environment and improve their collaboration skills. Lastly, we wanted this activity to not only help students understand the material but be able to communicate their understanding and findings with their peers.

**Some Examples of Ancient Structures**

- **The Great Wall of China**: One of the largest construction projects ever undertaken. The wall is the base shape to the Ming Dynasty (1368–1644) wall (2,500 miles) with 13.73 miles in height. For several centuries, this was production for defense of civil and military armies and trade. The Great Wall of China was built from stone, brick, wood, and earth. The bundles measured 20 feet in height and 25 feet wide at the top. Several towers were also built for military communication.

- **Temple of Hera - Bucchis**: More commonly known as the Temple of Hera of Naxos in Italy. It is made of white marble and 20 feet in height. It was part of a larger ancient temple, which also accompanied the Temple of Hera II. It has a height of 12.5 meters and a width of 12 meters. Its columns are 4.2 meters in diameter.

- **The Parthenon**: Composed mostly of white marble has sufficient height and height without the structure being too high. The columns of stones are unique and some are even 40 feet in height. The Parthenon is monumental in the top of 30,900 meters by 30,54 meters long.

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Stonehenge was built in six stages between 3000 and 1500 BCE. The Stonehenge is composed of six stone structures. The stone circle, monument is located in the Salisbury Plain in its final stage of construction in 1400 BCE. It is a unique structure that is in the making of the monument of the structure. There are 3 trilithons: the Sarsen Trilithons, the Stonehenge Sarsen Ring, and the Sarsen Ring Stonehenge. They are about 8 meters in height with a width of 25.99 meters. The Trilithons measure 2 meters in width.

- The pyramid of Khufu originally 146 meters tall now stands 136 meters with sides measuring 230 meters. It has a volume of 2,350,000,000.

- The pyramid of Khafre originally 146 meters tall now stands 136 meters with sides measuring 210 meters. It has a volume of 2,100,000,000.

- The pyramid of Menkaure originally 142 meters tall now stands 120 meters with sides measuring 211 meters in height. It has a volume of 2,150,000,000.

- The pyramid of Giza is the tallest man-made structure in the world located in Cairo, Egypt. A place for the pharaohs intended to rule in the afterlife. Built around 2570–2150 BCE they remain the tallest man-made structure on Earth made of limestone.

- The pyramid of Giza is the tallest man-made structure in the world located in Cairo, Egypt. A place for the pharaohs intended to rule in the afterlife. Built around 2570–2150 BCE they remain the tallest man-made structure on Earth made of limestone.

The pyramid of Menkaure is 65 meters tall and now reaches 65 meters with sides measuring 134 meters and a volume of 121,100,000.
References


Using the Arduino electronics prototyping platform to create do-it-yourself machines

Jay Bruinsma
Emily Farrington

Arduino is an electronics prototyping platform that allows students and hobbyists to easily learn and experiment with a wide variety of sensors, actuators, and code to create a wide variety of interesting and useful do-it-yourself machines.

Computer Science students at UMF have used it to create their own projects including an automated fish feeder, a programmable light show cube of LEDs, a music and voice modulator, a sonar tracker, and many others. These QR Codes will lead you to the collected projects of Jay Bruinsma and Emily Farrington.
Madison Brown is from Gorham, Maine majoring in Secondary Education Mathematics. In his free time he enjoys doing calculus problems and hiking around Maine.

Jay Bruinsma moved to Maine in December 2021 from Ontario, Canada. He is a Computer Science major and will graduate Spring 2024. He has been happily married to his lovely wife Amy for 13 years and has three incredible children, ages 8, 10, and 12.

Tommy Clark is a Junior from Wilton, Maine, majoring in Computer Science. He plans to be a video game designer after he graduates.

Kathy DeGruttola is from Bethel, Maine, and will be graduating in 2025 with double major in Math and Secondary Math Education.

Emily Farrington is an English major with a minor in Computer Science from Auburn, Maine, and will be graduating in 2024. Ever passionate about learning, she is always trying to master new skills and try new things. Her current hobbies include aquarium keeping and crochet.

Kelly Gentilo is from Bethesda, Maryland, and is graduating in the spring of 2024 as a Performance Art major, minoring in Music, Art and Film. Kelly revels in combining the absurd, visceral, and nostalgic, and is interested in questions of purpose, temporality and cycles.

Tess Gioia is from Farmingdale, Maine. She graduated in May 2023 in Environmental Science with a minor in Geography. She loves being out in the field and hopes to work with watersheds or conservation science.

Emma Goltz is an Early Childhood educator from Damariscotta, Maine. She graduated in December of 2022 with a degree in Early Childhood Special Education from UMF. Emma is especially passionate about the intersection of nature-based education and special education, as she enjoys finding ways to support all children outside.

Karly Jacklin (’23) is a poet and Ohioan. She majored in Creative Writing at UMF and is inexplicably drawn to media depictions of feminine rage.
Autumn Koors Foltz is a poet and scholar raised in Baltimore, Maryland. She is a double major in Creative Writing and English with a triple minor in Gender & Women’s Studies, Environmental Studies, and Editing & Publishing in the class of 2024. Autumn serves as the student advisor of the international board of the English Honor Society, Sigma Tau Delta, the station manager of WUMF 91.5 FM, the president of the UMF Writers' Guild, and president of the Alpha Chi Sigma chapter of Sigma Tau Delta. They are passionate about community, letter-writing, college radio, and contemporary poetry.

Wilson Krause (class of 2025) is a Creative Writing major from Lyndonville, Vermont. He is a professional farmer and avid harmonica player.

Mariah Langton is a first-generation college graduate from UMF who majored in Early Childhood Education. She is now a Lead Teacher in an Early Head Start classroom in Farmington, ME, teaching the youngest minds that they can do anything. In her spare time, she enjoys reading, and advocating for/spreading the word about support systems for other first generation college students.

Paige Lusczyk (she/her) is from Milford, New Hampshire, and is expected to graduate in May 2024 with a dual major in Mathematics and Secondary Education Mathematics with a minor in Geology. She is excited to be a math teacher after she graduates and do spontaneous and exciting projects with her classes.

River Lusky is from Fryeburg, Maine. She graduated in the Spring of 2023 with a major in Elementary Education with a concentration in Language Arts. She was a full time first grade teacher for the 2022-2023 school year and in the fall of 2023 she will begin teaching and nannying for a family as they travel to over 32 countries!

Brandon Martin (Falmouth, ME) graduated from UMF with a B.A. in Psychology in 2021. After graduating, Brandon spent an additional year working at UMF as the Administrative Specialist for the Division of Psychology and Human Development. He is now a graduate student in the Psychological Sciences PhD Program at Kent State University.

Bryce Neal was an undergraduate geology student at the UMF from 2014-2018. He has since pursued a Master’s degree in Earth Science from Montana State University, where he studied the development of the Northern Rocky Mountains. He currently lives in Bozeman, Montana, where he is busy writing short fiction and organizing for affordable housing in the community.

Madison Nadeau is from Madawaska, Maine, and will be graduating in 2024 with a dual degree in Mathematics and Secondary Education with a concentration in Mathematics. She also has an interest in computer science and hopes to pursue this interest after UMF.
Kelly Palkovic is from Old Orchard Beach, Maine, and is a Secondary Education Math major planning to graduate in the spring of 2025. She plans to teach high school math in Maine after she graduates. In her free time, she likes to hang out with friends or drive around listening to music.

Ana Rogers graduated from UMF in May 2023 with a major in Visual Art. While originally from Western New York, she has been calling Maine her home for seven years. After graduation, she plans to attend Maine College of Art & Design, where she will be earning her MFA in Studio Art.

Jocelyn Royalty is a graduating Creative Critting (May 2023) and Psychology major from New Haven, Connecticut. She lives in Farmington with her girlfriend, a little grey cat, and many houseplants.

Artemis Sanborn is a Liberal Studies major and Visual Arts minor from Milford, ME. Artemis walked for graduation in May and will officially complete their degrees in August of 2023. Diagnosed with a learning disability at a young age, Artemis began to use their art as a form of expression when words failed them.

Turner Alex Schnee is from Yarmouth, Maine, and will be graduating with a degree in Special Education in the Spring of 2025. Tuner loves metal working and blade smithing.

Fallon Smith is from Nelson, New Hampshire, majoring in Secondary Education Math. She is a member of UMF’s alpine ski team, and plans to teach math after she graduates.

Michaela Terlizzi is a sophomore Creative Writing and English double major from the North Shore of Massachusetts. She is a fan of Simone de Beauvoir, Yoga, and the Oxford comma.

Emma Wallace is Visual Arts major with a concentration in New Media and Graphic Design, and minors in Creative Writing and Film Studies. After graduating in May 2023 she plans to pursue video production and graphic design in Maine.

Ashley Ward is a Spring 2024 Creative Writing graduate with a double minor in Editing & Publishing and Video Game Studies. Born and raised in Lewiston, Maine, Ashley has dedicated her junior year to conducting an extensive analytic project centered on themes of social politics found in Renaissance dramas that are applicable to the modern world. Ashley also loves reading in her spare time: she has read over 200 books since January 2023.
Professor Chris Bennet has taught Computer Science at UMF for more than 15 years. His interests include data mining and a burgeoning exploration of video game development.

Dr. Julia Daly has taught Geology at UMF for twenty years. Her courses focus on active processes on Earth’s surface, how people interact with those processes, and how they might be impacted by climate change. Bringing students outdoors and investigating the way that landforms are changing with them is the best part of her job.

Cara E. Furman, PhD, is an Associate Professor of literacy education at the University of Maine at Farmington. Prior to this, she was an urban public elementary school teacher. She studies how teachers develop innovative methods alongside ethics. Her recent co-authored book with Cecelia Traugh is *Descriptive Inquiry in Teacher Practice: Cultivating Practical Wisdom to Create Democratic Schools*. She loves writing and collaborating with teachers, especially former students like Emma Goltz!

Dr. Brianna Grumstrup has been a member of the Special Education faculty at UMF for two years. Before that, she was a special education teacher in the state of Nevada for nine years, serving students with autism and extensive support needs. Her research focus is on health education and outcomes for people in this same population.

Dr. Stephen Grandchamp has taught literature and digital humanities courses at UMF for five years. His research explores the intersection between traditional literature and contemporary media such as video games and popular music.

Dr. Rachel Hovel is an aquatic ecologist. She thinks about ecosystems within an evolutionary context, and is currently excited about Appalachian mountain lakes.

Dr. Daniel Jackson has been enriching minds at UMF for nearly two decades, focusing on Mathematics and Educational Mathematics. His research, rooted in computational methods, intersects with emerging technology, supporting geometric design and other real-world applications of math. Away from his academic pursuits Dr. Jackson finds joy in the tranquility of gardening and the adventure of hiking the Maine mountains, often sharing these passions with his family.
Professor Shannon Larsen has taught in the Department of Elementary Education at UMF for over ten years. Her research focuses on professional learning for elementary school teachers and collaborative classroom practices.

Professor Gretchen Legler has taught creative nonfiction, composition, Women’s Studies, and literature at UMF for more than 20 years. She holds a Ph.D in English and Feminist Studies and a Master’s Degree in Creative Writing from the University of Minnesota, and a Master of Divinity degree from Harvard Divinity School. The best part of her job is helping students tell their hard and beautiful stories.

Professor Karol Maybury leads the UMF Undergraduate Social Psychology Laboratory and has taught at UMF since 2009. Her research focuses on gender, emotion, intimate relationships, and non-verbal behavior.

Dr. Jim Melcher is Professor of Political Science and Pre-Law Adviser at the University of Maine at Farmington, where he has taught since 1999. He followed his lifelong interest in politics by earning his Bachelor’s degree in Political Science and Geography from the University of Wisconsin, and his Ph.D in Political Science from the University of Minnesota. He and his wife Nancy Finnegan live in the Westwood neighborhood in Augusta.

Professor Dawn Nye has taught at the University of Maine Farmington for the past decade, and has maintained a studio practice for the past 30 years. In her work she is most concerned with telling stories of conflicting human desires, best intentions, beauty and futility.

Professor Jesse Potts has taught in the Visual Art program at UMF for 10 years. His areas of focus include mixed media sculpture and time-based installations that combine constructed and repurposed objects, devices and images. He explores the symbolism, mutability and use value of objects and materials and perceptions of their transience and permanence.

Professor of Geology Doug Reusch loves to share the joy of discovery with students. Since 2001, he has accompanied UMF students to field sites within walking distance of campus, to the nearby world-class outcrops on the Bald-Saddleback Wind massif, and on May term trips to the Colorado Plateau, Newfoundland, and interior Canada. His current research in the Penobscot Bay region focuses on the paleogeography of pre-Pangean oceans, which are key to understanding the contemporaneous global climate and biologic evolution.

Professor Lewis Robinson has taught Creative Writing at UMF since 2020. He writes stories, novels, and essays.

Dr. Meredith Swallow is in her eighth year at UMF in the Elementary Education Program. Her current teaching and research centers on supporting preservice teachers and in-service graduate-level
educators in developing, and engaging with, innovative teaching practices that support active, learner-driven environments and effective technology integration.

Professor Jeffrey Thomson is the Chair of Arts and Humanities and Director of the BFA Program in Creative Writing at UMF. He is a poet whose most recent book is *Museum of Objects Burned by the Souls in Purgatory*.

Professor Melissa C. Thompson is a scholar, live artist, and director of devised performances whose work has been featured at venues such as the Southeastern Center for Contemporary Art and Highways Performance Space. Her latest project staging the Futurist plays of Mina Loy, will have their world premiere at the Broad Museum in December 2023.

Dr. Caroline Wilkinson writes fiction poetry, and criticism on the nineteenth-century novel. She taught American Literature and Composition at UMF from 2022-2023.