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Dear Reader,

Sometimes, we must live with the undone. No matter how much you struggle, your neighbors do not help you. Or a lover leaves for elsewhere, no matter your pleading against them. Or you think on the mystery of losing someone, only for them to vanish right as you grasp the question which outlines them: what should I do?

This question knifes its way through a crisp day, the spray of the ocean, or while wading in moonbeams. We expect somehow a small triumph. Look how I am patient, we say to fate, or the stars, or the friend who won’t understand. Enduring the trouble implies a coming achievement.

But the greater gift is to have strength to trust the chaos. No matter what precepts, the end must be outlined by its path. This observation was an undercurrent to this volume. This volume deals with hardship. It deals with thinking. It deals with the trials conferred to the still observer. Whether discussing coal company police or musing on public health difficulties, it is normal to wrestle the difficult things. I mean this to speak of writing and art, as the writing and art in this volume shows its twisting and growth and labor. The graceful triumph results from something raw. How are we to suspect otherwise?

Because the most benighted and despised will regardless show their beauty. The shy, a rare frankness; the quotidian, a different view; and the composed, a pleasure unbeknownst when taken apart. This, I believe, embodies the volume and aligns wholly with the journal. We edify this: patience will understand what is at first unseen.

*Forbes & Fifth* rewards those who look hard to ignore borders. Thinking widely offers the gift of grasping something unfamiliar through the familiar. In this, there is less failure and more waiting; fewer trials and more observing.

With this, I invite you to read on. Enjoy what’s in store.

Happy reading,

*Lucas Grasha*
Dear reader,

My first semester as Forbes & Fifth’s graphic designer has been an amazing experience. As you can see, a lot has changed. Our journal is sporting a new font and style that we think our readers will definitely enjoy. I’m so thankful for our cover artist, Blya Krouba, and her wonderful work that helped to push us in this new direction.

As an interdisciplinary journal, the mission of Forbes & Fifth is to encourage people to explore new concepts and ideas that will inspire them to create concepts and ideas of their own. In the spirit of this mission, this semester I tried my hand at illustrating my own designs for each written work, highlighting a motif I found as I read through the piece. Finding digital illustration quite a challenge, I decided to embrace the imperfections of my images by giving myself the freedom to draw outside the lines.

Forbes & Fifth is a unique publication in its ability to house all types of writing, poetry, research, art, photography, etc. Creating this issue has been a joy and a pleasure, and I hope you feel even a little bit of this emotion as you turn these pages.

Happy reading,

Grace Cooper
A NIGHT IN FIRENZE

by Xu Zhimo

Translated by

Qi’ang Meng
The University of Pittsburgh

Qi’ang Meng is a sophomore at the University of Pittsburgh. He is double-majoring in Philosophy and English Writing. His translation of Xu Zhimo’s poem was initially his project in the Spring of 2017 for the class, “Intro to Poetry”. In the Summer of 2017, he studied abroad at Cambridge University, the exact place where Xu Zhimo stayed in the 1920s. After that, Qi’ang Meng felt the necessity of revising and publishing the translation—and so there was “A Night in Firenze”.
Introduction

Love is never easy to translate. My sense of writing about love starts from reading the poems of Xu Zhimo, who is regarded as a crucial figure in reshaping the form of modern Chinese poetry.

At the beginning of the 20th century, Xu began his studies in the U.S. and then left for Cambridge University, intending to become Bertrand Russell’s student. He changed his pen name to “Zhimo” after arriving in England, and there he composed his most famous poem “On Leaving Cambridge Again”. According to the Chinese scholar Hu Shi, Xu Zhimo’s life could be fully described with three words: love, freedom and aesthetic. And Xu’s love poems, in his own words, are “like syrup that is too dense to dissolve” (Xu, 1928). I think “A Night in Firenze” reflects this feature strongly, and I really appreciate how he demonstrates it in the poem. Narrating from the perspective of a young woman whose lover will leave her before the next daybreak, Xu divides the monologue poem into a progressive structure of three parts: the speaker’s anxiety about tomorrow, her argument on dying together with her lover, and her compromise of this miserable separation. Through the figurative lines, we can sympathetically feel the speaker’s hesitation and ambiguous affection.

The translating process was a huge challenge for me. Literary translation is an extreme within the art of translation, and poetry is an extreme within literature. A translator must evoke the emotion of the original poem in the target language, trying at once to balance its charm and conciseness. Moreover, the cultural gap between two languages is considerable. Quite often, an idiom in Chinese cannot find its English counterpart. And when this happens, the translator needs to create a brand-new expression to complete the translation. I put much effort into these issues just for the translation to make sense. For example, the expression “the iron tree in blossom” in this poem comes from the idiom “铁树开花” (pinyin: tiě shù kāi huā) of the original text, which rhetorically stands for something that cannot come true.

I learned in my poetry writing course that a significant poem should have its own profound effect on its readers, no matter the language in which it was written. So, I hope there are parts of the piece, being either intense or smooth, that can touch something vulnerable in your heart.
You are really going? Tomorrow? Then what about me, what about me…

No need to mind me, I knew this day would come sooner or later;
remember me, if you are willing to,
otherwise please forget me living
in this world as early as possible, rather than thinking of me and suffering in vain;
let it be a dream, a fantasy;
let it be just like the fading rose we saw yesterday,
shivering cravenly in the wind, its petals falling to the ground,
one after another, being trampled on, and turning into mud…
Alas, being trampled on, and turning into mud—but mud is cleaner
than this living death, a true agony, where I am sneered at
as shabby and cumbrous—

God! Why did you come, why did you come…?

Yet I can never forget you: The day you came
was like the advent of glory from darkness;
you were my teacher, my love, my benefactor,
and from you I learned what life is and what love is.
You woke up my slumber and returned my innocence.
How would I know that sky is high and grass is green without you?
Touch my heart to see how fast it is beating now,
and touch my cheek, how badly it is scorching,
which is luckily covered by the black night, thank God;
my love, you are taking my breath away;
stop kissing me; I cannot stand living as a raging flame.
At present, my soul is like a forging iron on the firebrick
under the hammer of love, being tamped, tamped, the sparks
scattering around… I faint; hold me.

My love, please allow me in this quiet garden,
with my eyes closing, to die in your arms—how beautiful!
The sound of wind rustling in the white poplar overhead
will be my funeral dirge, and the refreshing breeze
from the olive grove, bringing the fragrance
of the pomegranate flowers,
then will take my soul away, with those fireflies,
the amorous complaisant fireflies, who will lighten the path.
I will stop my pace on that three-arches bridge
and listen to you there holding my cooling body,
yelling my name in despair, kissing me, shaking me, nibbling me…
I will yet smile and follow the breeze,
to wherever it leads me, to wherever in heaven or hell.
Anyway, I will have lost this weary life, and made death come true
in love—isn’t this death in love better
than five hundred reincarnations? … Selfish I am,
but I don’t care anymore… Are you going to die with me?

What, dying for love is not complete unless we do it together?
It requires two pairs of wings to ascend as companions.
Should we get to heaven, we couldn’t help taking care of each other,
because I need you and you too need me;
should it be to hell, you would be more anxious about my going alone,
for you said that hell might be less hospitable
than this world (although I doubt it);
being like a delicate rose, I am not protected
from exposure to the rain storms,
and should I scream to you, you would hear nothing.

—Isn’t this seeking for release but dropping into a wallow instead,
which invites the cold-eyed ghosts and the cold-hearted humans
to laugh at my miserable fate, to laugh at your timid negligence?

What you say makes sense, so what shall I do?
It’s too hard to stay alive, but even death fails to free us,
and I don’t want you to sacrifice your future for me…

Alas! You say to stay alive and wait, wait for the day you come back!

Is that day real? — your presence is my confidence,
but you have to go at daybreak. Are you so hardhearted
to leave me alone? Still, I cannot keep you here, this is my fate,
but the flower, without sunshine or dew, will perish,
or at best its petal tips will wither, how poor!
You must not forget me; my love, I have no life
unless in your heart; well, I'll take your word; I'll wait,
and keep waiting for the iron tree in blossom;
my love, you are a bright star over me forever:
Should I die of misfortune, I would turn into a firefly,
staying in this garden, close to the grass roots, flying mopeishly,
flying from twilight till midnight, flying from midnight till dawn,
and I would wish it cloudless, so that the sky could be visible to me,
where the eternal star is you,
shining on me, through the night,
through the sky, my heart vibrating as long as yours twinkles…

Written in the mountains of Firenze, June 11, 1925.
Monica attends the University of Pittsburgh and will graduate in December of 2017 with a Bachelor of Philosophy in Anthropology, and a minor in Classics. She was drawn to anthropology by a desire to understand human behavior through cultural anthropology and archaeology. Her research presented in this volume originated from her combined interests, that is, where anthropology (specifically museum studies) intersected with cultural aspects of Greek pottery. Within the next five years, Monica plans to utilize her anthropological studies by pursuing a career in public health.
Like the derived word museum from the ancient Greek ‘museion,’
the creation of museums originates from antiquity. In the Greco-
Roman world, museums were frequented by the intelligentsia. These people would visit museums to contemplate matters concerning philosophy and the arts. From the Renaissance through the 18th century, the term ‘museum’ was used to describe private collections of the aristocracy, which were meant to be viewed by an elite audience. While the target audience of museums has shifted over time, it was the Enlightenment that prompted a fundamental change in the role of museums. The institutional focus shifted from the viewing of exclusive, private collections to the intellectual enrichment of the average person. This transition framed the creation of universal, or encyclopedic, museums as imperial powers made new discoveries in their colonial territories, adding ancient and exotic objects to their ever-expanding public collections.

The mission of universal museums was to collect information about everything. For example, a universal museum theoretically can comment on everything from plant species, to microbes, to distant stars. Thus, each exhibit is created to convey specific ‘essential’ information that enriches the viewer’s ‘universal’ understanding of the world. To better comprehend the relationship between the mission of the universal museum and the artifacts it collects, this research will analyze the display choices surrounding the British Museum’s collection of Panathenaic amphorai.

Produced in Athens from approximately the 6th to the 2nd centuries BC, Panathenaic amphorai are painted ceramic vases that were awarded to victors of the Greater Panathenaic Games. The Greater Panathenaic Games were athletic, equestrian, musical, and artistic competitions held in the city of Athens every four years. During the Games, athletes from across Greece competed in a variety of athletic and equestrian competitions for the Panathenaic prize amphorai. These prize amphorai were filled with olive oil,
the amount of which was based on their ranking in the games.\textsuperscript{vi} The contents of one vase was equivalent to several thousand dollars by today’s standards.\textsuperscript{vii} These vases were decorated with figural scenes on two sides: the first side depicted Athena as a warrior midstride between two pillars, typically holding a spear and aegis shield, while the second side showed the winner’s event.\textsuperscript{viii} All Panathenaic amphorai were inscribed with the phrase, “a prize from the games at Athens,” and after the 4th century, the name of the reigning archon (public official) was listed as well.\textsuperscript{ix}

Over time, Panathenaic amphorai were excavated and eventually made their way into the private collections of wealthy individuals. For instance, Lord Hamilton collected more than three hundred vases when he became the British envoy to Naples in 1764.\textsuperscript{x} Lord Hamilton’s Greek vases were acquired by the British Museum in 1772, and together with the acquisition of Charles Townley’s Greco-Roman sculptures in 1805, they triggered the development of the Antiquities Department in the British Museum.\textsuperscript{xi} Today, the British Museum of London holds the largest collection of Panathenaic amphorai outside of Greece.\textsuperscript{xii} As such, one would expect that the amphorai on display are a representative sample of the awards presented to victors of the Panathenaic Games. In other words, it is expected that the iconography on the vases depict most, if not all, of the events of the Games. However, it is possible that the vases are not representative (e.g., perhaps one event, like wrestling, is overrepresented) and were selectively chosen for display based on other criteria, such as condition, preservation, or the mission of the museum.

This thesis seeks to determine whether the British Museum’s Panathenaic amphorai exhibit reflects the museum’s history and position as a universal museum. To address this question, field research was conducted at the British Museum. The research consisted primarily of the visual analysis of the Panathenaic amphorai display and the evaluation of interpretive materials, such as wall texts, labels, brochures, and guided tours. An observational evaluation of the exhibit was also conducted, which entailed counting heads and carefully noting features that appeared to capture the visitors’ attention. To understand why display decisions were made, a curator in the Department of Greece and Rome was interviewed.
regarding the history of the exhibit.

For comparative purposes, field research was also conducted at the Ashmolean Museum at the University of Oxford. The Ashmolean is a university museum that is dedicated to academic education, and, thus, pursues a different mission than the British Museum. It also contains a collection of Panathenaic prize amphorai. In a similar fashion, the Panathenaic amphorai display was visually analyzed, interpretive materials were assessed, and an observational evaluation of the exhibit was performed. A curator at the Ashmolean was also interviewed to determine why the museum made its current display choices and how the amphorai were displayed in the past. With both of these examples, the British Museum representing a universal museum and the Ashmolean representing a university museum, a comparative analysis was performed to determine whether the current exhibit of Panathenaic prize amphorai in the British Museum fulfills the institution’s universal mission.

It was determined that the British Museum’s display of Panathenaic amphorai does indeed reflect the institution’s universal mission. In particular, its large quantity of vases provides the museum with the opportunity to present the vessels in multiple contexts and effectively convey their overall significance—an opportunity that a museum with fewer vases does not have. Ultimately, it is hoped that this research will contribute to ongoing conversations concerning display choice and the role of the universal museum.

Sample and Summative Evaluation

Due to the British Museum’s abundance of objects, the museum has two different exhibit formats: On the ground floor, exhibits are arranged according to culture as seen in Rooms 13 (Greece: 1050-520 BC), 19 (Athens and the Acropolis: 430-400 BC), and 20 (Greeks and Lycians: 400-325 BC). On the upper floors, exhibits are arranged by topic, such as Room 69 (Greek and Roman Life). The British Museum’s eight Panathenaic amphorai are spread among these rooms and displayed according to the gallery themes. In each of these rooms, head counts and label evaluations of object labels and wall texts were performed to determine the amount of traffic the rooms receive over the course of an hour.

With the entrances to the room parallel to each other, Room 13 (Greece: 1050-520 BC) is primarily composed of vase
displays, as seen in Figure 1. There are display cabinets around the perimeter of the room, two large displays in the middle of the room, and the remainder of the space taken up by the descending staircase leading to Room 13a, which is no longer in use (Figure 2). The Panathenaic amphorai are in one of the two large display cases in the center of the room, located closer to the stairs that descend to 13a. This room contains large descriptive wall texts where the two Panathenaic amphorai in this room are contained, describing the history of black-figure vase painting and its relationship with Athens. The case does not have a number assigned to it, but the placards are entitled: “Athens” and “Athenian Black-Figure Vase Painting.” One of the two amphorai is the Burgon Amphora—the oldest extant Panathenaic amphorai (Figure 3)—and the other is a vase attributed to the circle of the Princeton Painter (Figure 4). On May 19, 2017, a head count observation was performed for a full hour from 11:05 am-12:05 pm. Two hundred and ninety people passed through the room, of which forty-six people stopped at the case containing Panathenaic amphorai. Twenty-one of these individuals were part of the daily ancient Greece tour. It should also be noted
that the famous Achilles and Penthesileia amphora by Exekias was in the same case as the Panathenaic amphorai. This vase, painted by a black-figure master, is featured on the audio tour, which likely accounts for the high viewing number.

Room 19 (Figure 5) contains sculptures and two main display cases. This room is called “Greece: Athens,” and it discusses the ruins and discoveries of the Athenian Acropolis. With entrances across the room, people entering the room had to pass by the display cases. As a result, most people took time to peruse the cases when moving through the gallery. The three Panathenaic amphorai are in one case next to the Caryatid from the Erechtheion. The vases are located along the back of the display case, with smaller objects in front. The labeling of these vases discusses the Panathenaic games, describes the images on the vases, and explains the meaning of Athena’s shield device. Head counts of Room 19, called “Greece: Athens,” were performed on May 16, 2017 from 12:42-1:15 pm (the observation ended when the room was closed due to being understaffed). There were 133 people that passed through, and 7 individuals paid specific attention to the 3 Panathenaic amphorai.

Room 20, called “Greeks and Lycians: 400-325 BC,” contains six separate cases, each addressing a different theme (Figure 6).xv Two cases contain Panathenaic amphorai: Case 1 is called “The Human Body 430-330 BC” and Case 5 is called “Athenian Pottery.” Case
Lysippos of Sikyon, Greece was a prolific sculptor whose career may have lasted from the 370s to about 310 BC. Working mostly in bronze, Lysippos created a new canon of proportions whereby the head was one eighth the total height of the figure. Lysippos’ most famous statue, the Apoxyomenos, only survives in later marble copies, and shows an athlete scraping his oiled body with a metal tool (strigil).\textsuperscript{xv}

Case 5 places the Panathenaic amphora in context with other Athenian vases describing its athletic pale (wrestling) scene as well as taking advantage of the specificity of the case name to describe a family of potters: Bakchios and Kittos. Room 20 “Greeks and Lycians 400-325 BC” was evaluated from 10:05-10:54 am on May 20, 2017. The room was closed at 10:54 am to accommodate the understaffed docents. Within this period, fifty-eight people passed through the room, 8 of them stopping at cases that held Panathenaic vases.

The “Greek and Roman Life” exhibit in Room 69 is one of the thematic rooms. This gallery room (Figure 7) is massive, with three long aisles of display cases lining the wall and a staircase display featuring an assemblage of Roman Glass. The entrances to the room are situated diagonal to one another across the room, and it is impossible to reach either without passing through one of the display case aisles. Two cases, Case 18 and Case 24, contain Panathenaic amphorai. Case 18 (Figure 8) is named “Boxing and Wrestling” and contains a Panathenaic amphora with a pyx scene. The case description discusses sports as a militaristic practice common between Greeks and Etruscans.\textsuperscript{xvi} Case 24, called “An Athenian Festival,” is an example of a typical display format (Figure 9). It contains various vases or related athletic objects pertaining to a different Athenian event. The objects are staggered and on different levels with individual labels, and a larger wall text is located at the back of the case. When a head count evaluation was performed on May 10, 2017, 277 people passed through from 1:16-2:16 pm. However, due to the room configuration, it was not possible to track the individuals who stopped at Cases 18 and 24.
Shifting to the Ashmolean Museum, Room 16 (entitled “The Greek World 1000-100 BC”) contained one case with two Panathenaic amphorai (one being a pseudo-Panathenaic amphora).xvii This gallery (Figure 10) had a large open space with four entrances into the gallery. Because of the open nature of the room, it was much easier for museum patrons to pass from room to room and ignore the material that did not capture their attention.

The interpretive material sampled from the Ashmolean Museum is quite different from that of the British Museum. In alignment with the theme, “Crossing Cultures, Crossing Time,” the amphorai are displayed in a case that describes ancient sport, specifically in terms of training and competition:

Young Greek men spent time training at the gymnasium, a place of both physical and intellectual education. After exercising, athletes would clean by sponging oil on their skin and scraping off the grime with a metal implement called a strigil. Competing in athletic games was a great honor for a youth. The Greeks believed that sporting excellence, physical beauty and good character converged in the ideal male.xviii
The object labels mention that the vases are a prize (or ‘pseudo-prize’), list to whom they are attributed, and provide a brief description of the image. These descriptions are not as detailed as those in the British Museum, and they do not cover a similar range of contextual information, such as pottery traits or descriptions of Panathenaic events. When performing the head counts for Room 16 on May 9, 2017 from 1:28-2:28 pm, 228 people passed through the room with 8 people stopping to look at the Panathenaic amphorai case, which also contained other materials regarding ancient sport.

Finally, the remaining question if whether the Panathenaic amphorai in the collections of the British Museum are a representative sample of awards presented to victors was addressed in a different manner. The percentage of vases on display in the British Museum (n = 9) that correspond to each event were compared to percentages calculated by Richard Hamilton (1996) based on drawings of extant Panathenaic amphorai (n = 166) (Figure 11). Note that these calculations could not be performed for the Ashmolean sample because of its small size (n = 2). The boxing, wrestling, chariot race, and ‘other’ categories, correspond closely with Hamilton’s percentages, while percentages for running, pankration, riding, and pentathlon vases differ. Most notable is the lack of running vases on display, especially since Hamilton claims that it is the most commonly depicted Panathenaic event. The distinction between pankration, riding, and pentathlon vases is negligible since the British Museum possesses a greater proportion of these event vases. However, these numbers are skewed by the drastic difference in sample size between Hamilton’s analysis and the British Museum’s display number. Nevertheless, it can be asserted that the British Museum does a good job in displaying the universality of the events of the Panathenaia, except for the lack of running event amphorai.

<table>
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<th>Running</th>
<th>Boxing</th>
<th>Pankration</th>
<th>Wrestling</th>
<th>Chariot Race</th>
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<th>Pentathlon</th>
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Figure 11. Panathenaic Amphorai Athletic Image content (table by author with information from Hamilton 1997 p. 144-155).

Results

The observations of head-counts and label analysis support projected findings
that the British Museum’s display of Panathenaic amphorai reflects its mission as a universal museum. The Panathenaic amphorai at the British Museum were displayed in rooms dedicated to Greek history and culture within cases that contained other related objects and interpretive materials intended to educate the public about ancient athletics and the Panathenaic games. Because there are four rooms with Panathenaic amphorai that adhere to different themes concerning various aspects of ancient life, the British Museum provides the visitor with a more well-rounded perspective of the information surrounding the significance of the vases. Label content covers a variety of topics all related to either the vases themselves or historical events surrounding the vases.

With nine Panathenaic amphorai on display in the British Museum, wall texts provide multiple opportunities to discuss topics associated with vases, such as Panathenaic athletic events, the histories of Athens and Greece, information derived from vase scholarship, the canon of the vases, and the construction of the vases. There appears to be a correlation between the number of Panathenaic amphorai present in a room and the opportunity for various discussion threads pertaining to the vases. For example, Room 19 of the British Museum, the room with the greatest number of displayed Panathenaics (3), contains the most diverse information, as it covered all categories (i.e. ancient sport, the history of Athens/Greece, vase scholarship and canon) except for construction descriptions. Each topic received more than five sentences of description. Room 14, however, contains no Panathenaic amphorai. The room is very small with only two display cases, yet it possesses wall texts that describe the construction techniques of red-figure and black-figure vases. The devotion of this room to the discussion of this topic makes up for three rooms (Rooms 19, 20, and 69) not addressing this topic. All object labels concerning the Panathenaics expound upon the sports depicted on the vases, and most rooms (Rooms 14, 13, 19, and 20) discuss vase scholarship obliquely by labeling vases with the attributed painter and/or potter. Room 20 explicates this by mentioning the roles of Bacchios and Kittos as related potters.

At the Ashmolean Museum, the Panathenaic amphorai were displayed
thematically with vases and other objects from different cultures and time periods. As a result, there was a smaller number of vases and less contextual information on labels. Additionally, the Ashmolean Museum’s labels and wall texts discuss all of the aforementioned topics except vase construction. However, with the two vases there are only two labels for each vase, standing in contrast to the British Museum which usually had two or three labels per vase. While the main wall text discusses the history of Athens and Greece (note that the theme of the room is the history of Greece), two sentences at most are dedicated to other topics, and, therefore, the Ashmolean’s descriptions do not provide the same depth as the British Museum descriptions.

The Ashmolean Museum’s smaller sample size and thematic display serves the museum’s teaching mission, and its small assemblages stand as parts of a universal whole. However, the Ashmolean lacks the true universality and comprehensive variety of the British Museum, which enables the British Museum to impart upon its visitors a sense of the bigger, more ‘universal’ picture. Furthermore, the Ashmolean’s renovation in 2009 reflects a new museological theory, which eschews the traditional chronological and culture-specific categories into which exhibits are typically categorized. Instead, this approach favors grouping objects according to their use or meaning. Because of the very open floor plan, with each room having multiple entrances and exits, it is quite easy for the audience to pass through each room. This results in treating the museum like a gallery, ironically in alignment with the overarching theme of the museum: “Crossing Cultures, Crossing Time.”

Overall, the vases held by the British Museum are used in a variety of displays, both chronological and thematic, and are thus able to illustrate the different facets of ancient life, such as athletic events, the history of Athens and Greece, vase scholarship, and vase canon. The Panathenaic events displayed correspond closely to the proportion of extant vases, except for running events. However, this gap could be easily remedied if the museum would place two running amphorai on display, as that would make its proportions mirror an accurate representation of extant Panathenaic amphorai. Nevertheless, the displays—spread across five rooms and six cases—ultimately provide an
encyclopedic understanding of the vases and their socio-historical contexts.

**Conclusion**

The British Museum holds the largest collection of Panathenaic amphorai outside of Greece. As such, one would expect that the amphorai on display are a representative sample of the awards presented to victors of the Panathenaic Games. When compared to the smaller collection of the Ashmolean Museum, the British Museum’s collection certainly appears to be more universal. It shows the hands of different artists through the history of the Panathenaic Games, displays a representative sample of various events, and discusses a breadth of related information from production to dispersal.

Universal museums have recently come under intense scrutiny, primarily because their collections were amassed by imperial powers at the expense of the colonized. There are those that support universal museums because they offer a breadth of collections that could only be seen otherwise through world travel. The scrutiny of universal museums and materials raise two questions: Are there truly universal museums when museums share a common mission of spreading and displaying information?

Do these critiques apply to a university museum like the Ashmolean, which contains objects collected during the same British imperial era from the same geographic region (i.e. the Mediterranean)?

The use of Panathenaic amphorai in this study serves not only as a case study, but also lends itself to the informal exploration of broader ideas of what is considered ‘universal.’ The British museum seeks to be a universal encyclopedic museum, and the Ashmolean is connected to a university. However, both portray their collections differently based on the same idea of comprehensive knowledge. If the universe is ever expanding, does that mean the display of universality is infinite as well? It certainly appears to be the case—with each museum grasping a different tenant of the principle. Although comprehending it seems to be a limitless task, the work of these museums attempts to capture what it means to be universal with the finite material display of human work imbued with limitless ideas and meaning impressed upon it by users of the past and viewers of today.
Bibliography


Endnotes

i Edward P. Alexander and Mary Alexander, Museums in Motion: an Introduction to the History and Functions of Museums (AltaMira Press, 2007), 3.


iii Ibid., 165.

iv Ibid., 220.


vi Ibid., 29.


viii Ibid., 134.


x Brenda K. Breed, The History of Greek Vase Scholarship: An Exhibition of Books Documenting the Collecting and Study of Ancient Greek Vases in the 18th Century (Houghton Library, 1997), 5.


xii This claim is based on a search of the Beazley Archive Pottery Database (http://www.beazley.ox.ac.uk/pottery/default.htm), which is the world’s largest collection of photographs and information concerning ancient Greek painted pottery. The British Museum’s collection consists of 47 whole and fragmentary vessels.

xiii Approximately four vases based on a search of the Beazley Archive Pottery Database (http://www.beazley.ox.ac.uk/pottery/default.htm).

xiv Specifically, the case numbers and titles are: 1) The Human Body 430-330 BC; 2) Luxury; 3) Persia, Lycia and Karia; 4) Metalwork; 5) Athenian Pottery; and 6) Pottery of the Greek World.


xvii There is only one true Panathenaic amphora in the case; the other is pseudo-Panathenaic. Its small size caused me to look over it, so I spent half an hour scouring other galleries for where the second listed Panathenaic could be.


xxi Ibid., 40.

xxii Simmons, Museums: A History, 221.
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Driving through the upper half of Maine was miserable. In an instant, you could tell that the northern portion of the state was being sucked dry by the flashy, colorful quality of Southern Maine by places like Portland and Kennebunk. It was as if the autumn disappeared as we travelled further. The scenery got grayer and the highway got quieter as my best friend Eddie slept on a folded pillow next to me while his mom drove and listened to Joni Mitchell. We were only headed to Eastport, Maine, for an overnight. Eddie’s mom, a marine biologist, and her colleagues invited guests for a private whale watch charter. But even a short trip started to feel too long to be trapped in such a bleak state. I sat in silence for the rest of the drive, wondering how the drive home would look the next day and watching the gray slide off and turn into color like in The Wizard of Oz.

The next morning, we boarded the charter boat before the sun came up. All the marine biologists and their guests were yawning and holding Styrofoam cups of watery coffee. Even the captain rubbed sleep from his eyes, which worried me as we stepped off the sturdy dock and onto the rocking boat. He told us we would head northeast towards New Brunswick, to a place that is generally dead this late into the season, but has had a lot of activity recently—a pod was leaving for warmer waters late.

***

That morning looked eerily like this morning, three years later, as I dangle my legs over the railing of the small bridge at home.

Eddie asks, “Do you have something I can use as an ashtray?” And as if accepting a dance, I give him my hand, palm down. He blows out smoke through his nose and laughs because I’m kidding, I’m kidding, right? Instead, he tosses his cigarette into the rotting river below. The water used to be clear enough to see your reflection, but now it’s muddied—littered with beer cans and cigarette buds floating from one town to the next. But in the early morning darkness, you couldn’t really tell what decay formed below, and it was easy to ignore it.

“Would you hold my feet while I look over the side, so I can hear the water better?” I ask, to which he responds with, “Absolutely not.” He decides we should probably go home. I made him meet me because I’d been up all night and I knew he had to get to work at 5am, making him the only person awake in my life. We live in opposite directions, so before we part ways, I kiss his cheek. Because he’s my friend, a best friend—and sometimes the extremely large paranoid part of my brain takes over and tells me he could get hit by a car.
on his way home, or trip and crack his head on the pavement, get eaten by a bear, have an aneurysm, choke on his spit. So, I want to cover my bases: big kiss, big hug. When we pull apart, he says, “Please get some sleep.”

***

Eddie has always reminded me of water. He taught me how to swim in a blow-up pool in his backyard when we were six. He pulled me out of freezing water by my jacket when I fell through the ice at the pond. I spent weeks at a time with him and his family in Nantucket while his mother took samples of sea to test in a big lab back home.

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I watch him disappear into the slowly brightening morning before I start walking home. I don’t even notice how cold it is until I hear a little crunch of frost underneath my shoe as I cut through backyards. I move around and dance with myself so that the initial heat will send a shock through my body to warm me up. I put a cigarette out on the back of my hand before running the rest of the way home.

***

The engine sputtered and the boat rocked, water droplets splashing onto my grey sweatshirt. I shivered looking at the bottomless blue water and for a split second I wanted to pierce the freezing surface with my hand—to see if my skin would turn to ice or remain tough against the cold water like whale blubber.

My thought was interrupted as the charter boat cut through the sea like scissors through paper. My loss of balance felt more like a lack of gravity: there was nothing solid for miles, nothing binding—only this clunky charter that I was convinced was doing more harm than good in dizzying me by trying to keep me afloat. For a moment, I wanted less between the surface and me. That’s when I heard someone say, “If you’re feeling sick, look at the horizon, it tells your brain that you’re right side up.” I took this overheard advice and stared off the side of the boat, right to where the ocean touches the atmosphere, but I don’t think the trick ever really worked.

***

I would have stayed awake for another day if it weren’t for my legs. They were on backwards by the time I got home; I couldn’t even get through the doorway. My mom finds me struggling like a fish out of water as she comes down the stairs to make coffee before work. She pulls me up by my underarms and I try to laugh it off, like it happens all the time. I chalk it up to the run home from the bridge, something must have happened, and if I could just get to my room…

Her face is something serious, though, as she puts on sneakers, asking where I’d been all night. Then all of a sudden, the illuminated
morning turned into florescent overhead lighting and a male nurse shoving an IV into my ashtray hand, taping the tube around my thumb. I immediately begin to rip at.

“It’s…it’s just my legs, just have the doctor switch my bottom half around, I don’t need this IV,” I shout. The nurse shushes me incessantly and I become so focused on the way his lips stick out with each “shh” that I don’t even realize he’s forcing me to sleep. Before my eyes close, I see my bare feet—right side up—connected to tiny ankles, and thin legs connected to bruised knees.

***

The charter slowed, the air crystallized. Hesitation surrounded the passengers, giving way to a loud snort. The sound forces everyone’s attention to the left side of the boat, rocking my unstable reality yet again. The captain tells us there are at least two humpbacks surfacing. Soon, rubbery, dark gray patches circle up to the surface, hitting the open air just briefly. Even without any sun, the blubberly bits shine when they rise above the water. Little islands of humpbacks, bobbing up and disappearing. Then, the water quiets.

The buzz around the tiny bit of whale we saw rejuvenated the sleepy bunch. We idle for a bit, hoping to see more. I moved to the other side of the boat for a moment, needing more horizon, even though the trick had been failing me all morning. A strange silence envelopes the boat—it reminds me of the spooky quietness after Susan Backlinie gets eaten up at the beginning of Jaws. It’s sinister, especially for how striking the sea is. The quiet, for a moment, made me believe there’s nothing in the water but salt.

***

Whales exceed humans in their emotional capacity. Intensely familial, humpbacks generally share their lives with their pods—which consist of family, friends, neighbors, other mother whales—to solidify a safe migration, time and time again. However, humpback whales can be excruciatingly solitary animals as well, who will travel by themselves for miles when they desire. They attend the party, then they walk home alone. They kiss their friends and disappear in the other direction. Sometimes, they get too lonely, suffering from more solitude than needed. They sing haunting lullabies that travel sorrowfully through waters warm and cold. Humpback whales will always find the singer of that lonely song and understand. The need for companionship and the need for separation harmonize for the humpback. No one asks, “Where have you been?” Instead they say, “Welcome back.”

***
I try to shake the eerie feeling after the short flashes of whale we just saw. Somehow, the silence of the open water was frightening loud, drowning out the chatter from the others on board.

When the humpback breached, it happened in slow motion. I took a breath in and it was as if I summoned the whale out of water. One of the largest animals in the world was suspended in air, suspended in time. It’s off-white fins waved to me, relaxed, like a neighbor waving from their lawn across the street. The biggest thing I’d ever seen was falling to earth, making a whale shaped imprint in the water, as I slowly exhaled. Ocean sprayed into my face from the waves of the breach against our boat, and people gasped with excitement. I taste the salt in my wide-open mouth, feel the spray in wide open eyes, but I don’t blink. Droplets get trapped in my frizzy, windblown hair and dampen my grey sweatshirt once again. I let out an edge-of-the-world laugh. I want to turn around to see everyone else’s faces, to see if they’re even still there but I felt deranged.

Before I can even decide to turn around, another humpback launches from the waves, this time even closer to the charter. My head moves up with the whale’s trajectory and for a second, there is no ocean anymore, just a humpback whale frozen in time against the slate gray sky. I don’t move a muscle until it hits the water, back where it belongs. The water calms as we wait for more, but that was the last of it. It was so deafeningly loud when the humpbacks snuck out of their liquid habitat to show us their massive existence, and now that everything is so still, I’m wondering if I even saw it at all. Maybe the humpbacks were just some sort of simulacra: hyperreal, dreamt.

That’s what frightened me the whole trip back to the port, back to the cabin, back to the car and back to Connecticut. The grandest animal showed itself so briefly, but startled me for so long after the fact. The image of the humpback hanging in the air chased me inland, lingering in my memory. There was a sea giant underneath me, living its life so quietly and peacefully until it decided to show how enormous it really is, leaping out of its dwelling so people can stare. But it’s not such a tragic life for the humpbacks. In fact, the colossus lives freely. It lives alone and it lives with others. It sings and is sung to. It shows itself and doesn’t care that people are scared. Below the surface, it lives shamelessly big every day.

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When I wake up, I’m in the front seat of the car, my mom in the driver seat. Outside, the day is either just ending, or just beginning. I can’t be sure, but the sky
is the exact same shade as it was when
I left Eddie’s embrace on the bridge.

I stay quiet. I feel as if the past few days
leading up to this had been one long breach—
me shooting out of the water to dangle in the
clouds before crashing back down, creating a
spectacle, causing a ripple in otherwise calm
waters. And then to hide beneath the calm
surface. Though, I’m not hiding. Just because
I’m underwater doesn’t mean I’m small. It
means I’m swimming to where I want to be.

Back home from the hospital, I’ve
determined it is dawn a day later. I
crawl into bed and drift off to sleep
from the mix of morning and medicine.

I dream underwater. I hear a familiar
melancholy cadence and crashing waves. I
see the bright surface above but instead of
rupturing the calm separation between earth
and sea, I follow the lullaby to warmer waters.
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While few may be familiar with the Warner Brothers film, *Black Fury*, its release in 1935 sparked a national debate over controversial issues that affected millions of American workers. The year the Pennsylvania coal mining film was released, the country was in the midst of the Great Depression; unemployment was at 21%, a staggering number compared to the average of 5%, and 10 million people were out of work. In spite of the ongoing Depression, an average of 75 million people, out of a total population of 127 million, went to the movies every week. As a highly influential medium, film was increasingly scrutinized in the 1930s; pressure from religious reformers prompted Hollywood to adopt a self-censorship code monitoring the political, social and sexual content of film. Despite this internal censorship, *Black Fury*, which depicts a strike, disaffected workers, and police brutality, was considered so inflammatory it was temporarily banned in several states. However, close inspection of the film’s content reveals a strategic avoidance of any bold labor-capital statement, yet it still aroused widespread disputation from both the right and left. In an environment of widespread poverty and hardship, the film exposed the divided opinions on America’s economic, social and political systems. Newspapers across the country used *Black Fury* to broach topical issues such as unions, Marxism and capitalism, censorship, and the line between art and propaganda in entertainment. An exploration of the paradoxical elements and the conflicting interests of those involved in production reveal how Black Fury was shaped into a product that exposed growing social and political divides in the country.

The making of *Black Fury* began in 1929 in Imperial, Pennsylvania, a coal mining town just outside the city of Pittsburgh. Since the end of the Civil War, Pennsylvanian coal mine operators had legal authority to exercise control over their workers through the Coal and Iron Police (CIP). Members of this private police force were paid and controlled by coal companies but commissioned by the governor for protecting company property. Operators were not particularly fastidious when hiring men for the CIP. A help-wanted ad in a Philadelphia newspaper merely stated “WANTED - able-bodied men to act as Coal and Iron Police”. The CIP quickly became problematic, as coal operators used them to break strikes, suppress union meetings, evict miners and intimidate protesters. The 1920s were especially violent in the Pennsylvania coal fields as CIP used brutal methods to break several national coal strikes. The
situation reached a breaking point in 1929 when Pittsburgh Coal Company police beat the miner John Barkoski to death, leading to public outcry. Michael Musmanno, a state legislator at the time who would become a Pennsylvania Supreme Court judge, made it his mission to abolish the CIP system. His short story based on the Barkoski murder, Jan Volkanik, would serve as the basis for Black Fury.

The film centers on Joe Radek, a Slovak miner in a western Pennsylvania coal town, who is happily working to save up money to buy a farm where he and his fiancée, Anna, can raise “pigs and kids.” Radek has no interest in the union and pays little attention to the dissenting talk of the newcomer, Steve Croner, who argues for the miners to rebel against the coal company. It is soon revealed Croner is an operative of a detective agency; his mission is to instigate a strike to create a necessity for the operators to hire the agency’s guards as auxiliary CIP. At first, Croner makes little headway with the union miners, who counter, “Things ain’t as bad as they used to be, and they’re gettin’ better all the time.” This strategic line in the film implied that coal mining conditions were improving, and therefore, the miners had no valid reason to strike. After discovering Anna left town with a CIP to escape the dismal and laborious life of a miner’s wife, Radek gets drunk and stumbles into the union meeting. In his agitated state, he sides with Croner shouting, “Sure - fight! Betchem my life, fight.” His energy and rapport with the miners sway the vote and split the union. Through Croner’s persuasion, Radek leads the dissidents on strike, breaking the existing contract and forcing the owners to hire new workers and guards. This key portion of the film’s plot (which would be hotly debated by the American moviegoing public) decisively places the blame for the strike on the profiteering detective agency, since Croner deceived both the miners and the operators.

Furthermore, the operators’ responsibility for the actions of their CIP is diminished by portraying the operators as reluctant to hire the guards. One scene depicts an owner warning the detective agency not to abuse the miners. When the strike collapses the town turns on Radek, who is blamed for the failed scheme that left the miners unemployed and evicted from their homes. At the film’s climax, Radek stages a one-man strike after a vicious CIP beats his best friend to death. With the help of a returned and penitent Anna, he barricades himself in the mine rigged with explosives. His threat to destroy the mine unless the original contract is reinstated leads to an intervention by the federal government, and peace is restored.
Because of this, *Black Fury* evades the controversial labor-capital issue by concluding the story with a return to the status quo.

Although the film avoided making an explicit sociopolitical statement about the issues in the coal fields, the New York, Maryland and Chicago censor boards banned *Black Fury*, deeming it “conducive to social unrest.”xii *Black Fury*’s production coincided with Hollywood’s transition to a strictly enforced code regulating morality issues and requiring deference to authority and government institutions. Created in 1930, the Motion Picture Production Code (Code) was Hollywood studios’ effort to neutralize calls for federal censorship and to counter the rising influence of state censors, who had the power to ban any film they deemed immoral or too controversial. By the end of the 1920s, Catholic and Protestant leaders, unsatisfied with uneven state controls, began pushing for federal censorship.xiii Hollywood studios adopted the Code in 1930 to disarm these advocates for federal control and to preempt external censorship from the state and local censor boards.xiv By self-regulating film content, the studios could maintain creative control and ensure their films would reach the largest possible audience. However, filmmakers mostly ignored the Code due to a lack of an enforcement mechanism. Because of this, pressure from the Catholic Legion of Decency brought the appointment of Joseph Breen as head of the Production Code Administration (PCA) and enforcer of the Code in 1934. After 1934, the year *Black Fury* entered production, all films were reviewed by the PCA and required its seal of approval. xv

An analysis of *Black Fury*’s production is necessary to understand how the Hollywood’s internal censorship mechanism failed to prevent external censorship from New York, Maryland and Chicago. Multiple parties influenced *Black Fury*’s production, and each had distinct and sometimes conflicting interests in the content’s translation to screen. Its inception occurred through a collaboration between Musmanno and Paul Muni, an actor who had already starred in the socially conscious films *Scarface* and *I am a Fugitive from the Chain Gang*. The two met when Muni performed in a play at the Nixon Theatre in Pittsburgh in March 1933. Musmanno approached Muni about the idea, stating, “[I heard] that you intend to portray...
a Pennsylvania coal miner...something should be done to acquaint the world with [their] horrible plight”.

He explained the 1929 Barkoski incident and claimed it could be incorporated into a film, appealing him with, “You ought to use your talents in stories that will acquaint the world with the cruelties that exist ... to the end that public opinion may form to obliterate them.” Musmanno’s plan for the film was to raise public outcry against the CIP in order to pass a bill for their abolition in Pennsylvania. In the previous six years, his campaign against the CIP system had brought reform legislation through the House four different times; each time, the Republican Senate, under the influence of powerful coal industry titans, killed it. Musmanno hoped publicity brought to the issue would finally apply enough pressure on the Senate to force its passage. Muni had indeed expressed interest in a role as a coal miner. According to his biographer, Muni visited the coal town of Pottsville, Pennsylvania in 1933 to research his role. As a transformation actor, Muni would immerse himself into his character, performing extensive research for each role. His aversion to being typecast led him to continually seek out different characters. After playing Tony Camonte in Scarface, he refused additional gangster roles because he wanted a new challenge. This quest for “vital and lifelike roles” drew him to the coal miner character. Muni wrote to Musmanno that “according to the newspapers it seems that the pot is boiling in the coal mining regions and now...is the time to produce a picture with the coal miner motif.” Muni’s 1934 contract with Warner Brothers allowed him to reject roles he did not like and propose ideas of his own. Delighted with Muni’s interest, Musmanno set to work writing Jan Volkanik. In January 1934, he sent Muni a copy of the manuscript, which differs substantially from the final film. In accordance with Musmanno’s objective to eradicate the CIP system, Jan Volkanik portrays conspiring operators and brutal police. In this early version of the script, the operators, rather than a detective agency, plan to infiltrate the workers to instigate a strike that will annul the existing contract. Musmanno’s story contains graphic police violence and portrays perilous mining conditions. In one scene, a mining accident inflicts a lifelong injury on a fifteen-year-old miner. Notably, the story does not end after the one-man strike as it does in Black Fury; instead, Volkanik goes to Washington and makes a speech that leads to a negotiated settlement for better conditions. Ultimately, Jan Volkanik was an activist story designed to elicit public outrage and
Muni’s response after reading Musmanno’s manuscript revealed his personal objections to propaganda and his understanding of what could realistically be made into a mainstream film. In his letter to his collaborator, Muni introduced his list of objections with the forewarning, “so—here goes violent, brutal criticism”.

He pointed out that Musmanno’s partiality made the story “smack of obvious propaganda”. He also criticized the story’s lack of realism by claiming that Musmanno’s hard-liner critique would prevent the audience from empathizing with Volkanik. Muni believed the story depicted the miners and operators in “extreme white and extreme black”. He explained these extremes would be unacceptable to Warner Brothers, who as “commercial men are going to handle this for the sole purpose of making money”. Additionally, Muni indicated Jan Volkanik would likely encounter trouble with the censors; his experience as a film actor had given him a clear understanding of what content the censors would and would not allow. This criticism of his story distressed Musmanno, which he confided to his brother admitting, “I was so disappointed that I actually felt a pain in my heart”. Muni’s candid objections to the uncompromising portrayal of the labor-capital conflict in the coal fields presented the earliest check on Musmanno’s expectations for the film. However, he grasped onto Muni’s reassuring closing words that there was “so much vital life in the story that, notwithstanding its drawbacks, it can be welded into a breath-taking epic”.

Muni may have also had personal interests for toning down the labor-capital content of Jan Volkanik. As a serious actor, his focus was on portraying characters that were realistic and believable. Muni had explained to Musmanno that an activist agenda in a story produced characters that appeared “manipulated by the author rather than himself and his environment”. This manipulation could disrupt the realism of the character and by extension, his believability to the audience.

When interviewers assumed he was left-leaning because of the type of roles he played, he protested, saying, “I have always avoided being brought in as a crusader. My politics is the business of acting”. Claiming a scientific detachment from sociological implications, he instead preoccupied himself with the realism of the character as an individual. This suggests artistic ambitions may have also motivated his efforts to moderate Jan Volkanik’s transition to film.

Internal Censorship

To craft a story acceptable to the studio, censors and himself, Muni enlisted the help of his wife’s brother, Abem Finkel, a
screenwriter at Warner Brothers. Finkel’s “treatment” of Jan Volkanik, which “toned down the objectionable capital versus labor elements,” was submitted as a proposal to the reading department at Warner Brothers. Muni introduced Finkel to Musmanno in late May 1934, after which the two maintained a steady correspondence while Finkel crafted the screenplay. In his efforts to portray realistic conditions, Finkel consulted Musmanno frequently about Pennsylvania coal mines, miners and the CIP. At this point, Finkel became the primary intermediary between the studio and Musmanno since Muni became immersed in work on another film, Bordertown.

The Finkel-Musmanno correspondence reveals considerable self-censorship in the screenplay writing process in the effort to preempt PCA and state censor conflict. The original screenplay was guided by their perceptions of what might be frowned upon by the censors. Though Musmanno did not write the screenplay, his influence is seen through Finkel’s readiness to include his input. It was Musmanno’s idea to insert the racketeering agent in the plot as a way to avoid blaming the operators for the violence and mass evictions that followed the strike. On June 8, Finkel wrote Musmanno saying, “we feel you are quite right about planting Croner as a stool-pigeon...we are going to definitely establish that the detective agency has sent Croner into the field under cover for the express purpose of splitting the miners’ union...this will tend to take the onus off the operators.” Later, Finkel again emphasized “the position of the coal operators in our story. We are going to make them as much the victims of the racketeer[s] as are the miners...the story would not be acceptable for picturization if we made the operators the villains of the piece”.

This firmly establishes that self-censorship occurred early in the writing process and that Musmanno actively participated. Musmanno also introduced and developed the one-man strike at the end of the film that brought considerable criticism from the left (which will be discussed later). Musmanno wrote his brother that Finkel was consulting him so frequently that he claimed, “I have practically worked out the whole sequence myself”. Perhaps Musmanno helped Finkel find ways to sidestep the controversial labor-capital conflict because he was convinced that meeting Muni’s and the studio’s objections was the only way the film would be made.

As an employee of Warner Brothers, Finkel’s correspondence provides insight into the studio’s moderating influence on the labor-capital elements of Jan Volkanik.
During the 1930s, Warner Brothers had a reputation for making films about socially controversial issues, such as Scarface’s commentary on prohibition-era crime and I Am a Fugitive’s exposure of the cruelties of the Georgia penal system. However, Warner Brothers’ films dealt with socially conscious subject matter only at the individual level. As author and film critic Nick Roddick observed, “The classic Hollywood style rested upon the individualising of social issues.”

Finkel expressed the need to continue this tradition of hero-centric storytelling when explaining to Musmanno why the labor-capital issue had to be toned down from Jan Volkanik. He stated, “We feel that our story is primarily the human story of our hero, Joe Radek, everything else is background; and if any element of the background tends to overshadow the importance of Joe, that element must be so modified and changed until it assumes its proper relationship to Joe Radek.”

This suggests that it was in both Warner Brothers and Finkel’s interests to revise the broad social elements of Jan Volkanik to conform to the established Hollywood style.

Another entity concerned with the content of Black Fury was the National Coal Association (NCA), which was keen to prevent an unfavorable presentation of operators. The executive secretary of the NCA, J.D. Battle, wrote to Breen of the PCA in protest against the production of a film that he believed was an attack against the coal industry. Battle argued that the film misrepresented the situation between the operators and the miners because he believed that the conflict had been resolved long ago. Breen relayed this message to Warner Brothers cautioning them to depict the miners as fairly treated and the operators as forced into action by the miners’ misjudgment. This exchange indicates that the NCA believed that film had a high level of influence over public opinion and could shape perceptions of their industry. However, it had little material consequence for how Black Fury turned out. The Battle-Breen-Warner correspondence occurred between August 29 and October 9 of 1934, well after Musmanno and Finkel’s June 8 agreement to remove blame from the operators. Moreover, Finkel wrote Musmanno on October 12 to tell him the screenplay had been “okayed by the powers that be; and strange as it may seem, it is still the same story”. This approval of the original screenplay shows that the self-censorship efforts of Finkel and Musmanno satisfied the PCA’s interpretation of the Code.

**Public Reception**

When Black Fury began showing in April and May of 1935, it sparked widespread
commentary across the country. Apart from the unanimously lauded artistic performance of Muni, the response varied from gushing praise to outright censure. The clashing responses to the film’s treatment of labor content reflected a nation in upheaval. The Great Depression had created a rift in Americans’ social and political ideology; capitalism appeared to have failed. Although FDR was implementing New Deal policies, improvement was slow. The U.S. would not fully recover until after entering World War 2.

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American laborers were greatly impacted by the slowed economy; union issues that had simmered beneath the surface erupted in 1935, creating a schism between craft and industrial unionism within the American Federation of Labor (AFL). The AFL was an alliance of craft unions, which consisted of skilled workers organized into unions based on a particular job specialty. The harsh Depression years hastened the erosion of the AFL’s popularity because unskilled laborers, as well as women and ethnic minorities, were excluded from membership. xlvi With the rise of mass production in the early twentieth century, the numbers of unskilled workers grew, increasing the alienation between the majority of laborers and the AFL. Consequently, organized labor membership declined sharply in the early 1930s. xlvii There was an increasing demand for an industrial union system that represented all workers by industry. Bolstered by FDR’s support of the workers’ right to organize and choose their own representation, which was outlined in the 1933 National Industrial Recovery Act, workers began striking on an unprecedented level, often without the sanction of the AFL. xlviii In 1934, a million and a half workers in a range of industries went on strike. xlix The workers’ movement provoked existing divisions within the AFL; the industrial unionists left the AFL to form the Congress of Industrial Organizations (CIO), which would quickly gain substantial membership and would organize unions in the automobile, steel, rubber, coal, textile and electrical industries. li These developments represented a major reconfiguration of organized labor in America, and the short-term instability and uncertainty heightened tensions between the rival factions. As a result, the public was increasingly sensitive towards any statement that appeared to advocate
for a particular side of the union conflict. 

Amidst this labor union upheaval, *Black Fury* was released. The film was highly anticipated since news of its trouble with state censor boards had appeared in newspapers weeks before. New York, Maryland and Chicago threatened to ban the film outright if certain deletions were not made, specifically the CIP murder scene. However, Musmanno promised to sue if any eliminations were made. He argued the CIP scene was based on “fact, not fiction...The people...would like to know about the brutalities and savageries of the Coal and Iron Police.” By early April, New York bowed to the pressure and passed *Black Fury* without deletions; Maryland and Chicago followed suit in the next few weeks. Unsurprisingly, some theaters used this controversy to promote ticket sales. Promotional ads in newspapers across the country urged viewers to “See it while you can! The screen may never take such a chance again!” Press books, which were a manual for exhibitors to promote upcoming films, assured theaters that *Black Fury* would draw crowds since it dealt with “a straight-to-the-heart situation which has been headline stuff for years.”

Swept up in the censorship buzz and exuberant advertising, many reviewers hailed the film as a daring social document. W. R. Hearst’s Pittsburgh Sun-Telegraph praised it as “grimly realistic” and “an industrial study.” In Missouri it was called “a thrilling melodrama about labor and capital” that was “exceptionally realistic.” Possibly the greatest exaggeration of the film’s social significance came from the Los Angeles Evening Herald. It claimed the film “deal[t] frankly, honestly and sincerely with labor problems... and concisely explain[ed] the differences between laborers, employers and capitalists.” These aggrandizing statements may have been prompted by the sheer novelty of seeing industrial labor depicted on film since Hollywood usually avoided the subject of labor.

Some reviews of *Black Fury* reflected the political bias of the newspapers by interpreting the film as support for the AFL and a denouncement of non-AFL unions. Louella Parsons, a syndicated columnist for
Hearst, claimed the film “never for a moment loses sight of the fact that the American Federation of Labor is a great institution and is doing a big work. The miners who desert their posts are not members of this great organization, but renegades who stir up trouble and cause untold pain and suffering by their ill-timed insurrection.” This superficial argument betrayed ignorance of the challenges miners faced and the complexity of the union conflict. The Los Angeles Times commented that Radek was turned into a “Red enthusiast” by the combination of his girl leaving him and his heavy drinking. The film never once mentioned anything about communism, yet the LA Times interpreted a worker wanting to break away from the AFL as a “Red”. This suggests a perceived connection between non-AFL unionism and communism. Many of the California-based reviews revealed a bias against the strikers. This may have been influenced by the state’s ongoing agricultural labor battle, in which much of the media backed big business.

While some papers praised Warner Brothers as brave for broaching the sensitive issue of labor, others pointed out that the film refrained from taking an explicitly political stance. Time magazine argued, “Actually, ‘Black Fury’ is not courageous at all. To the body of knowledge about labor disputes, it adds nothing.” It further claimed the film drew attention only because it seemed daring in comparison to most films, referring to the fact that Hollywood usually avoided the controversial subject of labor altogether. Although Time denied the film’s status as a ground-breaking social document, the magazine believed it fulfilled a movie’s primary obligation to entertain, observing, “Black Fury succeeds superbly in its real aim, which is to be exciting.”

Some commentators went a step further, arguing that not only did the film fail to make a pro-labor statement, but it actually promoted capitalism. The New York Times film critic, Andre Sennwald discussed his view of the “conservative propaganda picture” since it was “certain to be among the most violently debated photoplays of the year.” He believed Black Fury’s absolution of the operators from any blame for the strike offered a conservative alternative to the emerging left-wing ideology by defending “the status quo in the Pennsylvania coal mine sectors.”

His mention of a growing leftist voice refers to the development and expansion of Marxist movements in depression-era America. The Communist Party USA (CPUSA) attained its highest level of support and membership during the 1930s. The strongest criticism of Black Fury
came from publications on the left, which condemned its depiction of radical workers as criminals and its assertion that workers had no valid grievances. David Platt of the Daily Worker, a newspaper affiliated with the CPUSA, wrote a scathing criticism claiming there was a “malignant purpose” behind the film’s release coinciding with the brewing strike in the bituminous coal region.

Platt felt strongly that *Black Fury* would be “expertly used by the coal operators as a club in an attempt to cower the rising militancy of the miners in the current coal crisis.” He called Musmanno a “labor betrayer” for his role making a film that indicted miners for standing against “corrupt unionism.”

One of Platt’s primary concerns was that the film perpetuated the coal industry’s claim that there was no longer any controversy in the coalfields. Interestingly, this very argument was made by the National Coal Association in J.D. Battle’s August 1934 letter to Joseph Breen of the PCA. Battle had written to protest Black Fury’s production as a misrepresentation of the coal industry, claiming the film portrayed a conflict between miners and owners that no longer existed. *Black Fury*’s affirmation of the coal industry’s denial was at the heart of the left’s criticism of the film.

The Marxist magazine, New Masses, similarly called *Black Fury* “a calculated attack on the rank and file movement.” By removing blame from the operators and ascribing it to profiteers, the film served to “further...confuse millions of workers and middle-class people who are already confused about the real social and political issues of today.” New Masses was indignant of Radek’s one-man strike that presented no clear demands for improving the workers’ situation. Radek’s strike simply brought a return to the status quo, which implied there was no controversy to begin with.

The criticism from the left prompted rebuttals that further illuminated the country’s divergent labor stances. Kaspar Monahan of the Pittsburgh Press countered the New Masses condemnation of *Black Fury*, claiming Warner Brothers should be applauded for turning the spotlight on “subjects hitherto considered taboo on the screen”. Though Monahan admitted the film skirted the most controversial labor-capital disputes, he was content that it was a small step in the right direction, stating it “casts a glaring searchlight on inhuman[e] conditions”. He defended Musmanno’s role in the film claiming that although the operators got off easy, the film still succeeded because it “should be a lethal blow to the coal and iron police of Pennsylvania.”
Others, like the left-wing Theatre Union in New York, held less lenient views on the social responsibilities of performing arts. The Theatre Union was a worker’s theater whose agenda was to represent “deep-going social conflicts, the economic, emotional and cultural problems that confront the majority of people.” Coinciding with Black Fury’s release, the Theatre Union staged a play entitled Black Pit, which also had a coal miner theme. Considerable discussion arose comparing the two productions since they handled similar content in strikingly different ways. Black Pit emphasized the powerless position of the individual miners and placed the blame squarely on the operators rather than racketeers. In late April, newspapers announced the Theatre Union was holding a symposium to compare Black Pit and Black Fury to “determine if the plays are propaganda for the miners’ union, the operators, the racketeer strikebreakers... or just to sell tickets.”

Comparisons between Black Fury and Black Pit raised the question of whether actors had a social responsibility in their plays and films. The Theatre Union’s magazine, New Theatre addressed a recent interview with Paul Muni published in the New York Times. In the interview, Muni discussed his objection to being considered “a sociological crusader among actors.” Because of his role in films like I am a Fugitive, some assumed he was trying to make a social statement through his work. However, Muni explained his interests were only to portray a character genuinely and convincingly regardless of politics. New Theatre was “impatient and indignant” about Muni’s attitude since they maintained that the performing arts ought to “deal boldly with the deep-going social conflicts.” The Theatre Union believed art should convey a message, not merely entertain. Comparisons between the two productions provoked disagreements over the appropriate relationship between art and politics.

Black Pit’s author, the playwright Albert Maltz, joined in the public debate to call attention to the inaccuracies and propaganda elements in Black Fury. In the New Theatre magazine Maltz described the film as “incredibly inaccurate in its portrait of miners and mine conditions.” Like the Daily Worker and New Masses, his disapproval stemmed from the exculpation of the operators, the portrayal of radical workers as racketeers and the whitewashing of the true coal town conditions. He criticized the one-man strike as “magnificently phony” and a misrepresentation of how strikes were conducted and won. In a letter to the editor of the New York Post, Maltz argued that Black Fury should be considered propaganda,
since it carried a message that “miners have no reason to strike.” Interestingly, his argument coincides with the more moderate Sennwald of the NY Times who called Black Fury “a conservative propaganda picture.” However, unlike Maltz, Sennwald approved of the film’s pro-capitalist message. He had referred to Maltz’s Black Pit in his April article when he stated that if “the Communist theatre is entitled to whack the existing order, then it is equally proper and perhaps even important that the capitalist theatre defend the American political philosophy.”

Both Maltz and Sennwald believed art could and should include an ideological message, but their consensus ended there. Sennwald described Maltz’s Theatre Union as “militant” and their productions as “that angry product of the left-wing theatre of action.”

While the public debates in the newspapers continued, another discussion over Black Fury took place in a more formal setting. Twenty-one members of the National Board of Review met in the Warner projection room to discuss the film’s qualifications for inclusion on their list of the year’s “exceptional photoplays.”

Although the organization was started as a method of counteracting government censorship of films, the Board was dedicated to encouraging the artistic quality of film after 1916. According to the Board’s executive secretary, Wilton A. Barrett, “The field of the National Board did not lie in the realm of criticising the [film] industry and our work [is] that of a citizen group trying to encourage the best uses of the motion pictures.” The Board put out a monthly publication, the National Board of Review Magazine, which included a list of its committee’s selected Exceptional Photoplays. The Committee on Exceptional Photoplays was made up of students, teachers and critics who evaluated artistically ambitious films.

The Board’s committee discussion in April 1935 can be seen as a microcosm of diverse national responses. The committee debated many of the same arguments brought up in the newspapers. Similar to the argument by the Pittsburgh Press, one thought the mere fact that Warner Brothers chose a labor-themed film was “encouraging”, explaining, “Remember we live in a capitalist country and they couldn’t do too much with it. In Russia they could do it differently.” This low level of expectations from a Hollywood production was not shared by everyone in the committee; some thought separating the coal operators from responsibility for the violence disqualified the film from any mention by the Board. The same criticism by New Masses of the whitewashed conditions in mining towns was brought up. The subject
of unions arose, with arguments on both sides; one commented, “If I hadn’t seen Warner’s name on the film, I would think the American Federation of Labor had sponsored it”.\textsuperscript{xcv} Others interpreted it as an attack on the unions, saying “the picture was...an expose of unionism”.\textsuperscript{xcvi} The results of the discussion - nine voting for mention of the film, four voting for no mention, and eight abstaining - shows that even in a small group of like-minded individuals, there was no consensus on \textit{Black Fury}.

Committee member James Hamilton attempted to summarize the group’s diverse response to \textit{Black Fury} the following month in the \textit{National Board of Review Magazine}. He acknowledged that “no picture...has stirred up so much serious argument as \textit{Black Fury}” because it brought up the very issues the country currently wrestled with.\textsuperscript{xcvii} He argued that the conflicting reactions to the film simply reflected different beliefs of what America should be. He called the movie courageous for risking controversy while simultaneously conceding it was unprovocative, because it dealt with a miner’s strike “in the gentlest and vaguest terms”.\textsuperscript{xcviii} His nuanced article took a moderate stance to reflect the varied opinions of the committee. However, his own reaction in the committee discussion was more marked. Hamilton commented that \textit{Black Fury} had no emotional effect on him, because he was “conscious that the producers had some sticks of dynamite that they were waving around but taking good care that they never exploded”.\textsuperscript{xcix}

Of all the different groups who debated \textit{Black Fury}, the coal miners who inspired the story were silent. A search of the records of local United Mine Workers of America (UMWA) meetings during the time of the film’s release reveal no mention of the film. Instead, the meeting minutes show more concern with pressing day-to-day problems, such as unemployment, death funds for widows, operators’ refusal to pay for down time/dead work, and discharge cases.\textsuperscript{c} Tangible grievances left little time or energy to discuss a Hollywood film. The motion picture that aroused fierce debates among intellectuals, partisans, film critics and labor activists does not appear to have warranted discussion among the miners closest to the conflict. Members of United Mine Workers leadership, however, considered the film potentially useful. Correspondence between Musmanno and Patrick T. Fagan, head of District 5 of UMWA, shows consideration over showing the film in Washington during negotiations for a new UMWA contract.
Musmanno urged, “This would undoubtedly be a splendid way of bringing to the attention of National Authorities deplorable conditions in the coal fields...and would also open the eyes of the coal operators.”

Though Fagan agreed and thought UMWA President John L. Lewis would too, a timing issue prevented use of the film since negotiations ended before a print of the film could be made.

Although *Black Fury* did not receive any awards, it did help accomplish Musmanno’s objective to abolish the CIP with the repeal of the Industrial Police Act on June 11, 1935. The bill’s passage, which Musmanno publicly credited to *Black Fury*, made it illegal for companies to employ private police.

The film was mentioned during the UMWA District 5 Biennial Convention later that year when congratulating Musmanno for his efforts to abolish the CIP system. Assemblyman Frank Coolahan praised Musmanno, “whose ‘Black Fury’ brought fear to the obstructionists that brought results.”

Musmanno had arranged to show the film to the legislators in the State House earlier that year. In addition to showing *Black Fury*, he had brought “a delegation of victims of the private police, including Mrs. Sophie Barcoski, widow of the slain miner” to further shame the legislators into passing the bill.

The rival interests working to control the portrayal of labor-capital relations in *Black Fury* created a paradoxical film. Although it was strategically manipulated to be uncontroversial, the content’s relevance to issues in 1930s America antagonized members from both sides of the political spectrum. The prolonged economic depression had deeply shaken people’s faith in American institutions; discontent with the AFL was growing, millions of workers were striking and support for Marxist organizations was reaching unprecedented levels. In this context of upheaval, *Black Fury* exposed a nation deeply divided over the issue of organized labor. While the political and social ideas were primarily debated by individuals far removed from the actual situation, one must not forget that the essence of the film represented issues that profoundly affected - and would continue to affect - real coal miners and their families. Although *Black Fury* would soon fade from the public’s memory, the controversy between miners and owners in the coal fields would linger for years to come.
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MURDERING MOSQUITOES WITH ENVIRONMENTAL JUSTICE

Dengue Fever in Jakarta, Indonesia

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Dengue, Jakarta, and Southeast Asia

Dengue fever is a vector-borne disease, meaning that it transmits via contact with an infected organism—in this case, an infected mosquito. The spread of an infectious disease is traditionally addressed with direct intervention. Efforts include synthesizing a vaccine, quarantining infected individuals, educating the public, organizing communities, and eliminating the mosquito’s habitat. Despite these effective and necessary efforts, officials can slow the spread of a disease by allocating resources to intervene on social issues, such as climate change, pollution, deforestation, and environmental justice. Addressing these environmental issues, I argue, will lead to a significant reduction of mosquito breeding and biting behavior, especially regarding the spread of dengue fever in Jakarta, Indonesia.

Jakarta serves as an excellent case study. The city has faced numerous outbreaks of dengue fever over the past few years, particularly since 2004.1 The city is a valuable illustrative case for other tropical cities, because Jakarta faces several environmental issues characteristic of tropical climates that contribute to the spread of dengue fever. The effects of climate change, deforestation, pollution, and class-based environmental injustice have indirectly caused more cases of dengue fever in the region.

Indonesia has rapidly urbanized in recent years. The country’s urban population has grown from 12.4% in 1950 to 22.1% in 1980 to 53.2% in 2010. ii In urban environments, dengue fever has potent effects, a fact which exacerbates the need to address social justice issues in rapidly urbanizing regions. Jakarta illustrates the susceptibility of cities to incur dengue fever. However, dengue fever can be mitigated by addressing various environmental issues that affect Jakarta, Indonesia. I hope to offer solutions that can be applied to different infectious diseases and growing cities across the world.

Dengue Fever: Characteristics, History, and Prevalence

Dengue fever transmits by the bite of an infected female mosquito, typically Aedes aegypti, into a susceptible human host. The virus incubates for 4-10 days within the mosquito before the vector spreads the infection to healthy individuals.iii The disease cannot spread from person-to-person, save for rare cases of via blood transfusion or mother-to-child infections.
Another type of mosquito, Aedes albopictus, can also cause infections of dengue fever. When considering the disease in an urban context, proximity of people is not a direct factor in contributing to the propagation of infection. However, dengue fever is found primarily in urban areas, suggesting that other characteristics of urban areas provide a suitable habitat for these mosquitoes.

The disease was formally studied starting in the 1900s and became epidemic following World War II. The Center for Disease Control claims that accidental transportation of the Aedes mosquitoes on cargo ships during the war spread dengue fever beyond its previous geographical boundaries.

Dengue is mostly prevalent in the tropics and sub-tropics across the world, although there are some cases in colder climates. The type of mosquito that spreads dengue fever thrives in latitudes between 35°N and 35°S. Figure 1 shows dengue fever most prominently in the countries highlighted in orange. The area covers Southeast Asia, parts of Australia, India, Pakistan, Central Africa, Central America, and most of South America.

The climate must support the vector so that it can survive and transmit the virus. This brings up an issue: how climate change affects viable mosquito habitats. Climates currently supporting dengue fever may become even hotter and more humid, possibly resulting in larger mosquito populations. Further, high-elevation regions previously inhospitable to large mosquito populations could begin to see more infections as local climates warm.

While dengue fever is severely infectious, it is unlikely to cause death in adults. As a public health problem, it is a leading cause of hospitalization and death of children in some Asian and Latin American countries. The symptoms of dengue fever are flu-like in nature. According to the World Health Organization, Dengue should be suspected when a high fever (40°C/104°F) is accompanied by 2 of the following:

1. Headache
2. Myalgia (muscle pain)
3. Rash
4. Nausea and vomiting
5. Vomiting
6. Diarrhea
7. Rash
8. Profuse sweating

Figure 1: Current Spread of Countries at risk for Dengue Fever
symptoms: severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands or rash. Symptoms usually last for 2–7 days, after an incubation period of 4–10 days after the bite from an infected mosquito.

When patients have recovered from infection, they have immunity for life from that specific strand of the dengue virus. However, the patient is still susceptible to infection from the other three strands. All four versions of the disease can be contracted simultaneously. The different versions of the virus are DEN-1, DEN-2, DEN-3, and DEN-4. If a person experiences multiple serotypes of the virus at once, there is a tendency to develop more severe forms of dengue fever known as dengue hemorrhagic fever (DHF) or dengue shock syndrome (DSS) that each have more severe symptoms than dengue fever alone. In a major 2004 outbreak of dengue in Jakarta, 82.5% of those infected with DHF suffered from a secondary infection from a second serotype.

Increased awareness and better healthcare for the virus has decreased the case fatality rate, the number of deaths per confirmed cases of dengue. Dealing with the virus is a matter of access to adequate health care, early detection, and maintaining the patient’s fluid levels to combat the flu-like symptoms. Figure 2 illustrates case-fatality rates in DHF patients from 1968 to 2005, and the rapid decrease in case fatality rate for DHF in Indonesia because of modern clinical techniques. If the host seeks medical attention for the fever’s symptoms, the survival rate is relatively high. However, children and people without access to health facilities are at a greater risk of not combating the symptoms. Without proper management, case fatality for DHF can be as high as 30%.

In early 2016, the first vaccine for dengue was registered for some countries that are endemic for dengue. However, a majority of Indonesia’s population practices Islam. A significant cultural concern in Indonesia reflects the need for the materials of vaccines not to conflict with the religious
strictures of Islam. Islam maintains that any live vaccine synthesized through dogs and other animals is unclean, according to Islamic law, and must therefore be avoided. Implementing a live vaccine synthesized from other animals may not be an option for public health officials. Luckily, it is possible to create a vaccine using another virus as a template.

The World Health Organization estimates that 3.9 billion people around the world are at risk for contracting dengue fever, and that there are 390 million global infections per year. As the tropical and sub-tropical cities in the global South grow at rapid rates, this urban disease will only become deadlier.

Surveillance in Southeast Asia

Two ways exist to monitor a disease: mortality and morbidity. Mortality rates reflect the lethality of a disease, and morbidity rates analyze how prevalent a disease is within a population. Morbidity is measured by prevalence (the number of current cases in a population) and incidence (the number of new cases in a susceptible population). By examining incidence, public health officials can determine yearly when new infections occur or how many occur per outbreak.

To survey dengue fever, the disease is now reportable. Whenever a doctor diagnoses a patient with dengue fever, the doctor must report the diagnosis to the local public health department. Public health departments can then effectively monitor diffusion of the disease while sparing their resources. To observe the incidence and prevalence of dengue fever in a region, health authorities wait for phone calls from physicians through “passive surveillance”. Though, some public health experts criticize Southeast Asian countries because many do not enforce reportable disease laws that require doctors to report instances of dengue to local health departments.

Since dengue is a growing issue for Southeast Asia, some call for the use of “active surveillance,” which employs health department resources to increase awareness and precautionary measures for dengue fever. Active surveillance surveys homes for mosquito larva, sprays breeding grounds, educates the public, and encourages community participation. Active surveillance can be costly, but its effects noticeable. Singapore, another Southeast Asian city, became concerned with dengue fever in the 1960s. They
implemented active surveillance through entomological and epidemiological surveys to reduce larval habitats and educate the public. This resulted in a 15-year period of low incidence of dengue until the active surveillance was slowed and the virus was reintroduced due to immigration from the surrounding region.\textsuperscript{xviii}

In Indonesia, prevention efforts for dengue fever are a combination of passive surveillance and vector surveillance. Vector surveillance is done through community participation programs. One such program is called “Together Picket (Piket Bersama)” where the Family Welfare Empowerment Organization (PKK), Rotary club members, and DHF working groups educate the populace about the spread of dengue fever and reduction of the vector habitats.\textsuperscript{xix} Another method of community prevention is called Bulan Geraken, which has three components:

1. Health education using mass media, women’s groups, and schoolchildren

2. Door-to-door visits by PKK (Women Empowerment Welfare Group) to cover, clean, and bury discarded water containers

3. Source reduction using community participation and intersectoral coordination\textsuperscript{xix}

In addition to this community participation for vector surveillance, Indonesian health officials conduct larval surveys every three months using a metric called the Larvae-Free Index, which measures the percentage of houses without any Aedes mosquito larvae. However, an academic study determined that this is not ideal because the Larval-Free Index “fails to identify key containers for vector breeding sites and is not useful to evaluate vector control activities”.\textsuperscript{xvi} Some places in Indonesia have also trained Village Health Volunteers (VHVs) who can conduct surveys to determine the amount of Aedes larva in an area.\textsuperscript{xii}

Active surveillance produces tangible decreases in disease incidence, but not all cities in Southeast Asia have the resources to prioritize disease prevention. It is important to establish how to fix environmental issues to also slow the propagation of dengue fever. By fixing these environmental issues and indirectly slowing dengue, one can kill two mosquitos with one stone.
Geography and Governance of Jakarta: Key Issues

Jakarta is a Southeast Asian city with a population of 10.323 million people, 23.91% of which consists of children aged 14 years or younger, who are the most susceptible to being killed by the dengue virus. As the capital of Indonesia, Jakarta is a central economic and political force for the island nation. The providence of Jakarta covers about 661km$^2$, about 60km$^2$ larger than the city of Chicago. It is part of a larger island called Java, one of the major islands in Indonesia. Jakarta is also one of the largest cities in Southeast Asia regularly affected by the dengue virus. The population of 10.323 million people incurs an incidence rate of approximately 17.3/1,000 people per year in a 2008 study, meaning that each year about 17.3 in 1,000 people contract dengue fever in West Java, where Jakarta is located.

Along with dengue fever, Indonesia ranks eighth in the world for HIV/AIDS related deaths, and has a presence of malaria and bacterial diarrhea. Indonesian health departments are already burdened with these diseases. Indonesia ranks 180th in the world for health expenditure, which equates to 2.8% of their GDP. This means that health departments are a severely underfunded department of governance in Indonesia. Linking Jakarta’s environmental issues to disease prevention issues is key for environmental and health departments operating under low funding.

Notable geographical features of Jakarta include its direct contact with the Java Sea, which serves as an economic hub for shipping by ocean, and other short rivers dominate the area. Indonesia ranks 7th in the world for waterways with 1,400km of manmade waterways. The proximity to so many bodies of water creates an economic advantage, but also danger. Floods are an extremely present natural disaster in Jakarta. With an elevation of a mere 14 meters, the city is severely low in elevation and 40% of it is below sea level. Moreover, Jakarta has massive quantities of annual rainfall. Floods, while being costly to the city, also make the environment ideal for mosquito breeding. Still water and damp conditions make for excellent breeding grounds. Particularly, the urban poor settled in informal settlements called “kampung” neighborhoods are at great risk. These kampung neighborhoods are typically found along Jakarta’s waterways,
which make them flood-prone and adjacent to mosquito breeding grounds.

**Environmental Justice, Pollution, and the Citizens of Jakarta**

Environmental injustice describes the discrepancies in environmental conditions between wealthy and poor communities. Jakarta’s kampung communities are urban villages throughout the city and its outskirts. Approximately 60% of the citizens in Jakarta live in kampung villages, which have 600 persons per 10,000m$^2$. Typically, those near the urban core have a higher density than those on the outskirts of the city. These communities’ high population density creates a noticeably greater risk of contracting dengue fever in these settlements. Since an Aedes mosquito infects a victim with the dengue virus, the virus can be transmitted to other mosquitoes that bite the host. This makes urban density important to the vicious cycle of growing infection, putting the members of kampungs at a greater risk of contracting the virus. Figure 3 illustrates land use of Jakarta’s kampungs highlighted in red.

Other issues involve access to clean drinking water and adequate sanitation. About half of Jakarta’s dwellings do not have toilet facilities or piped water. Lack of plumbing can lead to dangerous situations created by water containers near homes. Since mosquitos tend to breed in containers full of water, this also leaves the urban poor at greater risk, which is a clear example of environmental injustice.

In many situations across the world, poverty is accompanied by poorer health care, thus leaving the poor more susceptible to infectious disease. Poverty is also associated with unpotable water, unsafe shelter, and lesser-quality education regarding disease prevention. When considering the impact of unresolved environmental justice issues, reduction in local poverty could alleviate the situation:

According to WHO, almost 137 million people in urban populations have no access to safe drinking water, and more than 600 million urban dwellers do not have adequate sanitation.

Though many of the worst urban diseases spread through person-to-person contact or via sewage systems, mosquito-borne diseases like dengue fever tend to
affect the urban poor more than others. Disparity in health care between the rich and the poor is one problem, but in terms of dengue prevention, the main factors to consider are the breeding sites of the Aedes mosquito and people’s protection from those mosquitos.

While advances in medicine are attributable as the main cause of dramatic declines in disease spread and fatality over the course of human history, sanitation has played a more prominent role in disease management. Purifying unsanitary water systems has done wonders for public health. Advances in areas from food safety to personal hygiene have diminished the negative effects of many diseases that used to plague populations. Likewise, though dengue fever cannot spread through water, food, or person-to-person contact, the propagation of the disease would be severely reduced through effective sanitation in Jakarta. Every day, the city of Jakarta produces 23,400 m³ of trash, while the City Sanitation Office only cleans up 14,700 m³ of this trash, which equals a net gain of 8,700 m³ of trash each day. To put that number into perspective, Jakarta produces about one and a half Goodyear blimps worth of uncleaned-up trash every single day.

This much trash around the city will directly cause more infections of dengue fever because artificial containers serve as breeding grounds for the Aedes mosquito. Common breeding grounds for this type of mosquito are still water containers, dark and humid areas inside homes, and plastic containers. Epidemiologists conducted a study in villages on Java to determine what sorts of containers the Aedes mosquito preferred when breeding. The general finding was that artificial containers were more likely to serve as a breeding ground than natural containers, which puts tropical urban civilizations at a disadvantage since those regions generally use artificial containers more than rural areas.

Among the vessels tested, discarded tires were found to have the highest proportion of infested breeding ground for the dengue-carrying Aedes mosquito. Other popular infestation containers include bathtubs, buckets, aquariums, flowerpots, plastic bottles, cans, water storage containers, and water dispensers. Since many in Jakarta do not have access to clean water, many water dispensers and water storage containers serving as favorable breeding sites for the Aedes
mosquito could cause big issues in this tropical city. Reducing excess trash also reduces the artificial container breeding grounds of the Aedes mosquito, therefore curtailing the spread of dengue fever across the greater Jakarta region.

Since Jakarta produces so much trash, it must all go somewhere. Figure 4 and Figure 5 are pictures of some of Jakarta’s kampung neighborhoods. The pictures show homes surrounded by many of the risk factors for mosquito breeding grounds: water sources, high population density, and numerous artificial containers floating in water.

In addition to the conditions of the dwellings, only 40% of the water in Jakarta is piped. Those without access to piped water are poor urbanites residing in kampung housing. Since the study in Wijayanti’s article marked containers of still water as a potential breeding ground to be sprayed, poor urbanites without access to tap water who use containers to collect potable drinking water are in trouble. If they leave a container of water lying outside, dengue-infected Aedes mosquitos could breed near their homes. Outdoor faucets have this same issue as well. This inequality in drinking water access is environmentally unjust and leaves the kampung residents susceptible to more infections of dengue fever than those of cleaner, richer neighborhoods.

Indonesian culture has shaped the urban environment of Jakarta. As the familiar battle between economic development and social welfare wages on, the country and its capital have made many advances to celebrate, but there is still much room for improvement. Economic development and environmental welfare allow the country to combat and reduce the prevalence of infectious diseases. Although it makes sense for the Indonesian government
to intervene to reduce dengue fever, acquisition of the economic means to fund public health expenditures is also necessary.

There are clear reductions in the spread of dengue fever that would stem from local governments and international NGOs cleaning up these kampung neighborhoods. Environmental justice for the kampung neighborhoods and reduction of pollution has drastic impacts on how many Aedes mosquitoes can breed and spread dengue fever. Investing in treating environmental issues could save Jakarta money in the fight against dengue and the health care costs incurred by dengue infections.

**Climate Change, Biting, and Breeding**

Along with pollution and environmental injustice in the Jakarta kampung of Jakarta, global climate change is an indirect cause of a growing prevalence of dengue fever. Multiple studies and correlations suggest that weather alterations associated with climate change, such as higher temperatures and rising sea-levels, increase the biting and breeding behaviors of various mosquitoes.

Jakarta has a tropical climate with annual temperatures ranging from 24°C to 30°C or about 75.2°F to 86°F. The rainy season runs from December to March, and a dry season from June to September. The rainy season peaks in January, with 19 rainy days, and the dry season peaks in August, with only about five rainy days. The highest monthly incidences of dengue fever occur in January, which correlates with the changing of the dry season into the rainy season.

The distinction in rainy and dry seasons in Jakarta allow us to determine which weather conditions lead to the most biting activity of the Aedes mosquito. Over a ten-year study, the incidences of DHF in the region were mapped in Figure 6.

![Figure 6: Incidence of DHF in Jakarta from 2000–2010](image-url)

To draw attention to the rainy seasons, I have highlighted the graph during each rainy season from 2004 to 2010. There is a strong positive correlation between new cases of DHF and increased rainfall in Jakarta. The substantial spike in 2004 is likely related to the 2004 outbreak of DHF.
This positive correlation between tropical weather conditions and mosquito biting behavior is also reflected in a laboratory study that occurred in Bangkok, Thailand, attempting to understand the biting patterns of mosquitoes related to temperature and humidity. The following graphs in Figure 7 demonstrate these findings.

During the peak biting times of the cool season, about 14 mosquitos were attracted to the human bait. The cool season rarely had more than 10 mosquitos attracted to the bait at any given time. Compare this to the peak of both the hot season and the rainy season, where each has a peak of about 20, and well over 10 at most hours of the day. Clearly, higher temperatures and rainier weather correlate with mosquitos’ increased attraction to the human bait. Although this study was conducted in Bangkok, its results give important insight into how local weather conditions in Jakarta can dramatically change the behavior of dengue-carrying mosquitos. This study also shows that the mosquito’s biting behavior tends to die down after sunset.

In these tropical climates of Southeast Asian cities, high rainfall and warm temperature dominate the weather. These weather conditions will only increase as global warming heats the earth and polar ice caps melt. According to Changing Epidemiology of Dengue Hemorrhagic Fever in Indonesia, the dengue incidence is directly related to a hotter, more humid climate. Likewise, the authors cite that higher temperatures are associated with larger mosquito populations and
increased biting. They even attribute an outbreak in Palembang, Indonesia in 1997 to “a marked increase in rainfall and sustained higher temperatures compared to earlier years” and note that the peak of annual dengue infections typically coincides with the rainy season.

The currently most-favored approach for fighting dengue in the area is through a combination of eliminating mosquito breeding grounds by spray, community participation, and education. Although this method combats the spread of the disease, global efforts to reduce greenhouse emissions and stop the cataclysmic effects of global warming would significantly slow the rising temperatures and humidity in tropical cities. That reduction in growth of temperature and humidity would impede the breeding and biting behaviors of the Aedes aegypti mosquito. Hence, this would reduce the number of dengue fever infections without directing any additional money directly toward the fight against dengue fever.

**Deforestation and Dengue**

Although some species of the Aedes mosquito live and breed in the woods (Reiter 3), a strong argument could be made that putting government resources into preventing deforestation will lower the spread of dengue fever.

The city of Jakarta has lost tremendous amounts of green space over the years. In 1984, the region was composed of 28.8% green space. That number dwindled to a mere 6.2% in 2007 with losses in forests, fields, and gardens. Governing forces in Jakarta have essentially accepted this deforestation with the Draft City Plan from 2002–2010. Floods occur regularly in the city of Jakarta due to its low elevation, abundant bodies of water, and heavy yearly rainfall. Excellent defenses against urban flooding are green spaces, as soil has great rainfall absorbency. Losses in forests and green space entails eroded natural flood barriers. Flooding can create many still water pools, which serve as breeding sites for the mosquito. Since floods produce large pools of still water, flood patterns must also be accounted for when planning how to prevent formation of Aedes mosquito habitats. By protecting natural flood barriers, the city can reduce the incidence of dengue fever while making the city a healthier, more appealing place to live.
Conclusions and Recommendations

An anonymous politician interviewed regarding dengue fever in Indonesia once said, “Community participation is almost impossible, since we’re asking poor people to think about a disease and they’re concerned with what they are going to eat today.”\textsuperscript{6} Tropical cities like Jakarta can have numerous social, environmental and economic issues that need to be addressed. What makes dengue fever so important? The more severe version of the disease, DHF, has a high case fatality rate and hospitalization rate among children.

I have identified Jakarta’s various environmental issues and the significant impact of each on the reduction of dengue fever’s spread. Global climate change makes tropical weather conditions grimmer, since it has shown to increase biting behavior of the Aedes mosquito. Pollution and solid trash buildup increase the mosquito’s available breeding grounds. Deforestation can increase regional flooding, which destroys urban landscape and leaves pools of still water in which the Aedes can breed. Environmental injustice leaves Jakarta’s kampung residents more exposed to dengue fever than others, whether by inaccessibility to potable water or by proximity to trash serving as a mosquito breeding sites.

More dengue infections beget more dengue-carrying mosquitos, which means that these environmental issues presented here must be addressed immediately. The fight against dengue fever in Jakarta does not need to be thought of exclusively in terms of vaccination, vector surveillance, or spraying breeding sites for the Aedes mosquito with insecticide. Addressing Jakarta’s outstanding environmental problems would directly lower the incidence of dengue fever in the region while helping the millions who live there.

There is some merit to claiming Indonesians may not care about dengue fever because they are hungry. However, there is significant evidence that there are several environmental issues that people do care about—flooding, pollution, and climate change—which will also slow the spread of dengue fever, if addressed more comprehensively. Fixing global climate change will take more than the Indonesian government alone, but world leaders should be informed that this is yet another reason to address global warming: to save countries some of the cost of infectious diseases that
spread through the Aedes mosquito.

Policymakers in Indonesia should continue to encourage the use of cheaper measurements against dengue, such as Village Health Volunteers and spraying potential breeding sites. They should be aware, however, that the numerous studies have proved that investment in slowing global climate change, reducing trash build-up, building more open green spaces, taking steps to clean the kampung neighborhoods, and enforcing passive surveillance laws will drastically reduce the spread of dengue fever. Other countries should take interest in these Indonesian efforts as well, since the range of dengue could expand countries where dengue is not endemic as more climates become hospitable to the Aedes mosquito.

Investment in environmental and social justice efforts can drastically reduce the spread of mosquito-borne disease. The methods discussed for fighting dengue can apply to tropical cities with characteristics like those of Jakarta, but can also apply to any disease that spreads like dengue fever. Malaria, yellow fever, and other deadlier mosquito-borne diseases can be fought by addressing climate change, pollution, deforestation, and environmental justice. A more substantial focus on these environmental prevention methods will result in tangible reduction of infectious diseases.
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He is small, and he has never been particularly brave. The mess of tangled hair on his head is streaked with dirt and dripping with sweat. In his chest, a hot coal burns, contracting and expanding with every breath while his pulse thumps through thin veins.

The villa is abandoned this late at night. Other than the barn mice in the rafters and the girl tied up among sacks of grain and salt in a small room on the side, he is alone. A cool wind carries the scent of charcoal and smoke from the farm across the lane, blazing through the rural midnight.

He squats through the low door leading into the empty main room and makes his way past the moonbeams that trace the shadows of the crisscrossing supports overhead. The door to the storage room clicks open in his hand, unleashing the dank musk of mold and rot. He hears a whimper from the corner.

She is wedged between a canvas bag and the roughshod wall of the structure. Her tongue is sore from the damp gag shoved into her mouth. She shuts her eyes tight against the world, trying to will herself back to the warm pathways and easy air of home. Anywhere but here.

The skin at her wrist prickles with irritation from her bindings, and she tries to squeeze herself, to make herself even smaller, as though she could pull her body into nothingness. She would do anything to be lighter than air, unreachable, and untouchable.

The boy smells stale urine as he bends down to untie the gag. His hands shake. He seems to already know that only one of them will leave here tonight.

“What do you need?” he says.

The dark-colored gag flutters to the ground. She straightens her neck. Her eyes bore into him. They are green like forests seen from a distance, like churned waters. Her face is all angles and lines.

“There’s nothing left,” she says. “I have nothing.”

“I know. I know.” His fingers fumble against the tight knots in the ropes. “What they did—that’s not… Let me help.”

The simple building groans into its foundation. Somewhere outside, an owl hoots long and lonesome before flapping away. The closest town, three miles down the dirt road, is burning itself out of existence. Stone walls crack in the hottest
parts of the fire. The air around the town sucks inwards towards the leaping flames.

“I didn’t want this. Nobody did,” he says. The ropes around her wrists pull loose. “Are your arms okay?”

She gently touches the angry red lines on her forearms, massaging them into her skin.

“I’ve been here for three days,” she says. “Three days.”

“You didn’t have to hide.”

“No?” A line of blood runs over her palm, tracing a course through the lines of her hands.

Seeing this, he’s reminded of his father, a jeweler. He remembers bright rubies scattered across his desk, the aging man slumped over late at night examining the jewels with different instruments and probing them, searching for imperfections others would miss. Pretty things contain multiple truths, he used to say. Don’t forget to approach them from many angles.

“Here, come.” His feet crunch on discarded hay as he ushers her out of the darkness and into the wide space of the main room. The air here is lighter, kept fresh by the drafty main door. The wooden crates, sweat-stained shovels, chisels, rakes, and saws that once filled the space are gone, leaving the white walls too far apart and the room too vacant.

She hurries to a corner and stretches while watching him, never taking her eyes off of his hands. Three days alone. Three days of accepting total darkness. She feels herself reigniting while her cramped muscles stretch and tug at their joints. Her breath becomes alive again.

“What are you here for?” she asks. Her torn clothes hang like a used rag on a fencepost. Shoulders float above rhythmic exhales. Her thin, firm arms betray her quiet strength.

“I knew you were still here.”

She shrinks back. “How?”

“They said—”

“They—”

“Came through my place.” He tilts his head. “After.”

He starts towards her. She jumps, and he quickly stops.

“No,” she says. She is penned in, back to the wall. The same way it all started. Moonlight drips down the rafters, runs down the walls, and she can see his
bright eyes, two luminous discs hanging in the air. He looks past her clothes and her skin and into something deeper.

“I’m sure you’re scared,” he says.

But she isn’t.

Scared was three days ago. Scared was losing all control and being tossed into a quiet room to hyperventilate and piss herself until it seemed that all of the emotions inside of her had leaked out and evaporated. Scared was staring into blackness and seeing her mother and father—the two of them, world-weary and beaten, begging her to help them, trying to get her to just come an inch closer—only to eventually feel their forms fade away and slip into the wind, where they would be carried out of memory until thirty years later, when she would first think of them, really think of them, again.

“Get out.” She nods to the door. “I can take care of myself.”

“I don’t doubt that you can.” He waits.

The timbers overhead creak as they shrink in the cold night. She clenches her shaking hands together into a single mass.

They stare at each other. His shape wavers in the darkness, its borders blurring against the hard lines of the wall and the floor. Neither wants to move. Neither wants to break the moment, or maybe they’re just afraid to face up to violence, to war, to two souls colliding.

***

_Three days earlier_

The hot, red sun was still clinging to the horizon when they showed up. There were four of them. Their uniforms were brown and worn.

Two wooden spoons and two bowls were laid out on the table, and the chairs had just been scraped up to a lukewarm broth meal. They simply walked in.

Her father was dragged out by his hair and tossed over the threshold to stumble on the front step and crack his skull on the dirt outside.

A tree-bark hand clamped down over her screaming mouth and slammed her head into the doorframe. He was hungry and bonelike. He started. Then they took turns.

The other three were gentle. Afterwards, they tried to feed her soup and apologized for intruding, but the soup only spilled from her mouth and pooled in her lap.
“You must understand,” the violent one said. “It is only the nature of things. It is not hurt to you.”

When they departed, she brought her father’s body inside and left the blood drying on the steps. She hoped they wouldn’t come back.

***

She stretches her legs in front of her, brushes off hay, and touches her toes. An hour now.

Just inside the doorway, he taps his foot up and down, up and down. The moon sinks deeper and night gathers over the land. Small patches of structure-fires beat back at the darkness throughout the countryside, the beacons to a savior that will never come.

“Listen,” he says, the sound of his voice like a crack running through glass, “we should stay together.”

“Let me leave.”

“I’m not stopping you from leaving.” He wants to know why she won’t approach. Why she won’t even let him help. “I said you can walk out.”

“You won’t move from the doorway.”

He pushes a thick clump of hair up onto his forehead. Sighs. Frustration or exhaustion. It sounds the same in darkness.

“They’ll be back,” she says.

“No, they won’t—”

“You’ve got nothing to give.” The slices of raw flesh on her forearms flare as she flexes her hands.

“All the more reason for you to stick with me.” He leans forward and his back prickles where the rough wall has been pressing into it. The length of his spine feels compressed. Stacks of white bone, unchanged for thousands of years, comprise the center of the human frame.

Another split cracked open in the silence. Chopped air in the wake of something mechanical. It whirs somewhere above them, fading in and fading out. Rotors, shredding the air but leaving no mark.

She stands and presses her heels to the solid comfort of the wall. “Move.”

“Please.” He tenses.

In three solid strides she crosses the room, moonlight flickering across her face in slow-motion. She makes almost no sound. Three breaths. She passes through the slanted doorframe.
His hand shoots out and catches her clothing, but slips. She tumbles forward into the wet grass and stops face up, staring at thousands of stars. On her back, she puts her hands up above her as he steps out of the building.

“I’m not trying to hurt you!” He stands nearby, silhouetted against the shocking moonlight. His small body is a coiled spring. Bony ankles jut from the ragged hems of his worn wool pants.

A short distance behind her, the door of the garden shed twists in the wind and slams into the side of the building, sending a thin thud into the yard. Unused tools sit on two parallel shelves inside, tight with cobweb. Tools to pierce, prod, penetrate.

The boy’s quiet breath whispers in and out of his throat. Long moments tick by, like time echoing into an empty abyss. Neither of them knows the answer to this impossible question put forth by their world, this simple outcome, and neither hopes for more.

She twists and feels her dress catch between the sharp point of her hip and the ground beneath her. Somewhere along the side, a seam tears open, but she is already on her feet, dashing towards the open doorway. The sheet-metal inner wall brings her to a violent stop. She turns around and reaches for the door.

He is sprinting towards her, pumping his arms. The metal handle catches in her fingers and she yanks it shut and drops the simple deadlock into place.

Seconds later, she hears him slam into the door. The shed reverberates from the collision. A tingle starts in her cheeks and shoots through the rest of her body, and a heat rises in her chest.

Six feet by eight feet. Near total darkness. It takes all her focus to push away the memory of the past three days. She isn’t tied up, her hands are free, she can leave. She can breathe. She waits for her eyes to adjust and homes in on the tinny odor of the shed as a distraction.

“I’m not going to hurt you!” The walls distort his voice making it electric, bassy. “I promise. I’ve lost things too.”

Her fingers dance across the wooden shelves. A sharp pain runs through her index finger as a splinter lodges just beside the nail. She hisses.

“Go away,” she says, barely speaking.

“What?”
“Go away!” She hears his feet scraping the single concrete step at the bottom of the door. Something wooden and round meets her right hand and she carefully moves the other hand to it. Long shaft, rusted metal screwed into the wood, a wide flare, individual tines. A hand-rake.

Her chest is vibrating and she realizes that she is shaking violently. The room is too small and too dark. There’s not enough air to fill her lungs and every breath is shorter than the last, slipping closer and closer to certain peril. If only she could leave, if only she could just walk out of the door and step over the dirt and the trees and the bodies up into the sky and walk away across the ocean to someplace where there wasn’t war or violence or people that tried to help.

He takes a deep breath from the other side of the door, separated only by a quarter-inch of metal. “It’s not right to be alone.”

***

Three days earlier

He slumped against his father’s side, waiting outside of their home, his family huddled together.

“Burn it down,” the thin-lipped soldier said. With that, the other soldier tossed a bottle, which shattered against the roof and spilt forth flames to cover the building. His grandfather and his father had been raised here. These rooms were his.

Dust swirled at the edges of the inferno. The shingles melted into a black mess and the wooden walls flaked, embers breaking free and gliding outwards. Windows shattered from the heat.

“Sorry, friends,” the soldier said, “it isn’t personal.”

***

He leans an arm onto the shed and waits. If she comes out and trusts him, they can leave this place together. Walk away somewhere and be safe. They can’t just head separate ways.

“Will you talk to me?” he asks.

“You have a minute to leave.”

“And go where?”

“Anywhere but here.” She presses her forehead to the door and the metal cools her skull. Her right hand is wrapped tightly around the rake. Silence stretches out like points in space. They’re on different sides of the same door, but they may as well be worlds apart.
Three miles down the road, a library collapses in the fire, folding in on itself. Wooden supports splinter under the weight of falling stone. The books once protected inside have wafted up into the sky and are long gone. All that stands is a cracked black beam, poking towards the heavens while the rest of the city dissolves around it.

She takes a step back. Her legs wobble and she locks her knees. She inhales deeply. With two fingers, she reaches out and unlocks the door.

She rushes forward the moment she sees the sky outside and flies past him through the opening. He stumbles back onto his heels then starts to run after her.

She stops, turns, and swings the rake upward. The tines meet his abdomen, and they push right through the flesh and into the soft red parts beneath.

Her hand slips off of the rake and she stares down. He is on his knees. He stares at her, pleading with his eyes. Rubs the metal like he has never seen this tool before. Like a child trying to understand something new.

Stars look down on them both.

He pulls a hand away from his body and gently touches her leg, painting five red smudges with his icy fingertips.

“This isn’t…”

“No,” she says. Her head is warm, but she steps away from him. She turns her back and hears a small pathetic sound escape from him.

As she runs towards the crooked fence surrounding her former home, he watches her long hair swing back and forth, her skin reflecting the cold moonlight, her feet moving through empty air as she heads for safer places.
Craig is a Computer Science major at the University of Pittsburgh. He is the author of the novel, SCHALK. Craig’s greatest literary influence is Jorge Luis Borges, and his greatest ideological influence is Silvia Federici, whose work exploring the violent origins of capitalism informs both Craig’s story, “The Water is Fine”, and his worldview.
The faucet shuddered as Maryanne turned the knob further. Rather than the customary flush of water, nothing happened. Spinning the knobs back and forth, tapping on the faucet, she tried to coax out something, anything from the reluctant spigot. When that achieved nothing, she ducked under the sink. The valves for hot and cold were still on. As Maryanne withdrew from that dank cabinet, the pipes rattled and, above her, the faucet exhaled.

A dark gray substance oozed from the faucet like frozen yogurt. Maryanne, still kneeling, reached up to turn off the knobs. Some of it had fallen into a glass, which Maryanne lifted and held in front of her. When she tried to swirl it around like wine, it jiggled but mostly stayed in place. She sniffed it, but it had no scent, and she wasn’t going to taste it. The sludge glistened under the yellow light of the ceiling fan.

Another rattle sounded inside the wall behind her, followed by a yelp from the bathroom. Seconds later, Maryanne’s son David burst through the doorway, dancing in a circle with one hand clutching the towel around his waist as the other brushed worm-like strands of the gray sludge off his body. Maryanne rushed over, grimacing as the strands fell onto the carpet.

“Hold still.” She gripped David’s shoulder and picked the rest out of his hair.

“What’s going on? What is this stuff?” David said between deep breaths.

Maryanne picked the last of the sludge off him and set it on a nearby end table. “I don’t know. Some of it came out of the sink. Looks like Play-Doh, though.”

“I thought snakes were coming out of the shower and I was gonna get bit.” David said, still breathing heavily.

“Snakes can’t come out of the shower.”

“They can come out of the toilet.” David poked one of the gray strands on the end table, piled on top of each other like a nightmarish plate of spaghetti.

“I don’t know what you’re talking about.” She slapped his hand. “Don’t touch that. You don’t know what it is.”

David shook his head and walked away. “It’s wild. I know that.”

Maryanne called the water utility after testing all the faucets in the house. She reached a human voice after only a few minutes of hold music, leaving Maryanne to believe that it wasn’t a
citywide problem—or else they’d have all hands on deck. Or maybe it was the whole city and she got through because they had everyone answering calls.

“Hello, my name is Jamie. This call may be recorded for quality assurance purposes. How can I help you today?”

“Yes, Jamie, my water isn’t water anymore. Some gray stuff is coming out of my faucet. Do you know why that’s happening?” Maryanne tried to enunciate every word to sound pleasant instead of furious. She had worked at a call center once for six months, and she remembered how miserable an angry caller made her.

Jamie’s voice suddenly became measured and choppy. “To our knowledge, any sediment buildup or contamination has not occurred on our end. We suggest you contact a plumber. Goodbye.” She hung up. Maryanne considered calling back, but she wasn’t about to waste her day shouting at someone who wouldn’t do a thing for her. Leaving her phone behind, she headed down the stairs to the front door. Every step creaked as she descended the stairs, her pace slowed by the arthritis in her left knee.

She wished she could teleport from her porch to her neighbor’s. She had to climb all the way down the porch, then either circumnavigate the lawn just to get to the paved walkway or trudge through the ankle-high grass. Maryanne chose trudging. When she reached the door, she took a moment to run her hand over the weathered door frame. Maryanne liked how the grooves felt beneath her fingers. She knocked on the door, but John didn’t answer. Instead, his face peeked into the window near the top of the door. Just a crack of his eyeball exposed itself.

“John, it’s me.” She said, chuckling.

“I know, I know. I don’t have a peep hole, though. So, I have to do it sneaky-style.” John raised his head and his eyes darted from side to side.

“Except I see you every time.”

John shrugged. “What can I do for you? Car busted again?”

“No, it’s good. My water’s not right, though. It’s this gray stuff.”

“Oh, you’re getting that too? Good. I thought my house was messed up.” Buzzing sounded from his pocket, from which he retrieved his phone. “Sorry. Gotta take this. Hello.”
Maryanne looked at John's yard while he was on the phone. Clutches of grass stuck up here and there, but for the most part the yard was a sea of mud, with pebbles cresting above the surface. The centerpiece was a tree which overlooked the house. John tried to cut it down a few months back, when his heat was off. When Maryanne had reminded him that he had nowhere to burn the wood, he gave up. Despite five gashes in the trunk, the tree branches were populated with green buds. The tree inspired Maryanne. If it could persevere and expand after such trauma…

"Alright." John stuffed his phone back into his pocket. "That was the water company. They're saying the gray stuff is water. It just looks different."

"They can’t expect us to believe that."

"I mean, they’re saying it’s water. I’m gonna go drink it. I’m thirsty as hell."

She shouted after him, "Don’t do that, John."

When he returned with a half-cup of the sludge, nausea hit Maryanne. As he tipped the glass to his lips, she shielded her eyes. It was all she could do not to vomit at the sound, like someone inhaling a slug. After he finished, she opened her eyes and stepped closer to John, ready to catch him if the water was some fast-acting poison. But he didn’t fall. "How was it?"

"Tastes like water. Goes down funny. I chewed it a little, but I don’t think I had to, you know? Regular water is better."

Shaking her head, Maryanne stepped over the mud and onto the concrete alley between their houses. "I’m gonna check on you in an hour. Better not be dead from drinking that."

Later that night, after checking in on John and stopping by the grocery store to spend money she didn’t have on a case of bottled water, Maryanne nestled between the countless throw pillows on her couch and switched on the television. A cop show was on. One of those where the police run around to make the victims’ lives hell before the arrest of whomever allegedly committed the crime. Maryanne scoffed as she changed the channel to the local news. The mayor’s bulldog face filled the screen.

"—not what we planned for our water system, to be sure. I hear the complaints, and we are considering how to restore the water to its former, clear state. In the meantime, I guarantee that the water is safe, despite how the look and texture."
An aide ran up to the podium and handed a paper to the mayor, whose wrinkled face creased as he smiled. “Thank you, Devin.” After glancing at the paper for only a second, the mayor said, “I’ve just been given information, suggesting that the gray water contains beneficial nutrients, and is likely healthier than normal water. That’s great news, but it warrants more study. Until we’re certain of it, and even when we are, we should provide everyone will the choice between the new and old water. However, if you’re wondering how best to drink the new water, especially those of you whose water is thicker, we have information on our website about a spoon-straw distributor that is offering a pretty steep discount. My aide Devin will demonstrate its use.” The camera panned to Devin, who held a cup of the sludge with the straw sticking out.

“Aw, don’t do it,” Maryanne said. First, he took a sip through the straw. Maryanne scoffed; this had nothing to do with demonstrating to anyone how to use a straw. Still, much like everyone else who drank the water, he didn’t hunch over, didn’t scream in pain. He was fine. So why did she feel sick watching him do it?

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Two days later, Maryanne was at the grocery store again. The case of bottled water hadn’t lasted as expected. Maryanne wished she had bought ten cases, but at the time she hadn’t considered how much of it would be used for bathing. John had emerged from his house that morning smeared with the gray sludge. He looked like a fool, and Maryanne couldn’t imagine that it cleaned him very well.

She navigated her cart into the water section. On both sides, bottles and jugs of gray sludge closed in on her.

No clear water. Not anywhere.

Maryanne yanked a jug from the shelf and tossed it behind her, sending it crashing to the ground and spilling a puddle of sludge on the beige tile floor. She plunged her arms into the bottles and created an aisle between the rows. In each bottle, the sludge glowered, threatening Maryanne with the certainty that she would have to drink it, let it seep into her bones and spread all the way to the tips of her fingers. She scrutinized the cases of individual bottles on the ground. None were clear. She yanked a case out and climbed on top of it to peer onto the top shelf, now hoping for even a single bottle of clear...
water to drink and alleviate the panic that had seized her. But she found nothing.

An employee approached her. He was balding, tall and very frustrated by the puddle of sludge on the floor. Gray sludge ringed his eyes. Tracks of gray residue ran from his forehead to his receding hairline. “Ma’am? What are you doing?”

“I need water. How can you sell this and call it water? I mean, look at it.” Maryanne chucked a bottle onto the ground.

“I hear your complaint, but we have been assured that this is water. It’s safe to drink, it’s clean, it just looks different.” The man picked up the bottle and placed it back on the shelf.

“Would you drink it?” Maryanne grabbed another bottle to throw, but stopped when instead of any anger in the man’s eyes, she just saw fatigue.

“Ma’am, I have to. This is all there is.” He pulled a white rag from his pocket and pressed it into the puddle on the ground. When he picked it up, sludge dripped off of it like pancake batter.

“All of it?”

“I don’t know. This is what we have.” Maryanne nodded and left the aisle. She was going to have to drink that poison—her son was going to have to drink it. A few tears squeezed their way out of her eyes as she passed through the sliding doors. Whatever effect the sludge had, it would be the end of her and David, one way or another. Pausing between every step to delay the horrible future, she walked out to the parking lot.

Rain dripped on her head. She held a hand in front of her eyes and laughed as a clear droplet snuck past her knuckle and slid down toward her wrist. Maryanne held her arm high and the drop continued its journey, working its way down her arm, somehow navigating past the bracelet and slinking between any particularly absorbent hairs, going and going until it disappeared into her sleeve. Maryanne took a deep breath and exhaled, then broke into a wide smile.

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Maryanne peered into a bucket full of water.

“David, did you boil this?”

Over the sound of gunshots and a clicking controller, David shouted, “No, I forgot.”
She pressed a hand to her forehead. “How do you forget? How did I raise a son who can forget something he does every day?”

Maryanne clicked the burner on. She leaned against the counter and thought about John. He’d been drinking the sludge since day one and she didn’t know that he’d changed at all. Yes, he was acting weird. But didn’t he always? He wasn’t dead and certainly wasn’t acting severely poisoned. But something was wrong. It had to be.

Twenty minutes later, the water boiled. She intended to take the pot over to the sink where a pool of cold sludge awaited her. Despite everything, the sludge had its uses and she wasn’t about to wait an hour for the water to cool on its own. Maryanne picked the pot up and it was heavier than she expected. It always was. As she made her way to the sink she clipped the front of one foot with the back of the other, pitching forward and grabbing the countertop to keep her balance. The pot clanged against the ground and the steaming water pooled on the floor.

She balled a fist and pressed it to her lips. The wall of her hand was the only thing stopping her from cursing so loud the whole neighborhood could hear. Instead, she smacked her hand against the countertop with the futile hope that all her anger would dissipate into the Formica.

“David,” she shouted, “I need you to get another pot of water.”

“What? Why?”

“Just get it. Please.”

As David stomped down the stairs, Maryanne pulled an armful of towels and rags out of the cabinet. She laid one flat on the ground and watched as the water soaked into little spots around the fully-drenched center and spread to the corners. She wrung the cloth out into a bucket. It still looked clear enough, but it had been a while since she mopped. Flecks of dust and debris revealed themselves once she turned the light on. She crouched down again, using the seat of a chair to brace herself on the way down, but stopped when David came back up the steps.

“Mom. Some cops are here. They say they want to talk to you.”

“Police?” She pulled herself up from the ground, and sighed as she walked down the steps to the door.

Poking his head down the staircase, David asked, “What’s going on? Why are they here?”

“I don’t know.” She pointed at him with
the hand that wasn’t gripping the banister. “I want you to say up there. No matter what.”

Maryanne poked her head out of the door, maintaining a barrier between her and the officers outside. Two of them stood on her stoop: both bald, white, and wearing wraparound sunglasses with teal lenses. They could have been twins, she thought, right down to the gray streaks by their mouths and on their necks.

“Hello ma’am, would you mind stepping outside to speak with us?”

“I’d feel more comfortable right here, thank you.”

“Ma’am, please step out of the doorway,” the officer said, one hand touching his belt, implying the whole range of punishment he could employ on her. Maryanne complied, and wondered what they wanted. Could John have gotten himself into another mess? If they asked, she’d do what she always did—say she had no idea what John was doing at any time of day. One of the officers peeked down the side of her house, while the other said, “Are you the owner of this house?”

“No, I rent.”

“Is that your rainwater barrel?”

Maryanne couldn’t see the officers’ expressions behind those glasses. Instead she saw a version of herself—small, distorted, teal. She didn’t know what the rainwater barrel had to do with anything, but she sensed they weren’t asking out of curiosity.

“Oh, that? I don’t even use that thing. I think the last tenant put it in.”

One of the officers pulled a slim notebook out of his shirt pocket. Flipping it open, he said, “We received a report that you installed it one week ago. Is that not correct?”

“Who said that?” The cops didn’t answer.

Before Maryanne could figure out who did it, John answered for her. He burst out of his house, pointing a sludge-stained finger at Maryanne. “It was her, it was her! She bought the barrel.”

One of the officers walked over to him. “Please return to your house.”

“She did it, and you’re not stopping her,” John whined.

“What the hell, John?” Everything around Maryanne dropped away in the face of John’s betrayal. She thought of all the times she hadn’t called the police on him for being drunk and screaming on his lawn, selling knockoff clothing
out of his basement, or any of the dozen reasons John could have been arrested.

“Ma’am, you’re talking with me now. Let us deal with him.” The officer wagged his finger between them.

“Oh, I’m going to deal with him later. That’s not a threat, officer, just a promise of neighborly conversation.” She shouted tilting her head in John’s direction without looking at him. Maryanne heard the officer corral him back into his house. As John re-appeared, staring from his window, Maryanne noticed the thickness of the sludge residue all over his face. The sludge had changed him. That was the only explanation.

The police reorganized into a wall of blue uniform and black weapons in front of her. One of them said, “So, is that your barrel?” His tone, clipped and impatient, told Maryanne that he wouldn’t accept any answer other than yes.

Maryanne said, “Yes, yes. It’s mine. So, am I getting a ticket?”

The police didn’t respond. They marched forward in perfect symmetry, each grabbing one of her arms before she could react—not that she ever had a chance of getting away from them.

Wrestling her hands behind her back, one of the officers said, “Rainwater collection is a felony. You’re under arrest.”

“For rainwater collection? That’s ridiculous. Let me go!” She knew better than to struggle, though. The slightest resistance could find her on the ground, receiving the full force of the police.

“The law is the law.” They guided her to the car and dumped her in the backseat. She looked out the window as they drove, taking her far away from her house and the rainwater barrel which placed her there.

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After a silent ride in the car, during which the officers ignored anything Maryanne asked, they led her to a holding cell. It had a bed that looked like a concrete slab, a metal toilet and sink, and a window, ten feet in the air. She sat on the bed, which responded to her weight with no give or bounce, as an officer closed the cell door. If rainwater collection was a felony, there was nothing she could do. They had her dead to rights.

First, she tested the sink. Sludge wormed its way out of the faucet, just a slightly darker gray than the sink itself. She felt a pit in her stomach knowing that she
was trapped with the sludge. As the day passed and night fell, she grew thirstier. The cell offered few tools for her to work with. Her first thought had been to purify her urine, but she didn’t know how to do that in even the best circumstances. Thirst pricked at her throat and she decided to go to sleep in hopes that it would be more bearable in the morning.

It wasn’t. Her dry throat crackled as she swallowed her saliva for just a moment’s half-satisfaction. She poured some more sludge into the sink. If she had some plastic wrap, she might have been able to try to extract water from the sludge with condensation. But she had none, and couldn’t be sure it would work.

A couple hours later, an officer brought by some food. At first, Maryanne was grateful for the chance to eat and ignore the sludge for a minute, but when she picked up the sandwich, sludge oozed out of the bread around her fingers. Of course. Most food was made with water. She peeled the soggy bread off the sandwich and picked out the meat. It looked like ham, but it was thicker than usual, and gray. Maryanne set the sandwich aside. Again, all she could focus on was her throat. It needed any moisture at all. Just a drop of water would be heaven.

She poured another pile of sludge into the sink and stared at it. Obvious poison still, but it would relieve her of the pain that came with every swallow, now that all her saliva was long gone. Maryanne reached a hand down toward the sink, but then she heard a patter outside.

Drops. Rain drops. She felt like an idiot. The window might’ve been ten feet up, but rain was still the answer. Just like it had been outside the jail. Beneath the window, she reached her hands all the way up. She needed another four and a half feet at least. Jumping, Maryanne briefly narrowed it to four feet and three inches.

The cell had to have something she could use. First, she checked to ensure no police were watching her. Getting dragged into some windowless room now would be her death. She tried to drag the bed two feet over to the wall, but it was bolted to the ground. And the bolts were rusted, so even as she tried to spin them off with her fingers, she knew her hopes lay elsewhere.

With the bed no longer an option, she
stood in the middle of the room and tried to picture everything she could do with what she had. As she wondered how large a pile her clothes could make, the rain grew louder. A storm of drinkable water was only a few feet away from her and she couldn’t get it. Grasping her throat, she examined the sink. It was a metal tray attached to the wall. If it had been close to the window, she could have climbed on it, but if she took it down there would be no way to fix it to that height again. That left the toilet.

Checking again for observers, she unthreaded the bolts from the bottom of the toilet. It must have been newer than the bed. Or she was just lucky. She chuckled at that thought. With the bolts off, she tried to lift the toilet, but it stayed on the floor. Something kept it there. The promise of water was too near and too loud, so Maryanne crouched to the ground with her shoulder pressed against the toilet. She was sure she’d seen something like this at David’s football practice once. She pushed off her legs, sending her bodyweight and more pushing into the bowl of the toilet. It nudged as she pushed, so she tried harder. And harder. Then it leaned, and she crouched back down and tried once more to dislodge it.

The toilet tipped to the side, a pool of sludge slithered out of the water line, and Maryanne’s back seized in pain. She’d over-exerted herself and thrown out her back. Face down on the ground, she saw the sludge approaching her. She pushed herself up, even as pain shot across her body. As her legs shook and she cried from the pain, she stumbled over to the toilet and dragged it to the window.

All that was left was to climb. She tried to take a deep breath, but it sent another wave of pain through her back, so she’d have to settle for the fast, shallow breathing that she was already doing. When she first lifted her leg, the pain brought it right back down. Maryanne slapped her hand against the wall. Not now. She wouldn’t be stopped, not this close to water. Again, she raised her leg. Despite the pain, which prompted involuntary gasps for air every few seconds, she secured her foot on one side of the toilet bowl. That was the easy one. During the next step, she blacked out. One moment she was pulling herself up onto the toilet, the next leaning face first against the cold cement wall. There was no room left for thought or anything but pain and thirst. She was on top of the toilet.

Maryanne reached her arm up to the
window. Her fingers extended through the bars, but not out into the rain. She stretched, letting only one pained yelp escape her as she did, but it was enough to attract attention. Footsteps echoed down the hall. They were too late, she pushed her hand out into the storm and felt the cold, wet rain drench her hand.

She withdrew her hand, her dry throat begging for a taste. But when she brought it back down, there was no rainwater. Gray cords of sludge dangled from her fingers.
A Haiku
in loving memory of Airman Shannon

Victoria Kline
The University of Pittsburgh

Victoria is from northeastern Pennsylvania. She is a Marketing major at the University of Pittsburgh. The future is still to be determined. She has always possessed a passion for creative writing, and she is almost exclusively inspired by the people that she loves, whether they be from the past or present.
but where do you weep

to the earth or sky?
when somebody you love dies
ART
GALLERY
Blya is a first-year student at the University of Pittsburgh. She was born in Cote D’Ivoire and, when she was eight, moved to Upper Darby, Pennsylvania. Since she was three, she has been interested in medicine and art. Some of her work is geared toward the journey she took to learn to love herself, her culture, and her skin tone. She also designs and sews when time permits. She hopes to someday own a space where her multi-media art can be displayed, and through which people walk to experience her life and theirs.
“You know you’re black as shit, right?” My middle school self was taken aback by such a question. It bothered me more that the kid who asked me was black and about two shades lighter than I. “The Complications of being Dark-Skinned” is a series of photos that I took to erase the negative stigma around dark skin. The photography focuses on Black people being beautiful, unapologetic, strong, human, and educated in our world. My models are black people painted with black paint to emphasize that no one is “black” in real life. Black people are shades of brown, but one can be as black as black paint and still be “worthy”. The first image, “Power at its finest”, showcases a strong, persevering black woman to play on the 1943 Rosie the Riveter campaign. The second, “Rise above it all”, displays an unapologetic woman unbothered by the negativity and hardships symbolized by the bricks. Thirdly, “This is me” emphasized that you can appreciate your dark, black skin, and beauty—take those selfies.
Pearl is from North Wales, Pennsylvania. She is a senior at the University of Pittsburgh, double-majoring in Chemistry and Studio Art. After graduation, she plans to take a gap-year before applying to medical school. She had a passion for art and science when she was young, but as an undergraduate, she began to reconcile the disciplines. She hopes to share a greater understanding of the world and the human experience, which she hopes will aid her mission to serve others as a medical professional.

Coral Bell
What is color? These works explore the complexity of color revealed by mundane materials: coral bell and blueberry. I am inspired by color and how it shapes the way we experience the world. Through thin-layer chromatography, I deconstructed perceived color. Through color extension theory, I reunified color. My work focuses on the intersection of art and science and how their perspectives produce a more holistic approach to research. I hope that my artwork sheds light on the complementary perspectives of art and science to start a dialogue between the sciences and humanities.
Elizabeth is a biology student at the University of Pittsburgh, Bradford. She has always had a passion for art, design, and photography. To better herself as an artist, she took on a minor in Art Design. She plans to attend graduate school for marine biology. However, she would also like to pursue a part-time job in photography and design.
Decay

I took “Decay” for a series I worked on 2 months ago. I focused on different processes of decay that create repeating patterns in nature. Simply, I went outside to get close to plants. In doing so, I found that leaves have amazing patterns that appear with the right angle, aperture, and lighting.
This is really uncomfortable. I know what they’re up to. It’s irritating my neck. They wannaget me to do a pose. Why can’t I fix it?

This is my oil painting of a photo and memory. I’ve kept it with me since my childhood, from China to the United States. It was a professional photoshoot, full of cute props and outfits. The photo has since aged, so I wanted to immortalize this vivid moment in a painting. I was interested in the gorgeous, intricate detail of the clothing. I love that it gives the whole image a distinctively Chinese flair. However, the baby fingers and feet were the most difficult to paint!
Wanyan paints and draws the world as we experience it through our eyes. She also likes to explore and create the balance of shapes and objects in space through abstract drawing and sculpture. Her art teacher’s style has been described as a fusion of impressionism and realism, which heavily influences her own painting.
I created “Morning Drive” to have viewers reflect on landscape and notice how nature encourages them to reflect on their own lives. This work is a multiple exposure photograph of a landscape I see every morning on the way to school. The work reevaluates how one looks at landscapes by noticing trees, complementary textures, and shapes interacting with negative space. I use the time examining the world in the morning, which leads me to a clearer mind-set.
HANNAH
CUPP

Hannah grew up in the nature-heavy area of Canton, Georgia, which has heavily influenced her art. She focuses on ceramics and watercolor to encompass nature, and how to change the viewer’s experience with art through linework and surface texture.
MARINA WEI
Forbes & Fifth, the undergraduate magazine of the Dietrich School of Arts and Sciences, is seeking submissions for its 12th issue, Spring 2018. Submissions will be accepted from all schools and disciplines and from any accredited undergraduate university in the world.

Both scholarly and creative work will be considered. Recent topics have included adventure games, architecture, political diagnoses, contemporary cinema, creative writing pieces, and art submissions such as photography and screen prints.

Forbes & Fifth is open to all schools worldwide.
We publish twice yearly (in April and December).
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