

**TRANSACTIONS**  
*of the*  
Society of Fellows  
of Dyson College



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Editor: Judi Pajo

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Editorial Address: Society of Fellows  
Dyson College of Arts and Sciences  
Pace University  
41 Park Row, Room 717  
New York, NY 10038

Email Address: [softtransactions@pace.edu](mailto:softtransactions@pace.edu)

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The editors and faculty board welcome comments on articles that have appeared in Transactions of the Society of Fellows of Dyson College.

## **DYSON COLLEGE OF ARTS AND SCIENCES**

The Dyson College of Arts and Sciences offers a robust and innovative liberal arts education distinguished by its emphasis on faculty mentoring, experiential learning, and small classes. Through instruction in over fifty majors and minors across the disciplines of the arts and sciences, Dyson College prepares its students for graduate and professional schools, and the twenty-first century workforce. Students develop their potential for achievement through both academic and co-curricular programs and activities, and outstanding among these is the Society of Fellows of Dyson College.

## **SOCIETY OF FELLOWS OF DYSON COLLEGE**

### **HISTORY**

The Society of Fellows began in the fall of 1980 with a weekend seminar devoted to questions in applied ethics. The first class of members inducted at the formal inauguration of the society in December 1981 was named after distinguished philosopher and Pace faculty member William Barrett. Since then, a new class is inducted annually and named after a fellow who has made a significant contribution to the ideals of the Society of Fellows. To date, more than 700 students, faculty, and alumni hold the distinction of being a fellow, and the Society of Fellows has become the premier honors organization in Dyson College.

### **FOUNDING CHARTER**

Charles H. Dyson, Edward J. Mortola, Joseph E. Houle, M. Teresa Brady, R.D.C, John H. Buchsbaum, Louis V. Quintas

*Being bound by ties of friendship and dedication to the ideals of liberal education, do hereby constitute themselves and their successors, forever, as fellows of the Dyson College with the duty of promoting undergraduate scholarship among the members of said college and admitting into its society and fellowship only those students, faculty, alumni, staff and friends of the Dyson College who advance in a noteworthy and exemplary fashion the purposes of the society as expressed in its constitution.*

### **MEMBERSHIP**

Membership is open to students, faculty, and alumni of Dyson College who meet eligibility requirements and contribute to the goals of the Society of Fellows.

Enrolled students of Pace University who demonstrate excellence in scholarship or in artistic creativity will be invited to become fellows if they meet the following criteria:

1. Minimum 3.3 QPA (cumulative quality point average); exceptions will be considered on a case-by-case basis.
2. Participation in at least two Society of Fellows-sponsored events; one of these events must be presentation of research or artistic projects at the annual meeting.
3. Submission of an outstanding signature work of scholarship or creative expression; to fulfill this requirement, the candidate may use a full-length paper or artistic project submitted for the annual meeting.
4. Letter of recommendation from a faculty member attesting in detail to the quality of the academic work and achievements that are being submitted for the candidate's advancement to fellow.
5. Attendance at the initiation ceremony held annually during the spring semester.

All completed applications meeting eligibility requirements will be reviewed and voted on by the Faculty Executive Board of the Society of Fellows of Dyson College.

Faculty qualify to become fellows when they serve two or more times as mentors of research papers or artistic projects presented at the annual meeting. Faculty also are recognized for sponsoring student works accepted for publication in Transactions, and for serving as weekend seminar leaders. Faculty and alumni of Dyson College who share and further the aims of the society in other outstanding ways also may become fellows.

## **ACTIVITIES**

The annual signature activities of the fellows are the weekend seminar, the annual meeting, and the initiation ceremony. The weekend seminar provides opportunities for students, faculty, and alumni to discuss issues of contemporary significance under the leadership of teacher-scholars. The annual meeting is a one-day student conference where undergraduate students present their research or artistic projects completed under the supervision of faculty mentors. The event also is open to graduate students, several of whom annually apply to participate. At the initiation ceremony, qualified applicants are recognized as fulfilling the eligibility criteria and are inducted as fellows. Transactions of the Society of Fellows of Dyson College is the official journal of the society. Peer-reviewed by Dyson faculty, the journal publishes the work of Pace University undergraduate students completed under the sponsorship of faculty, who often are fellows.

## **GOVERNANCE**

A faculty executive board that reports to the Dyson College dean governs the Society of Fellows of Dyson College. The board facilitates the achievement of the society's goals by planning activities, organizing seminars, and overseeing special recognitions and awards.

## **INFORMATION FOR TRANSACTIONS CONTRIBUTORS**

Papers published in Transactions are the work of Pace University undergraduate students under the sponsorship of Dyson College faculty members or faculty fellows of the society. Student submissions originate as faculty-sponsored papers or artistic projects that have been presented at an annual meeting of the society. Recent alumni of Dyson College also may submit a paper or a revision of a paper that was presented at an annual meeting. The call for proposals for submission to Transactions is announced in the spring at the annual meeting. Papers or correspondence may be submitted at that time to the editor by e-mail to [softransactions@pace.edu](mailto:softransactions@pace.edu). Each submission will be refereed and considered for inclusion by the editor and associate editors. Papers must be submitted as a Microsoft Word document using 12-point font and double-spaced, with a maximum length of twenty pages. The citation style of a submission's discipline must be followed with respect to footnotes, endnotes, and works cited. For general guidance on the preparation of submissions, consult the Society of Fellows pages on the Pace website.

Judi Pajo, Ph.D.  
Associate Professor of Anthropology  
Chair of Society of Fellows  
Dyson College of Arts and Sciences  
Pace University  
[jpajo@pace.edu](mailto:jpajo@pace.edu)

## FROM THE EDITOR

This 23<sup>rd</sup>s volume of Transactions contains a small selection of papers presented at the 41<sup>st</sup> Annual Meeting of the Society of Fellows of Dyson College in 2022. It features original research and creative work completed by Pace students under the guidance of Dyson faculty in philosophy, English language and literature, film studies, communication studies, science, psychology, and political science. It offers just a glimpse of the breadth of research and writing undergraduate students are engaged in across the fine and performing arts, humanities, natural sciences, and social sciences at Pace University.

The team involved in publishing the present issue has grown. The faculty board reviewed all submissions for the annual meeting last February; students presented in March and submitted full papers in May; additional faculty reviewed the papers over the summer months; students worked with faculty sponsors to revise and resubmit their papers in the fall; associate editors went over the manuscripts during the winter months; and by spring, we are ready to send the files to the printer. As we conclude the year-long cycle, this editor feels that her work of assembling the team, communicating with students and faculty, and managing the editorial process, was the smallest but for this editor also the most fun job of them all.

Other activities included the weekend seminar last October. "Drawing Machines: Can Computers Make Art?" was led by a team of faculty in mathematics and fine arts; students, faculty, and alumni who took part in it discussed the impact of artificial intelligence on art, and also created their own art with the help of strategies and programs that generate images based on logic or code or bots that generate images based on words. By January, when we held the beginning-of-semester lunch on the New York campus, chatbots that could generate texts with the help of AI had just become available to the public. That prompted us to ask how such general purpose transformers will affect us humans, our art, and our texts. Could we put AI on the research team? Should we rethink how we teach students to research and write? What are distinctly human skills that we might hone? Years from now, we may look back to this issue and compare how our students' writing will have transformed through artificial intelligence.

All throughout the year, we have enjoyed the support of Dean Tresmaine Grimes and Associate Dean Charlotte Becket, and we thank them, as well as the faculty on the board that governs the Society of Fellows. There have been some hellos and goodbyes: Helene Levine-Keating and Daniel Barber left the board after years of service while Kier Hanratty and Stephanie Hsu joined, and Adelia Williams-Lubitz rejoined the board. I also want to thank Amanda Ghysel, our new staff assistant, who is

helping us organize all our events. Though all of us continue to spend many hours on the society, we want to express our gratitude for being able to work with this growing team of fellows. Thank you all!

Judi Pajo, PhD

February 2023

**ARTS &  
HUMANITIES**

# **Timbral Essence: A Rebuttal to Adorno's Analysis of Timbre**

*By* **MICHAEL WILLIAM GREENWOOD**

*Sponsored by* **EDDIS MILLER, PH.D.**

*Philosophy and Religious Studies, New York*

There are two central components inseparable from the phenomenon of music: sound structure and timbre. Sound structure refers to a sequence of sound instances that can be quantitatively defined in their pitch and temporal relation, more commonly conceptualized as its individual component parts: melody, rhythm, and harmony. Timbre in contrast refers to the often deemed auxiliary attributes of a musical work that are not contained within the structure, such as the sonic-textural qualities of the instrument being used and the acoustic qualities of the space in which the performance is taking place. To better exemplify these two parameters, one would say that the distinction between the same melodic sequence played on a guitar and a banjo is one of timbre, as the structural qualities remain the same between the instrumental performance but differ in their timbral qualities. The same can even be said of a melodic sequence played in two different locations but with the same instrument. The acoustics of the space where music occurs can drastically alter its timbral characteristics; changes in reverberation and feedback behavior are examples of such influence. Timbre is not confined merely to instrumentation or changes in sonic behavior with respect to spatial differences, however; it always necessarily includes these parameters, but other physical properties must be included as well, such as the audible presence of harmonic overtones in various forms of throat singing. To make an exhaustive list of every timbral attribute would be near impossible, thus it would be best to think of timbre as all characteristics of music not attributable to the category of sound structure as defined above.

All music inherently contains both of these properties, as there cannot exist a tone that lacks timbre nor a timbre that lacks tone. These aspects are present in all audio phenomena: something seemingly non-musical like dropping a rubber ball, for example, will create variations in timbre as well as tone and rhythm as it continues to bounce. Despite these fundamental sonic attributes being equally present in all sounds, historically preference has been placed upon the structural elements of music, as exemplified by the evolution of the western musical tradition, in music academia, as well as in the history of philosophical thought on music. Theodor Adorno, 20th-century philosopher, composer, and musicologist, is one such figure whose approach to discussing the relationship between timbre and structure is indicative of this broader

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that are generated are often designed to be even less timbrally dense than their instrumental counterparts, and most every noise is created and placed into a composition with respect to its structural components alone. Adorno addresses this in his assessment of the quality of bass instruments, stating “there are still no entirely satisfactory bass voices among the brass instruments. Among the byproducts of electronic technology, however, are quite the satisfactory electronic basses to be found in the continuum of electronic sound” (128). It is clear from this excerpt that Adorno is permissive of timbral experimentation and evolution insofar as it works towards his goal of bringing forth greater structural clarity to a piece of music. Such a pursuit is antithetical to art, however, as it reduces an element of aesthetic decision making to merely the fulfillment of a goal, that being greater structural clarity. Thus, this endeavor is not an effort in musical expression but a pursuit that is merely tangential to the creation of music itself; it is an end auxiliary to the creative drive. This is not to say that composing with voices that display structural clarity is anti-musical, but that the striving towards increasingly clear tones is an exercise that is ultimately not concerned with artistic creation. The decision to use an electronic bass as opposed to a tuba to fill the role of a bass voice in a composition, for example, concerns aesthetic judgment and is thus musical insofar as it is a decision to be made, but once one timbre is deemed objectively better than another, such a decision carries no aesthetic weight because the choice was never the composer’s to make. Thus, timbral experimentation merely in service of structural clarity is not an artistic exercise, but one that seeks to find the optimal combination of timbres that will objectively produce the best possible timbral profile of a composition. Such a goal takes away a significant amount of agency from the artist, for not only are they limited by strictly upheld musical standards in the domain of composition, but in the pursuit of greater structural clarity, they have abandoned their potential for timbral expression, as well.

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## The Environmental Uncanny: Setting and the Main Character in *Wilder Girls* and *The Hungry Tide*

By **JASMINE NG**

Sponsored by **ERICA JOHNSON, PH.D.**  
*English Language and Literature, New York*

Climate fiction, or cli-fi, is a genre that incorporates climate change into a novel’s basic premise in any number of ways. A distinction must be made, though. Cli-fi is not science fiction or dystopic, but rather occurs in the current time period or near future. Most written works on climate change are nonfiction, scattered throughout various forms of media for the purpose of information sharing and scientific of research, for example, informative news articles, graphs of warming temperatures, maps of rising sea levels, and social media posts about sustainability. There is a flood of nonfiction media on climate change compared to the number of fiction works covering the topic. Thus, in today’s warming world, cli-fi as a genre plays a crucial role. Cli-fi allows us to imagine the possibility of what the world may soon be combining the reality of our current world with what the near future may look like, packaged in a new, distinct form of media we read and consume.

A common theme in cli-fi is that nature has its own agency, as humans are no longer able to control nature in a world that is changing faster than they can adjust. Instead of prescribing the environment to be controlled by humans and exploited for their desires and natural resources, cli-fi portrays the environment as its own character that contributes significantly to the plot through its own actions. It serves a purpose in the foreground, not just the background as the setting for human characters. Most traditional stories consider only humans as characters, with their actions driving the plot of the story, but in cli-fi, the setting of the environment serves the importance of a character. The environmental uncanny<sup>1</sup> takes the familiar world around us once taken for granted, turning it ever so slightly through changes of any magnitude in order to force the reader to confront a possible reality that may come sooner than expected.

In *The Great Derangement*, published in 2016, Amitav Ghosh identifies several inconsistencies in existing contemporary literature about the

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<sup>1</sup> While the concept of the uncanny originated used in the context of psychology and Freud, the term environmental uncanny refers to specific applications in climate change and not psychoanalytic theory.



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# Silenced Women's Strengths on the Silver Screen from the Non-Sync Sound Era of the 1920s Through to the Talkies of the Classical Hollywood Studio Systems of 1940

By **MICK BONGIOVI**

Sponsored by **RUTH JOHNSTON, PH.D.**

*Film and Screen Studies, New York*

The representation of women in film has changed throughout the years, evolving alongside each technological innovation that propels moviemaking forward and keeps the art relevant. The invention of synchronized sound recording coincided with changes concerning the women's roles in domestic spaces and professional workplaces. While synchronized sound recording in the late 1920s and the 1930s was introducing audiences to spoken dialogue and creator storytelling innovations, it was also amplifying women who could now speak about their marriages, careers, and identities in movies. Visualized sound was the first step toward giving women voice in film. Some of the changes that occurred with this technological innovation can be observed in *Sunrise: A Song of Two Humans* (1927) and *His Girl Friday* (1940). The women's desires in the two films are presented differently in terms of visual styles, settings, and historical contexts, but nevertheless the women still share some similarities.

The woman in F. W. Murnau's *Sunrise* is named "the wife," and this absence of identity extends to the absence of her independence, established early in these opening credits. Her husband is named "the man," and the discrepancy in the naming of the two main characters is symbolic of an unequal established rule that he takes advantage of throughout their marriage in the film. The ability to assign a name and thus a role to these filmic figures (the man, the wife) is an early use of



The wife prepares dinner for the man in *Sunrise* (F. W. Murnau, 1927). Courtesy Twentieth Century Fox Home Entertainment.

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# **The Evolution of the Manic Pixie Dream Girl: The Modernization of Visual Pleasure and the Male Gaze as seen in French Auteur Gaspar Noé's Manipulation of Narrative and Spectatorship in *Love* (2015)**

*By* **ALANIS HOWARD**

*Sponsored by* **MELVIN WILLIAMS, PH.D.**  
*Communication and Media Studies, New York*

Through auteurship, filmmakers have been privileged with the opportunity to craft a space in cinema completely their own, with unlimited accessibility to the creation, refining, and production of all filmic material. From Sweden there is Ingmar Bergman, from Spain Luis Buñuel, and from France there is Jean-Luc Godard, Roger Vadim, and the filmmaker whose body of work will be examined here, Gaspar Noé. Laura Mulvey's "Visual Pleasure and Narrative Cinema" (1975) will be one of the texts used as a lens to view the dominant male gaze in film as fulfilling two functions of spectatorship: fetishistic scopophilia<sup>1</sup> and sadistic voyeurism.<sup>2</sup> Mulvey's terminology, applied specifically to auteurs<sup>3</sup> Alfred Hitchcock and Josef von Sternberg at the time, has proved to be generative as filmmakers such as Noé appear to conduct their aesthetic style around the potentiality of this male gaze. Positing this research historically as well, Girish Shambu's "For A New Cinephelia" (2020) will be utilized to track the progression of the manic pixie dream girl as this figure has adapted to the changing cinephelia. The manic pixie dream girl is a character trope of idealized womanhood, whose behavior and presence in a film are meant to be guides towards unrealized self-growth and inspiration for profounder life in the male protagonist's story without providing any interiority to the woman as an individual—this is the determination that shifts women on screen to the manic pixie dream girl's narrative function

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1 A disavowal of castration altogether by fetishizing the figure of woman (or substituting fetish object) and taming it, thereby making it both reassuring and satisfying to the spectator, i.e., the pleasure of looking.

2 An ascertainment of guilt in which pleasure lies, asserting control and subjecting the guilty person to punishment or forgiveness; sadism demands a story forcing a change in another person, i.e., narrative structure.

3 A creative who is seen as having an individual and recognizable vision and/or style which totals their control of all artistic manifestations and productions to craft an auteurship (body of work).

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**NATURAL &  
SOCIAL SCIENCES**

# **Sustainable Development and Water Security: Increasing Global Water Scarcity in Developing Countries and Their Potential Solutions**

*By* **TYLER G. MAXWELL**

*Sponsored by* **JAIMELEE RIZZO, PH.D.**  
*Chemistry and Physical Sciences, New York*

## **ABSTRACT**

Together with urbanization and climate change, water scarcity in the world's cities and rural towns are accelerating. Amongst these towns, people in developing nations are feeling the effects of this tragedy the most. Despite the efforts to innovate and engineer efficient and economically friendly water purification methods, other factors complicate fighting the crisis, such as foreign aids and investments, corruption, and most importantly, policies that govern the country's domestic and foreign affairs. This paper first discusses how historically, water resources have been one of the main objectives of interstate conflicts and how water has been used as an instrument of war as well as explains how the maldistribution of water resources around the world, together with a growing population and water demand, will create and increase the tension between neighboring countries and suggest that water is going to be a silent element of interstate politics, and has the potential to escalate into violence. This paper also discusses potential solutions to tackle the depleting water resources in populated cities in developing nations from policy and socioeconomic perspectives. Finally, this paper concludes that densely populated water-scare cities and small towns in poor countries in the Middle East and North Africa can be relieved through foreign aids and investments in infrastructure and by some policy reform. Though potential tradeoffs such as dependency on another country, political pressure, and corruption are inevitable, potential solutions are reviewed and discussed as well.

## **INTRODUCTION**

In the 1850s, the U.S. Government conducted a study and reported that declining water resources could start a war in about 10 locations across the world (Goldenberg, 2014). Majority of the locations reported to be Middle Eastern and Arabian Peninsula countries which are slipping into a dangerous zone where all available water supplies are being depleted.

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## Gender Differences in Emotion Regulation Following the COVID-19 Pandemic

By **SOPHIA FANARA, AMY RIVADENEIRA,**  
and **NICOLE MAEWSKY**  
*Sponsored by* **COURTNEY GOSNELL, PH.D.**  
*Psychology, Westchester*

### ABSTRACT

Apparent gender differences and the use of reappraisal to cope with COVID-related stressors is closely examined in this present study. We hypothesized that females would present higher COVID-related anxiety than males, that females would find reappraisal more effective than males in reducing this anxiety, and participants who were asked to reappraise would have lower COVID-related anxiety than those who did not reappraise. We also hypothesized that optimism would be higher following reappraisal. One hundred and thirty-seven college student participants were recruited via email and text messages. After viewing a COVID-related video those asked to reappraise and those in the control group were asked to report their feelings of optimism (LOT-R) and COVID-related anxiety (CAS). A significant main effect of gender on COVID-related anxiety was present in which females had higher anxiety than males. A significant interaction was also found for these variables; in both reappraisal groups females and males had increased anxiety, while in the control group males reported lower anxiety than females in the control group. Both reappraisal conditions and gender did not significantly impact optimism. This study suggests that reappraisal to this degree may be inadequate in managing COVID-related anxiety and optimism following the pandemic. These results identify how reappraisal as a psychological intervention may be potentially ineffective for future traumatic experiences similar to COVID.

### INTRODUCTION

With COVID-19's global and rapid spread, individuals had very little time to emotionally prepare for the repercussions. The ability to emotionally regulate during times of extreme and sudden trauma, as this, is crucial to the mental stability of individuals affected. The lingering effects of this pandemic may provide insight into how people will handle future public and traumatic events. Traumatic life events, anxiety and stress are an inevitable facet of life. In determining the effects of the pandemic, communities will be best equipped to handle the hindered stability of future individuals.

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epidemic among the general population in China. *International Journal Environmental Research Public Health*, 17, 1729.  
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## APPENDIX

This appendix contains the transcription of the video the participants were instructed to watch. The video segment runs from the 1:45 timeline point to the 2:51 timeline point; the following transcription also includes the name and job title of each speaker.

Varicella Trinidad, Furloughed Flight Attendant  
"So I don't have to worry about rent [living with friend free of charge]."

Marla Frezza, Former Bartender  
"What I'm experienced to do no longer pertains to the world that we're living in right now."

Traci Neal, Former Pre-Kindergarten Aide  
"The opportunities are not there as much as before."

CNBC "Make It" Narrator  
"Unemployment rates have hovered around four to five percent over the past five years. But when state governments were forced to close down the economy to stop the spread of COVID, that percentage spiked. Since March, nearly 50 million people filed for unemployment. Unemployment in the U.S. is currently over 10 percent [2020] but millions have still not received the benefits they qualify for. According to an analysis by ProPublica, just 24 percent of jobless White workers, 22 percent of Hispanic workers, and just 13 percent of jobless Black workers have received unemployment benefits during the pandemic."

Cecilia Rouse, Katzman-Ernst Professor, Economics Education  
"Initially, it was received that this is the right thing to do. We need, in order to deal with the pandemic, we need people to stand down and we need to slow the economy."

CNBC "Make It" Narrator  
"Analysts, lawmakers and unemployed Americans quickly realized traditional unemployment checks were simply not going to be enough. And they fear that the economic reality for millions of Americans could get worse, a lot worse."

# The Economic Impact of U.S. Drone Strikes on Pakistan

By **CAVIKA PRASHAD**  
Sponsored by **MATTHEW BOLTON, PH.D.**  
*Political Science, New York*

## ABSTRACT

Drone strikes have a detrimental impact on the region of a nation, especially when the contact is not the targeted threat. When drone strikes are sent out, they result in consequences such as death, infrastructure damage, and consequently, unemployment increases. While proponents of drone strikes say they are precise weapons with little disruption to civilian life, this paper shows that in Pakistan, U.S. drone strikes have had an economic impact, particularly by increasing unemployment. The effect of drone strikes on employment in Pakistan is shown by using an OLS model, drone data from the Bureau of Investigative Journalism, and individual survey data from the Pakistan Bureau of Statistics.

## INTRODUCTION

Between 2010 and 2020, U.S. drone strikes in Afghanistan, Pakistan, Somalia, and Yemen killed between 8,500 and 12,000 people, including as many as 1,700 civilians – 400 of whom were children.<sup>1</sup> In Pakistan, Open Society Foundations estimated that drone strikes have killed well over 2,000 people, including civilians who were not supposed to be targeted.<sup>2</sup> Former U.S. President Barack Obama advocated for Unmanned Aerial Vehicles (UAVs) or drones as a military technology that avoids most of the hazards associated with conventional air strikes, promising precision and limiting unintended consequences.<sup>3</sup> However, in practice, the consequences of drone strikes remain difficult to isolate and include unnecessary civilian death, and damage to the society.

In 2004, Pervez Musharraf, then President of Pakistan, gave the U.S. approval to use UAVs as terrorism spread rapidly throughout the region.<sup>4</sup> UAVs are remotely operated aircraft that do not carry human

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1 Bureau of Investigative Journalism, "Drone Warfare," 2020.

2 Open Society Foundations, "After the Dead Are Counted: U.S. and Pakistani Responsibilities to Victims of Drone Strikes," 2014.

3 Barack Obama, "Transcript of President Obama's Speech on U.S. Drone and Counterterrorism Policy," 2013.

4 Steve Coll, "The Unblinking Stare," 2014.

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Director: Manuela Soares  
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Graduate Assistants: Ariel Stevenson and Kwesi Boateng  
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