Drone Intimacies and the Everyday

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CHAPTER 1

Introduction

Close your eyes and picture a drone. What does it look like? Is it big and imposing or small and modest? Sleek and athletic or a jumble of limbs and rotors? What does it do? Does it drop bombs or does it shoot movies, surveil targets or record celebrations? In 2010, during the height of President Obama's drone bombing campaign, we might all have pictured the same thing: a bulbous, space gray Predator drone, iconic for its distinctive look and lethal purpose. Now, we'd likely each picture something different. Also called unmanned aerial vehicles (UAVs) and remotely piloted aircraft (RPAs), drones nowadays aren't only big and distant and stealthy and weaponized. They're small and close and out-in-the-open and unarmed. They look like robots, and they mimic hummingbirds and dragonflies and parrots and bees. Drones are by now everywhere and used for nearly everything: disaster recovery, land surveying, shopping delivery, wedding videography, herding sheep, marriage proposals, firefighting, plant pollinating, poacher policing, and saving surfers from sharks. They are available for purchase at Amazon, Walmart, and Target, and they're even marketed to children as toys. Yet still, it is so far the military drone that has captured the attention of movie directors, artists, scholars, and the general public. The valorization and villainization, by turns, of drone technology, policy, and warfare in the news media have coincided with the visual and narrative opportunities they provide for popular entertainment.

Drones were initially developed by the United States military in the early twentieth century as target practice for pilots-in-training.[1] The Air Force quickly realized drones' greater potential for

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[1] Adam Rothstein, *Drone* (New York: Bloomsbury Academic, 2015), 27-28.

reconnaissance and surveillance, and by 1962, target drones were being modified to carry cameras.[2]

Vision remains central to the drone's function today. Even if contemporary military drones are

armed with Hellfire missiles and laser-guided bombs, they have to "see" a target before they can

strike it. Before it is anything else, the drone is a seeing tool.[3] It's no wonder, then, that drone video

feeds appear in movies, television, the news media, video games, and art installments. Optics are

baked into the drone's DNA, and those optics—the drone's particular visuality—have seeped into

the world of popular media and culture through movies, TV, YouTube, and art. Drones appear as

narrative devices in these media, and so does their footage—so common by now that it is often

invisible, undistinguishable to our eyes from other types of video footage.

     Scholarly engagements with drones and especially drone vision have proliferated in the past

ten years, and most of that work centers military drones and their lethal function. Because drones

have played such a critical and highly visible role in the War on Terror, it is unsurprising that this has

been the case: extrajudicial surveillance and assassinations, asymmetric warfare, and the widespread

trauma of populations living under U.S. drone surveillance have demanded interrogation, and

humanists—alongside political scientists, human rights activists, ethicists, and international affairs

experts—have answered that call. Yet how are we to interpret what we might call the new drone

vision produced by consumer drones? And how are we to do it without beginning with an

assumption of military logics? Roger Stahl argues that the "diffusion of drone vision into

commercial space" through videogames and apps "is a symptom of a larger shift in cultural and

political discourse that has recoded domestic space as a sphere of military concern."[4] Likewise, Lisa

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[2] Rothstein, 28.

[3] Nasser Hussain provides an excellent account of the sensory perception of drones and drone strikes. In his article, he also contextualizes drones in the lineage of other aerial imaging devices and weapons; Nasser Hussain, "The Sound of Terror: Phenomenology of a Drone Strike," *bostonreview.net*, October 16, 2013, accessed August 1, 2021, https://bostonreview.net/world/hussain-drone-phenomenology

[4] Roger Stahl, "What the Drone Saw: The Cultural Optics of the Unmanned War," *Australian Journal of International Affairs* 67, no. 5 (2013), 668.

Parks, building on the work of Caren Kaplan and Rey Chow, states that "the mediated everyday is punctuated in innumerable ways by military logics and agendas, so much so that it is increasingly difficult to distinguish media and communication from militarization" (230).[5] She argues that analysis of consumer and military drones should not be separated since "both originated in a US military-industrial complex that is notorious for spinning military technologies off into consumer-friendly forms, the sales of which…intensify militarization in everyday life."[6] This is an important premise to which I want to add: what also of the ways in which everyday life in the neoliberal West intensifies militarization? How do everyday uses of consumer drones help to decode military logics? Nathan K. Hensley, in "Drone Form: Word and Image at the end of Empire," writes that "our extending present [in the U.S.] is characterized not just by new forms of warmaking…but by dizzying proliferation of material technologies and digital genres. These new forms have emerged to mediate and monetize lived experience in late capitalism."[7] It is the drone that structures many of these genres and this essay studies what the drone shows us in them.

This essay attempts to sketch the parameters of what it means to look through a drone, and the implications of doing so. I consider the look of drone imagery, defined by the object's unique technical and mechanical abilities, in order to explore the cultural significance of a by-now ubiquitous visual regime which is not limited to warfare and violence. I contend that the definitions of "drone vision" so far—which I recount in the next section—do not account for the newer generation of drone technologies, or the visual tropes that have become part of the zeitgeist since hobby drones and later commercial drones were legalized in the mid 20-teens. Warfare is no longer

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[5] Lisa Parks, "Drones, Vertical Mediation, and the Targeted Class," *Feminist Studies* 42, no.1 (2016): 230; Caren Kaplan, "Precision Targets: GPS and the Militarization of US Consumer Identity," *American Quarterly* 58, no. 3 (2006); Rey Chow, *The Age of the World Target: Self-Referentiality in War, Theory, and Comparative Work* (Durham: Duke University Press, 2006).
[6] Parks 229; Parks focuses primarily on military drones in her work, but she offers a framework of "vertical mediation" that is useful for all types of drones. She explores how drones mediate a vertical field, literally changing the chemical composition of the air as well as re-organizing patterns of life below.
[7] Nathan K. Hensley, "Drone Form: Mediation at the End of Empire," *Novel: A Forum on Fiction* 51, no. 2 (Durham: Duke University Press, 2018): 245.

the only or even the most common subject of the drone's eye. Drone vision no longer yields only birds-eye, top-down views. Distance and detachment are no longer the most prominent qualities of drone vision. Today's drones—consumer drones—foreground more intimate views, giving us unprecedented access to people, places, and things from a variety of angles, that often help us interpret scale comprehensively. I lean into the diversity of drone technologies and probe the seemingly unlimited access they yield to previously inaccessible spaces, events, and vantages, and I attempt to theorize a *new drone visuality* that encompasses drones in their multiplicity.

By zooming in on the look of drone imagery, and the capabilities of drone imaging, I hope to put forward language that can help us re-theorize the networked operations of both military *and* consumer drones. My goal is to introduce a framework that is flexible enough to grow with drone technologies as they expand. In what follows, I first analyze the histories of drone visuality, both how drone imaging reiterates and revises historical aerial views and how scholars have discussed drone vision to date. Then I will read films from three different genres—war movies, YouTube travel videos, and wedding videos—that feature the new drone visuality, in hopes that we can better expand our work to consider the breadth of unmanned aerial technology and its ubiquity and impact in the culture. Each genre shows both the indelible intimacy of drone vision and the commercialization of intimacy in the West. The drone both frames and is one means of producing a distorted marketplace of intimacy that helps to explain how the U.S. thinks to bomb its enemies with impunity. Hensley calls drones the "very essence of empire," representing as they do empire's "monopoly on putatively legitimate violence…even beyond its 'own' citizenry."[8] This article aims to understand how drones also mediate and reveal the inner workings of an imperial culture—which ultimately expresses itself through asymmetric warfare.

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[8] Hensley 229.

CHAPTER 2

Drone Intimacies and the Everyday

2.1   Histories of Drone Visuality

Scholars and artists working on drones widely agree that "drone vision" is more than just the imaging produced by a drone's camera.[9] It is the convergence of the networked operations that rely on, inform, permit, transmit, and circulate that imaging. Drone vision is seen as a complex apparatus, one that relies on a large and dispersed team of people and permissions. Derek Gregory says drone vision is a product of what he calls the "matrix of military and paramilitary violence" which enfolds it.[10] Daniel Greene describes drone vision as "a globally distributed apparatus for finding, researching, fixing and killing targets of the GWOT [Global War on Terrorism]" (233). Roger Stahl defines drone vision as "a set of themes embedded in the discourse [of drone warfare] that together constitute invitations to see in particular ways."[11] These definitions are exclusively focused on military drones, but other scholars write about drones at large in a similar way. J.D. Schnepf calls consumer drones a material "indices of the failed public infrastructure of the neoliberal state,"[12] and Greene states that they are products of the military-industrial complex via the "drone lobby."[13] According to curator and activist Honor Harger, the drone is "simply one mechanism" among others, including radar, satellite, telescope, and radio, that participates in the "networked space" of the sky, where airwaves and information propagate.[14] The drone cannot be considered

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[9] Lisa Parks and Caren Kaplan, "Introduction," in *Life in the Age of Drone Warfare*, ed. Lisa Parks and Caren Kaplan, (Durham: Duke University Press, 2017); Parks and Kaplan offer a comprehensive literature review of all the major work on drones in the past decade plus.

[10] Derek Gregory, "Drone Geographies," *Radical Philosophies* 183 (January/February 2014): 16.

[11] Stahl 659.

[12] J.D. Schnepf, "Flood from Above: Disaster Mediation and Drone Humanitarianism," *Media+Environment* 2 (2020): 11.

[13] Daniel Greene, "Drone Vision," *Surveillance & Society* 13, no. 2 (2015).

[14] Honor Harger, "Unmanned Aerial Ecologies: proto-drones, airspace and canaries in the mine," *honorharger.wordpress.com*, April 21, 2013, accessed July 12, 2021,

separately from the "command and control systems which it is intimately connected to," Harger writes.[15] The consensus of these definitions of drones and drone visions is helpful, yet they are also frustratingly vague. What does drone vision actually *look* like? How might we describe the views that drone vision produces?

While scholars acknowledge the complexity of the drone apparatus, they also tend to essentialize drone visuality into the bird's-eye, or God's-eye, view.[16] Before the FAA legalized commercial drones in 2014, and indeed since then, much of the drone imagery in circulation captures a view of the earth from far above. This type of expansive aerial view has a long history. The panorama, or a wide, unbroken view of an area surrounding an observer, has been captured in art since long before cameras were mounted to airplanes, and certainly before drone technology was invented. Rachel Teukolsky describes the panoramic view as "both above and embedded with a sense of rotation conveying a plenitude of horizontal visual information."[17] That definition seems to describe drones' imaging capabilities perfectly, but this sort of view also appeared in seventeenth century Dutch landscapes[18] and immersive art installments in London in the nineteenth century.[19] In the eighteenth century, maps were created that simulated the bird's eye view,[20] and sketches of aerial landscapes were captured from hot air balloons.[21] In the twentieth and twenty-first centuries, cameras on airplanes, satellites, helicopters, and the tops of skyscrapers and cliffs yielded bird's-eye views for vast public consumption. The eagerness to consume panoramas and the value of aerial

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https://honorharger.wordpress.com/2013/04/21/unmanned-aerial-ecologies-proto-drones-airspace-and-canaries-in-the-mine/. Accessed July 12, 2021

[15] Harger.

[16] See Caren Kaplan's excellent book *Aerial Aftermaths*, for example, which is devoted to the history of aerial views and their wartime imbrications as a way to contextualize drone imaging; Caren Kaplan, *Aerial Aftermaths: Wartime from Above* (Duke: Duke University Press, 2018).

[17] Rachel Teukolsky, *Picture World* (Oxford: Oxford University Press, 2020), 100.

[18] Svetlana Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century* (Chicago: University of Chicago Press, 1983).

[19] Caren Kaplan, *Aerial Aftermaths*, 104.

[20] Kaplan, 36.

[21] Kaplan, 68.

views is no doubt a product of the modern perception of vision as the empirical master sense, historically considered "the authenticator of truth, courier of reason, and custodian of the intellect," as Mark M. Smith puts it.[22] Drones may not be the only or first technology to capture the top-down view, but Caren Kaplan observes that "drones seem…to *epitomize* the God's-eye omniscient gaze 'from nowhere.'"[23] Unlike airplanes, which must always be moving forward as the cameras mounted to them capture images, or satellites, which are subject to the orbiting of the earth, the drone, notes Kaplan, "is able to hover [out of sight] in a stationary mode if necessary to provide real-time imaging around the clock without interruption" (210).[24] This function has made drones almost inseparable from the type of imaging they uniquely enable—thus, the frequent moniker "the drone's eye view."

The so-called "drone's eye view" is synonymous with what I call the *old drone visuality*. This type of imaging is captured in the work of two prominent visual artists, James Bridle and Trevor Paglen, and their work helps to define the characteristics associated with the old drone visuality—which, as we will see, largely excludes consumer drones. Bridle, a London-based artist and writer of the New Aesthetic movement, documented aerial images of drone strike sites in the Middle East on an Instagram account, called *Dronestragram*, from 2012 to 2015. The images—gleaned not from drones themselves but from Google Maps Satellite view—are from above, looking straight down at buildings, roads, and people right before they were bombed by American and British drones.[25] The little squares show flat, two-dimensional grids that demand interpretation. Which tiny smudges are humans, which ones trees, which ones livestock? Which buildings are homes, and which are munitions storage? The objects in the images resist recognition. The images are deeply unlike those we encounter with our own eyes every day because the vantage is so different, and often the

[22] Mark M. Smith, *Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching History* (Berkeley: University of California Press, 2007), 9.
[23] Kaplan, 210. Italics mine.
[24] Kaplan, 210.
[25] James Bridle, "Dronestagram: The Drone's-Eye View," *booktwo.org*, published 8 November 2012, accessed August 1, 2021, https://booktwo.org/notebook/dronestagram-drones-eye-view/

resolution is poor because of extreme distance. This is one of the reasons that drones have been accused of engendering a sense of detachment between the lookers (drone operators and those others involved) and the subjects of traditional drone imagery.[26] Bridle's stated purpose for *Dronestagram* was to bring the places and people targeted by drones closer to home for Western observers.[27] With nearly 20,000 followers on Instagram, and features in *The Atlantic*, *Wired*, *Vice*, and others, his project also works to cement a particular type of drone image—distant, remote, blurry, violent—as definitive of drone imaging at large.

Paglen's work circulates this particular type of drone imagery as well, calling specific attention to drones as distant, remote, and secretive devices. In "Drone Vision" (2010), Paglen exhibits a segment of a drone's live video feed, intercepted via satellite.[28] Stills of the video show a grayscale image of a grainy, anonymous landscape, with various coordinates super-imposed in white. The image defies interpretation. Only the extreme distance between the drone's camera and the earth's surface is clear. This is precisely the type of drone imagery that appears frequently in war movies and big-budget action movies, such as *Good Kill* and *Bourne Legacy*. Paglen comments on this distance by turning his camera on the drone. In a series of untitled images of Reaper and Predator drones, Paglen captures beautiful skyscapes which at first glance appear to be empty. Upon closer study, each of these photographs include a far-distant drone, no bigger than a pin prick, entirely unintelligible without the artist's suggestion via the photographs' titles: "Untitled (Predator

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[26] In infrared (IR) mode, drone footage makes it even harder to distinguish one living being from another. All animals—including humans—bear heat signatures. Lisa Parks writes, "Seeing according to temperature turns everyone into a potential suspect or target and has the effect of 'normalizing' surveillance since all bodies appear similar beneath its gaze."; "Vertical Mediation and the U.S. Drone War in the Horn of Africa," in *Life in the Age of Drone Warfare*, ed. Lisa Parks and Caren Kaplan (Durham: Duke University Press, 2017), 145.

[27] Bridle, "Dronestagram: The Drone's Eye View."

[28] Trevor Paglen, "Drone Vision," in *Sites Unseen*, ed. John P. Jacob and Luke Skrebowski, (Washington, DC: Smithsonian American Art Museum, 2018), 70.

Drone)"[29] and "Untitled (Reaper Drone)."[30] In another image, "Reaper Drone (Indian Spring, NV;

Distance ~ 2 miles)," Paglen captures a military Reaper on a runway from an extreme distance.[31] He

renders what is meant to be unseen seen in these images, and in doing so his work yields, in Matt

Potolsky's words, the "materialization of extreme distance."[32] It is this materialization of extreme

distance that seems to define the drone's-eye view in art, scholarship, and common parlance.[33]

Distance is the foundation of the old drone visuality. The ethics of distance warfare are

understandably troubling, and many critics posit that drone warfare is especially problematic because

it makes killing too easy and too impersonal. Specifically, they claim that video feeds and screens in

drone cockpits heighten indifference in drone operators because they make the violence seem like a

mere video game.[34] This criticism assumes a causal relationship between physical and emotional

distance. Derek Gregory has challenged this assumption of emotional and psychological distance,

pointing out that it is actually the distance between eyeballs and screen that characterizes drone

operators' perceived distance from the sites they surveil and bomb: "the high-resolution full-motion

video feeds from the drones allow crews to claim time and time again that they are not thousands of

miles from the war zone but just eighteen inches away…. The sense of optical proximity is palpable

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[29] Trevor Paglen, "Untitled (Predator Drone)," in *Sites Unseen*, ed. John P. Jacob and Luke Skrebowski, (Washington, DC: Smithsonian American Art Museum, 2018),124.

[30] Trevor Paglen, "Untitled (Reaper Drone)," in *Sites Unseen*, ed. John P. Jacob and Luke Skrebowski, (Washington, DC: Smithsonian American Art Museum, 2018), 123.

[31] Trevor Paglen, "Reaper Drone (Indian Springs, NV; Distance ~ 2 miles)," in *Sites Unseen*, ed. John P. Jacob and Luke Skrebowski, (Washington, DC: Smithsonian American Art Museum, 2018), 90.

[32] Matt Potolsky, *The National Security Sublime: On the Aesthetics of Government Secrecy* (New York: Routledge, 2019), 101.

[33] Not just distance, but vertical distance, is a common characteristic of drone imaging. No doubt this demands attention and consideration, as the overhead view is itself political and lethal. As Nasser Hussain puts it, "[b]y definition, the overhead shot excludes the shot/reverse shot, the series of frontal angles and edits that make up face-to-face dialogue. With the overhead shot, there is no possibility of returning the gaze. The overhead shot neither invites nor permits participation in its visual economy." This point is well-taken in scholarship on the hunter-killer drones that have rightly drawn the focus of drone scholars for over a decade now; Nasser Hussain, "The Sound of Terror: Phenomenology of a Drone Strike," *bostonreview.net*, October 16, 2013, accessed August 1, 2021, https://bostonreview.net/world/hussain-drone-phenomenology

[34] Chris Cole, Mary Dobbing and Amy Hailwood, *Convenient Killing: Armed Drones and the 'Playstation' Mentality* (Oxford: The Fellowship of Reconciliation, 2010), accessed October 1, 2021. https://dronewarsuk.files.wordpress.com/2010/10/conv-killing-final.pdf

and pervasive."[35] The sustained surveillance drone operators carry out renders what Gregory calls an "invasive, irruptive intimacy" between them and their subjects.[36] It is a perverse closeness, not detachment or distance at all, that defines this relationship, he argues. And it is also a deep sense of connection between drone pilots and the ground troops they provide cover to—developed via radio communication—that triggers a lethal protectiveness in those releasing the drone's missiles.[37] The intimacy Gregory argues for is intimacy *in spite of* distance, and it is an intimacy developed from violation: the secret surveillance of people who do not know they are being watched and whose lives are in jeopardy.

I borrow and revise Gregory's key term in this essay: intimacy *instead of* distance is the foundation of the new drone visuality. For most drone operators—people who buy their drones off Amazon—it is the drone's ability for close proximity, its scalar agility, its affordability for individual consumers, and its accessibility to hard-to-reach people, places, and events that marks its more recent and common uses. Consumer drones do not hover at 5,000 feet and their operators are not deploying missiles half a world away. The drone's-eye view is not reducible to the top-down, bird's eye view, and the materialization of extreme physical distance does not sufficiently represent the drone's capabilities. Drone visuality can no longer be essentialized to the static overhead shot, the "filmic cognate of asymmetric war," as Nasser Hussain calls it.[38] This new drone visuality is well-represented in media yet it is largely ignored in scholarship and other serious engagements with drones. This essay moves past the old drone visuality represented in Bridle's and Paglen's work, not because it is irrelevant now—far from it—but because looking more closely at the intimacy, scale,

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[35] Gregory, "Drone Geographies," 9.
[36] Gregory, 9.
[37] Gregory, 9.
[38] Hussain, "Sound of Terror."

and access drones yield provides a more comprehensive and functional framework for considering how drones frame our present.

2.2   Eye in the Sky: Proximity and Emotional Intimacy

Gavin Hood's 2015 film *Eye in the Sky* exhibits the new drone visuality by engaging both the physical and emotional intimacy of drones. Capitalizing on the cool visual opportunities drones provide, war and action movies have adopted drones and drone strikes as standard fare over the last decade, but rarely do they plumb the emotional and practical nuances of them.[39] *Eye in the Sky* diverges from the incidental inclusion of drones that is common in the genre and instead, as Trish Glazebrook puts it, "serves as a fictional case study" of drone warfare.[40] The film dramatizes some of the intricacies of drone warfare, staging debates about the legality and ethics of remote assassination. Relevant to this analysis, it also self-consciously counters the standard narrative of detachment and indifference so often attached to drones. *Eye in the Sky* does this by presenting one character, Colonel Katherine Powell (Helen Mirren), as the epitome of indifference, while arraying the other characters on a spectrum of care and attachment—mediated, of course, by drone vision.

For six years Powell's team has been tracking British national Susan Danford who was radicalized before marrying into and joining the Al-Shabaab terrorist organization. When the target and her husband appear in Nairobi, Kenya, Powell leads a joint operation with the Kenyan and American militaries to initially capture (and later kill) them. The urgency of apprehending them

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[39] Andrew Niccol's *Good Kill* (2015) is an exception. The film is an intimate portrayal of one drone pilot (Ethan Hawke) in Nevada as he flies daily missions over the Middle East, regularly dropping bombs. His mental health and his personal life slowly unravel. This is an emotional and nuanced film, but it is also extremely one-sided; the victims of drone strikes are only ever mediated through the drone's feed, unlike *Eye in the Sky*, which takes care to humanize these victims through grounded views of them; *Good Kill*, directed by Andrew Niccol (2015; Los Angeles: Voltage Pictures, 2015), DVD.
[40] Trish Glazebrook, "Eye in the Sky: The Paradoxes of War Outside War, Imminent Threat, and the Virtuous Warrior in Military Drone Use," in *Ethics in Counter-Terrorism*, eds. Magdalena Badde-Revue and Marie-des-Neiges Ruffo de Calabre (Brill|Nijhoff : 2018), 226.

skyrockets when Powell and her team observe the couple meeting with other militants and arming two of them with explosive vests—but a collateral damage assessment shows that raining Hellfire on the house would almost certainly kill a young civilian girl, Alia, selling bread just outside of the building where Danford and her associates are arming suicide bombers. Suspense builds as the lawyers and politicians monitoring the situation continually refer up—all the way to the U.S. Secretary of State and British Prime Minister—and as the team's Kenyan operators on the ground attempt to get Alia away from the building without raising suspicion from the armed militants guarding the area.

A plot summary of *Eye in the Sky* makes Alia seem almost incidental to the film, but from the opening scene, the film works to make us feel closely invested in her wellbeing—and her youth and gender help make this easy, marking her as a symbol of purity and helplessness. The film opens with a ground level scene of Alia getting ready for a day of work and play. She is pictured conversing with her mother and father, as her mother bakes the bread Alia will sell and her father mends her hula hoop. After about a minute, the camera cuts to an angled over-head view which immediately begins pulling away—creating a zooming out effect—from Alia as she swirls the hoop around her waist in her front yard. As the field of view expands, Alia diminishing in scale, a truck full of armed men comes into the frame, and the camera begins to track the truck instead. Crosshairs appear around the vehicle, and we lose sight of Alia altogether as our eyes track a different target. The shot was likely captured using a commercial drone—probably a quadcopter mounted with a high quality camera—yet the crosshairs that appear in the frame, as well as the name of the film, suggest that we are viewing the scene through an armed military drone: perhaps the same Reaper used throughout the plot to surveil, target, and eliminate the suspected terrorists in a building neighboring Alia's home.

Those early scenes of Alia with her family—her father calls her "darling" as he finishes mending her hula hoop; Alia plays with dolls and does schoolwork—portray the key conflict of the film as a deeply personal and intimate one. The "collateral damage estimates" aren't just numbers that correspond to nameless, faceless civilians (bad enough if that were the case), but include a named little girl who plays, works, speaks, and learns. The intimacy of drone warfare, and even of drone vision, is top of mind in this movie. Though the film's audience sees both aerial and grounded views of Alia, the spectators within the movie—British and American military personnel and politicians spread across the world—only see the drama play out through their eye in the sky, which can zoom in to a few hundred feet above the ground. Though they're half a world away, the drone brings them close enough to see Alia hula hooping, walking from her house to the table where she sells bread, and interacting with customers. They also watch her parents run to her limp, bloody body after the first missile inevitably strikes. The movie wants you to form an empathetic connection to Alia and her family, and feel close to them, to impress the human stakes of so-called precision warfare. Drone strikes might be described as remote warfare, but the movie wants us to understand the intimacy of these kills.

While it breaks with critics who accuse drone warfare of being impersonal, *Eye in the Sky* also ignores other factors that would add further nuance to a theory of drone visuality. Throughout the movie, the armed Reaper drone's footage is presented as having the same image quality as the footage captured by movie cameras. In other words, the resolution is the same, whether we're viewing drone operators in a cockpit close up or the footage on their screens. Likewise, later in the movie, the Reaper hovers out of view above the Nairobi neighborhood while British and American military officers, operators, and lawyers seek to assess whether the terrorists they've been tracking are in fact on location so they can authorize a drone strike. While the Reaper waits to strike, another drone appears: this one a tiny, mechanized beetle. Operated via handheld controls by a Kenyan

officer nearby, the beetle drone maneuvers through the streets and buildings a few feet above the ground, finally settling on the ceiling beams inside the meeting room the targets have entered. The tiny, disguised drone is transmitting crisp, clear video and audio to a remote team spread across the planet. The film cuts back and forth between the different drone feeds, each with a slightly different display. But both the Reaper—large, distant, circling, lethal, and far from the team that operates it—and the beetle—tiny, near, hovering, unarmed, and always within range of the ground operator who controls it—are imagined to transmit images that are similar in quality.

This collapse or confusion of different visual modes is emblematic of the difficulty of theorizing drone visuality. The Predator and the beetle represent the two extreme ranges of drone technology—and by now there are countless others with all kinds of shapes, sizes, and functions. It is difficult to approach understanding drones when their size, their proximity to their subjects (like Alia), and the images they produce vary so widely. Much like scholarship about drones, *Eye in the Sky* chooses to simplify drone vision by making it all the same so that it can focus on the drama and ethics of drone warfare. Yet this film's unified drone vision is actually best understood as belonging to a drone that remains invisible: the quadcopter used to film the pullback shot in the opening scene. It is the quadcopter that best represents the consumer drone's capabilities, and which is largely ignored by drone theory and criticism. Awkward looking and relatively innocuous, the quadcopter hasn't demanded study and engagement as urgently as drones used for bombing have. But any definition of drone visuality that excludes quadcopters, given their ubiquity, is incomplete.

Drones have become a favorite tool of filmmakers since the FAA legalized their commercial use in 2014. "The thing that makes drones so amazing," explains Randy Slevin, Founder of the New York City Drone Festival, "is that they have unprecedented flexibility. They can move anywhere in

3D space."[41] This function "allows filmmakers to do things they simply could not do before."[42]

Slevin speaks of drones as if they are all the same—just like scholars have tended to do—yet he is

specifically speaking about commercial drones, primarily quadcopters. The quadcopter is capable of

acquiring different types of visual footage than the Predators and Reapers whose views have

monopolized theories of drone visuality. The latter two are both "fixed wing" aircraft, meaning that

they operate in a similar way to airplanes. They need a runway to take off and land, they rely on lift

under their wings to take off, they can carry heavy payloads, and they are always moving forward;

they can't hover.[43] Quadcopters, on the other hand, have four rotors, two pairs spinning in opposite

directions, which enables vertical takeoff and landing (VTOL) and the ability to hover and change

direction. It is the quadcopter that has cornered the market on consumer drones—like those used to

create video footage for movies—largely because they are inexpensive, lightweight, easier to fly, and

less dangerous than fixed wing or single-rotor helicopter drones.[44] They are infinitely more mobile

than Predators and Reapers, and they aren't built for stealth; they're meant to get close to their

subjects (the people, places, and things their cameras capture). Other drones and even other

technologies can capture great aerial views, but not like a drone: "With a helicopter you can get great

establishing aerial shots, but it's harder to get really close to what's going on, to really give you that

sense of being in on the action," says Arthur Holland Michel from The Center for the Study of the

Drone at Bard College.[45] This proximity—this physical intimacy—challenges notions of the

inherent detachment drones engender.

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[41] Stephanie Zacharek, "How Drones Are Revolutionizing the Way Film and Television is Made," *TIME.com*, May 31, 2018, accessed July 21, 2021, https://time.com/5295594/drones-hollywood-artists/
[42] Zacharek.
[43] Andrew Chapman, "Drone Types: Multi-Rotor vs Fixed-Wing vs Single Rotor vs Hybrid VTOL," *auav.com.au*, accessed July 21, 2021, https://www.auav.com.au/articles/drone-types/
[44] Chapman.
[45] Zacharek.

While still images from quadcopters sometimes bear similarity to the top-down aerial shots captured, for example, on James Bridle's *Dronestagram*, their most ubiquitous capture is perhaps the pullback shot. Different from a camera that zooms in and out from a fixed point, the quadcopter creates a zoom out effect by beginning the shot in physical proximity to its subjects and then moving farther away. The effect of the pullback shot is often to show the subjects' smallness in relationship to their environment.[46] It revises the traditional panorama—which also attempts to capture the expansiveness of the subject's surroundings—by putting the subject into the scene, smoothly revealing the relationship of the subject to her surroundings bit by bit. The pullback shot creates a gradual inversion of the relationship between the subject and the subject's surroundings: the subject starts out big, and they end up small or even unintelligible. The shot reveals a subject in context, and as the opening scene of *Eye in the Sky* reveals, it is often the context that becomes the real subject. This dramatic inversion of scale, exemplified by the pullback shot, is a common trope of the new drone visuality.

2.3   YouTube Travel Videos: Access to Intimacy

The pullback shot is standard fare in a genre which relies heavily on drone footage and which has infiltrated contemporary Western visual and consumer culture: YouTube travel videos. In *Eye in the Sky*, the drones' subjects do not know they are being surveilled, and that secrecy is essential to the capture-or-kill mission the joint-British and American task force is planning. In this narrative and others like it, surveillance indicates a forcible violation of intimacy and privacy that disempowers the unwitting subjects, whether or not that violation ultimately escalates to violence. In YouTube travel videos, on the other hand, the subjects aren't just usually aware they are being filmed; the

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[46] There are numerous examples of drone pullbacks on YouTube, including a number of compilations of these shots, like this one: Nhey Agustin, "Dronie Pullback 2019 Compilation…DJI Mavic Air," *YouTube*, January 12, 2021, accessed July 21, 2021, https://youtu.be/lpbsARU0Q_M

subjects are often the ones directing, and benefiting from, that filming. Like military surveillance, a lack of privacy is still the currency of these drone videos, yet the means and outcome of the production is entirely different.

In one example, Dave Tebbutt, a wedding videographer with 28,700+ subscribers to his YouTube channel, departs from his standard video fare to film his own honeymoon trip to Costa Rica.[47] The 5:31 minute video opens with Tebbutt drawing lines in the sand with a stick. Then the pullback shot begins: Tebbutt was writing HONEYMOON 2018 in the sand, and as the drone pulls away, we see Tebbutt and his wife sitting cross-legged in front of those words, the only humans on the beach, smiling up at the drone as it moves smoothly away. Tebbutt is holding a control pad, clearly flying the drone. Soon, the drone is so high that it's impossible to make out the words or the couple on the beach. The image has become a beautiful panorama of Costa Rican coastline. Counter to the narrative of secret drone surveillance, Tebbutt is both drone pilot and subject of the drone's video footage. He and his wife are self-consciously filming themselves and meet the gaze of their eye in the sky with a steady gaze of their own. This reciprocal gaze is a study in agency and control. The subject of surveillance is also the director of it. The surveilled is the surveillor. An evolved selfie, this video provides a stark contrast to the secret (and at first incidental) surveillance of Alia in the opening pullback in *Eye in the Sky*, and especially the surveillance implied in Bridle's *Dronestagram* images of bomb sites just before they are bombed. Tebbutt isn't just aware he's being surveilled but has orchestrated and executed that surveillance of himself—and then shared it publicly on YouTube for anyone to see. The significance of this isn't just artistic, philosophical, or political, but also commercial; this video is implicit advertisement for Tebbutt's skills as a videographer.[48] Far from a

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[47] Dave Tebbutt, "Honeymoon in Costa Rica," *YouTube*, December 27, 2018, accessed July 1, 2021, https://www.youtube.com/watch?v=dvci2ekHTZU&t=2s
[48] Tebbutt, "Honeymoon"; The YouTube comments section on this video is full of praise for Tebbutt's skill as a videographer. The first comment, from user Patrick Mercurio, reads, "Did you edit this yourself? There were some pretty original shots, nice video." Another, from user Pete R, begins, "Textbook artistic/genius edit! SO glad to see you

tool of violation here, the drone is the medium through which Tebbutt fashions himself and his wife as all-powerful subjects in control of their own representation.

Visually, the shot creates an interesting effect. Certainly there is the inversion of the physical relationship between subjects and environment which I noted in the early pullback in *Eye in the Sky*. The Tebbutts at first fill the frame, but soon they visibly disappear from the frame altogether: unseen, but still present. The effect for viewers of this video is that as this change in scale occurs, you try to maintain your focus on the human subjects. You attempt to keep them in your sight as they recede from view. Even when the subjects become invisible, you search for a sign of them in the image. When you give up trying to perceive the Tebbutts, you can take in the beauty of the unfamiliar landscape—and you can do so calmly and confidently, understanding because of that gradual inversion of scale what it is you are meant to see. The American tourists are the focal points in this exotic foreign locale, even if they are out of sight. The natural beauty is front and center, but the point of the shot is to display the subjects' presence in and access to that place. The view from above has a flattening effect that "invites decipherment," as Kaplan puts it.[49] But unlike static aerial views that are difficult to interpret, this pullback shot teaches viewers how it should be interpreted.

Like the classic selfie, this video says both "see this, here, now" and also "see me showing you me," in the words of Paul Frosh.[50] The performativity of the video's production is a defining feature of it, and it keeps your focus on the subjects—the self, in selfie parlance—in charge of producing it. In "Phenomenology for the Selfie," Grant Bollmer and Katherine Guinness argue that "the selfie exists only in the act of clearly differentiating a self from a background" (165-66).[51] And

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throwing in some 360 video!" Tebbutt uses a drone for a lot of the video's footage, but also the GoPro Fusion and presumably other cameras as well.

[49] Kaplan, *Aerial Aftermaths*, 4.

[50] Paul Frosh, "The Gestural Image: The Selfie, Photography Theory, and Kinaesthetic Sociability," *International Journal of Communication* 9 (2015): 1607–28.

[51] Grant Bollmer and Katherine Guinness, "Phenomenology for the Selfie," *Cultural Politics* 13, no. 2 (Duke: University Press, 2017): 166.

in the "actual act of taking a selfie," the background inherently recedes; it is almost incidental to the composition and content of the image.[52] The pullback selfie, as we could think of the opening shot of Tebbutt's honeymoon video, complicates and revises this notion by creating a dynamic relationship between self/subject and background, and even viewer. As the subjects recede from view, and the eyes of the viewer must strain to keep them in view, the background truly recedes from awareness. And yet eventually the background is the only thing you can see. It fills the frame, and the subject is no longer visible. The subjects aren't just allowing themselves to be filmed but are controlling your perception of their relationship to their setting. The agency Tebbutt possesses here contrasts starkly with that of every individual character in *Eye in the Sky*. As the subject of the Reaper drone's surveillance (and ultimately violence), Alia is radically disempowered. There are dozens of people involved in the drone operation that kills Alia, all more powerful than she. Yet while collectively they use the drone to surveil and finally bomb their subjects—a study in control—not a single one of them has the level of control that Tebbutt has over his subject: his self. He has consolidated power and control by circumventing the network of operations that scholars have defined as so crucial to drone visuality. In both examples, control, power, and agency are critical ingredients in drone visuality, yet the recipes are utterly dissimilar.

That Tebbutt willingly granted strangers on the internet insider access to his honeymoon is also critical here. Drones offer unprecedented access to people, places, and events because of their unique design and capabilities, but that access is not always a forcible violation of someone's privacy. The makers of YouTube travel videos often willingly forgo privacy for commercial gain. Consider a video from YouTubers Alex and Marko Vaga, brothers who work together under the account *vagabrothers*, titled "Costa Rica Nature in 4K | Drone Relaxation Travel Video." Most of the video is indeed focused on Costa Rican nature. Overlaid with a gentle reggae soundtrack, the twelve-minute

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[52] Bollmer and Guinness, 166.

video opens with drone footage along rocky, tree-limned coastline. After early extended shots of waves crashing on a beach and the brothers surfing, we get a classic drone shot: a bird's-eye, top-down view of a red car driving along a road through a rain forest. For over seven minutes, there's gorgeous aerial footage of the natural splendor of Costa Rica—ocean, beaches, forests, waterfalls. Then, we get an epic drone pullback shot. At first the drone follows a woman in a bathrobe inside a hotel room as she walks out to the balcony, facing the ocean. The vantage flips, and now the drone is outside of the hotel, its camera facing the woman on the balcony. She meets the drone's gaze. The drone pulls back revealing luscious vegetation, a beautiful coastline with waves crashing, and—a huge banner hanging from the balcony with "crsurfcam.com" on it. The video, it turns out, is really a paid advertisement. The pullback shot sends a very clear message: if you want all of this (beautiful travel companion, swanky place to stay, access to a gorgeous beach and rainforest, downtime for adventures) you can have it—for a price.

This video and the many others like it on YouTube represent the complex yet increasingly entrenched influencer industry, in which people with large social media followings are paid for their recommendations and endorsements of products, services, and experiences. In most travel videos like this one, the vloggers—who are usually young, attractive, and white—are front and center. They eat, surf, lounge, and explore on camera. Their videos include plentiful shots of the natural beauty of their travel destinations, but also their amazing resorts or Airbnbs, and their meals, activities, apparel, and gear. Often posited by the makers as a gift of free, relaxing entertainment for the viewer, or sometimes as practical, helpful resources for aspiring travelers, these videos are essentially ads for places, products, and people—which provide income for the vloggers. The vloggers' cool vacations, probably largely comped by resorts, airlines, and credit card companies, seem full of possibility, yet likely are unattainable for most viewers, who would have to pay, not get paid, for the experience. Described as a "virtual vacation" by the Vaga brothers, the "Costa Rica Nature in 4K"

video is offered as a viable alternative to an actual trip to Costa Rica. The video description promises that the "virtual vacation" will "transport [the viewer] to the beaches, jungles, volcanoes and hidden hot springs of this beautiful country in Central America."[53] In reality, vicariously experiencing someone else's lavish vacation is not a satisfying substitute to taking your own, something that sponsors are counting on. Watching these videos makes you want to take an actual vacation to these beautiful places. They make you want to be there, buy things, and pay for that trip. Allison Page and Diane Negra, who study the YouTube subgenre of first class air travel reviews, describe the sad in-between function of these videos. On the one hand, they provide viewers (consumers) with "a vicarious experience of travel without the duress or expense" (14).[54] On the other hand, they taunt viewers who will never be able to afford the real thing. These videos become not a satisfying substitute for the real thing, then, but rather the closest to a real vacation many viewers—mired in a neoliberal economy that works workers to within an inch of their life—can get.

These virtual vacations are appealing in part because they give the impression of access to an intimate and often exclusive experience. A vacation is usually a private thing for families, romantic partners, close friends, or individuals. The way people spend their down time is personal, often vulnerable. These YouTube videos blur the lines between private and public, then, not only by offering access to normally intimate occasions, but also because they are really offering the *impression* of intimacy—facilitated, often, by shots from drones as they get right up close to their subjects. Vacations should reflect something personal about the people who go on them, like what kinds of places, activities, and cultures appeal to them, how much money they have, and who they choose to spend their leisure time with. When a vacation is sponsored (initiated, perhaps, by a corporation

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[53] Vaga and Vaga, "Costa Rica Nature in 4K."
[54] Allison Page and Diane Negra, "Status economies and frequent flier expertise: YouTube first class travel videos," *Cultural Studies*, Routledge: Taylor & Francis Online, March 4, 2021, accessed July 21, 2021, https://www.tandfonline.com/doi/full/10.1080/09502386.2021.1894586

investing in influencer advertising) and then broadcast for consumption, it tells you very little about the preferences and means of the people taking it. There's something inauthentic, and conspicuously unintimate, then, about putting something that is ostensibly private—your romantic vacation—on display for public consumption on the internet.

My point is not to make a moral judgment about inauthenticity, but rather to point out that these videos, staged as they are, are yet dealing in an economy of intimacy as are videos of military drone surveillance. The differences are many and prominent between *Eye in the Sky* and these two YouTube travel videos set in Costa Rica. In the former, military drones surveilling alleged terrorists are procuring intelligence about their subjects' locations, habits, and movements. This is an "irruptive, invasive intimacy," as Gregory calls it, that involves spying on people in their daily lives and sometimes assassinating them, or at least accepting their injury and death as necessary collateral damage.[55] In Tebbutt's and the vagabrothers' videos, the makers choose to surveil themselves and trade that intimate access to their lives for money. Tebbutt's video is only an implicit advertisement of his skills as a videographer, which is how he makes his living. The vagabrothers video is an overt advertisement for crsurfcam.com, which offers travel planning services, excursions, and real estate for sale. Both videos make usually private trips public for commercial gain. This is an open, empowering intimacy, that involves willingly inviting or allowing others in in exchange for personal advance. That Tebbutt and the Vaga brothers are white American tourists profiting off of Costa Rica, a comparatively impoverished nation inhabited by people that Americans would consider 'other,' however, draws an imperial throughline between these videos and the military operation in *Eye in the Sky*. Still, the contrast between invasion and invitation mirrors other contradictions that the new drone visuality poses to the old: drones are intimate as well as detached, small as well as large, close as well as distant, relaxing as well as terrifying.

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[55] Gregory, "Drone Geographies," 10.

2.4   Wedding Videos: the Spectacle of Intimacy

Wedding videos are not a new phenomenon, but in recent years they have evolved as drone footage has seeped into them, the genre by now a compelling display of the new drone visuality. Visually, they share similarities with travel videos on YouTube—they often feature beautiful destinations, and pullback shots and panoramas are common—but they have other visual tropes that are all their own: an aerial establishing shot showing the venue, clips of the vows, slow motion shots of dancing guests, the bride getting ready with her bridesmaids, the couple alone in a beautiful outdoor spot.[56] Drones enable an expansion of scale in these videos that was previously impossible, as they were limited in perspective and access by the technology of handheld and mounted video cameras. Like Dave Tebbutt's video of his honeymoon trip to Costa Rica, drone pullback shots and panoramic aerial footage elevate these intimate, personal celebrations to the focal point within a powerful landscape. And like travel videos, they offer viewers the impression of inclusion in an intimate occasion—in fact, an occasion that is the ultimate signifier of romantic intimacy in Western culture. Trips and vacations, and the level of luxury vacationers can afford, are certainly markers of class and personal success. And yet not taking vacations—having a career that drains every ounce of your time in relentless pursuit of productivity—is also frequently honored in Western culture as the height of professional success. Weddings, on the other hand, hold a special and definitive status in American society, both as a romantic ideal and a signifier of personal success and achievement. That drones so commonly frame these events, then, is telling.

Even for weddings that seem to depart from tradition, the videos made of them definitively mark their participation in the same economy of intimacy and spectacle that fuels Western wedding culture at large. In "Tia and Zack" from LiveSlow Productions, the couple has eloped to wed

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[56] For several examples of typical wedding videos, all featuring drone footage and all of the visual tropes common in the genre, consult "This Wedding Video Will Make you Sob… | Nick and Chelsea Hurst"; Ashley Iaconetti + Jared Haibon's Wedding Film – Presented by Le Reve Films.

privately at Horseshoe Bend, Arizona, a landmark in Glen Canyon National Recreation Area where the Colorado River loops around a sandstone escarpment.[57] The spot is also known as the east rim of the Grand Canyon, which is only a few miles away. The dramatic red cliffs provide a truly epic backdrop for Tia and Zack's pared down ceremony. The video includes the tearful exchange of their handwritten vows—but no bridesmaids or groomsmen, family, guests, cake, or music—followed by grandiose pullback shots of the newlyweds standing alone at the edge of a cliff, looking by turns outward into the distance and into each other's eyes. The view seems to signal something about their romance: it is unfettered by tradition and the materialism that marks so many unions, perhaps. Likewise, the choice seems to reflect on the couple's personalities and values. Instead of a traditional church or hotel wedding, they chose a remote and splendid destination, somewhere intimate and memorable, impressive but unpretentious. This choice, plus the bride's denim jacket over her white dress, the groom's wide brim fedora, and the couple's tattoos, seem to signal that they have their own way of doing things. Indeed an elopement is not stereotypical wedding video fare.

Yet what of the video's very existence? Every element of the video points to spectacle: Horseshoe Bend, the epic pullback shots, the stylized clothing (the couple have changed into dramatic black clothing for some of the outdoor footage). And the simplicity of the ceremony is belied by the complex logistic feat that must have been required to pull it off: the couple likely had to hike by foot to reach the spot for their ceremony, change of clothes in tow, and Horseshoe Bend is a No-Fly Zone for drones, meaning the videographers likely had a limited time to capture the wedding footage so as not to attract the ire of park rangers. Likewise, the apparent intimacy of the wedding seems at least somewhat manufactured. The seemingly intimate wedding against the backdrop of dramatically beautiful natural splendor evokes the conceit of the Tebbutts' and Vaga

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[57] "Horseshoe Bend," *NPS.gov*, last updated July 7, 2021, accessed October 4, 2021, https://www.nps.gov/glca/planyourvisit/horseshoe-bend.htm

brothers' travel videos: it capitalizes on the *impression* of intimacy. An actual exchange of marriage vows occurred between two people—an inherently intimate thing. Yet the impression that there were *only* those two people there is misleading. Someone had to have officiated the wedding, and someone had to capture it on video. There were probably other visitors to the park, too, though none are visible in any of the video's footage. Tia and Zack's wedding video makes it seem as if the event was utterly private, as if they had the entire park to themselves, as if Horseshoe Bend belonged entirely to them on this special occasion. Yet with every additional person who finds and watches the video on the internet—on Vimeo, on Live Slow's website, or on Facebook—the ceremony becomes less private. A final marker of the wedding's spectacle in Tia and Zack's wedding video is this: the dramatic pullback shots of Horseshoe Bend are interspersed with clips of the couple in Las Vegas, a flashy international symbol of excess and commercialization. Rather than make the ceremony in Horseshoe Bend seem plain and economical in comparison, the clips of the couple in Vegas show that weddings are inescapable from the industry of spectacle which they are a part of. In the light of the video's, and thus the wedding's, public display, the choice of such a grandiose setting for the event seems calculated to impress and thus participates in the same competitive economy of spectacle that fuels the wedding industry, and wedding culture, at large.

It is telling that weddings have become such common fare for drone videography. The sensibility behind the trend is critical to understanding the new drone visuality that encapsulates, but which is so much more than, military surveillance and airstrikes. A wedding video is not reducible to the event itself. It is not a straightforward, panoramic—as in, all-seeing or unobstructed—account of the occasion, but a tightly controlled representation of the event. Like with any film, a wedding video leaves more on the editing room floor than it includes in the final cut. And shooting with a drone pulls the wedding deeper into the realm of the cinematic, further marking the impulse to create a wedding video as something other than simply the preservation of a special personal

memory. Wedding videos put personal success—marriage, wealth, the support of friends and family—on display, entering into a competition for viewers' admiration, envy, or good wishes, measured by a very specific currency: views, likes, shares, and comments. The impulse to have a wedding video created is usually followed by the impulse to share that video on social media for others to consume. It is both an invitation into an intimate occasion and a reminder of exclusion from it: it says, "only a select few were actually present for this." Drone footage is the medium for both messages. It offers the impression of wide, unbroken access to an event, while also marking its exclusivity by capturing surveillance of the wedding party and guests. You see exactly how many people were there and who.

Consider another video, this one entirely comprised of drone footage of a wedding at an estate in Scotland, shot by the Scottish drone media company AeroPixel. The drone circles overhead as the wedding party gets ready and guests arrive in limousines. It is an impressive venue—the Parsonage at Dunmore Park, an enormous early Victorian manor—with sprawling manicured green lawns surrounding it. More than most others, this wedding video seems more invested in showcasing drone visuality than telling the story of the wedding. Here, defying wedding video norms, there is no capture of the recitation of vows or close-ups of the bride and groom alone. We see the estate from numerous overhead angles, and some from closer to the ground as well. It feels as if the variety of drone shots aim to provide as three-dimensional and thorough a rendering as possible of the location, both the built structure and the surrounding property.

This kind of capture requires advanced preparation. In a YouTube video "12 Tips on Using Drones at Weddings," Stewart and Alina Carrol, a husband-and-wife team of drone film experts, recommend that aspiring drone videographers should always "plan your shoot" in advance.[58] For

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[58] Stewart Carrol and Alina Carrol, "12 Tips on Using Drones at Weddings," *YouTube*, February 28, 2019, accessed October 4, 2021, https://www.youtube.com/watch?v=y-QaabnEmq8

Stewart and Alina—who incidentally have 230,000 subscribers to their YouTube channel—this involves researching the lay of the land. "Before each wedding, we look at Google Maps and Google Earth so that we know exactly what to expect when we get on location." This research helps drone videographers decide which shots they'll want to get, how long it will take to get them, and what equipment they will need. The connections between this type of preparation and surveillance and that which is necessary for a planned military assault are not subtle: both types of operation require a deeply intimate knowledge of the location. This similarity gestures toward the deep privilege associated with inviting a drone to your wedding without any worry for your privacy or safety.

2.5   Conclusion: the Illusion of Intimacy

YouTube travel videos and wedding videos create an illusion of intimacy that is punctured by harsh geopolitical realities, all of which are mediated by drones. What these videos do not show illuminates what they do. Consider that the vagabrothers video ("Costa Rica Nature in 4K | Drone Relaxation Travel Video") overlaps with a subgenre in the YouTube travel world of "ambient" and "relaxation" drone videos, which are often one to three-hour long compilations of aerial drone footage of a particular place accompanied by soothing instrumental music. The videos feature pristine, undisturbed locations (the mountains of Iceland, for example), or popular tourist destinations famous for their natural beauty (like Costa Rica or the United States National Parks). That the consumer drone is the purveyor of ambience and relaxation here is in high tension with the hypervigilance and lethal violence provided by the military drone. Unsurprisingly, these videos rarely document sites of American military engagement. When you search for ambient drone videos on YouTube, there are no tours of Iraq or Afghanistan.

Our violent encounters in these places provide disturbing subtext for the travel and wedding videos I've analyzed. In the U.S., drone footage captures luxurious vacations and private celebrations

and turns them into lavish spectacles for public consumption, which in turn provide social or literal

capital to the subjects of the videos. But outside of the U.S., drones violate the intimate occasions of

our 'enemies' in shocking and deeply upsetting ways. For example, on November 3, 2008, an

American airstrike killed more than thirty civilians, mostly women and children, at a wedding party

in Kandahar province, Afghanistan.[59] On December 12, 2013 in Yemen, four American Hellfire

missiles hit a convoy of eleven cars, which turned out to be a wedding procession. At least ten were

killed, and many more were wounded, including the bride.[60] In September 2019, days after a U.S.

drone strike killed a group of pine nut harvesters, dozens of civilians were killed when U.S. forces

raided a Taliban training facility in Helmund province. The house was adjacent to the house of a

bride, and at least forty people attending the wedding party were killed.[61] Though in theory the U.S.

military does not intentionally target weddings, but rather has confused wedding proceedings for

other types of gatherings, these incidents show that far from providing capital of any kind, social or

otherwise, intimate gatherings are a liability when drones hover out of sight overhead, ready to strike

without any formal consequences.

Perhaps more than anything else could, weddings show that the asymmetries governing

drone use in the West and in places that house our 'enemies' are profound. In the West, we invite

drones to our weddings, and we do so without any concern for our wellbeing. In other places, we

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[59] "Alleged US air raid 'kills 37' at Afghan nuptials," *The Guardian*, November 5 2008, accessed October 4, 2021, https://www.theguardian.com/world/2008/nov/06/afghanistan-wedding-air-raid-kandahar; Mark McDonald and Graham Bowley, "Deadly U.S. airstrike said to hit Afghan wedding party," *The New York Times*, November 5, 2008, accessed October 4, 2021, https://www.nytimes.com/2008/11/05/world/asia/05iht-afghan.3.17553439.html; "Wech Baghtu wedding party airstrike," *Wikipedia.org*, accessed October 4, 2021, https://en.wikipedia.org/wiki/Wech_Baghtu_wedding_party_airstrike

[60] Letta Tayler, "A Wedding that Became a Funeral: US Drone Attack on Marriage Procession in Yemen," *hrw.org*, Human Rights Watch, February 19, 2014, accessed October 4, 2021, https://www.hrw.org/report/2014/02/19/wedding-became-funeral/us-drone-attack-marriage-procession-yemen; Gregory D. Johnsen, "Nothing Says 'Sorry Our Drones Hit Your Party' Like $800,000 And Some Guns," *BuzzFeed*, August 7, 2014, accessed October 4, 2021, https://www.buzzfeed.com/gregorydjohnsen/wedding-party-drone-strike

[61] Mohammed Stanekzai and Abdul Zadir Sediqi, "At least 40 civilians at wedding party killed during nearby U.S.-backed Afghan army raid," *Reuters*, updated September 23, 2019, accessed October 4, 2021, https://www.reuters.com/article/us-afghanistan-attack/at-least-40-civilians-at-wedding-party-killed-during-nearby-u-s-backed-afghan-army-raid-idUSKBN1W80MI

send drones to destroy weddings. This is a stark (and sick) contrast that reflects the reality of empire. The expectation of access and the assumption that nothing is truly private are the same principles that fuel the wedding video industry *and* that make us think we can bomb weddings and other private events—even if 'accidentally'—with impunity. In a neoliberal society in which surveillance is normalized, nothing is off-limits, and everything is accessible, the impulse to see all, access all, and broadcast all extends beyond the boundaries of our own populace. Not just an imperial tool, but a pure expression of empire's reach, the drone makes this possible.[62] It seems to see all and know all. It gets intimate—up close and personal—with anything and anyone. It can move in 3D space and show beings, places, and events from a variety of angles and at scale with their surroundings, providing almost unlimited visual access. Sometimes it violates and disempowers its subjects, who do not know they are being surveilled and targeted—or who do but can't do anything to stop it— while for others, it is a tool of agency and income. Yet even those who profit from drones are often themselves victims of a viciously competitive neoliberal economy. Between the privatization of the the military and the side gig economy that seeks to compensate for economic disempowerment and diminishing support for the worker, those who wield drones must fend for themselves at whatever cost. Drones provide a means of economic provision, yet their use also symbolizes the very system that makes economic provision scarce, unequitable, and viciously competitive.

The relationship between military and non-military drone usage isn't one-directional, but reciprocal. As Gregory and others have pointed out, militarization and the lethal origins of the drone haunt everyday life. "To think about life in the age of drone warfare," write Lisa Parks and Caren Kaplan, "is to recognize the ways military technologies are entangled with [non-military] modes of perception and practices of knowledge."[63] This essay has attempted to show that it is also everyday

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[62] Nathan K. Hensley, "Drone Form," 3.
[63] Lisa Parks and Caren Kaplan, "Introduction," 7.

life, and the consumerism that marks it, which stokes the rampant use of military drones for illegal surveillance and extrajudicial assassinations: what if consuming the privacy and intimate celebrations of our 'enemies' in fiery explosions is a violent escalation of our everyday consumption of intimacy at home? Studying the new drone visuality—not just the so-called "drone's eye view" from above—marked by consumer drones helps to display the illusion of intimacy which pervades the American economy and empire.

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