

Book Review Symposium

Katherine Chandler, *Unmanning: How Humans, Machines and Media Perform Drone Warfare*, New Brunswick: Rutgers University Press, 2020. ISBN: 9781978809741 (paper); ISBN: 9781978809758 (cloth); ISBN: 9781978809789 (pdf)

Introduction

“Bald Eagle Wins Duel with Drone.” In summer 2020 a bald eagle attacked a drone operated by Michigan state’s Department of Environment, Great Lakes, and Energy (EGLE), tearing off the propeller and causing the device’s plummet 162 feet through the air into Lake Michigan (Lewis 2020). An environmental analyst and drone pilot had been using a DJI Phantom 4 – one of the most popular mass-produced, ready-to-fly drones sold in huge numbers around the world – to map shoreline erosion and collect other data helpful to communities that face rising water levels. The agency’s humorous news release about the loss of the \$950 drone suggested the eagle was provoked by hunger, territoriality, or “bad spelling” – referring to the agency’s acronym “EGLE” – and was subsequently shared online several hundred thousand times within a few days (MI Environment 2020; Moore 2020). Various large raptors have been documented attacking drones.¹ In fact, the penchant of eagles to attack drones has been appropriated in the developing field of drone defence, with several military and police programmes training eagles to dispatch with drones. The Dutch national police were the first to use birds of prey as a counter-drone measure in the “Guard From Above” programme, followed by the French military. A UK programme sought to employ raptors to guard prisons from contraband-carrying drones. A US Air Force-

¹ Birds remain a persistent “problem” for aviation more generally: avian response to synthetic sound is not easily predictable, and while drone propeller and other frequencies have been used as a deterrent at airports and farms, such sounds have also led to aggressive outcomes.

funded study by Oxford zoology researchers has considered ways that peregrine falcons' approach to intercepting their targets – similar to the guidance system used by visually directed missiles – could help down rogue drones (Bachman 2017; Darack 2017; France24 2017; Moore 2020). The ultimately short-lived Dutch attack eagle squadron created a media sensation, propelling a genre of online videos of birds attacking drones.² Amidst this celebratory mediatised standoff of animals versus drones also came harrowing news of an anti-drone golden eagle diving at and clawing the back of a five-year-old girl at a picnic by the Saint-Antoine chapel in the Pyrénées during the Spring school holidays. Forcing an official apology from the French air force, the attack error was attributed to the eagle confusing the girl with a drone because she was wearing white.

I start with this vignette to introduce Kate Chandler's *Unmanning: How Humans, Machines and Media Perform Drone Warfare* because it complicates assumptions about technological dominance. The slippages and antagonisms between eagle/EGLE, animal/eagle-as-technical system, drone-target/girl, and targeted attack/deterrence underscore Chandler's outstanding study of the error-prone, limited, and often strikingly ridiculous course of technological systems that tie machine autonomy to national protection – or, in the case of EGGLE, humanitarian-oriented territorialised care that encroached on actual eagle turf and succumbed to a watery grave. Chandler's book *Unmanning* focuses on unmanned aerial vehicle (UAV) systems – “drones” – as a key window onto the technologically-driven global political systems of the 20th and 21st centuries. The volume stands alone in the mounting literature on drones for illuminating the recurrent failures of drone systems yet ongoing political project of unmanning, and for dramatising the way drones in practice have diverged from the drone in ideology and theory within a much longer history of contingencies than contemporary debates on drone warfare allow. Chandler challenges not only how drone systems are interpreted as

² The programme was ended because eagles would not always do what they were trained to do, and was ultimately deemed both too expensive and unpredictable.

apolitical, technocratic, historically inevitable systems, but how US empire relies on “technological progress” as cover for ongoing asymmetrical colonial violence.

* * *

An introductory chapter explains the book’s genealogical method, argumentative arc, and interventions – chief among the latter, the revelatory assessment that framing the drone through unilinear technodeterministic advancement organises power through disavowals that deny the trauma of war and extend technoscience into necropolitics. Subsequent chapters delve into five case studies of experimental drone aircraft in the US and transnationally that span nearly a century. The granular analysis shows the complex organisation and unstable assemblage of human, media, and machine parts of the drone, in contrast to military and government accounts that align seeing, knowing, and sovereignty as if drone system mediations provide a god’s-eye view of objectively given reality. Chapter 1 takes the reader back to a classified project launched by the US Navy during the decade prior to WWII: “Project Drone”, a pilotless anti-aircraft training platform launched in 1936 that not only entailed making a remote-controlled plane as target-object but also created a networked milieu of/for airwar via innovations in radio and telephone. Chapter 2 shifts to the Pacific Ocean theatre of WWII where the radio- and television-controlled drone assault weapon that Radio Corporation of America scientists and Navy officials referred to as “American Kamikaze” – a flying torpedo precursor to the cruise missile – enabled the interplay of target/targeting system through a fantasy of aerial domination. Simultaneously aligned with the racialised figure of the kamikaze bomber as well as a mechanical electric eye, the drone system proposed a direct view of the battlefield “through” the television – as an accurate, indeed enhanced, prosthesis of human sight and action. In doing so, the project constructed a world of targets supposedly determined by the machine system while also racially coding the territory that was targeted as subhuman.

Chapter 3 scrutinises the jet-powered Ryan Aeronautical Firebee and the rise of the term unmanned. Among its ideological achievements, unmanned spying served as a technological solution to the problem of Americans getting captured, therefore promising to fast-track executive approval by minimising political risk. Chandler renders crucial affective dimensions of removing pilot/bodies from the plane within American national security: it effaced the role of military, government, and industry decisions in aerial reconnaissance practices by correlating the drone with an electronic brain and cybernetic system that operated on its own. The chapter details how a behaviouristic model of technology and overlay of “black box” and closed system of remote communication with self-regulating function shifted the activity of surveillance toward the so-called automated context of continuously seeking signs of threat. The chapter brilliantly shows how this intelligence strategy was also a surveillance pedagogy that trained the American public to see aerial reconnaissance as national defence and to understand the camera as granting total access to the territory. This obscured how the nationalised camera view inscribed geopolitical division in its tautological constructing of a world of targets as objective evidence of threats.

Chapter 4 picks up on the air force-funded 1962 conversion of the Firebee in the Big Safari programme, to use drones for reconnaissance in proxy conflicts in Asia, Africa, and Latin America, as a US counterinsurgency measure in the Cold War. The chapter draws attention to the colonial metaphors that were enlisted to frame military and political conflict, including references to big game hunting and the code name “Buffalo Hunter”. The latter extended the settler-colonial ideology of the American West, as an empty landscape for conquest, to bases in the Pacific and reconnaissance of Southeast Asia. A dispersed network of military sites, labs, industry, and personnel galvanised the idea of deterritorialised, machine-like, all-seeing American global control, further effacing the land below. Chapter 5 moves to the application of remotely-piloted surveillance vehicles in “client states” that drew out the logic of Cold War “peacetime intelligence” to post-Cold War conflicts not defined by superpowers. Chandler

discusses the application of the Mazlat Pioneer during the 1982 Israeli invasion of Lebanon and the story of Israel's "invention" of modern drone warfare in the aftermath of the 1973 Arab–Israeli War: Israel is the first state in the world to publicly proclaim the legality of preemptive targeted killing (p.185). Presaging the contemporary Predator drone, the Pioneer and its acquisition also figures centrally in the largest case of military corruption prosecuted by the FBI, involving bribes and bypassing international export controls and sales of drones – what Chandler characterises as a structuring principle of the drone's interaction with the military-industrial complex. Finally, to conclude the book, Chandler performs a close reading of corporate-military performance in the film *Nobody's Perfect* to offer a "double-negative ending" of drone failure as a way of undoing the drone's negation of politics.

* * *

One of *Unmanning's* signal contributions is its global humanities-oriented approach to the study of contemporary media, technology, war, and global affairs. *Unmanning* is an exemplary study of the culture and politics of media and machine constituting drone experiments and their afterlives. Chandler lucidly draws together a complex web of policies, institutions, military tactics, media/information practices, and knowledges that developed with aerial vision and reconnaissance. The book is highly interdisciplinary and global in perspective, with a sustained commitment to political theory while also hewing closely to the historical and material dimensions of the media systems that Chandler studies. She applies methodologies and explanatory frameworks from the fields of political theory, rhetoric, science and technology studies, geography, history, and global media studies. Her rhetorical criticisms are honed to the study of media systems through history/archival work directed by science-based political theory. The book combines military and technoscience history with a global history of media technologies and systems, including radio, television, aerial photography, video, and data

transmission. In essence the book offers a new global history of media and information systems and their geopolitical structures from the vantage of experimental drone flight and failure.

Whereas contemporary debates largely consider drones as a tool and foreordained technological outcome, Chandler mobilises a history-bound and technical understanding of drone systems to weigh the ideology of unmanned and its ethical and political stakes. Chandler's approach understands technology to have multiple meanings and geographies that shift with institutional contexts and human practices. She uses technical analysis and STS approaches to reflect critically on the evolving culture of drone technopolitical governance that avers war can be automated and placed beyond politics and human involvement. She also draws together a range of primary materials to enrich the analysis, including government documents, engineering reports, company press releases, personal memoirs, historic photographs and films, as well as contemporary artworks and performances that address the technical and visual operations of drones and the ethical dilemmas they pose. Combining nuanced attention to the culture and politics of drones with technoscientific analysis of how they work and with what effects, *Unmanning's* case studies show how unmanned aerial systems projects have innovated networks of human/machine/media that organise and intensify asymmetrical power relations, sublimating human involvement and deferring responsibility to "no body". The book makes very clear that unmanned is not simply about the removal of pilot/body from the plane but, ultimately, the US claim to act distinctly outside of the political, diplomatic, and public spheres through the drone. Chandler powerfully argues that only by considering the paradoxical but dependent relationship between human action and unmanned can the politics and life/death stakes of drone warfare be adequately addressed.

Chandler's engagement with international politics truly sets *Unmanning* apart from other humanities-oriented work that is more narrowly focused on drone-made images. The book continually considers the visual practices enabled by drones *in relation to their political geographies*, to show how drones visually construct targets to serve US geopolitical interests.

Chandler's close archival readings excavate the contradictory labour involved in the military legitimisation of drone warfare, and the ways that colonial discourses have conditioned drone projects, linking them to insects, kamikazes, "buffalo hunters", and disembodied spy cameras. The chapter sequence effectively delineates a "map of power" of drone experiments tied to histories of global control, cybernetics, racism, and colonialism and the "post"-colonial geographies of proxy conflicts, where the drone perpetrates a fantasy of self-automated machines that "remove" the coloniser from the act of continued violence and trauma. *Unmanning* delineates the ways that the historical shift from surveillance as "peace" mobilisation to drone surveillance – to technocratic aerial and electronic intelligence that continuously seeks signs of threat – was/is conditioned by the racial coding of territories that perpetrates colonial asymmetries. Drone systems taught military personnel how to see an "enemy terrain" as a set of targets made transparent by a seamless field of aerial photography – a visual necro-geopolitics that other researchers and readers can see at work in the racialised/gendered geographies of border policing, environmental security, poverty criminalisation, and other practices of state violence.

Finally, *Unmanning* offers exemplary close readings of archival materials, from the National Archives, National Air and Space Museum, San Diego Air and Space Museum, Israeli Defense Forces Archive, among others. Chandler's study not only examines a number of documents and historical episodes that have thus far not received the attention they deserve, but also contributes to the record little known facts, such as drones being used against striking coal miners in West Virginia in 1921 – a minor detail in the book but emblematic of the way *Unmanning's* transnational methodology of *genealogy* trenchantly refuses American exceptionalism in contemporary understandings of the drone.

References

- Bachman J (2017) The military is using falcons to build a drone killer. *Wyoming Business Report* 5 December
https://www.wyomingnews.com/wyomingbusinessreport/industry_news/government_and_politics/the-military-is-using-falcons-to-build-a-drone-killer/article_25733be7-3bf2-5476-ac43-955a0263aa9f.html (last accessed 9 March 2022)
- Darack E (2017) Attack of the drone-snatching eagles: A natural solution to a growing threat. *Smithsonian Magazine* 17 March <https://www.airspacemag.com/daily-planet/attack-drone-snatching-eagles-180962543/> (last accessed 9 March 2022)
- France24 (2017) France deploys new force to combat drones – and it has claws. 14 February
<https://www.france24.com/en/20170214-french-air-force-deploys-eagles-intercept-rogue-drones-military> (last accessed 9 March 2022)
- Lewis S (2020) Bald eagle wins duel with state's \$950 drone, sending it to the bottom of Lake Michigan. *CBS News* 14 August <https://www.cbsnews.com/news/bald-eagle-takes-down-drone-michigan-government/> (last accessed 9 March 2022)
- MI Environment (2020) Shoreline-mapping EGLE drone sent to watery Lake Michigan grave by UP bald eagle. *Michigan Department of Environment, Great Lakes, and Energy* 13 August <https://www.michigan.gov/mienvironment/0,9349,7-385-90161-535800--,00.html> (last accessed 9 March 2022)
- Moore J (2020) Eagle dispatches EGLE drone, sparks social media delight. *Aircraft Owners and Pilots Association (AOPA)* 17 August
<https://www.aopa.org/news-and-media/all-news/2020/august/17/eagle-downs-drone> (last accessed 9 March 2022)



Shiloh Krupar
Walsh School of Foreign Service
Georgetown University
srk34@georgetown.edu