Ian G.R. Shaw, *Predator Empire: Drone Warfare and Full Spectrum Dominance*, Minneapolis: University of Minnesota Press, 2016. ISBN: 9780816694730 (cloth); ISBN: 9780816694747 (paper)

Drones are increasingly understood as the "signature device" of the present moment (Noys 2015). Whilst a growing number of global militaries continue to embrace the drone as both a surveillance and strike platform, spanning and scanning a "newly expanded global battlefield" (Gregory 2016), the United States arguably remains the most prolific actor therein. As such, it is to the US' drone programme that Ian Shaw turns in *Predator Empire: Drone Warfare and Full Spectrum Dominance*. In this timely and historically-engaged text, Shaw offers a distinct approach to the study of the drone in which the technology is apprehended as a more-than-human geopolitical actor, both the product and productive of practices of enclosure, atmospheric security, and policing. The result is a conceptually and contextually rich interrogation of the US drone programme, one yielding insights and analytic frameworks of utility beyond this focus. The review that follows engages with the key concepts and contributions of Shaw's text, proceeding through its seven chapters.

In the book's opening chapter, "Understanding Empire", Shaw introduces the key terms, ideas, and critical questions underpinning and guiding the thematic chapters that follow. In so doing, he develops discussions of both *enclosure* and the *non-human*, central conceptual frames which he then brings together with the aim of advancing a discussion of the unfolding "present and future US national security state" (p.6), one Shaw labels as the *Predator Empire*. Enclosure, referring to the "imprisoning [of] life inside nonhuman apparatuses" (p.47), is, Shaw argues, a key conceptual frame through which to approach the study of the drone. Tracing a series of historical developments in which successive "apparatuses" have sought to "bring the planet's inhabitants to the great inside of technological civilisation", Shaw argues that enclosure, in the drone age, is becoming "more atmospheric, more machinic, [and] more militarized" (p.7). Whilst emplacing the drone within lengthier (historical) practices of the surveillance and enclosure of the human species,

the book is guided in part by the question "what does it mean to live on a planet that is enclosing its populations inside controlled, artificial, and dronified environments?" (p.3). Shaw then turns to the nonhuman as a further key concept through which the study of the drone is approached in this text. Positing that our "increasingly enclosed technological civilization" is now mediated by "predominantly nonhuman" actors (p.19-20), Shaw argues that a "more-than-human geopolitics" is necessitated (p.5). Here, he diverges from scholarly accounts in which the drone is understood as an "instrument" or conduit of human action, and instead pursues an account of the drone in which the platform is itself understood as a "geopolitical agent creating new modes of state power" (p.12). Shaw's text thus asks how power is "distributed among the objects, technologies, and infrastructures" that constitute the drone assemblage (p.13).

Bringing together these discussions of enclosure and the nonhuman, Shaw proceeds to introduce his book's key concept: the "Predator Empire". Presented as a concept facilitating the theorization of "the multiple military, policing, and surveillance apparatuses that coordinate an increasingly dronified War on Terror" (p.6), Shaw describes the Predator Empire as a unique configuration in which a "mode of state power (policing), a military strategy (predation), an archetypal technology of remote surveillance (the Predator and Predator B drone), and a geographical scale (the planetary)" have come together. He situates this conceptualization within lengthier lineages of empire, understanding the drone as a hybrid technology, combining the old and new (see also Kindervater 2016; Wall and Monahan 2011). Whilst understood as creating "unprecedented forms of state violence and producing new geopolitical spaces", the drone, Shaw notes, arises "from pre-existing conditions" (p.5). *Predator Empire*, then, is the reconsideration of empire in light of the proliferation of drones: nonhuman geopolitical actors that mark, Shaw argues, empire's transformation from "a labor-intensive to a machine- or capital-intensive system" (p.10).

In developing such conceptualizations over the chapters that follow, Shaw examines the drone with reference to both distinct contextual and thematic lenses. He identifies "five key trajectories" within the drone's history, spanning its role as a: practice target, flying

bomb, surveillance platform, weaponized hunter-killer, and policing platform (p.99). Whilst remaining attentive to these shifts comprising the drone's history, Shaw's text is structured around thematically exploring the drone in relation to: enclosure, the electronic battlefield, full spectrum dominance, immunitary defence, and domestic policing, with a chapter dedicated to each.

In Chapter 1, "The Long March to Human Enclosure", Shaw returns to the idea of enclosure, positing that the Predator Empire can be understood as a legacy of the "fencing of the commons": a continuation by other means of the "biopolitical project to capture, discipline, and regulate life" (p.53). Importantly though, the Predator Empire is marked by an enclosure both comprised of and "producing overlapping, electromagnetic, civilizatory domes" (p.46): a situation Shaw poetically dubs an "electronic atmosphere … [stretching] over the planet like a cyborgian skin" (p.30). In arguing the significance of the enveloping of our technological civilization by such "artificial infrastructures" (p.32), Shaw reflects upon the rhetoric mechanisms legitimating our enclosure-by-drone. Turning to the entrenched association of the drone with "accuracy and precision" (Wall and Monahan 2011: 240; see also Hayden 2016) and tapping into debates surrounding the classification and identification of combatants more widely, Shaw asserts that ultimately such narrations of the (disputed) targeting capabilities of the drone "tell us nothing about whether a target is actually a combatant", and as such, argues that in these claims resides "a danger … that ethics is being overrun by technics" (p.43). Whilst not the focus of the remainder of the text, this sentiment invites further interrogation of the competing drone imaginations and narrations cultivated by the institutions and communities that rhetorically compel and propel the drone into being (Rothstein 2015; Van Veeren 2013).

In Chapter Two, "The Rise of the Predator Empire in the Vietnam War", Shaw turns to the Vietnam War as a foundational site in the development and unfolding of contemporary US-led drone operations. This period, Shaw argues, remains a crucial one: with "nearly all the pieces … put in place", minus the Predator platform itself (p.105). One key example Shaw unpacks is that of the advancement of the "electronic battlefield", tracing the growing

automation and computerization of the conflict's battlefields. The utilization of data from remote sensors (in operations such as Igloo White) can be understood, Shaw suggests, as a crucible of the contemporary practice of surveilling and comprehending the "enemy" target as an "electronic pattern of life" (p.88; see also Shaw 2016a).

In Chapter Three, "Full Spectrum Global Dominance", Shaw instead explores the Predator Empire in relation to US military aspirations of full spectrum dominance (FSD): "the total occupation and control of land, sea, outer space, cyberspace and even psychological space" (p.22). Reflecting upon the variously located and cross-domain distributed infrastructures comprising the Predator Empire, Shaw argues that FSD can be analytically understood as a form of *planetary enclosure*, in which a range of "terrestrial, maritime, atmospheric, and extraterrestrial spaces" are brought under control by a "sophisticated war machine" (p.111). Developing this discussion of multi-domain engagement and capture, Shaw turns to reflect upon the practice of targeted killing, highlighting the simultaneous *expansion* of the battlefield and *contraction* of the target, to the scale of the body (p.113). In this spatially elastic process, Shaw identifies multiple temporalities at play, describing the drone as a "preemptive, future-oriented immunitary" mode of aerial policing (p.128).

In Chapter Four, "The Rule by Nobody", Shaw turns to unpack further this "immunitary defence system", one he understands as both embodied and globalized by the drone (p.162). In this immunitary capacity, the drone is understood as (tasked with) securing the "insecurities of living inside technological civilization" (p.159). As Shaw notes, this immunizing imperative (to preserve life) is bound to "the pursuit of death", its "hostile inverse" (p.162, 160). The chapter thus interrogates the "paradoxical formulations" and power relations accompanying the drone as an immunizing apparatus of enclosure.

In the final of the text's five thematic chapters, "Policing Everything", Shaw then shifts focus from military drones to those employed instead by US law enforcement. In this timely contribution, Shaw interrogates the imbrication between these contexts, seeking to demonstrate the extension of militaristic modes of atmospheric policing into the domestic sphere. In so doing, Shaw provides a reflection attentive to smaller drones, platforms which

while numerous often remain comparatively absent from wider scholarly discussions. From predictive policing to the employment of drones, Shaw notes that US policing is becoming "increasingly preemptive" (p.26). In developing his discussion, Shaw suggests that "police drones will one day be fitted with nonlethal weaponry to subdue civil unrest" (p.236), a claim that resonates with extant (global) police experimentation with nonlethal payloads, from bean-bags and rubber bullets to pepper-spray. Shaw also focuses upon what he presents as the future saturation of the air "with swarms of microdrones", a situation he understands as realizing the militaristic "dream of automated and roboticized policing in the city" (p.27; see also Shaw 2016b). Whilst cognizant of the importance of remaining attentive to (potential) developments in this area, passages of this chapter fell subject to the tendency of drone scholarship and commentators more widely to adopt a speculative and occasionally dystopic inflection. Staving off the lure of Moore's Law, Shaw's work could, I argue, be complemented by examinations of law enforcement drone use that attend further to *current* technological employments, and the institutional uses, imaginations, cultures, and limitations therein. Nonetheless, Shaw valuably situates his discussions of the (future) law enforcement drone within the wider context of the enclosure of the city, asserting that it's one raising "serious questions" for the scholarly community (p.235). In adherence with this stance, Shaw (2017) has elsewhere developed his reflections about atmospheric policing in the domestic sphere in relation to the wider range of applications with which such drones are increasingly associated, including, for example, the design and advertising of drones as security guards to patrol both the inside and outside of our homes. Reflecting upon the intersections between machinic policing and capital, Shaw (2017: 1) interrogates the "capitalist enclosure" of our increasingly drone-mediated airspace. In so doing, and through the lens of what is labeled "atmo-economica", Shaw (2017: 12) unpacks a series of economic issues surrounding the wider privatization and "commercialization of the skies" (see also Crampton 2016).

In the final chapter, "The War of All against All", Shaw concludes, bringing together reflections from across the contributions of the text. In so doing, and with a nod to the "new geopolitical spaces" borne of it, Shaw presents the Predator Empire as a revised Leviathan:

constituted by and reliant upon both the "flesh" of human actors *and* myriad "nonhuman elements, technologies, and objects" (p.241, 244). As Rob Coley and Dean Lockwood (2015) write: "the terms of popular debate concerning the drone and drone power have been quickly established." Shaw's text stands out in approaching the drone differently, offering distinct conceptual and contextual contributions to the ongoing debates that surround it. As such, the text is both an important intervention and a valuable resource for the drone scholar. Furthermore, in approaching the drone through a range of distinct conceptual lenses, Shaw's text would likely be of interest to political geographers, and critical geopolitics, surveillance, and international relations scholars concerned with the intersections of war technologies, atmospheric security and surveillance, and machinic and nonhuman agency more widely. Furthermore, whilst focused on the US context, Shaw's text offers conceptual frames valuable when approaching the emergent and shifting global "drone atlas" more widely (p.10).

In an environment in which the "largest overseas order" has recently been placed for Chinese drones by an "undisclosed buyer" (Reuters 2017), and a growing number of nations are increasingly embracing the drone,[1] such analytic resources thus remain particularly pertinent. Lastly, as discussed, Shaw's text is valuable in developing an account of the drone in which it is understood as "agential", that is, active in creating "tendencies, trajectories, and conditions" (p.41). As developments such as the further automation and autonomy of drones and "manned-unmanned teaming" continue apace (see Breaking Defense 2015), the challenge of thinking about what it means "to-be-with-machines" (p.4) is a shifting terrain, with Shaw's text offering a steadfast foothold.

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1 For discussions of the national programmes of a range of established and emergent drone users see the Center for a New American Security's "Proliferated Drones" project: https://www.cnas.org/research/future-of-warfare-initiative/proliferated-drones (last accessed 10 March 2017).

References

Breaking Defense (2015) Grey Eagle-Apache run shows tech's not enough–ya gotta have doctrine. 7 May http://breakingdefense.com/2015/05/grey-eagle-apache-run-shows-techs-not-enough-to-use-drones-ya-gotta-have-doctrine/ (last accessed 10 March 2017)

Coley R and Lockwood D (2015) As above, so below: Triangulating drone culture. *Culture Machine* 16 https://www.culturemachine.net/index.php/cm/issue/view/28/showToc (last accessed 10 March 2017)

Crampton J W (2016) Assemblage of the vertical: Commercial drones and algorithmic life. *Geographica Helvetica* 71(2):137-146

Gregory D (2016) Still reaching from the skies... *Geographical Imaginations* 16 January https://geographicalimaginations.com/2016/01/16/still-reaching-from-the-skies/ (last accessed 9 March 2017)

Hayden M V (2016) To keep America safe, embrace drone warfare. *The New York Times* 19 February https://www.nytimes.com/2016/02/21/opinion/sunday/drone-warfare-precise-effective-imperfect.html?_r=0 (last accessed 9 March 2017)

Kindervater K H (2016) The emergence of lethal surveillance: Watching and killing in the history of drone technology. *Security Dialogue* 47(3):223238

Noys B (2015) Drone metaphysics. *Culture Machine* 16 https://www.culturemachine.net/index.php/cm/issue/view/28/showToc (last accessed 9 March 2017)

Reuters (2017) China says it has received its largest foreign drone order–Xinhua. 28 February http://uk.reuters.com/article/uk-china-defence-drones-idUKKBN1670E5?il=0 (last accessed 9 March 2017)

Rothstein A (2015) *Drone*. New York: Bloomsbury

Shaw I G R (2016a) Scorched atmospheres: The violent geographies of the Vietnam War and the rise of drone warfare. *Annals of the American Association of Geographers* 106(3):688-704

Shaw I G R (2016b) The urbanization of drone warfare: Policing surplus populations in the dronepolis. *Geographica Helvetica* 71(1):19-28

Shaw I G R (2017) The great war of enclosure: Securing the skies. *Antipode* doi:10.1111/anti.12309

Van Vereen E (2013) There is more than one way to imagine a drone: Visualizing the practice of drone warfare. *Solomon Asch Centre for the Study of Ethnopolitical Conflict* 20 February http://aschcenter.blogs.brynmawr.edu/2013/02/20/there-is-more-than-one-way-to-imagine-a-drone-visualising-the-practice-of-drone-warfare/comment-page-1/ (last accessed 10 March 2017)

Wall T and Monahan T (2011) Surveillance and violence from afar: The politics of drones and liminal security-scapes. *Theoretical Criminology* 15(3):239-254

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