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What the drone saw: the cultural optics of the unmanned war

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The dramatic growth of drone warfare in the last decade has meant the arrival of a new kind of war imagery in civilian life: the view through the drone camera. As such, the drone is not simply a weapon, but also an emerging medium for representing conflict. This article explores the ways this imagery has been selected, interpreted, framed and put to use in public and popular culture. In addition to exploring how these practices of looking fit within the larger history of war imagery, two prominent features of 'drone vision' are identified: the promotion of consumer interactivity in the drone war and the militarising of domestic space.

The rapid rise of the unmanned aerial vehicle (UAV) or 'drone' as an instrument of war has provoked a spectrum of questions regarding its rightful use. Naturally, these questions approach the drone as a weapon—a tool for delivering ordnance to a target. Much less attention has been granted to the drone in its capacity as a *medium* for managing the visual relationship between Western centres of power and the rest of the world. Battlefield images shot through aerial cameras filter through the public mediascape, and this now iconic view through the drone's targeting system has taken its place as a major signifier of military intervention in the Barack Obama era. These images, and the ways they are put to use, constitute a larger mosaic of visual discourse— what I call, for the purposes of this article, 'drone vision'. Here, I approach drone vision not as an effect of the image discourse—indeed, a single text can produce any number of divergent interpretations and effects—but as a set of themes embedded in the discourse that together constitute invitations to see in particular ways.

This article proceeds in three sections, which describe the major contours of drone vision as it appears in official releases of drone-camera footage, documentaries, video games, news accounts and other venues. The article begins by tracing the ascendance of the drone as a weapon in the broader history of the weapon's-eye view and reviews existing critical approaches.

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The remaining two sections explore dominant themes that frame this new optical universe. The first argues that drone vision offers an invitation, mediated through the entertainment industries, to interactively consume drone warfare. The second section traces trends within drone vision that redefine domestic space as a sphere of martial concern. Ultimately, this essay argues that the logics of these themes are at odds with the need for more robust public deliberation regarding the challenges that the drone war poses to the maintenance of civil liberties and international law.

Drones and the evolution of the gun camera

The first decade of the twenty-first century initiated a profound shift in the profile of the US military. During this time, the Air Force steeply increased its fleet of UAVs, driven by technological breakthroughs and occupations in Iraq and Afghanistan. By 2010, the Air Force began training more drone pilots than fighter pilots. The US Department of Defense's 2010 *Quadrennial Defense Review Report* listed the development of 'unmanned aerial systems' in the shortlist of military priorities in counterterrorism and counter-insurgency (Gates 2010). Troops leaving Iraq and Afghanistan were replaced with an ever expanding drone fleet. Under the new US Secretary of Defense, Edward Panetta, the US Air Force announced that it anticipated that operations for its large Reaper drone, which stood at five sorties per day in 2012, would double by 2013 and increase twelvefold by 2016 (Morley 2012). Before September 11, 2001, the US military had around 200 drones in its arsenal. By the end of 2011, the number had grown to 7000 (Finn 2011). As recently as 2005, the drones in the Pentagon's arsenal accounted for only 5 percent of all planes; by 2011, that figure had climbed to 31 percent (Ackerman and Shachtman 2012).

The Central Intelligence Agency's (CIA's) own drone program, though more limited and covert, has received more attention and been the object of a good deal of controversy. The CIA initiated this program in 2002, when the agency fired a missile from a Predator drone in Yemen that incinerated six people driving down a highway, including one US citizen (Powell and Priest 2002). In 2004, the agency, under the George W. Bush administration, initiated the sustained covert drone program in Pakistan. By 2009, Leon Panetta, who directed the agency before moving on to the office of Secretary of Defense, called the Predator drone program the 'only game in town' in one of his many public references to the nominally covert program—what the *New York Times* called 'one of Washington's worst-kept secrets' (Mayer 2009; Shane 2009). In its first 13 months, the Obama administration fired more drone missiles than had been used in the entire eight-year Bush presidency ('Killer App', 2010). Under this program, the CIA has conducted killings in at least four countries beyond the overt military uses in Iraq, Afghanistan and Libya—namely, in Somalia, Yemen, Pakistan and the Philippines (Mazzetti 2012). Even more

controversially in the USA, the administration eventually admitted to killing four US citizens, while claiming judicial due process to be inapplicable (Becker and Shane 2012; Holder 2012; Hosenball and Ingram 2013; Savage 2012).

The rapid proliferation of drones has meant an equally rapid proliferation of new modes of seeing. As Paul Virilio (1989) notes, the history of war is a history of visual technologies and, in many respects, the gun and the camera share a common lineage. As he puts it: 'Alongside the "war machine", there has always existed an ocular (and later optical and electro-optical) "watching machine"' (2). Working within the phenomenological tradition, Virilio extends this thesis to include the aesthetic dimension—that 'weapons are not just tools of destruction, but also perception' (6). This perception is not limited to the traditional battlefield, but also includes cinema and television, which have played vital roles as weapons of war in their own right by linking, mobilising and galvanising societies for conflict. Virilio goes well beyond the claim that visual technologies are useful for surveillance and propaganda, however. He argues that the visual field in large part comprises the war machine itself. War, from this perspective, is thus a contest in a field of optical vectors, extending from the martial capacity to kill to the visual participation in and authorisation of killing by the civic sphere, which must continually supply political assent, personnel and materiel.

The shape of this visual field has changed over time depending on the particular technological assemblage. From the American Civil War and Crimean War onward, the camera has been an integral part of picturing conflict. In his appraisal of the US experience of war, H. Bruce Franklin (2000) notes that each epoch possesses its own visual style. The manner in which World War II was received and subsequently remembered in newsreels was heavily influenced by air power and thus the view from the sky. An intimate ground view defined the Vietnam occupation, made possible by the introduction of lightweight film cameras that could be carried into skirmishes. Franklin argues that the civilian gaze began to meld even more intimately with the machine gaze during the First Gulf War in 1991, when the new signature image of the guided missile and 'smart-bomb' camera took the stage. For Franklin (2000, 41–42), the grainy clip of the bomb closing in on its target and ending in a wall of static gained a prominent place in US government public relations because it communicated—in a condensed visual metaphor—that the war would be high-tech, surgical, spectacular, clean and deathless. While Franklin's analysis ends in the Gulf War, a survey of the visual representations of Iraq and Afghanistan in the first decade of the twenty-first century shows that the grey-tone weapon's-eye view of the ground has retained a dominant place, appearing alongside the first-person embedded reporter's camera and the satellite view from space (Stahl 2010). A distinction should be made, however, between the 'projectile gaze' of the guided missile and the targeting screens that gained prominence in the first decade of the new century. The archetypal view from the drone camera does not look substantially different from those of more

conventional weaponry in circulation since September 11, many of which come from the targeting systems of Apache helicopters and AC-130 Spectre gunships. The drone war has expanded this repertoire of images that follow, target, strike and witness the aftermath (Scarborough 2011; Shachtman 2009).

   This shift challenges conventional wisdom about the meaning of violence. In her assessment of the visual language of the 1991 Gulf War, for example, Margot Norris (1994) describes the war portrayed on the home front as an antiseptic and deathless simulation of itself. She points to the fact that officials avoided talking about body counts and promoted a set of images—like the smart-bomb camera—that occluded even the suggestion of human suffering. In derealising war, Norris argues, the depictions encouraged the public to deny its own culpability in pulling the trigger. She suggests that one antidote is to make the gun camera available to the public, which would reconnect the citizen to the very real act of killing by putting the home Cable News Network viewer behind the trigger. Only then might death become present and significant. While Norris's logic seems unassailable on one level, one cannot help but notice that this is exactly what happened in the two decades following her assessment. The gun camera has become a staple feature—perhaps the prime image—of the 'War on Terror' as it has filled the screens of television and the Internet. Media critic Sue Tait (2008) recognised this in her study of Internet sites that specialised in bringing gruesome war imagery, what some have labelled 'war porn', to the civilian screen. Sites like Ogrish (later LiveLeak) seemed to short-circuit the logic that a gruesome image necessarily makes instant war protesters out of its viewers. Tait notes that the captioning process has the power to defuse the image's political potential and to frame the encounter instead as a personal experience of bodily revulsion, loss of innocence or right to know. Her study points not only to the fact that the 'clean war' culture of yesteryear has been replaced by the normalisation of intimate violence, but also to the fact that this process of normalisation depends significantly on how the image is framed and channelled.

   A survey of the available drone footage reveals that though the contemporary drone era is well into its second decade, the number of publicly available drone-camera videos is restricted to relatively few channels. One prominent wellspring is the US Department of Defense's official Defense Video and Imagery Distribution System (DVIDS) service, whose headquarters is on the outskirts of Atlanta, Georgia. DVIDS began in 2004 as a public relations effort to supply military-produced footage, and even fully produced segments to mainstream commercial news agencies in order to influence coverage. At a time char-acterised by a mass exodus of both embedded and unilateral reporters from Afghanistan and Iraq, DVIDS stepped in as a primary information source. The DVIDS database in 2013 held 12 videos shot from the drone's camera. Under the username, 'dvidshub', the service also hosts channels on YouTube and the violence-fetish site LiveLeak. These sites have offerings that include, but also exceed, the DVIDS catalogue. A good deal of drone-camera footage on

LiveLeak, for example, appears to flow mainly through a user named IRAQI_TRANSLATOR_USMC. Though this user's official status is unclear, some videos on this channel do circulate as if they have been verified. For example, 'Rise of the Drones', an acclaimed 2013 *NOVA* documentary that aired on PBS (Public Broadcasting Service), recycles one of TRANSLATOR's videos as its primary exemplar of a drone strike ('Rise of the Drones', 2013; 'UAV Predator', 2008).

Despite the relatively limited catalogue, drone footage on user networks like YouTube and LiveLeak is popular fare. In recent years, the genre has earned the nickname of 'drone porn', with one *Huffington Post* commentator declaring it a 'YouTube hit' and counting 'ten million' views (Rosenbaum 2010; Thomson 2009). The most popular video on the DVIDS YouTube channel is one that was released in 2008, entitled 'UAV Kills 6 Heavily Armed Criminals', a rather generic silent video from the drone's targeting camera as it tracks and ultimately strikes a group of individuals walking through a neighbourhood in Iraq. As of mid 2013, the video had garnered 2.7 million views. A few more weigh in at the half-million mark, and dozens more on YouTube and LiveLeak have settled in between 100,000 and 200,000 (see Figure 1).

In order to begin assessing the cultural uptake of drone imagery, one must acknowledge that drone footage is not simply a neutral artefact left over from a bureaucratic exercise. Beyond the obvious fact that public drone-camera videos are carefully selected (those on DVIDS show the clear hostile intent of the 'bad guys'), drone vision must be considered within a long history of imperial looking that divides the world into those who are the rightful subjects and objects of the gaze (Lutz and Collins 1993; Spurr 1993). Michael Shapiro (2008, 65–66) describes this as the condition of 'ocular enmity', where political discourse, the legal apparatus separating 'protected versus expendable bodies', and the military apparatus converge to serve as 'the predicates for hostile ways of seeing'. Lev Grossman (2013), writing the cover story about drones in *Time*, puts it this way: 'A drone isn't just a tool; when you use it you see and act through it—you inhabit it'. This is not simply a matter for the drone pilot or the chain of command. As drone vision establishes its prominence as a trope in public culture, it inhabits the civilian gaze as well, producing something akin to what Judith Butler (1992, 10–12) calls the 'imperial subject' in her appraisal of the smart-bomb camera. Donna Haraway (1988, 585) puts the question most elegantly: 'With whose blood were my eyes crafted?'

Drone vision must also be considered within a wider discourse of invisibility. While it is the case that all of the publicly available drone footage derives from overt wars in Iraq and Afghanistan, the drone as a symbol has been imbued in public discourse with an aura of occlusion due to the publicity surrounding the covert CIA program. The view through the drone camera represents an approximation of what elsewhere is hidden. In some sense, drone vision represents a special kind of looking, one that is able to project a surveillant gaze while conspicuously prohibiting its own exposure, what Donna Haraway (1991,

Figure 1. Examples of DVIDS footage of a drone strike from 'UAV Kills 6 Heavily Armed Criminals' (top and bottom left) and the aftermath of a mortar strike on a getaway vehicle from LiveLeak (bottom right).

189) has called the 'god trick'. Drone vision, framed in this way, represents a fleeting privilege or an accidental keyhole view reinforcing the foundational assumption that power is opaque. As a marker of the covert subject who sees all, drone vision harmonises with a contemporary techno-capitalism that increasingly traffics in buying and selling voyeuristic opportunities (Andrejevic 2003; Dean 2002). The relentless pursuit of the drone pilot in press accounts is symptomatic in this regard, representing the ultimate secret of the military state—the figure who sees everything from nowhere: 'From a cockpit somewhere in the Nevada desert...7000 miles from the battlefield...through a million-dollar camera that can follow a car from five-miles high'. The drone pilot gathers a level of attention that is not afforded the gunner of the AC-130 or the Apache helicopter, a fascination stoked by the flickering and continually fleeting promise that we, too, might steal a glimpse through those eyes.

Interactive drone play

Not surprisingly, consumer capitalism has met these desires with a host of interactive products. The refrain has become familiar since the 1991 Gulf War, when General Norman Schwarzkopf issued his famous finger-wagging rebuke

to the press between demonstrations of precision-guided wizardry: 'This is not a Nintendo game' (Herz 1997, 197). Due to its remote-controlled nature, however, the drone is uncommonly susceptible to such comparisons. The reference points are readily available in films like *The Last Starfighter* (1984) and *Toys* (1992), as well as the 1985 science fiction novel *Ender's Game* (see Card 1985). All of these narratives feature video-game players who have been conscripted to use their skills in fighting real wars, knowingly or not. The fact that a big-budget Hollywood film starring Harrison Ford based on *Ender's Game* is set for release in 2013 indicates that the confluence of interactive games and remote-controlled war has once again buoyed the narrative to the surface of public consciousness.

The drone has gained an increasing presence in video games themselves, including the two most successful franchises to date: *Battlefield* and *Call of Duty*. Both have integrated the drone as a persistent device designed after real-world specifications (see Figure 2). *Battlefield 2* (2005) featured a replica of the Predator, as did *Call of Duty: Modern Warfare 2* (2009) and *Call of Duty: Modern Warfare 3* (2011). *Battlefield 2142* (2006) projected onto the future battlefield a 'flying-wing' drone not unlike the RQ-170 Sentinel drone that was then in development at Lockheed Martin and eventually captured by Iran in 2011. Both *Battlefield: Bad Company 2* (2010) and *Modern Warfare 3* featured a replica of the MQ-8B Fire Scout, an armed rotary-wing drone.

Figure 2. Two Predator drone views in *Call of Duty: Modern Warfare 2* (top), a TALON-type drone in an airport scene in *Call of Duty: Modern Warfare 3* (bottom left) and a Fire Scout-type drone about to take off in *Battlefield: Bad Company 2* (bottom right).

The ground-based Foster-Miller TALON—the bomb-defusing robot that rolled famously through the opening sequence of *The Hurt Locker* (2008)—can be found in both *Modern Warfare 3* and *Battlefield 3* (2011). *Battlefield 3* raised the ante further by allowing players to fly a surveillance micro air vehicle designed after the Honeywell RQ-16 T-Hawk.

   With occasional variations, all of these depictions feature a first-person relationship with the drone's camera. The scene recapitulates the optical experience of the surveillance-targeting system—available through journalistic channels and user-generated video—which visually wires the drone control pad in the avatar's hand with the control panel in the player's hand. In this way, the interactive, remote and virtual aesthetic of the game fuses with that of the drone's command-and-control system. In contrast to a traditional flight simulator where a fair amount of translation is necessary to reimagine the home computer or game console as a cockpit, drone vision effortlessly splices into the video-game experience. This effect is enhanced by the fact that many real-world drone control systems, painstakingly reproduced in games, have themselves been designed after the ergonomics of video-game controllers (Singer 2009, 68).

   The 2012 release of *Call of Duty: Black Ops 2*, whose receipts outpaced every top-grossing Hollywood film in history, promoted the drone from a supporting to lead role (Brown 2012). Part of the game narrative imagines a drone war between the USA and China in 2025. The trailer for the game suggests that the main peril of maintaining a drone force is the possibility that the enemy could hack the drones and 'get the keys'. The game plays out this nightmare scenario in a Los Angeles that burns and swarms with UAVs. A companion video—called a 'documentary' by the game makers—reinforces this narrative. The video features sit-down interviews with Oliver North, Iran-Contra architect turned cable news commentator, and Peter Singer, Brookings Institution fellow, author of the best-seller *Wired for War* and consultant for the game's development. In an upbeat but ominous montage of explosions and computer blips, North grimly (and somewhat comically) warns that most people do not understand 'how violent war is about to become', and Singer explains that our technology is outpacing our ability to handle it wisely. Both wring their hands about the prospect of terrorist hackers taking control of the drone army.

   Inviting consumers to contemplate their own mortal demise may seem a strange way to sell a leisure-time product. In recent years, however, games have increasingly relied upon discourses of authenticity to sell the war-gaming experience. This has included recapitulating events on the news and featuring real military advisors. As the gaming world absorbs the drone as a device, it retrofits an already virtual medium to a virtual war. This process demands even more robust forms of authentication that point to a place where public and game narratives merge, where game and weapon interfaces merge, and where player and soldier identities merge. This is one reason why the *Ender's Game*

narrative has become increasingly salient in the context of the drone war. The drama plays out the primary fantasy of drone vision as it has been harnessed to sell a consumer experience: the fantasy of gaining access to telepresent military power through the fusion of virtual interfaces.

This fusion has expressed itself in the arrival of consumer drones. In the mid 2000s, groups like DIY Drones began to appear, which traded the 'radio-controlled aircraft' of old for 'amateur UAVs', usually with cameras attached. In 2010, the company Projet introduced a consumer mock-up of the MQ-9 Reaper drone with a 98-inch wingspan. A year later, the electronics retailer Brookstone began selling drones in quantity. The first to appear was the 'Rover App-Controlled Spytank with Night Vision', a TALON-like ground vehicle with a camera that can be controlled with an iPad or iPhone. According to the product description (2013):

> Whether following friends and family, navigating the office or investigating the activities of your dog, it's all possible with the audio/visual-enabled and photo-taking Rover...Low-light setting? No problem! The undetectable infrared night vision lets you see items in the dark. Mission. Accomplished.

Among other retailers, Brookstone continued with the trend by marketing the 'Parrot AR.Drone 2.0 Quadricopter'. This sophisticated toy, flown with an iPhone or iPad, features an 'augmented reality' system whereby the streaming image from the camera is fitted with shooter-game frills. Using the device with an AR.Hunter game, one can fire virtual ordnance at real objects appearing in the drone's sights (Mawby 2012). The Quadricopter has emerged as the signature consumer drone and has sold over half a million units as of 2013 (Cornish 2013). The US Air Force imagined something like this blending of worlds back in 2006 in an advertisement for its 'Cross into the Blue' recruitment campaign. The advertisement begins with a boy flying a paper airplane and proceeds to track his life as he graduates to bigger and more sophisticated remote-controlled planes. The words 'we've been waiting for you' flash on the screen before we see a drone pilot at a control station. Recent cultural trends have rendered this equivalence quaint. As the culture immerses itself further in games, consumer drones and hybrids of the two, a discourse has emerged that easily transmutes the business of state violence into practices of consumption.

These practices appear to orient themselves in the established direction of the gaze. For example, the Apple Store hosted game applications (apps) like AR.Hunter, for hunting down real humans in three-dimensional space with the AR.Drone, as well as numerous others like UAV Fighter, iDrone and DroneSwarm Command. The store notably rejected an app called Drones+ that reversed, in its small way, the direction of the gaze. The app tweeted to the user the time and location of actual drone strikes using information released by the Bureau of Investigative Journalism. Upon the first rejection, Apple claimed that the app was 'not useful or entertaining enough'; the second rejection

suggested instead that the app presented 'excessively crude or objectionable content' (Wingfield 2012). Episodes like this indicate a tendency of consumer culture to exploit the interactive potential of the drone war while disciplining its field of view. The diffusion of drone vision into commercial space is also a symptom of a larger shift in cultural and political discourse that has recoded domestic space as a sphere of military concern. The iPad, in this case, becomes more than a device for assimilating drone vision through YouTube clips, playing iDrone or flying an actual 'drone' through the neighbourhood. The device itself is resignified as a material extension of the remote war into domestic space.

Domesticating war

The official discourse of the 'War on Terror' since September 11, 2001 has in large part transformed the idea of 'war' itself. Among other changes, the new war is one where 'security' has outmoded 'defence' as the primary metaphor (Hardt and Negri 2004, 20). In public discourse, the security metaphor has commandeered objects of everyday life and symbolically repurposed them as weapons. The state has deputised its citizens to be on code-orange alert, stepped up domestic surveillance measures and curtailed civil liberties. The domestic distribution of martial concern cannot be separated from the growing ubiquity of distributed information networks, which have themselves given birth to notions of network-centric warfare (see Arquilla and Ronfeldt 1996). As Mark Andrejevic (2006, 441) puts it: 'when we can multi-task thanks to the proliferation of networked devices, we are invited to participate in the war on terrorism from the privacy of our homes and from our offices, wherever we might happen to be'. The changes that comprise post-9/11 notions of 'warfare' can be seen as a confluence of discursive and media forces that has militarised domestic space as the native battleground for the 'War on Terror'.

   Drone vision has played a particular role in this process due to the way that it has been culturally framed. Consider once again the promotional 'documentary' for the game *Call of Duty: Black Ops 2*. As the video winds up to a final frame that displays the game's title and catchphrase ('The Future is Black'), it rapidly intercuts the famous smart-bomb camera footage from 1991, replacing the familiar grey warehouse target with colour scenes of suburban homes and city streets. The implication, of course, is that mundane, domestic life is now a war zone, a notion that sets up the game's premise of a downtown Los Angeles under siege. On one level, reversing roles and positioning the USA as a victim is a convenient and tested way for game makers to restage a relevant military scenario while dodging the unenviable task of justifying imperial violence (Franklin 2000; Wetta and Novelli 2003). More importantly here, drone vision shows an affinity for orientations that domesticate war.

This orientation appears to have been present early in the cultural life of the drone. In early 2006, for example, the Discovery Channel's *Future Weapons* devoted an episode to profiling the Predator drone. In the episode, host Richard 'Mack' Machowicz, a former Navy SEAL, tests the Predator's prowess with a game of hide-and-seek. With a 10-minute head start, Machowicz drives a four-wheel drive somewhere into the Mojave Desert, after which a drone operator attempts to find him. 'Remember', he tells viewers, 'as a potential target, I could be anything from a driver of a stolen vehicle on the highway to a band of terrorists armed to the teeth, hell-bent on causing havoc'. For the rest of the sequence, the viewer tacks between Machowicz and a variety of grey-toned images from the sky which show that he has been successfully located. In the end, Machowicz reminds the viewer that, had he been a 'bad guy', he would have been 'toast'. A *60 Minutes* segment on drones, aired in 2009, repeats this drama by tracking the host and her news crew from the sky as they get into their pickup truck (see Figure 3). The 2013 PBS *NOVA* documentary, 'Rise of the Drones', which looks very much like a promotional spot for the military–industrial complex (an unsurprising fact considering its sponsor, Lockheed

Figure 3. Stills from a *60 Minutes* segment on drones. A drone pilot at home in the kitchen (top left), behind the controls (top right), targeting an insurgent vehicle (bottom left) and demonstrating the targeting system on the *60 Minutes* crew in a parking lot (bottom right).

Martin), follows a similar pattern in its depiction of a training exercise. Indeed, following the actor from both the ground and sky is the closest the documentary comes to representing those affected by drone warfare. (Elsewhere, the documentary represents those targeted populations only as dark spots on the surveillance screen and, in an extremely brief treatment of possible blowback to the drone war, as generic, chanting masses burning a US flag.) These three examples demonstrate that when there is a need to put the target body in context, the image of a westerner, often in a Western domestic scene, tends to act as a substitute. The image narrative thus avoids identifying the viewer with those who actually exist day-to-day in the cross hairs. In his excellent article on distance and drones, David Gregory (2011, 204) similarly notes that media coverage has focused on the network of command centres, leaving the target areas 'radically underexposed'. Instead, these choices betray a two-dimensional relationship to the surveillant weapon, one that flashes rhythmically between self as target and self as hunter.

The theme of domestication can best be observed in news accounts of drone pilots. As noted above, the drone pilot has become an object of intense public fascination, and no press account is complete without an excursion into what it must be like to sit in the virtual cockpit and fire missiles with a joystick from halfway around the world. Alongside the question of remote-controlled war, however, these stories almost invariably delve into the pilot's home life. For example, in a series of articles about drone warfare, *Der Spiegel* describes what it calls the 'bizarre lifestyle' of the drone operator, which consists of a laundry list of mundane activities—taking the kids to school, getting a hamburger, sending some emails—interspersed with stints at the base flying drones and firing missiles (Pitzke 2010). A *New Yorker* article notes that drone operators, after killing a few insurgents, go home and 'have dinner with their families'—a phrase that appears time and again in press accounts (Mayer 2009). The *Christian Science Monitor* repeats the refrain: 'At the end of the day, these pilots then get in their cars and drive home to their families, mow the lawn and make dinner, or take their children to soccer practice' (Mulrine 2012). A PBS *Frontline* documentary, 'Digital Nation', features a section on drones that comes with the tag line: 'The Air Force pilots who take out the Taliban during the day, but make it home for dinner' ('Drones', 2009). The 2009 *60 Minutes* segment referred to above virtually ignores all other aspects of drone warfare in order to focus narrowly on the lifestyle of a drone pilot, working 'just 45 minutes from the Las Vegas strip' at Creech Air Force Base. 'The pilot', notes the correspondent, 'can take [insurgents] out and still make it home in time for dinner' (CBS News 2009). In order to further investigate this dynamic, she asks a drone pilot 'what that's like' while riding home with him in his truck. At home, the interview continues as the pilot's spouse chops vegetables in the kitchen. The correspondent can hardly contain herself: 'It's sort of like being in a movie, you know? You can wake up, have breakfast with the wife, and head to war'. The pilot laughs. She asks the requisite question as to whether being a

drone pilot is 'like playing a video game'. The pilot predictably replies that it is much more than that. The series of metaphors and images completes a circuit, wiring the pilot's mundane existence to the excitement of taking out the 'bad guys', the drone control panel to the home game console, and footage of insurgents planting improvised explosive devices in Afghanistan to the spouse cooking dinner in a hyper-domestic space.

This relationship does not simply function to generate fascination about a character undergoing a strange experiment in human psychology. The rhythmic exchanges of 'this isn't war, is it?' and 'yes, this too is war' methodically chip away at distinctions that separate domestic space from battle space. In addition to redefining war, the discourse relocates viewer identity. In passing from the kitchen to the cockpit, the pilot serves as a plot device that invites the viewer to do the same. The obsessive focus on absolute ordinariness provides the point of entry, much in the same way as a reality television character is a device for enabling the fantasy of 'that could be me' (Holmes 2004). This trope of the pilot-as-domestic-technocrat functions in three ways. First, it precludes other points of identification that might lead to contemplating 'what it's like' to live under the constant hum of drones in the sky, and 'what it's like' to dig a six-year-old girl out of the rubble. Second, it plays out the logic of the security state by applying the contours of the battlefield to everyday existence. Finally, by fostering identification with the drone operator, this discourse channels identification towards the point where those decisions simply await execution, and away from the civic sphere where society deliberates questions of state violence.

Conclusion

In the wake of the Vietnam War, Paul Virilio (1989, 84) wrote that: 'the disintegration of the warrior's personality is at a very advanced stage'. Since then, war in the industrialised West has continued down a path to virtualisation. These developments did not arrive without a sense of cultural anxiety. *The Hurt Locker* (2008) was symptomatic in this regard, opening with a view through a TALON drone camera as it rolled through the streets of an Iraqi city searching for an improvised explosive device to disarm. Here, the drone served as a foil to the main character, a reckless, flesh-and-blood maverick who preferred to defuse improvised explosive devices with his teeth. This valiant attempt to reclaim the status of the endangered warrior, however, only reiterated a truism of contemporary conflict: 'war' had only slipped further down the data stream into a no-man's-land of joysticks, screens and cubicles.

Just as the prosecution of war has become more dependent on the flow of images coursing through its surveillant machinery, so has the public negotiation of state violence. This article has sought to understand how the drone war has been visually presented to Western audiences, which should be viewed as the latest chapter in the long development of the gun camera. As conceptualised

here, drone vision is a way of seeing connected to, but not determined by, technology. The view through the targeting camera accumulates significance as it enters public discourse through its selection, circulation, captioning, and representation. Although the eventual product is aesthetic, its production is mediated through the interaction of a complex of institutions, perhaps best described by James Der Derian (2001) as the 'military–industrial–media–entertainment network'. While not monolithic in voice, this complex works to select narratives that, in the manner of what Noam Chomsky calls the 'propaganda effect' (Chomsky and Herman 2002), serve the interest of powerful institutions. Understanding these processes can help to open matters of state violence up to more robust deliberation, heightened empathy and greater accountability to the rule of law.

This article has endeavoured to describe two dominant themes as they emerge from this discourse. The first theme—interactive consumption—is apparent in the way that the voyeuristic potential of the drone camera has been leveraged in consumer capitalism. Here, participants are offered not simply a chance to witness, but to engage in a relationship with the drone war through a chain of actual and virtual consoles. The second theme is the discursive tendency to domesticate war. This set of representations offers the pilot as a point of identification through which domestic existence slips easily into the sphere of military action. In many ways, each is the obverse of the other. The first theme traffics in the fantasy of visiting the distant battlefield, while the second naturalises the notion that the battlefield has already come home.

Understanding this discourse is crucial to understanding how public culture negotiates important questions about the wise use of this new technology. A cultural current that invites one to engage the drone war through interactive consumption promotes an exquisite understanding of how this technology functions but a stillbirth debate about whether its deployment aligns with the rule of law. A current that domesticates war promotes the suspension of civil liberties as a foregone conclusion. Recognising these themes is essential to understanding drone vision not simply as the view through the weapon but also as the discursive atmosphere through which the drone flies.

References

Ackerman, Spencer, and Noah Shachtman. 2012. "Almost 1 in 3 US Warplanes Is a Robot." Wired, January 9. http://www.wired.com/dangerroom/2012/01/drone-report/.

Andrejevic, Mark. 2003. *Reality TV: The Work of Being Watched*. Lanham, MD: Rowman and Littlefield.

Andrejevic, Mark. 2006. "Interactive (In)Security: The Participatory Promise of ready.gov." *Cultural Studies* 20 (4–5): 441–458.

Arquilla, John, and David Ronfeldt. 1996. *The Advent of Netwar*. Santa Monica, CA: RAND.

Becker, Jo, and Scott Shane. 2012. "Secret 'Kill List' Proves a Test of Obama's Principles and Will." *New York Times*, May 29. http://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?pagewanted=all&_r=0.

Brown, Stephen Rex. 2012. "Fans of 'Call of Duty: Black Ops II' Spend More Than $1 Billion on Shoot-'em-up Video Game in Two Weeks." *New York Daily News*, December 5. http://www.nydailynews.com/entertainment/shooting-game-1b-haul-booty-article-1.1214388.

Butler, Judith. 1992. "Contingent Foundations: Feminism and the Question of 'Postmodernism.'" In *Feminists Theorize the Political*, edited by Judith Butler and Joan W. Scott, 3–21. New York: Routledge.

Card, Orson Scott. 1985. *Ender's Game*. New York: T. Doherty.

CBS News. 2009. "Drones: America's New Air Force." *60 Minutes*, August 14. CBS News. http://www.cbsnews.com/2100-18560_162-5001439.html.

Chomsky, Noam, and Edward Herman. 2002. *Manufacturing Consent: The Political Economy of the Mass Media*. New York: Pantheon Books.

Cornish, David. 2013. "ESA Launches Drone App to Crowdsource Flight Data." Ars Technica, March 17. http://arstechnica.com/gadgets/2013/03/esa-launches-drone-app-to-crowdsource-flight-data/.

Dean, Jodi. 2002. *Publicity's Secret: How Technoculture Capitalizes on Democracy*. Ithaca, NY: Cornell University Press.

Der Derian, James. 2001. *Virtuous War: Mapping the Military–Industrial–Media–Entertainment Network*. Boulder, CO: Westview Press.

"Drones: Remote Control War." *Frontline*. First broadcast October 15, 2009 by PBS. PBS Video. http://video.pbs.org/video/2175892463/.

Finn, Peter. 2011. "The Do-It-Yourself Origins of the Drone." *Washington Post*, December 24.

Franklin, H. Bruce. 2000. *Vietnam and Other American Fantasies*. Amherst: University of Massachusetts Press.

Gates, Robert. 2010. *Quadrennial Defense Review Report*. February. http://www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf.

Gregory, David. 2011. "From a View to a Kill: Drones in Late Modern War." *Theory, Culture and Society* 28 (7–8): 188–215.

Grossman, Lev. 2013. "Drone Home." *Time*, February 11. http://www.time.com/time/magazine/article/0,9171,2135132-1,00.html.

Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14 (3): 575–599.

Haraway, Donna. 1991. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge.

Hardt, Michael, and Antonio Negri. 2004. *Multitude: War and Democracy in the Age of Empire*. New York: Penguin.

Herz, J. C. 1997. *Joystick Nation*. New York: Little, Brown.

Holder, Eric. 2012. "Attorney General Eric Holder Speaks at Northwestern University School of Law." Chicago, March 5. United States Department of Justice. http://www.justice.gov/iso/opa/ag/speeches/2012/ag-speech-1203051.html.

Holmes, Su. 2004. "'All You've Got to Worry About Is the Task, Having a Cup of Tea, and Doing a Bit of Sunbathing': Approaching Celebrity in Big Brother." In *Understanding Reality Television*, edited by Su Holmes and Deborah Jermyn, 111–135. New York: Routledge.

Hosenball, Mark, and David Ingram. 2013. "U.S. Acknowledges Killing Four Americans in Drone Strikes." Reuters, May 22. http://www.reuters.com/article/2013/05/23/us-usa-justice-holder-idUSBRE94L16K20130523.

"Killer App: Drones Are Lynchpin of Obama's War on Terror." *Der Spiegel*, March 12, 2010. http://www.spiegel.de/international/world/0,1518,682612,00.html.

Lutz, Catherine A., and Jane L. Collins. 1993. *Reading National Geographic*. Chicago: University of Chicago Press.

Mawby, Nathan. 2012. "iPhone Drone an Eye in the Sky." *Herald Sun*, April 21.

Mayer, Jane. 2009. "The Predator War." *New Yorker*, October 26. http://www.newyorker.com/reporting/2009/10/26/091026fa_fact_mayer.

Mazzetti, Mark. 2012. "The Drone Zone." *New York Times*, July 6. http://www.nytimes.com/2012/07/08/magazine/the-drone-zone.html.

Morley, Jefferson. 2012. "Air Force Ramps Up Drone War." Salon, April 5. http://www.salon.com/2012/04/05/air_force_ramps_up_drone_war/singleton/.

Mulrine, Anna. 2012. "Drone Pilots: Why War Is Also Hard for Remote Soldiers." *Christian Science Monitor*, February 28. http://www.csmonitor.com/USA/Military/2012/0228/Drone-pilots-Why-war-is-also-hard-for-remote-soldiers.

Norris, Margot. 1994. "Only the Guns Have Eyes: Military Censorship and the Body Count." In *Seeing through the Media: The Persian Gulf War*, edited by edited by Susan Jeffords and Lauren Rabinovitz, 285–300. New Brunswick, NJ: Rutgers University Press.

Pitzke, Marc. 2010. "Remote Warriors: How Drone Pilots Wage War." *Der Spiegel*, March 12. http://www.spiegel.de/international/world/0,1518,682420,00.html.

Powell, Michael, and Dana Priest. 2002. "US Citizen Killed by CIA Linked to NY Terror Case." *Washington Post*, November 9.

"Rise of the Drones." *NOVA*. First broadcast January 23, 2013 by PBS. http://www.pbs.org/wgbh/nova/military/rise-of-the-drones.html.

Rosenbaum, Ron. 2010. "Ban Drone-Porn War Crimes." *Slate*, August 31. http://www.slate.com/articles/life/the_spectator/2010/08/ban_droneporn_war_crimes.html.

"Rover App-Controlled Spy Tank with Night Vision," July 31, 2013. http://www.amazon.com/Rover-App-Controlled-Tank-Night-Vision/dp/B005OQYOB6.

Savage, Charlie. 2012. "Top U.S. Security Official Says 'Rigorous Standards' Are Used for Drone Strikes." *New York Times*, April 30. http://www.nytimes.com/2012/05/01/world/obamas-counterterrorism-aide-defends-drone-strikes.html.

Scarborough, Rowan. 2011. "Full Story of SEAL Mission in Question." *Washington Times*, October 24. http://www.washingtontimes.com/news/2011/oct/24/full-story-of-seal-mission-in-question/?page=all.

Shachtman, Noah. 2009. "Air Force to Unleash 'Gorgon Stare' on Squirting Insurgents." Wired, February 19. http://www.wired.com/dangerroom/2009/02/gorgon-stare/.

Shane, Scott. 2009. "C.I.A. to Expand Use of Drones in Pakistan." *New York Times*, December 3. http://www.nytimes.com/2009/12/04/world/asia/04drones.html?pagewanted=all.

Shapiro, Michael. 2008. *Cinematic Geopolitics*. New York: Routledge.

Singer, Peter W. 2009. *Wired for War: The Robotics Revolution and Conflict in the 21st Century*. New York: Penguin.

Spurr, David. 1993. *The Rhetoric of Empire: Colonial Discourse in Journalism, Travel Writing, and Imperial Administration*. Durham, NC: Duke University Press.

Stahl, Roger. 2010. "Becoming Bombs: 3D Animated Satellite Imagery and the Weaponization of the Civic Eye." *Media Tropes* 2 (2): 65–93.

"Stealth." Future Weapons. Discovery Channel, April 26, 2006. http://dsc.discovery.com/tv-shows/other-shows/videos/future-weapons-predator-uav.htm.

Tait, Sue. 2008. "Pornographies of Violence? Internet Spectatorship on Body Horror." *Critical Studies in Media Communication* 25 (1): 91–111.

Thomson, Keith. 2009. "Drone Porn: The Newest YouTube Hit." *Huffington Post*, December 30. http://www.huffingtonpost.com/keith-thomson/drone-porn-the-newest-you_b_407083.html.

"UAV Kills 6 Heavily Armed Criminals." 2008. http://www.youtube.com/watch?v=gNNJJrcIa7A.

"UAV Predator Takes Out Insurgent Mortar Team with a Hellfire Missile in Iraq." LiveLeak, June 18, 2008. http://www.liveleak.com/view?i=2e5_1213810145.

Virilio, Paul. 1989. *War and Cinema: The Logistics of Perception*. New York: Verso.

Wetta, Frank J., and Martin A. Novelli. 2003. "'Now a Major Motion Picture': War Films and Hollywood's New Patriotism." *Journal of Military History* 67 (3): 861–882.

Wingfield, Nick. 2012. "Apple Deems Drone Strike App Inappropriate." *New York Times*, September 3. http://query.nytimes.com/gst/fullpage.html?res=9F0DE3DD103CF930A3575AC0A9649D8B63.