THE CRUEL DRONE

Imagining Drone Warfare in Art, Culture, and Politics

Andreas Immanuel Graae

PhD Dissertation, March 2019

University of Southern Denmark
The Faculty of Humanities

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A group of Syrian refugees from Aleppo walks on the dirty track along the beach on Lesbos. The refugees have just arrived with boat from Turkey on the 31th October 2015.

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When in the summer of 2015 I was invited to a job interview at University of Southern Denmark for the PhD fellowship that eventually made this dissertation possible, I remember bringing my backpack and a sleeping bag. Not because I had intentions of already moving in, but because my itinerary involved a next stop at Roskilde Festival, where the band Muse performed a live concert of their new release *Drones*. Next thing I remember, I was standing in front of the festival's Orange Stage with swarming drones surrounding me and Matthew Bellamy's high-pitched vocal crying "Hellfire, you're wiping me out!" while drone images with crosshairs filled the big screens. Although in retrospect the entire setting was strangely suggestive of what was to come, I at that moment had no idea how completely immersed in drones I would soon become.

The following three years (more or less) turned out to be just as wonderfully intense, curious, intriguing, exhausting, adventurous, frustrating, existential, and stressful as I had never imagined. Of the many people who helped me through this process a special thanks goes to my colleague and best friend Jens Bjering for his encouraging and always honestly critical responses to my texts—and for just always being there. Also, I would like to express a warm thanks to my supervisor Associate Professor Kathrin Maurer for being so patient with me, for believing in me, and for always taking the time to discuss my ideas and texts. And a special thanks to Professor Isak Winkel Holm for assisting me as co-supervisor at the final stage. The motivating talk we had that sunny afternoon on the rooftop gave me the friendly push I needed to pick up the pieces of the dissertation and put them together.

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Andreas Immanuel Graae, Trørød

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Introduction

IMAGINING DRONE WARFARE

> The very precision of drone strikes and the necessary secrecy often involved in such actions can end up shielding our government from the public scrutiny that a troop deployment invites. It can also lead a President and his team to view drone strikes as a cure-all for terrorism. [1]
>
> *President Barack Obama, 2013*

> Mrs. Dalloway said she would buy the flowers herself. Pity. A signature strike leveled the florist's. [2]
>
> *Teju Cole,* Seven Short Stories About Drones*, 2013*

Drones. The word alone exudes a plethora of cultural fantasies, ideas, and feelings ranging from keen techno-fetishism to moral anxiety and fierce criticism. The ambiguity of emotions surrounding these unmanned flying devices has therefore already made them into something more than sheer technological commodities. Indeed, they have become "shrouded in fantasy" as essayist Adam Rothstein notes,[3] which means that they are cultural constructs fueled with ideology and political imagination. This includes, above all, the promise of liberation from the burdens and vulnerabilities of human life—at home, at work, and at war. Accordingly, the increased military deployment of remotely piloted aircrafts—also often referred to as unmanned aerial vehicles (UAV's) or just drones—has been one of the hottest topics in recent studies of late modern warfare.

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1 Speech delivered by President Barack Obama at National Defense University, Fort McNair, Washington D.C., May 23, 2013. Quoted from Jameel Jaffer, *The Drone Memos : Targeted Killing, Secrecy, and the Law* (New York: The New Press, 2016), 269.

2 First released as tweets via Twitter by Teju Cole on January 14, 2013. Later published as "A Reader's War" in The New Yorker, February 10, 2013, and in Teju Cole, Known and Strange Things (London: Faber & Faber, 2016), 259.

3 Adam Rothstein, *Drone*, Object Lessons (New York: Bloomsbury Academic, 2015), ix.

Briefly summarized, the drone debate is characterized by two poles: The critics (counting academics, journalists, artists, and human rights activists) who see drones as an unjust and illegitimate instrument of power combining ubiquitous surveillance with riskless, extrajuridical violence. And, in the other camp, the advocates include politicians, logicians and military ethicists who insist that drones are just as "legal" as they are "ethical and wise"[4] and must be equally thought of as a humanitarian super-weapon that saves lives due to its accuracy and visual proximity. The question that interests me the most in this dissertation is not so much whether any of these rivaling perceptions is truer than the other or if they in some way can be true at the same time, but rather how they are *created*. And it is here the realm of aesthetics comes into play as a cultural blueprint structuring the way drone warfare is represented and thus imagined. My key question, then, is how military practices of drone warfare are entangled in aesthetic form.[5] In what ways and through which salient forms are military drones represented in the aesthetic realm? From what historical roots do these forms originate? And how do they influence our imagination of warfare today?

Let me begin my inquiry into these, admittedly, rather broad questions by illustrating the opposing imaginations of drone warfare through two substantially different cases: a presidential speech, and a sample of literature. The first one concerns the arguably most prominent drone advocate, who is also responsible for the most radical expansion of the US drone campaign since its instigation by the Bush-administration in 2002[6]; that is, of course, former President Barack Obama. In a speech held at the National Defense University in May 2013, Obama contemplated the future of warfare in the twenty-first century acknowledging, for the very first time, that the US government had secretly been using drones for counter-insurgency operations for almost a decade. With his characteristic charisma and rhetorical skills, Obama delivered a powerful defense for why drones have been the preferred military technology in the in US-led global war on terror that emerged from the ashes of 9/11. Aside from his predictable justification of drone operations as "legitimate", "proportionate", and

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4 Jaffer, 208.

5 As will be elaborated on later in this chapter, my understanding of aesthetics is here both broad and narrow, as I draw on the original Greek meaning of the word *aisthêsis,* denoting simply what is rendered "sensible", as well the realm of cultural and aesthetic works that provides a certain aesthetic experience of the drone.

6 According to a recent study by The Bureau of Investigative Journalism, there were ten times more drone air strikes under Barack Obama's presidency than under his predecessor George W. Bush: https://www.thebureauinvestigates.com/stories/2017-01-17/obamas-covert-drone-war-in-numbers-ten-times-more-strikes-than-bush.

"just"[7] Obama also addressed another and perhaps less expected aspect of the drone; namely, its *imaginary* configuration.

The epigraph in the beginning of this chapter, quoted from Obama's speech, shows how this imaginary configuration, at least in governmental circles, has produced an image of the drone as a kind of wonder-weapon—most of all due to its alleged surgical precision. But, more surprisingly, Obama also recognized how this imagination, and the secrecy it emanates from, can "lead a President and his team to view drone strikes as a *cure-all for terrorism*" (my italics). It is interesting to notice how Obama here uses the word "cure" which designates remedy, healing, and restoration. Obviously, the former president uses this phrase to signal self-awareness and responsibility. He wants to show that he is fully aware of the dangers of relying too much on a single technology to solve an exceedingly complex problem. In his words, the drone should therefore not be fantasized about as a quick-fix or miraculous medicine for terrorism. Rather, the technological progress that makes it possible "to strike half a world away" also demands, the commander in chief warned, "the discipline to constrain that power—or risk abusing it."[8]

While such self-awareness would normally be a rarity among presidents in office, one could easily interpret Obama's warning as just another rhetorical trick by the experienced orator with the purpose of vaccinating his pro-drone arguments with a dash of critical reflection. Yet, there could also be another explanation; namely, that Obama—well into his second term—had actually started worrying about the legacy he would leave to his successors. This interpretation could perhaps explain the sudden need for a President and his administration to speak slightly more openly about the US drone program, including its legal framework and its chain of decisions. And, more importantly, it could be one of the reasons for the administration to craft a new set of administrative rules governing the standard operative procedures of drone strikes, also often referred to as Obama's "drone playbook."[9] But what it does not explain is why the Obama administration continued its ceaseless drone raids of suspected, yet not confirmed or convicted, terrorists despite persisting critique and well-researched reports of the flaws and deficiencies in the drone program. So, why this rock-solid faith in drones against all knowledge to the contrary?

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7 Jaffer, 208.

8 Ibid., 269.

9 Ibid., 34-35.

Indeed, one could say that Obama's phrasing of the drone as a "cure-all" for terrorism plays on the duality of the word "cure" that can both mean "to relieve" and (though rarely used) "to preserve". In this light, the presidential words get an ironic twist, seeing as Obama's speech and its derived policies did certainly not put an end to the drone program nor change the opacity surrounding it. Quite contrarily, the US government's continuous (and, with the Trump-administration, escalating) drone strikes also include a high level of secrecy. Even though Obama settled on a slightly more open course in the last part of his term, his administration was generally characterized by a strong reluctance to reveal any facts or statistics that could possibly illuminate the extent of large-scale drone surveillance, the collateral damage caused by drone strikes, and the traumatic impact this new military practice reportedly has on drone operators.

This information was, and still is, up to the public—mainly journalists, documentarians, artists, and filmmakers—to piece together. In other words, the lack of transparency and facts about the American drone campaign has provided a breeding ground for the public powers of imagination. When The Bureau of Investigative Journalism named their visualization of estimated numbers of victims to drone attacks, "Out of Sight, Out of Mind," it was therefore not wholly adequate. While drones are naturally out of sight for most people outside the military institutions, they are certainly not out of mind, which is underscored by the escalating media hype about drones and the rapid growth in Hollywood-productions of "drone thrillers". Surely, drones remain an abstraction to most Americans and citizens in the Western world, something associated with the covert sphere of high-tech surveillance, security, and counter-terrorism, but this might be exactly why they have been so heavily represented in art, media, and popular culture: We simply need images and narratives to make sense of the increasingly complex technologies that dominate the wars of today and tomorrow. This brings me to my second example and the derived question of how drone warfare is embedded in aesthetic form:

A few months before Obama gave his drone speech in 2013, the American-Nigerian writer, Teju Cole, released a series of posts via Twitter entitled *Seven Short Stories About Drones*. In each of these stories, an opening line from the literary canon was contrasted by a fragment about drone warfare, thus mixing high and low culture as well as politics and art. In the first tweet, Virginia Woolf's *Mrs. Dalloway* meets a signature strike; in the second one it is Ishmael from Herman Melville's *Moby Dick*, who is immolated at his wedding; the third one is about a bomb assault in James Joyce's *Ulysses*, and so on. By supplementing the classical opening lines with textual fragments that seem to come from military discourse (e.g. Ishmael as "a

young man of military age") or political propaganda ("The program saves American lives"), Cole creates an alienating effect of juxtaposing two seemingly disparate spheres in a strikingly abrupt manner. This artistic strategy is further strengthened by his vivid descriptions ("Blood on the walls. Fire from heaven"), and profound style ("My parents are inconsolable.")

In short, Cole's literary pieces can be interpreted as invitations to (re)imagine the, at the time, little-discussed military deployment of drones through the most canonical texts of Western literary history. By shifting the focus from the abstract and anonymous drone operations to the perspective of its nameless victims whose stories are often untold, Cole, then, accentuates the absurdity and injustice experienced by the innocent people living under the drones, for instance when paraphrasing the opening of Franz Kafka's *The Process*: "Someone must have slandered Joseph K., for one morning, without having done anything truly wrong, he was killed by a Predator drone."[10] In short, Teju Cole's *Seven Short Stories About Drones* show how the cultural imagination by way of art and literature has the privilege to question and criticize political procedures and military operations and, above all, how it is able to transform abstract political ideas into individual experiences and emotional responses.

Yet, Cole also takes a critical stance toward the so-called "high" literature from which he borrows the opening lines. This critical point is much more extensively unfolded in his essay "A Reader's War", which integrates the seven literary pieces into a more substantial argument. This line of thought concerns the person Barack Obama. Unlike his predecessor, George W. Bush—and, one could add, even less like his successor, President Donald Trump—Obama had (and still has) a reputation as a widely-read intellectual. As a former law professor with a cosmopolitan outlook and pronounced taste for philosophy, history, and literature, Obama thus takes on the role as "reader in chief", Cole writes.[11] Although keeping in mind that the books recommended by a president might be more influenced by political calculation than genuine passion, it is worth noticing that Obama has named among his favorites books Tony Morrison's *Song of Solomon* and Melville's *Moby Dick* while in comparison Donald Trumps' favorites count *The Bible*, *All Quiet on the Western Front*, and his own *The Art of the Deal*.[12] Yet, Cole's message is clear; even the best educated and most sophisticated human

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10 Cole, 259.

11 Ibid., 206.

12 See, for instance: Thu-Huong Ha, "All the books Donald Trump has said he's read and liked", *Quartz*, December 7, 2016: https://qz.com/852495/the-art-of-the-deal-all-the-books-donald-trump-has-publicly-said-hes-read-and-liked/

being can systematically commit war crimes when he honestly believes it to be a necessary means to a higher end. So did Obama with his continuous assurances that the drone program is legitimate and constitutes "a just war—a war waged proportionally, in last resort, and in self-defense."[13] And so does his successor, President Trump, who has continued and even intensified the use of drones for surveillance, border control, and targeted killings.

Yet, the problem is, or so Cole seems to suggest, that there is an emerging "gap between the intention behind the president's clandestine brand of justice and the real-world effect of those killings."[14] In short, and returning to my overall argument, the wonder-weapon of surgical precision, the "cure-all for terrorism" praised by Obama in his drone speech, could actually turn out to be quite the opposite: A disastrous weapon, a monstrous machine that, against all good intentions, has gone out of control due to increasing bureaucracy and automation—creating, not security and peace, but a never-ending war whose cruelty persists in a toxic atmosphere of devastating violence and unlimited, persistent mass-surveillance.

The Cruel Drone

This is, in fact, the principle thesis of this dissertation: The predominant political imagination of drone warfare, I claim, is characterized by an insatiable, if not totalitarian, desire for the perfect weapon; a drive to see and know everything while at the same time remaining unseen and untouchable; a highly fetishized fantasy of smooth automation, total surveillance, perfect invincibility, and surgical precision. But, as I will show in the following chapters, this desire is indeed *fantasy* as it rests on unstable and imaginative ground. Thus, each of the chapters in the dissertation contains examples that demonstrate how these highly imaginative fantasies and desires in turn prove to be flawed and imperfect. Using the realm of aesthetics as prism, the analyses thus expose the darker side of this drone imagination focusing on its inherent cracks and frailties that altogether undermine the legitimacy as well as soundness of the fantasy of the drone as a new wonder-weapon. For instance, the analyses will show how ideas of drone invincibility also entail trauma; how dreams of total vision become blurred by immensity; and how the myth of surgical precision ends up as carnage.

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13 Jaffer, 266.

14 Cole, 206.

What is at stake here is what I, with a term borrowed from Lauren Berlant, will suggest calling the "cruel optimism" of the drone. *Optimistic*, because this desire contains a drive, force, or a belief that pushes it forward toward its own satisfaction. Yet *cruel* because the very same object for desire actively impedes the goal or satisfaction it promises to fulfill. In her book *Cruel Optimism* from 2011, Berlant defines this idea as "a relation of attachment to compromised conditions of possibility."[15] This compromised relation of cruel optimism occurs "when something you desire is actually an obstacle to your flourishing,"[16] which, in the case of drone warfare, means that the technological object of desire, the drone, is at the same time an obstacle that eventually ends up obstructing its own promising prospects. To be more specific, the desire for drones by Barack Obama, or any other political leader who decides to deploy drones in military operations, is therefore rooted in a fantasy of the perfect weapon with its promises of "clean" warfare through surgical precision, total vision, enhanced automation, and absolute security. Yet, this fantasy is compromised exactly because its realization appears, as Berlant puts it, "either to be impossible, sheer fantasy, or too possible, and toxic."[17] The temptation by Western political leaders to use drones in war is, in other words, all too easy as the drones are cheap, fast, and easily deployed, but at the same time the objective is impossible to accomplish since the drone's entanglement in fantasy has created a forever-war that is ultimately self-destructive and harmful.

My aim in this dissertation, then, is to show how the popular attachment to drones is formed by fantasies and imaginations that are "cruel" in so far as they compromise themselves and obstruct their aim through a negative feedback loop, which constantly negates the promises these very same machines seem to be able to deliver on. This cruelty is not to be understood as a result of a subjective or intentional consciousness, but rather as an abstract or structural force. It is this force that upholds the almost hysterical fascination with and peculiar attachment to these unmanned flying objects as when Obama in the quote above praises their supposed surgical precision as a "cure-all for terrorism." The cruel optimism of drone warfare thus produces a significant paradoxical and problematic attachment to the drone as object; an attachment whose cruelty might be experienced, as Berlant puts it, as a "fear that the promising object […] itself will defeat the capacity to have any hope about

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15 Lauren Berlant, *Cruel Optimism* (Durham, N.C: Duke University Press, 2011), 24.

16 Ibid., 1.

17 Ibid., 24.

anything."[18] In short, the cruelly optimistic imaginations surrounding drones in the political discourse is not simply about drones, but about everything and anything that they are supposed to be capable of —about the creeping suspicion of what they might, in fact, *not* be capable of.

In order to trace the realization of such structural cruelties, I turn toward art and literature's ability to reconfigure the political imaginary by converting ideas into personal experiences and affects.[19] While Berlant mostly focuses on minor or ordinary affects that are manifest as a relation of cruel optimism in late twentieth century fantasies of "the good life", the object for cruel optimism in the case of drone warfare is a bit different in its scope. The affects I am looking for are naturally more attached to the intense and often traumatic experience of warfare than to ordinary life, although the two spheres of warfare and everyday life can indeed be surprisingly entangled in the case of drone "pilot trauma" (the topic of chapter two).

Another difference is that my focus is not restricted to individual experiences such as personal accounts of drone operators or victims. What interests me more is the traffic between these personal, emotional experiences and the broader social imagination in the form of collective imaginations, including affects, desires, and fantasies. In short, my idea of an affective imagination in relation to drone warfare can be described as a form of cultural infrastructure that is shaped by both historical and contemporary imaginaries. While this imaginary infrastructure was gradually constructed by the technical innovations and technologies of twentieth century warfare, the affects it produces has, however, become exceedingly intensified in the wake of the "ongoing injury" of the attacks of 9/11. As the anthropologist Joseph Masco has noted, this type of affects has "become a kind of infrastructure for the security state, creating the collective intensities of feeling necessary to produce individual commitments, remake ethical standards, and energize modes of personal, and collective, sacrifice."[20] In other words, these "collective intensities" are to be understood as affective atmospheres that are *shared* rather than kept private as individualistic experiences.

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18 Ibid.

19 By affects, I understand a domain of emotions and feelings which is not primarily individually experienced but rather, following Lauren Berlant, are shared "*structures* of relationality" which becomes manifest both as "attachments and the desire to sustain them." Ibid., 13.

20 Joseph Masco, *The Theater of Operations : National Security Affect from the Cold War to the War on Terror* (Durham: Duke University Press, 2014), 201.

They are thus closer to what Raymond Williams famously called "structures of feeling"[21] designating a collective historical experience of being part of an increasingly networked world.

The field of affect studies is thus well suited to grasp the manifold emotions, moods, and atmospheres surrounding drones. This includes, on the one hand, the strong cultural and political attachments to drones—in the form of desires, fantasies, and fetishism—while, on the other hand, these feelings are countered by critiques in the form of anxiety, paranoia, and fear for mass surveillance, loss of individual rights, machine autonomy, etc. Nevertheless, the firm attention toward embodied as well as disembodied structures of feelings does not offer an entirely comprehensive theory to tackle my main problem of how these manifold imaginations of drone warfare is embedded in aesthetic form.

To conceptualize this problem I therefore propose the concept of the "drone imaginary": That is, the web of figures and figurations—including representations, images, metaphors, and narratives—that altogether frame the way we imagine drones as part of our shared social life. The reason for using the *imaginary* as the guiding framework for my analyses, then, is (as will be elaborated in the following) that this concept is fit to conceptualize the way abstract political ideas can be reconfigured, made sensible, and materialized into cultural practices and acts of figuration. In other words, the imaginary designates traffic between political fantasies and cultural actions, and *vice versa*, and can thus be used to trace the practical manifestation of the drone imaginary into multifarious and often ambiguous figurations.

Drones in the Social Imagination

The drone imaginary that I focus on in this dissertation thus covers a wide spectrum of figures and figurations[22] that guide the way in which drones are "con-figured" as an expression of cruel optimism in the political as well as in the broader public consciousness. An obvious aspect of this fetishized imagination of the drone—and the derived experiences of cruelty when the promises it offers in turn fail—is how drones are often regarded as game changers

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21 Raymond Williams, *Structures of Feeling : Affectivity and the Study of Culture*, ed. Devika Sharma and Frederik Tygstrup, Concepts for the Study of Culture, 5 (Berlin: De Gruyter, 2015).

22 When I use the terms *figures* and *figurations*, I refer to the way in which ideas and thought are created and shaped figuratively; that is, the human capacity to evoke images and the way of speaking based on rhetorical devices such as figures and tropes that come together not merely as representation but as *con-figuration*.

in traditional imaginations of warfare. According to legal scholar Paul W. Kahn, the drone thus represents "both a symbol and a part of the dynamic destruction of what had been a stable imaginative structure."[23] In other words, the drone marks a radical disruption of the imaginative matrix that until recently constituted the common understanding of what warfare is and, not least, what it is *not*.

Especially the latter is important to Kahn, who is highly concerned with the emergence of a new battlefield "that no longer looks like war"; a place in which state violence and law enforcement are increasingly blurred as the target sometimes appears as an enemy, sometimes as a criminal. This blurring calls for a third category, Kahn holds, thus forming a new military imaginary that "represents statecraft as the administration of death."[24] In Kahn's perspective, war and law enforcement thus refer to structures of the political imaginary before they refer to legal norms. While making this statement in the context of law, human rights, and political theory, Kahn, however, employs an understanding of "imaginary structures" that diverges somewhat from the traditional idea of the imaginary as something illusionary or fantastic. What he has in mind is rather a "political imaginary" that "constructs an image of the ends and means of responding to violence."[25] Among the basic categories by which the framing of this political violence takes place, Kahn names the "aesthetics of war."[26] Clearly, this use of aesthetics is not to be understood as mimetic representation or as poetic constructions made by words, but as something which is closer to the original Greek meaning of the word *aisthêsis*; that is, simply the sensorial or distributed sensibilities of human perception. As Kahn points out, this idea of aesthetics, which he borrows from Kant's transcendental aesthetics, constitute "the spatial and temporal frame of […] experience,"[27] which he takes as the starting point for understanding how drones have disrupted the imaginative structure of warfare.

Hereby, Kahn offers a most welcomed reconceptualization of the extensive concept of the imaginary; a term that has taken many different forms and functions in various academic fields. As an umbrella term replacing concepts such as *cultural belief*, *meaning, model,* and *cognitive schema*, the imaginary is indeed broad in scope and, unfortunately, this excess of uses has somehow exhausted the term and diluted its theoretical utility. This is a shame, not least since

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23 Paul W. Kahn, "Imagining Warfare," *European Journal Of International Law* 24, no. 1 (2013): 199.

24 Ibid., 226.

25 Ibid., 201.

26 Ibid., 207.

27 Ibid., 201.

the realm of the imaginary should be key to investigating how a given political phenomenon, such as the drone, is represented, constructed, and critiqued by aesthetics. In the following, I shall therefore give a more detailed account of how I intend to use the concept of the imaginary in my investigation of drones.

First, it is important to note that what I understand by the "drone imaginary" cannot be reduced to pure fantasy. This is a crucial point, because, when used interchangeably, the terms imaginary and imagination often evoke associations to the realm of fantasies and illusions. This is probably also the reason why the imaginary has often been opposed to the sensorial and bodily experiences of the material world as when for instance Adam Rothstein claims that drones are "shrouded in fantasy."[28] However, it would seem inadequate to simply define the imaginary as a way to represent the *unreal*, that which does not exist. Conversely, the imaginary—as the etymology of the word *imago* and *imagin* suggests—simply denotes the human capacity to create images independently of whether these images are real or not. This certainly also applies for this dissertation's focus on the drone imaginary not as a collection of purely fictive drone representations, but rather as a reservoir of culturally embedded forms, images and narratives that is in constant interaction with the political domain they reflect.

As Chiara Bottici has argued, the idea of imagination as the capacity to produce images goes as far back as to Aristotle.[29] Hence, the concept of imagination originates from *imaginatio,* which was the Latin translation of the Greek word *phantasia*. Like Plato, Aristotle saw the *phantasia* as a combination of *aisthêsis* (sensation) and *doxa* (judgement) from which ideas are constructed as images based on sensible input. In short, the realm of fantasy and the imaginary has constituted a vital field of intermediation between the sensible world and ´human intellectual capacities. For Aristotle, then, even the most basic mental operations depend on images in order to produce ideas, which make the imaginary an essential condition for all thought.

Based on this Aristotelian principle, Bottici develops her concept of "imaginal politics" arguing that "it is only through the help of unifying images that a public can exist."[30] While she makes a strong point claiming that human beings are therefore "not only rational animals

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28 Rothstein, ix.

29 Chiara Bottici, *Imaginal Politics: Images Beyond Imagination and the Imaginary* (New York: Columbia University Press, 2014).

30 Ibid., 10.

but also, and even prior to that, imaginal animals,"[31] she does not, however, go beyond the strict focus on the image to make more general assumptions of the social character and political impact of these image producing faculties.[32]

In order to go further in the application of the imaginary to the realm of the drone, I will therefore turn to the philosophers Charles Taylor and Franco Berardi (Bifo), whose ideas of the social imaginary as a practice-oriented and dynamic field would make a more adequate conceptual basis for my understanding of the drone imaginary and its inherent interplay between images and politics.[33] Thus, both of these thinkers provide key insights into how social imaginaries shape the way we think of our shared social life. While Berardi is mostly focused on the way images enter into the larger social context through global media, Taylor's understanding of the social imaginary is more like a background structure of sense-making that gives meaning to the common practices that constitute a society. With the term "social imaginary" Taylor simply denotes "the ways people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations."[34] In its broadest sense, then, Taylor's notion of the social imaginary forms a background of shared understanding and meaning that a given group of people use as an invisible map to guide them in their communal environment.

As opposed to a more Kantian notion of imagination,[35] it is for Taylor not primarily cognitive and intellectual schemata that constitute the social imaginary but rather the everyday practices of ordinary people. Hence, he carefully stresses the pre-conceptual

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31 Ibid., 6.

32 Boticci describes this (de)selection as a strategy to put images in focus rather than the social aspects of them: "In contrast to imagination and imaginary, the concept of the imaginal emphasizes the centrality of images, rather than the faculty or the context that produces them; therefore, it does not make any assumptions about the individual or social character of such a faculty." Ibid., 5.

33 For a more extensive presentation of the imaginary as a domain between image and politics, see: Kevin Olson, *Imagined Sovereignties: The Power of the People and Other Myths of the Modern Age* (New York, NY: Cambridge University Press, 2016).

34 Charles Taylor, *Modern Social Imaginaries* (Durham, N.C.: Duke University Press, 2004), 23.

35 For instance, in the philosopher Cornelius Castoriadis' more Kantian theory, the imaginary is understood as that which binds intuitive and intellectual processes together as a synthesis between sensation and conception, between *aisthêsis* and *logos*. For Castoriadis, this synthesis is the root of all thinking and, hence, of all representation since the faculties of human thinking are, as he puts it, the "emergence of representation as an irreducible and unique mode of being and as the organization of something in and through its figuration, its 'being put into images'." Cornelius Castoriadis, *The Imaginary Institution of Society*, trans. Kathleen Blarney (Cambridge: Polity, 1987), 283.

dimension of the imaginary which makes it somewhat closer to culturally inherited practices and traditions which has become ritualized and eventually sedimented into a shared network of imaginations, norms, and expectations to social life. According to Taylor, the imaginary is therefore neither theory nor idealization. Rather, it is the form of pre-conceptual, inarticulate, and nonlinguistic patterns of meaning that "enables, through making sense of, the practices of a society".[36] This way, Taylor's understanding of the imaginary opens up for a more dialectic dynamics, in which practices can promote ideas just like ideas can shape practices.[37]

These dynamics are constituted by the social imaginary as a "background" of meaning that gives sense to our practices. As the point of reference for this intermediary field between ideas and practice, Taylor explicitly alludes to what philosophers such as John Searle and Hubert Dreyfus and have called "background" [38] when defining this substructure of shared meaning extremely broadly. In his words, this background is a "largely unstructured and inarticulate understanding of our whole situation, within which particular features of our world show up for us in the sense they have."[39] Yet, Taylor is deliberately fuzzy in his description of the "unlimited and indefinite nature" of this intermediary field of the imaginary as he wants to exclude it from the intellectual schemata of theory. He thereby presupposes an egalitarian and anti-elitist aspect of the imaginary. For instance, in his historical account of how a "myriad secular forms" [40] of social practices were highly formative for the "higher" ideas of Reformed Christianity, he thus emphasizes the "anti-elitist thrust" [41] of ordinary practices and their influence of the imagination of equality in our contemporary social and political lives.

Whereas the strength of Taylor's notion of the social imaginary thus lies in its egalitarianism and practice-oriented materialism, its weak point, however, is in the broadness of its scope. As background understanding, the social imaginary can be used to signify

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36 Taylor, 2.

37 For instance, Taylor states that it is "absurd to believe that the practices always come first, or to adopt the opposite view, that ideas somehow drive history." Ibid., 64.

38 While not mentioning the perhaps most influential source of inspiration—that is, Martin Heidegger's ontological understanding of the background meaning of being—Taylor refers directly to the discussion of "background" in Hubert Dreyfus, *Being in the World* (Cambridge: MIT Press, 1991) and John Searle, *The Construction of Social Reality* (New York: Free Press, 1995), drawing on the work of Heidegger, Wittgenstein, and Polanyi.

39 Taylor, 25.

40 Ibid., 74.

41 Ibid.

practically all kinds of inarticulate and preconceptual understandings of social life. And what is more, Taylor in no way engages in the actual *image*-producing capacities of imagination. As a final point of reference, I will therefore turn to the Italian philosopher Franco Berardi (Bifo), whose idea of an "image dispositif" might function as an overarching conceptual framework bridging Taylor's broader background understanding into a more operational concept of the imaginary.

In the essay "The Image Dispositif", Berardi focus on the image not as representation but as action. What the essay points to is not so much the ability of images (and imaginations) to represent reality, but rather their dynamic power to "stir up and build projections, interactions and narrative frames structuring reality."[42] What Berardi is interested in, then, is the dynamic relation between specific images and the actions that images produce on the body; or, as he puts it, the capacity of images "to select among infinite possible perceptual experiences, so that imagination becomes imagin/action.[43] He suggests conceptualizing this idea of the active image through a so-called *narrative dispositif*, which he at first defines as a "disposing or structuring device" and later as a "semiotic engine able to act as the paradigm of a series of events, behaviors, narrations and projections modeling social reality."[44] In other words, Berardi's conception of the image seems not too far from Taylor's social imaginaries as the shared matrix of meaning that makes people able to imagine communal life. However, the concept of the *dispositif* suffers from a terminological elasticity similar to that of the imaginary, seeing as it is a highly common word in both French ("dispositif") and Italian ("dispositivo"). Accordingly, the word has found various translations ranging from "apparatus," "mechanism," and "device" to "deployment" and "dispositive."

Yet, the writings of Michel Foucault, whose use of the dispositive as a central aspect of his theorization of the intimate relation between knowledge and power is widely known, might provide us with further clues as to the specific meanings and functions inherent in the word.[45] The closest Foucault gets to a definition of the dispositif is in an interview from 1977. Here, he talks about it as a "heterogeneous set consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements,

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42 Franco Berardi, "The Image Dispositif," *Cultural Studies Review* 11, no. 2 (2005): 64.

43 Ibid.

44 Ibid., 68.

45 Foucault's continuous, yet rather unconfined, uses of the word "dispositif" has been seen as decisive for his strategy of thought, especially as it evolves from the mid-1970s and forth where he starts focusing on "governmentality" and develops his notorious theory of *panopticism*.

philosophical, moral, and philanthropic propositions;" that is, as Giorgio Agamben has noted, "virtually anything, linguistic and nonlinguistic."[46] While this statement does not bring us any closer to an understanding of the dispositif, Foucault indeed explains in the interview how the dispositif always is part of a knowledge-power play that designates a process of subjectification, which basically means that it can be seen as a machine that produces subjects.[47]

It is this context of the typical Foucauldian analysis of how the workings of power and knowledge together constitute a process of subjectification that Berardi's idea of the "image dispositif" should be situated. Referring specifically to the role of the global media's in circulating the torture images from Abu Ghraib to the worldwide public, he thus describes how these images worked as powerful dispositifs resulting in a reaction as if "something very deep cracked in the Western mind."[48] Yet, this phenomenon is not merely restricted simply to the public opinion. Instead, Berardi prefers to talk about the "imagination [as] the dynamic space where the countless images that reach the collective consciousness are disposed in narrative formations."[49] For Berardi, imagination thus designates the meaningful encounter of images and words.[50] As Berardi phrases it,

> it is through the stratification of images on the changing surface of collective memory that dispositifs are built which can project reality; here psychic dispositifs model the

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46 Agamben 2006, 2

47 Or so it used to, as Agamben claims in his conceptual and rather idiosyncratic reading *What is a Dispositif* (2006), in which he finds the dispositifs of late modern capitalism to be closer to a process of desubjectification leaving no space for the recomposition of a new subject "except in larval or … spectral form"(21). Instead, the dispositifs have become a "pure activity of government that aims at nothing other than its own replication" (22) an idle machine whose aimless motion is "reduced to a mere exercise of violence" (19).

48 Berardi, 65.

49 Ibid.

50 Here, Berardi's text/image understanding of the realm of imagination is somewhat similar to Cornelius Castoriadis's Kantian and Lacan-inspired theory of the imaginary. For Castoriadis, the imaginary represents a kind of imaginal, pre-linguistic domain of figures and figurations which, if seen on its own, is inarticulate and therefore lacks the basic intersubjective dimension that characterizes the social domain. This lacking dimension is, however, balanced by language, as Castoriadis accentuates the dialectics between words and images as a critical aspect of the imaginary. With reference to Lacan, he describes this relationship as an encounter between the non-linguistic mode of the imaginary and its linguistic counterpart, the symbolic order of language, which, following a Lacanian logic, inaugurates the entrance into social power relations. In other words, the images that constitute the imaginary only get their meaning in the encounter with a larger social and historical world of reference. Hence, the imaginary functions as a cultural blueprint for how we understand social life. In Castoriadis words, it is a process of "unceasing and essentially undetermined (social-historical and psychical) creation of figures/forms/images […]. What we call 'reality' and 'rationality' are its works." Castoriadis, 3.

> attention to events, filtering the input of news, shaping emotional reactions, and finally influencing people's choice. [51]

Here, Berardi finds the natural relation between imagination and the dispositif as a model for filtering sensorial input through narrativization and for transforming this input into emotional responses that affect social practices and political choices. But more importantly, Berardi shows how the current dispositifs have become dominated by images to an hitherto unseen degree: As he writes, "images are today *the* basic political *dispositif*."[52] In short, he is concerned with how images and imaginations change the world in an age where the increasingly digitized and interconnected network of global media have made them the most dominant and powerful agents of subjectivation and knowledge production.

Thus, I would claim that the drone imaginary functions as nothing less than the principle dispositif of late modern warfare as it not only transmits images of the battlefield across the globe but also, by doing so, propagates the imagination that the militarized, disembodied drone gaze is always "there" watching from everywhere. This is, essentially, the dispositif of the current "technomedia mutation"[53] that, according to Berardi, has induced "disturbances in the relationship between bodies because it is producing disturbances in the elaboration of images and pathologies in the intimate processing of the world."[54] As I will show in the course of this dissertation, these disturbances and pathologies of the drone imaginary are indeed part of a logic of *cruel optimism* which promises a clean, precise, and almost surgical mode of warfare without really being able to deliver on that promise.

The Diverse Field of Drone Imaginaries

In the light of these conceptual contours surrounding the notion of the imaginary, Kahn's statement that the drone is both "a symbol and a part of the dynamic destruction of what had been a stable imaginative structure" [55] is indeed better grasped. This "destruction" and its

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51 Berardi, 65.

52 Ibid., 68. (italics in original).

53 Ibid., 65.

54 Ibid.

55 Kahn, 199.

correlate in a new imaginary surrounding warfare is quite literally all around us: in political rhetoric, in news accounts, in historical narratives, in films, and on television."[56] The social imaginary that Kahn here speaks of is, in other words, formative for the way we (as westerners) make expectations of and decisions on warfare based on shared and mediated notions and images.

Specifically, the drone transgresses and breaks down both the spatial and temporal schemata through which we are culturally and aesthetically configured to understand warfare. Accordingly, drones represent a reconfiguration of the way we have imagined the temporal dimension of warfare as a linear process with a clearly marked beginning and end, inaugurating a more cyclic and therefore *endless* configuration of war-time. In a similar way, Kahn notes how drones destabilize the space of war as something that is clearly demarcated by sovereign states through bordered territories. Here, drones represent a "cross-border penetration" that becomes a territorial problem in the social imaginary insofar as they are often used outside the geographically demarcated battlefield.

Not surprisingly, these latter aspects of the spatial and geographical drone imaginary are something that has been treated extensively within the academic field of drone research.[57] Above all, geographer Derek Gregory[58] has investigated the new geopolitical and topological issues of drone warfare through his idea of "imaginative geographies," a term originally coined by Edward Said to denote the colonial construction of visualized space. According to Gregory, these imaginative geographies are "fabrications […] that usefully combine[…] 'something fictionalized' and 'something made real'."[59] In short, Gregory's conception of imaginative geographies as "fabrications" is another way of putting the Kantian distinction between the productive and the transcendental imagination; that is, the imaginary as an intermediary field between sensation and thinking. Applied to the more specific "drone geographies", this conceptualization discloses what Gregory refers to as a "matrix of military violence."[60]

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56 Ibid., 221.

57 See, in particular: Peter Adey, *Aerial Life: Spaces, Mobilities, Affects* (Malden, MA: Wiley-Blackwell, 2010); Ian G. R. Shaw, *Predator Empire: Drone Warfare and Full Spectrum Dominance* (Minneapolis: University of Minnesota Press, 2016).

58 Derek Gregory, "From a View to a Kill," *Theory, Culture & Society* 28, no. 7-8 (2011); "Drone Geographies," *Radical Philosophy* 183 (2014).

59 *The Colonial Present: Afghanistan, Palestine, and Iraq* (Malden, MA: Blackwell Pub., 2004), 17.

60 "Drone Geographies," 7.

As opposed to Kahn, who conducts a more abstract assessment of how drones will transform the aesthetics of warfare, Gregory analyzes the material and social consequences of these new conceptions of time and space in depth. Based on a wide range of sources and materials exposing the common military practices of drone warfare, he thus demonstrates how drones create an "everywhere war" [61] in which geographical distance and visual proximity is coming together in a new intimate experience of war where the target is never more than a few inches away from the screen. This mediated intimacy, in turn, affects the new generation of "screen warriors" who often watch their targets for weeks or months before eventually eliminating them, creating an atmosphere of "voyeuristic intimacy" as Gregory quotes one drone operator for putting it.[62] Gregory's meticulous geographical investigations thus show how the drone imaginary is shaped by "real" material practices. The idea of an "everywhere war", then, does not build on abstract theorization, but on a material field of military practices and affective experiences, which feeds back into the more abstract imaginaries both ordinary civilians, political leaders, and, indeed, the military itself thinks about drone warfare.

However, my focus in this dissertation is not mainly on geographical imaginaries, nor is it excluded to the so-called "scopic regimes" of drone warfare which Gregory as well as a wide range of drone researchers within the cultural, historical, and aesthetical field have already treated extensively. [63] While a majority of these studies have engaged in the visuality of drone warfare—including, in particular, what the drone *sees* as well as how it is represented in visual art and culture—I am more interested in the way it enters into a larger social and imaginative narrative. In other words, my investigation concerns how the larger political and cultural drone imaginary is formed by affective practices that are represented as acts of figurations. My focus of inquiry, then, is how these forms appear and become presentable to us, how they are shaped into visible patterns, which essentially means how they are being aesthetically configured into imaginaries.[64]

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61 "The Everywhere War," *The Geographical Journal* 177, no. 3 (2011).

62 "Drone Geographies," 10.

63 Among the key inquiries into the *scopic regime* of drone warfare, see Derek Gregory's articles on the topic and Kathrin Maurer, "Visual Power: The Scopic Regime of Military Drone Operations," *Media, War & Conflict* 10, no. 2 (2017); Kyle Grayson, "Six Theses on Targeted Killing," *Politics* 32, no. 2 (2012); Alison J. Williams, "Disrupting Air Power: Performativity and the Unsettling of Geopolitical Frames through Artworks," *Political Geography* 42 (2014).

64 In Kantian terms, this configuration is somehow similar to that of schematization, that is, the capacity of the productive imagination to both conjure and rework sensible (re)presentations.

In this regard, I am naturally drawing on the extensive research on drone warfare that has recently emerged with increasing intensity across academic disciplines. Among the disciplines that have been highly productive in illuminating and conceptualizing the various aspects of drone warfare is, in particular, the academic fields of law, political science, anthropology, and geography.[65] While each of these different fields naturally has its own distinct vocabularies, methods, and approaches, there are indeed certain overarching terms and themes that together make the academic field of drone warfare highly cross-disciplinary. In this dissertation, I draw on these common, diverse conceptions of what could broadly be labelled *the first generation* of drone research, thus constituting the more inter-disciplinary background of my investigation into the key figurations of drone war (which I will introduce at the end of this introduction).

Yet, in the humanities, the topic of drone warfare has been increasingly flourishing as well, in particular within the disciplines of philosophy, media studies, and art and cultural studies. Above all, Grégoire Chamayou's seminal book *A Theory of the Drone* (2015) has had a huge impact on the scholarly discourses and imaginaries related to drone warfare. However, he has also been criticized for mythologizing the drone[66] by situating it into the metaphysical context of ancient Greek, Nordic, and Christian narratives of invincibility, Godly vision, etc., a critique that might not be totally fair as Chamayou's work is certainly also critical toward these myths. As opposed to Chamayou's mythical but also cultural, historical, philosophical, and ideological rendering of the drone, a broad range of studies within the humanities has engaged with the more technical aspects of drone vision and its representation in art and visual culture, shaping what could be called a *second generation* of drone research. As these studies are typically rooted in visual art and media studies, they tend to focus, however, primarily on the technical dimension of the drone as medium as well as how this scopic regime is represented in art and visual culture and therefore not so much on how drones are configured through language and narratives.

Yet, an exception to this generalization is the ambitious anthology *Life in the Age of Drone Warfare* (2017) edited by Lisa Parks and Caren Kaplan,[67] a work that does indeed bridge

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65 In addition to the already introduced works by Kahn and Gregory, see in particular: John J. Kaag and Sarah E. Kreps, *Drone Warfare* (Cambridge, UK: Polity, 2014); Hugh Gusterson, *Drone : Remote Control Warfare* (London, England: The MIT Press, 2015).

66 Shaw.

67 Lisa Parks and Caren Kaplan, *Life in the Age of Drone Warfare*, ed. Lisa Parks and Caren Kaplan (Durham: Duke University Press, 2017).

across the widespread disciplines of humanities including the historical, colonial, gendered, and networked perception of drones. While the studies included in Park and Kaplan's collection could, perhaps, be taken as signs of an incipient *third generation* of cultural drone research—focusing less on visual representation and more on other sensorial and affective experiences of drones—I would situate my own project in extension of this tradition of drone scholars. Thus, I draw on the already well-establish drone research in my ambition to further explore the aesthetic configurations of drones within the larger political narratives and social imaginary. While other scholars before me have used the term "drone imaginary" to designate this larger political, social and military imagination that drones inevitably enter into, it has not always been entirely clear what exactly is implied by this notion, however.[68] With this dissertation, I therefore wish to contribute with both conceptual clarity and new analytical insights into the dynamic field of the drone imaginary hovering between aesthetic configuration and social imagination.

My conceptual application of the *imaginary* on drones is therefore both narrow and broad in its scope. It is narrow in its focus on how the figural presentations of drones are aesthetically configured and hence how they become embedded in aesthetic form. Here, I draw on the more Kantian understanding of the imaginary as constituted by "figures, schemata, images, [and] wordimages[69] that together form a productive imagination of the world we live in. In this narrow understanding, the imaginary is about how the drones become sensible through aesthetic representation and configuration as they enter into larger social dynamics. Yet, my scope is at the same time broad in its focus on the imaginary as a domain of shared meaning which is shaped by, and shapes, the figural representations of drones in the larger social imagination, including ordinary cultural practices as well as political and military institutions.

I will now turn to the aspect of the imaginary to further clarify how the drone imaginary, as I propose to see it, is not merely descriptive, but rather *prescriptive* and *operational*. As it will be clear, this operationalization of imaginaries is especially profound when institutionalized as the main instrument of an emergency policy of counterterrorism that

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68 For instance, Yale scholar, Inderpal Grewal, uses the term "Drone Imaginaries" as the title for her chapter on "The Technopolitics of Visuality in Postcolony and Empire" included in Park and Kaplan's *Life in the Age of Drone Warfare*—yet, she never really defines nor explains more precisely what she understands by "imaginaries". Ibid., 343.

69 Castoriadis, 336.

follows a logic of cruel optimism or, in some cases, when it provides material for a critical counter-imaginary in the growing field of aesthetic drone critiques.

Drone Imaginaries at Work: From Napoleon to the Present

As it should be clear from what I have just outlined above, the drone imaginary is thus neither to be understood as a purely individualistic image-generating faculty nor as a mimetic mode of representation that merely mirrors events and figures of the "real" world of drone operations. Rather, it is a highly operational field of "imagin/action", as Berardi inventively puts it, setting off processes of shared image-production that shape the way drones are imagined in the social sphere of public perception. Accordingly, the post-9/11 security state has shown an extraordinary capacity to institutionalize and employ the imaginary for world-making strategies and promotion of drones in the form of discourses, metaphors, rhetorical figures and narratives. The earlier quoted passage from Barack Obama's drone speech is just one example of how this is a strategy that operationalizes bio-medical metaphors of "surgical" precision as a "cure-all" for terrorism. But also in the cultural imaginary, particularly in popular culture, drones are often presented in ways that, if not directly then indirectly, fetishize these new technologies and support an imagination of danger and threat that can only be prevented—or, better, *preempted*—by the highly advanced technical capacities of the drone. This includes in particular the drone's visual capabilities to produce so-called "operational images."

The term "operational images" was originally formulated by the German artist and filmmaker Harun Farocki as part of his three-part installation *Auge/Machine I-III* (*Eye/Machine* I-III) (2001-2003). In this series of installations, Farocki drew attention to a new visual regime of images that "do not represent an object but are part of an operation" [70] such as image-guided weapons and surveillance cameras or, in the case of drones, both at the same time; in short, images made for machines by machines. These images do not primarily show something, they *do* something. Accordingly, these new types of images are thus part of an operation, but at the same time co-create that very same operation. As Derek Gregory has

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70 Harun Farocki, "Phantom Images," *Public*, no. 29 (2004): 17.

noted with specific regard to the drone's world-making capacities, the operational images "work not only to operationalize but also to justify what is to be done."[71]

Thus, the images and imaginaries that constitute what I call the drone imaginary is operational in more than one sense: On the one hand, they are images produced *by* the drone (which can hardly be legible to humans), and, on the other hand, they are projections *of* the drone that are made operational when entering into the larger social imagination of political decision making, military practice and public perception. It is in this latter understanding I suggest to use the drone imaginary: as a highly dynamic and operational field that presupposes a palette of operating figures and figurations in the form of aesthetic representations and reconfigurations of drones in war.

I am not arguing, however, that the idea of operationalized images is entirely novel in the cultural history of warfare. Rather, a significant part of my project is devoted to investigating the historical imaginaries of drones, including the way visual and aerial technologies came together as a new military paradigm during World War I. As the first chapter of the dissertation will show, the paradigmatic shift in military technologies was acutely registered by the German author Ernst Jünger. After fighting as front soldier in World War I, Jünger recognized the huge impact that new visual media, such as photography, had on warfare, and how images had become a highly operational and weaponized resource. By considering vision as an "Angriffsakt" and photography as a "politischen Angriffswaffe", Jünger thus realized how new vision machines reorganized the technological order of warfare toward an increasingly remote experience. Placing the emergence of mass media in the history of war technologies, he anticipated what media theorist Paul Virilio (1989) much later conceptualized as the "logistics of perception" in which "a supply of images would become the equivalent of an ammunition supply."[72]

Yet, this regime of operational images was not reserved for military operations solely. Accordingly, it was not only pertinent for warring powers to achieve visual supremacy over the battlefield, but also to gain control of the popular imagination of warfare. The Germanist Jan Mieszkowski has shown how this military paradigm occurred within the Napoleonic wars "at the moment when clashes of troops were assuming unparalleled levels of destructiveness, laying waste to thousands of men by the hour, battles came to be understood as phenomena

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71 Gregory, "Drone Geographies," 10.

72 Paul Virilio, *War and Cinema : The Logistics of Perception* (London ; New York: Verso, 1989), 1.

best grasped in the imagination."[73] In his famous treatise *On War* (*Vom Kriege*, 1832), which was also based on experiences from the Napoleonic Wars, the German general and war theorist Carl von Clausewitz also notes how war has become "a play of the imagination" ("ein Spiel der Vorstellungen")[74] and calls attention to the complex and contingent aspects of "warfare as a spectacle that is too large and obscure to view as a whole and must therefore be imagined" if one wanted to "view" it in its totality.

Mieszkowski labels this paradigm the "Napoleonic war imaginary",[75] a military mode of perception evolving concurrently with the advent of printed press and a rising reading public, which was increasingly dependent on the "creative faculties" that would make one see the European battlefields with "the mind's eye" rather than with the "retina".[76] One of the key consequences of this Napoleonic war imaginary is therefore that the experience of the battlefield in the broader social imagination was not primarily based on first-hand eyewitnesses but became an inherently mediated and virtual affair, which blurred the interplay between directly experienced and represented war account. For the soldier on the battlefield as well as the civilian on the street, the totality of war could therefore only be fully grasped if mediated into a coherent narrative. In other words, to be victorious in warfare, in the Napoleon era and even more so today, is just as much about dominating the narrative in the popular imagination as it was about destroying the enemy on the battlefield.

For this purpose, the army has historically had various propaganda apparatuses at its disposal in order to strategically direct images to the civilian population. In the second part of the twentieth century, from the end of World War II and until today, however, the military propaganda machines have been increasingly placed in the triangle between military institutions, civilian tech-industries, and the global media- and culture industry. Originally, the informal association between the national army and the private defense-industry suppling it was famously labeled the "military-industrial-complex" by President Eisenhower who warned about how the interests vested in this governmental-corporate collaboration could potentially influence public policy. Yet, as new media and entertainment industries emerged,

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73 Jan Mieszkowski, *Watching War* (Stanford, California: Stanford University Press, 2012), 145-46.

74 Carl von Clausewitz, *On War*, ed. Michael Howard (New Jersey: Princeton University Press, 1989), 78.

75 Mieszkowski, 5.

76 Ibid.

the term has eventually been extended in a variety of ways, which signify the even more diverse networks of factors and actors which undergird late modern warfare.

In a contemporary context, the military historian James Der Derian has thus extended on Eisenhower's famous phrase by introducing what he calls the "military-industrial-media-entertainment network"[77] to designate the increasingly complex relationship between war, technology and culture that has become the essential mode of operation in late modern warfare. The consequence is the emergence of a "virtuous war" that unites "technological and ethical superiority to actualize violence from a distance with minimal casualties when possible."[78] This mode of warfare implies a highly mediated mode of war in which "computer simulation, media dissimulation, global surveillance, and networked warfare [are combined] to deter, discipline, and if need be, destroy the enemy."[79] At stake here is, in other words, a mode of warfare in which "operational images" are used directly for military surveillance and elimination as well as indirectly to "frame" the imagination of war in the social imaginary by means of the globalized network of media and entertainment industries. Evidently, this played a crucial part in the unprecedented mediated events of the terrorist attacks on New York in 2001. Accordingly, the immediate response to the attacks can best be characterized as an atmosphere of shock and panic resulting in flawed political responses that called for prompt military action and radically increased surveillance. But, more importantly, it also resulted in a political strategy that aimed at undertaking and operationalizing the realm of the imaginary for highly ideological purposes.

9/11: A "Failure" of Imagination

In his book on national security affect, *Theater of Operations* (2014), Joseph Masco phrases this political strategy as "a conceptual project that mobilizes affects (fear, terror, anger) via imaginary processes (worry, precarity, threat) to constitute an unlimited space and time horizon for military state action."[80] In other words, Masco calls attention to the way the US

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77 James Der Derian, *Virtuous War : Mapping the Military-Industrial-Media-Entertainment Network* (Boulder: Westview Press, 2001).

78 Ibid., 233.

79 Ibid., xx.

80 Masco, 1.

security state apparatus after 9/11 has been increasingly concerned about evoking images of imminent threats from an imaginary field of virtual futures. The vital importance of these post-9/11 militarized imaginaries is perfectly illustrated in the final report by the 9/11 Commission released in July 2004. In this report, the Commission, who was assigned to scrutinize the circumstances of the September 11 attacks including the preparedness and immediate response, stated that much could have been done to prevent the fatal 2001 attacks from taking place. Yet "the most important failure," it declares, "was one of imagination."[81] Given the possibility, or even inevitability, of future attacks, the Commission thus concluded in their final recommendations that it should be "crucial to find a way of routinizing, even bureaucratizing, the exercise of the imagination."[82] What the Commission alludes to with this critique of the "failure of imagination" caused by "a mind-set that dismissed possibilities" is, in other words, a kind of speculative imaginary that can be operationalized, bureaucratized, and militarized into something like a prophylactic crystal ball for envisioning possible threats before they even emerge and become facts.

Whether or not it was with these recommendations in mind, it is well known that this was exactly what happened during the years following the September 11 attacks. As Secretary of Defense, Donald Rumsfeld, notoriously phrased it on a press conference concerning the alleged risk that the Iraq regime possessed weapons of mass destruction, the security state was thus anxiously looking for potential dangers that could be restrained only through careful considerations of the highly speculative domain of the so-called *unknown-unknown*:

> [A]s we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones. [83]

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[81] In a thought-provoking essay, Jan Mieszkowski has noted how the commission's recommendation might be criticized for misunderstanding the word "imagination": "If systematizing the creative faculties of the mind into formulaic prophesies is where the imaginary realm of contemporary security policies are today it indeed risks voiding them their spontaneity," he writes. The result would therefore be "a reactive application of what is already possible rather than a redrawing of the frontier between the real and the fantastic." Jan Mieszkowski, "The Militarized Imagination: On Napalm and Nuclear Warfare," *Low Angeles Review of Books*, May 7 2013. https://lareviewofbooks.org/article/the-militarized-imagination-on-napalm-and-nuclear-warfare/

[82] *The 9/11 Commission Report : Final Report of the National Commission on Terrorist Attacks Upon the United States*, Authorized edition ed. (London: Norton, 2004), 344.

[83] Donald Rumsfeld, "Dod News Briefing - Secretary Rumsfeld and Gen. Myers," news release, February 12, 2002, http://archive.defense.gov/Transcripts/Transcript.aspx?TranscriptID=2636.

In the paranoid political climate of post-9/11, it was thus considered perfectly natural and appropriate to start wars based on unknown-unknowns. And, as indeed not unknown by now, the disastrous Iraq war was just the beginning of the political embrace of imaginary threat scenarios. As Masco notes: the "key innovation of the counterterrorist state is this commitment to using the imaginary to locate danger."[84]

The commitment to these imaginary surveillance and security mechanisms was not simply continued but radically escalated with the Obama administration preference for unmanned targeted killings and rapid airborne assaults over the strategy of capture and interrogation that characterized Bush's presidency. In short, a new military and security paradigm had emerged that revolutionized the war on terror through the logic of preemption. According to Brian Massumi, this logic is inherently linked to the Obama administration's "high-tech, low foot-print" drone program that "converts a future, virtual cause directly into a taking-actual-effect in the present."[85] It is essentially a strategy of world-making aimed at making the imagined future functioning *as if* it was real and factual threats. In this world, truth is always retrospective, or as Massumi notes impersonating the drones: "We, preemptors, are the producers of your world. Get used to it."[86]

At stake here, then, is what I have earlier discussed through different conceptual approaches as a regime of operational images, or, more precisely, of operational *imaginaries*. As discussed above, these operational imaginaries do not merely represent reality; they *produce* reality through their highly powerful and dynamic images dispositifs. In short, they constitute an operative field of shared image-production shaping the broader social understanding, not only of drones but also of the very political situation in the age of security, surveillance, counterterrorism, and drone warfare. Following Massumi and Masco's preemptive logic, the operationalization of the imaginary is mainly future-driven. This means that the security state constructs fictive worlds of danger to which the drone is the only logical response. In other words, the drone imaginary does not solely form the basic background for how the community responds to drone warfare, but also, and even more so, how it responds to the speculative

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84 Masco, 11.

85 Brian Massumi, *Ontopower: War, Powers, and the State of Perception* (Durham: Duke University Press, 2015), 15.

86 Ibid., 14.

futures of possible threats and dangers collected from the imaginary world of the "unknown-unknowns".

While imagination thus arguably has been institutionalized as well as bureaucratized—as both Masco and the 9/11 Commission suggest—I propose that it has also been *militarized* through the dynamics and operational "imagin/actions" that constitute the imaginary field of drone warfare. My claim is that these militarized imaginaries are by-products of the logic of *cruel optimism* that I started out by defining as an inherent part of the imagination of the drone, insofar as they are subject to constant failure and disappointment. As we recall, Berlant defines cruel optimism as a "relation of attachment to compromised conditions of possibility"[87] that will occur "when something you desire is actually an obstacle to your flourishing."[88] In this light, drone warfare—and the War on Terror as such—is haunted by a similar preemptive logic of cruel optimism as the promises and affects it produces are, in fact, compromised by their own speculative and basically unattainable logic.

Similarly, Masco has noted how counterterrorism is essentially subject to its own failure—something that "energizes a hyperactive, and increasingly planetary, U.S. security apparatus, one that is forever striving to realize its imaginary potential."[89] The cruelty saturating this optimistic imagination of drones and other desired technical capacities to predict future threats is therefore evident: Due to the optimistically anticipatory logic of preemption, the drone wars could therefore continue forever. They cannot even be "exhausted through taking action in the world or by factual accumulation," as Masco notes, since "there is always another level to the imaginary, more potential dangers to preempt, other nightmares to locate and eliminate."[90] This is, indeed, how cruel logic of the preemptive militarized imagination works when structuring the broader social imaginary of what I have now defined, and will soon start analyzing, as the drone imaginary.

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87 Berlant, 24.

88 Ibid., 1.

89 Masco, 10.

90 Ibid., 36.

Representing Drone Warfare

When analyzing how relations of cruel optimism are embedded in the social imaginaries and materialized as figures and figurations in discourse, action, and form, the aesthetic archive of cultural drone representations provides a rich resource. While I have mainly been concerned with drawing up the conceptual framework and overall argument of my investigation so far, it is now time for me to clarify my analytical scope including the more specific role that works of aesthetics play in my project as well as in the drone imaginary as such.

As mentioned with regard to Teju Cole's piece on drones, the aesthetic realm provides a unique possibility of reimagining and critically reflecting on drone warfare through literary and artistic representations of embodied experiences and affective practices. Writers, filmmakers and artists can thus be seen as cultural seismographs with highly developed skills in regard to sense changes in our shared social life, in particular including how we go to war. Therefore, art and literature have a distinct potential to communicate cultural sensations of institutional changes or groundbreaking trends such as new technologies and their influence on society as well as on military strategies and operations. They can zoom in on ethical dilemmas, question and criticize common assumptions, and, above all, transform abstract ideas into individual experiences and emotional and affective responses. In short, works of aesthetics provide a privileged form of representation the primary quality of which is to "rehumanize" the increasingly militarized drone imaginary.

However, one should also be aware that the realm of art and culture is not always completely emancipated from the political world it reflects. As emphasized above, there has thus been an increasing military colonialization of aesthetics going on, particularly after 9/11. This entails a risk that aesthetic works can also be carriers of unintended meanings, ideological substructures, and stereotypes, which means that one should be highly aware of certain biases toward supporting, reconstructing, or reproducing the very same ideologies that some of these representations do, or do not, intend to criticize. This is especially true for the growing field of popular cultural representations of drone warfare which has the ability to mold and direct the larger social imagination toward certain ideas of how and why drone wars are being fought. This includes drone films and television series that, at the outset, take acritical stance toward drone warfare, while they overstate the precision and visual capacities of these technologies, thereby constructing an image of the drone as omniscient and surgically precise.

An example—which will be unfolded in more detail in the third chapter of the dissertation—is the television series *Homeland*. The depiction of drones in *Homeland* is

facilitated by an equal part post-9/11 paranoia and techno-fetishism, at best resulting in an ambiguous stance on the practice. In my analyses, I am therefore very concerned about how these works of fiction both construct and reconstruct technological imaginaries as well as political ideas and worldviews. In other words, I do not consider my cultural material to be either explicitly supportive or particularly critical toward drone warfare, although there is a clear tendency toward the critical side. Instead I suggest regarding these selected drone imaginaries as condensed extracts of our contemporary militarized culture and as constituting a privileged field of representation that can provide unique insights into embodied or affective experiences of drone warfare, experiences that tend to be overlooked or neglected in more politico-juridical areas of the academic drone research.

My approach to the realm of aesthetics, and hence to the cultural material I analyze, therefore differentiates from the more traditional understanding of aesthetics as a domain related to ideas of beauty, taste, and enjoyment. When I talk about the aesthetic configuration of drones, I am not merely referring to the way drones are represented by specific forms of "high" and "self-referential" culture, but rather how they are configured aesthetically in the larger social imagination. As already explained in the section on the imaginary, I thus suggest following the original meaning of the Greek word *aisthêsis*, which simply means "sensation," referring to the sensorial domain of human perception. In his philosophy of politics and aesthetics, Jacques Rancière has elaborated this idea of aesthetics as a form of distributed sensibility—or, as it is also translated, a "partitioning of the perceptible"[91]—which he finds to be inextricably linked to politics. According to Rancière, political interlocution therefore is and has always been an "aesthetic of expression" through which democracy becomes sensible to us and where differentiated expressions, gestures, and acts of figuration are allowed to become visible and therefore sensible to the community. The power and capacity to distribute, organize and configure this domain of the sensible is, in other words, what Rancière understands as the politics of aesthetics — and, one might add, politics at large.

This take on aesthetics is particularly important when studying a subject like the culture and politics of drone warfare, which is a critical part of what Timothy Melley refers to as "the covert sphere."[92] In this sphere of the political the primary material in the form of visual

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91 Jacques Rancière, *Disagreement: Politics and Philosophy*, trans. Julie Rose (Minneapolis: University of Minnesota Press, 1999), 57.

92 According to Timothy Melley, "the covert sphere is a cultural imaginary shaped by both institutional secrecy and public fascination with the secret work of the state." Timothy Melley, *The Covert Sphere - Secrecy, Fiction, and the National Security State* (Ithaca; London: Cornell University Press, 2012), 5.

evidence, legal documents, statistical facts, intelligence reports, military procedures, personal experiences, etc., are often highly classified and completely shielded from the eyes of the public. This essentially necessitates a drive to expose and make visible what American photographer Trevor Paglen has called the "blank spots," "dark geographies," and "hidden worlds" of the American military culture[93] that unfolds in the borderland between the visible and the hidden, the known and the unknown. For instance, in a series of photographs that have been exhibited all over the world from Tate Modern in London to the Met in New York, Paglen, documents the appearance of drones in a most peculiar way:

Photos of (barely visible) drones by Trevor Paglen: Untitled (Reaper Drone), 2010; 2014.

As is clear (perhaps by being so radically *un*clear) in the above two photos, Paglen's hazy colored photos depict seemingly empty skies in an almost Abstract-Expressionistic way. Only through a highly attentive inspection is the actual point of interest revealed as the shape of a tiny black spot ominously looming in the fringe of each of the photos. This spot is, of course, the Reaper Drone hinted at by the minimalistic captions of the artworks. At first sight, these spots literally look like *spots* as they could just as well be particles of dust or flakes that have accidentally ended up on the camera lens, on the print, or on the screen (if viewed on a digital platform). Yet, once discovered, these traces of drones are impossible to neglect or forget. Paglen's artistic strategy of concealment and disappearance—indicating a "breakdown of

93 Trevor Paglen, *Blank Spots on the Map : The Dark Geography of the Pentagon's Secret World* (New York: Dutton/Penguin Group, 2009).

representation" inspired by J.M.W. Turner and Gerhard Richter[94]—is therefore the perfect embodiment of the clandestine militarized culture that his artworks mean to expose.

In other words, Paglen constructs a politics of drone aesthetics by rendering the object of such an aesthetic, the drone, (barely) visible. In this way, he deliberately distorts our sensibility toward this type of warfare by making the drone's appearance almost unnoticeable in the corner of a hazy and abstract skyscape. By doing so, he not merely imitates the "regime of disappearance"[95] that drone warfare represents, he also counters the regime by breaking down its political signifiers of representation. What is at stake here, to use Rancière's phrasing, is an aesthetics "that asserts the absolute singularity of art and, at the same time, destroys any pragmatic criterion for isolating this singularity."[96] In short, Paglen's artistic interventions into the covert politics of drone warfare are an example of how the aesthetic regime of art has the power to challenge the "cruel" political configuration of the sensible through artistic reconfiguration and distribution of alternative sensibilities.

Another example of such artistic intervention into the secret political world of drone warfare is British artist James Bridle's *Drone Shadow* installations that covered public spaces, squares, yards, and parking lots all over the world from 2012 to 2015:

James Bridle: "Drone Shadow 002" (2012) and "Drone Shadow 007: The Lavender Hill Drone" (2014)

94 In an interview with *The New* Yorker, Paglen states the inspiration from Turner directly: "For me, seeing the drone in the twenty-first century is a little bit like Turner seeing the train in the nineteenth century." Jonah Weiner, "Prying Eyes : Trevor Paglen Makes Art out of Government Secrets," *The New Yorker*, October 22 2012.

95 Kahn, 226.

96 Jacques Rancière, *The Politics of Aesthetics: The Distribution of the Sensible*, ed. Gabriel Rockhill (London: Continuum, 2011), 23.

As is clear from the photos above, these drone shadows outline 1:1 representations of various military drone aircrafts conveying both the materiality of these aircrafts' physical shape and size as well as the apparent invisibility surrounding them. Like in Paglen's photos, the drones in Bridles installations are conspicuous by their absence (in Paglen's images they were present but barely visible, while in Bridle's work they are not physically present but clearly visible as figural representations). Hence, the drone shadows are, in fact, literally sensible *figurations* of the military drone imaginary that I sketched out earlier.

Moreover, Bridles' drone shadows bring associations to something like a crime scene in which chalked or taped outlines are drawn on the ground to mark evidence and locate bodies of victims. By doing so, the drone shadows become powerful cultural figures that efficiently call public attention to what could be called the specters of drone warfare, that is, to its "politics of violence, of obfuscation, [and] of radical inequality of sight and action,"[97] as Bridle phrases it in a short text entitled *The Drone Shadow Handbook*. In this "handbook", he invites the reader to create his or her own drone shadows based on detailed guidelines including visual prescriptions of how to draw a drone. Bridle's drone shadows are therefore, perhaps more than anything else, significant examples of how the aesthetic regime of drone art functions as an artistic distribution of sensible figures from the political drone imaginary. Accordingly, he emphasizes that his project is "not just a picture of a drone. It is a diagram of a political system."[98] Thus, Bridle's street installations—and, even more so, the guidelines requesting to replicate them in *Drone Shadow Handbook*—are acts of figurations that literally (re)con-figure the larger political drone imaginary in an aesthetically and highly material and practice-oriented way.

When I include Trevor Paglen and James Bridle—two of the arguably most iconic drone artists of our time—in this introduction, it is with the main purpose of illustrating how artistic drone representations can function as a sort of counter-imaginary and aesthetic (re)configuration of the current politics of drone warfare. With the terms of this dissertation, works of aesthetics thus have the potential to challenge the well-constructed and cruelly optimistic political promises entailed in the military drone imaginary. Yet, as I have already pointed out, the field of aesthetics also has another and broader function in the drone imaginary, namely, as a platform for distributed sensibilities—or, put simply, as forms

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97 James Bridle, *The Drone Shadow Handbook* (London: Creative Commons, 2013).

98 Ibid.

through which drones become sensible to us. This broader understanding of aesthetics naturally includes a much wider spectrum of cultural drone representations, implying that there is not just *one* universal drone imaginary, but rather multiple drone *imaginaries*. It is my claim that this more heterogenous palette of drone imaginaries can, in fact, provide a more comprehensive understanding of how drone warfare is imagined and, hence, in which ways it has changed the traditional imaginative structure of warfare. Thus, the drone imaginaries that I explore in this dissertation are not a homogenous or unifying cultural entity, but rather an extensive and volatile field that is in constant negotiation with the ever-changing political strategies, technological developments and military practices that constitute the drone wars of today.

Analyzing Drone Imaginaries: Criteria for Selection

The archive of drone representations I analyze in this dissertation reflects this diverse field of imaginaries. Thus, the selected material extends beyond different genres, media, periods, and cultural spheres— including art, drama, film, television, and literature—thereby constituting a heterogenous aesthetic field which common denominator is the specific representation of military drones. Besides this cultural diversity, a number of selection criteria have naturally guided my collection of material, of which I will briefly summarize the five most important ones:

First, an important criterium of selection has been to find works of aesthetics in which the drone plays a central role as more than just a technological add-on. In the selection and limitation of my material for analysis, I have therefore chosen not to include works in which drones primarily function as a technological "gimmick" or as a symptom of a dystopian future scenario. This would, for instance, include works that thematize automation or artificial intelligence generally and not engage in issues of drone war more—or works in which drones are merely featured peripherally as a *nice-to-have* technology at a pinch of a military operation. In short, I have left out works that have no other reference to drones than simply motivic or thematic convergence. This choice also implies that I pass relatively lightly over the vast genre of science fiction (and its almost infinite number of subgenres) even though this domain could obviously provide a rich resource for drone imaginations. When I have given this domain lower priority in my selection of principal material it is, however, by no means because I regard this corner of the cultural drone imaginary as less important or worthy of critical

analysis, but rather because of limited space available and an aim to focus on how drone warfare is imagined from a contemporary, and partly historical, perspective. The works of imagination I analyze should therefore not be seen as purely speculative or isolated figures cut off from the outside world, but rather as dynamic imaginaries and cultural templates for sense-making that is available to us as a way of understanding and thinking of late modern warfare in the age of drones.

A second principle preconditioning my selection of analytical material is that the works I analyze should generally be anchored in the domain of art and fiction. The selected drone representations should thus be filtered through some sort of aesthetic, narrative, or fictive form creating not merely a mimesis of the world, but an aesthetic (re)configuration that has the potential to challenge or expose our common assumptions of drone warfare as a regime of cruel optimism. This excludes mainly factual drone representations such as matter-of-fact documentaries, personal testimonies (from whistleblowers, victims, etc.) or political documents and statements. This choice is made with an awareness that documentaries are also culturally constructed representations that might draw on aesthetic and narrative elements in their account of reality.[99] Yet, my project is not about aesthetics utilized as an instrument reflect a given reality, but rather about the aesthetic configuration of reality creating a certain affective or artistic experience of drone warfare. Although drone documentaries as well as fact-based reports, journalistic and academic studies, and political documents are present in the dissertation as a sort of background archive based on which the primary analytical material is discussed and contextualized, it is, however, important to note that the cultural drone imaginary I analyze here is not something that exists *out there* in the real world. Rather, the aesthetic realm of drone imaginaries should be seen as cultural constructions and sensible presentations that allow us to see the fragments of reality that has to do with drone warfare.

Thirdly, the works analyzed in this dissertation all have a narrative dimension. Whether it is works of art, literature, drama, cinema, or television, my focus is on how the represented drone imaginaries are constituted through a relationship between words and images. My focus is therefore not primarily on imaginal or visual representations of drones, but rather on how these images are organized and configured into an imaginary-narrative order. In other

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[99] This applies, for instance, to critically acclaimed documentaries such as Tonje Hessen Schei's *Drone* (2013) and Sonja Kennebeck's *National Bird* (2016), which focuses on the testimonies of three whistleblowers and their accounted experiences as former drone operators in the US Airforce.

words, my selected material is constituted by fictive drone figurations that, to paraphrase Berardi, becomes image-*actions*, or "narrative frames for action," as they enter into the larger social imaginary surfing the globalized digital media and cultural productions. With a phrasing borrowed from Susan Sontag, my project can thus be described not as a study of drone images, but of the *captions* accompanying these images providing them with narrative context and meaning. "While the image," as Sontag notes in *Regarding the Pain of Others*, "like every image, is an invitation to look, the caption, more often than not, insists on the difficulty of doing just that."[100] While the invitation to look has been taken up by a large number of artists and activists working with visual representations of drone warfare, the implications of the image *captions* (in terms of explanation, interpretation, and narrativization) are less explored. Thus, a majority of aesthetic drone representations seems to have been dominated by visual culture engaging with issues such as the visuality and invisibility of drone warfare, the techno-vision of the drone, the intimacies and voyeurism of its gaze, etc. This includes, for instance, the two previously mentioned visual artists, Trevor Paglen and James Bridle, whose works are now probably among the most canonized pieces of critical drone art. Yet, as Paglen's minimalistic captions to his drone photos, *Untitled (Drone)*, suggests, there has been significantly less focus on the *narratives* these images are part of. I have sought to remedy this imbalance by selecting works that primarily address the political narratives of drone warfare, but also works in which the narrative structure itself has a key function for the aesthetic configuration of the drone.

The fourth principle for selection relates to the larger narrative of drone warfare and to the historical evolution of military technologies from which the drone can be seen as the latest development. In this context, an urgent and much debated question is whether the drone reflects an entirely new paradigm of warfare, or if it should instead be seen as just another technical device in the military history of aerial surveillance and remote violence (counting, for instance, balloons, bombs, telescopes, snipers, cruise missiles, etc.).[101] As stated previously in the chapter, my approach lies somewhere between these two positions as my understanding of the drone imaginary is anchored in the larger historical narrative of military

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[100] Susan Sontag, *Regarding the Pain of Others* (New York: Picador, 2003), 45.

[101] An instance of this debate has unfolded between Paul W. Kahn and Samuel Moyn, the latter arguing, as a response to Kahn's article "Imagining Warfare", that drone warfare represents a continuum rather than a break with earlier war imaginaries, in particular colonial warfare. Samuel Moyn, "Drones and Imagination: A Response to Paul Kahn," *European Journal Of International Law* 24, no. 1 (2013); Paul W. Kahn, "Imagining Warfare," ibid.: 226.

technologies constituting an archive of collective imaginations that drones inevitably tap into. Yet, it is *not* within the scope of this dissertation to give a coherent and chronological account of this vast historical archive of military drone imaginations. Instead my aim is to show how key formations of our contemporary drone imaginary are modelled after historically crafted imaginaries, in particular as they emerged during the early twentieth century's increasingly mechanized modes of warfare. More specifically, I turn to the writings of Ernst Jünger whose extensive, though often also controversial, depictions of the technical revolutions of warfare (spanning from World War I to the Cold War) will function as a prism through which the origins of today's military drone technologies is indeed better grasped.

Finally, I have omitted certain works from my sample based on a more pragmatic principle of avoiding thematic redundancy in relation to already selected works. As the cultural repertoire of drone representations have rapidly increased in recent years—particularly with popular cultural with "drone thrillers" focusing on how drones are used as highly efficient instruments for counter-terrorism operations—a tendency has emerged toward easily identifiable and nearly identical scenes, situations and scenarios that are gradually becoming established in the social drone imagination. For instance, the phenomenon of "drone pilot trauma" has been extensively represented in multiple films, novels and plays. Rather than making a surface analysis of this relatively large number of works featuring traumatized drone pilots, I have preferred a closer reading based on two major works that, each in their own way, provide an aesthetic reconfiguration of the issues of drone pilot trauma.

In other words, the analytical material of the dissertation is limited to a relatively moderate number of works that I find to be particularly significant in their articulation and representation of the, arguably, most salient forms and figurations of drone warfare (I will return to the specificities of these forms and what qualifies them shortly). These include, in particular, selected writings of Ernst Jünger; George Brant's play *Grounded* (2014); Omer Fast's art film *5.000 Feet is the Best* (2011), the television series *Homeland*; Gavin Hood's cinematic drone thriller *Eye in the Sky*; and the Palestinian novelist Atef Abu Saif's diary *The Drone Eats with Me* (2015).

How the Dissertation is Organized

The dissertation is divided into four analytical chapters in which I analyze how the drone is configured through one or more of the above-mentioned works in relation to certain key figurations. These four figurations, of which I have already suggested the rough outline earlier in the chapter, are respectively: *swarming*, *invulnerability*, *omni-vision*, and *surgicality*. Not only have I found these four figurations to be highly recurrent motives within the cultural repertoire of drone art and fiction, they are also consolidated, authenticated, and well-documented notions in the academic drone literature.[102] In short, these figurations represent what I take to be the most salient modes of late modern remote warfare, covering the principal facets and capacities accompanying the imagination of the drone in war: that is, the drone's historical and technical formation (and increasing automation) through the figure of the *swarm*; its promise of perfect protection through the figure of *invulnerability*; the fantasy of drone vision as an instrument for a totalizing and perpetual surveillance embodied in the figure of *omni-vision*; and, finally, the idealized imagination of drone war as sanitized and "clean" through the figurative notion of *surgical precision*.

While it is my claim that these four figurations are indeed crucial components in the drone imaginary, they are obviously not covering all aspects of drone warfare. Needless to say, there are of course other facets, figures, or themes that could just as well be highlighted in relation to how drones are represented in the imaginary field, for example gender, geography, anthropocentrism, injustice, invisibility, postcolonialism, etc., just to mention a few other important aspects of the drone imaginary beyond the scope of this dissertation. When I claim that the aforementioned four figurations are the most important ones, it is not only because they are recurrent in both cultural representations and the academic drone literature, but also because they can be seen as principal expressions of the cruel optimism that guides the political desire for drones. As previously stated, these desires and fantasies build on an imagination of the drone as a new wonder-weapon combing cutting-edge technologies with innovative military strategies into the mentioned four figurations (swarming automation, perfect protection, total surveillance and surgical precision). My project is ultimately to deconstruct these fantasies and desires by analyzing their configurations in the

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[102] For instance, Grégoire Chamayou make a somwehat similar classification in his seminal *A Theory of the Drone*, in particular regarding the last three figurations, as he speaks of the "invulnerability" and "combattant immunity" of the drone operator; the "totalizing perspective" and "permanent surveillance" of drones; and the so-called "humaniatarian weapon" building on the idea of the drone as surgically precise. Grégoire Chamayou, *A Theory of the Drone* (New York: The New Press, 2015).

aesthetic field, which often contain both an optimistic and a destructive side. In short, the idealization of the drone as well as the corresponding flaws and frailties undermining these idealized fantasies are the focal point of analysis in each of the four chapters.

The first chapter analyzes the drone imaginary in relation to the figure of *the swarm*. Thereby, it investigates the linkage between the drone and its etymological origin in entomology (as the word "drone" both refers to the sound it makes and to the male honey bee). More specifically, the chapter examines how insects have functioned as both metaphors and models for new military technologies, and, moreover, how this linguistic and historical emergence and formation of the drone as an "insect-machine" has evoked feelings of uncanniness and fear in the human encounter with technology. This figure can be seen as an expression of cruel optimism because of its inherent logic and basically optimistic imagination of technological progress as a natural, almost evolutionary, process. In this process, however, cruelty is evident when the technology either fails or runs out of control. Nowhere is this historical drone imagination better registered than in the writings of Ernst Jünger whose experiences from the front of World War I form the basis for his, often controversial, texts about war, technology, and totalitarianism. In the light of these early writings, I analyze the figuration of drone swarming in Jünger's novel *Die Gläserne Bienen* (*The Glass Bees*), a story envisioning a futuristic scenario of drone-like robot bees. Published in 1957—a few years after the famous Macy conferences on cybernetics (1946-1953)—the novel arrives in the dawning era of computer networks and automation. In this historical context, *The Glass Bees* can be read as a tale about the uncanny disorientation and displacement of the human body in the age of intelligent machines. Thus, the chapter investigates how the special "cybernetic" kinship between drones and insects works as a principle figure not only in the works of Jünger but in the aesthetic realm of the drone imaginary as such. In the chapter, I further argue how this organic-mechanical hybridization of biological insects and mechanical machines augurs the emergence of the drone as a provider of security, surveillance and precision, thus enclosing the following three figurations through its drive to see everything while staying invisible and invincible. In short, the first chapter has a twofold purpose: on the one hand, to analyze the historical and aesthetic configuration of *swarming* in Jünger's writings in relation to the drone imaginary and, on the other hand, to use Jünger's historical drone imagination as a prism through which the following three figurations can be examined.

The second chapter takes up one of the key threads from the historical analysis of the previous chapter, namely that of *invulnerability*. While the imagination of a steely machine-warrior-worker gestalt was one of Jünger's probably most controversial ideas developed

during his quasi-fascistic period in the early 1930s, this idea has indeed been further developed with present day deployment of remotely controlled drones. Thus, the second chapter winds forward to present time and examines how this fantasy of perfect invincibility is rooted in a desire to remain untouched and unscathed, and to keep the body of the drone warrior safe and sound. The chapter conceptualizes this fantasy of absolute protection through the Derridean idea of "indemnity" (referring to the immunization of the body in order to keep it safe) and more recent theories of immunitary democracies. Moreover, the chapter analyzes the figure of drone indemnity through two works of aesthetics; namely George Brant's critically acclaimed play, *Grounded* (2014), and Omer Fast's film, *5.000 Feet is the Best* (2011). As both of these works reflect the fantasy of perfect invulnerability, they also engender a corresponding vulnerability, also known as drone pilot trauma. The chapter discusses how this trauma of killing without risk, embedded in the figure of drone (in)vulnerability, is artistically represented without fetishizing neither the trauma nor the technology.

With the focus on *omni-vision* in the third chapter, I continue to investigate the drone as a provider of security and safety although moving from the protection of the individual drone operator's body to the desire for keeping the larger political body and security state intact and safe. Thus, the chapter analyzes the issues of drone vision as a fantasy of "unblinking" total surveillance and endless information supported by an imagination that war waged with drones would make the world not only safer but, in fact, totally safe. This imagination of the all-seeing eye of the drone is analyzed through contemporary popular cultural representations, and in particular through the television series *Homeland* (2011-). In the chapter I discuss the drone gaze as a prosthetic extension of Bentham's famous panopticon by which new intimacies are established through the desire and technical capability to see and know everything. However, the analyzed works also tell another story, challenging the imagination of total surveillance as a provider of perfect security, namely, that the era of big data drone surveillance—with its endless combinations of visual data and limitless information—also introduces new interpretative problems for the human subject facing an anarchic mosaic of big data drone surveillance, problems that expose the fantasy of total surveillance as an impossible and therefore cruel logic that turns out to be a symptom of the political paranoia characterizing the Western war against terror.

In the fourth and final chapter, I zoom in on the figure of *surgicality* by scrutinizing one of the probably most pronounced metaphors in the political discourse and cultural imaginary of drone warfare, that is, the much-praised "surgical" precision by which drones allegedly eliminate high-profile targets with a minimum of unintended civilian casualties. Yet, the

chapter questions this common imagination of the "surgical" drone through an analysis of two very different works: Gavin Hood's cinematic drone thriller *Eye in the Sky* (2015) and Atef Abu Saif's literary Gaza diary *The Drone Eats with Me* (2016). Not only do these works represent two completely opposite perspectives on drone surgicality—the one *from above*, and the other *from below*—they also provide a cultural contrast that counterbalances the otherwise mostly Westernized imaginaries dominating the common perception of drone warfare. In the chapter, I therefore discuss how the film's tendency to cinematically fetishize the drone's technical proximity and target precision is contrasted by the Palestinian writer's literary depiction of living in constant fear of the drones, whose enervating whirring is a constant reminder of their omnipresence and power to crumble an entire city and landscape. This latter aspect of the conspicuous inaccuracy of Israeli drone raids, aesthetically configured through Abu Saif's rich prose, thus leaves the imagination of a surgical precise weapon rather flawed. Hereby, the chapter once more demonstrates how the politics of drone warfare follows the logic of optimism which is *cruel* in so far as it is bound to obstruct itself.

The respective analyses of key cultural drone representations in relation to salient figurations of drone warfare in these four chapters will hopefully provide insights into an alternative aesthetical drone imaginary which both challenges and questions the common political fantasies of the drone as a new wonder-weapon. The dissertation thus aims to contribute to the rapidly growing field of cross-disciplinary research into drones, a field which so far has mostly focused on the political, juridical, and ethical aspects of drone warfare and less on the imaginary, cultural and aesthetic constructions and configurations vibrating beneath these debates. With its heavy focus on aesthetics—including literature which tends to be particularly underrepresented in the drone imaginary—it is thus my intention to shed light on these less discussed aspects of the drone imaginary, filling up at least some of the craters in the academic drone research landscape.

CHAPTER I

SWARM OF STEEL

Automation and Insect-machines in Ernst jünger's The Glass Bees

> I distinguished diverse models—almost colonies—of automatons [*Automatenvölker*] which combed the surrounding fields and shrubs. Creatures of especially strong structure bore a whole set of proboscises which they dipped into umbels and flower clusters. Others were equipped with tentacles that closed around the tufts of the blossoms like delicate pincers, squeezing out the nectar. Still others remained a puzzle [*rätselhaft*] to me.[1]
>
> *Ernst Jünger,* The Glass Bees (1957), 91

> The unmanned drones, performing the spying and striking tasks for which the Predators have become notorious […] are about to be shrunk to the size of birds, but preferably insects (the flapping of insects' wings is ostensibly much easier to imitate technologically than the movements of birds' wings). [2]
>
> *Zygmunt Bauman,* Liquid Surveillance (2013), 23

Consider the two quotes: This is how unmanned aerial vehicles look like in two highly different depictions ranging more than 50 years, that is, in Ernst Jünger's futuristic novel, *The Glass Bees* (*Gläserne Bienen*), from 1957, and in the philosophers Zygmunt Bauman and David Lyon's conversation book, *Liquid Surveillance*, from 2013, respectively. Even though half a century separates the two drone figurations, they nevertheless seem to have several traits in common, that is, the envisioning of drones as *insect-machines* as the perhaps most important one. As we will see in this chapter, the miniaturized hybrids are in fact crucial to grasp the

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1 Ernst Jünger. *Gläserne Bienen. Sämtliche Werke,* bd. 9 *Erzählende Schriften I.* Stuttgart: Ernst Klett Verlag, 1978, p. 459. This and the following English translations are from the 1960 translation of the book by Louise Bogan and Elizabeth Mayer: Ernst Jünger, *The Glass Bees*, trans. Louise Bogan and Elizabeth Mayer (New York: The Noonday Press, 1991). The following paging in parenthesis refers to this translation, while in longer quotes, or when considered relevant, the original German version is put in footnotes (referenced to as the above edition of *Sämtliche Werke*, in the following referred to as *SW*, volume: page).

2 Zygmunt Bauman and David Lyon, *Liquid Surveillance: A Conversation* (United Kingdom: Polity Press, 2013), 23.

larger historical background of the drone imaginary, and in particular the figuration of drone *swarming*. However, before I elaborate further on this claim, I will briefly introduce the robotic insects in Jünger's *The Glass Bees*.

As hinted in the opening quote, the novel is set in a not too distant future where advanced micro-robots are rapidly taking over human jobs. The narrator, Captain Richard, an unemployed former cavalry officer, feels lost in this new world of autonomous machines. Nonetheless he accepts a job interview with the mysterious Zapparoni, an industry magnate specialized in designing miniature automatons to do the most risky and undesirable task such as "handling explosives, dangerous viruses, and even radio-active materials."(7) Moreover, it is implied that the robots could be used for military purposes as they are described as "ingenious weapons." During the job interview, our narrator is left alone in a picturesque garden with swarming bees whose true robotic nature he soon discovers, but which also puzzles him. The quote above reveals the narrator's ambiguity toward the swarming insect-machines: Are they mechanic "models" or organic "swarms"?[3] Are they "automatons" or "creatures" [*Tiere*])? Do they use mechanical "pincers," or is it organic "proboscises" and "tentacles?" These questions not only trigger the narrator's puzzlement but also mark an important epistemic and historical link in the drone imaginary that is related to the drone's hybrid status between the natural and artificial.

The chapter investigates the linkage between the drone and its historical origin in what I will call the *insect-machine*. More specifically, I will analyze how insects have functioned as both metaphors and models for new military technologies, and, moreover, how the linguistic and historical emergence and formation of the drone as insect-machine has evoked feelings of both optimism and fascination as well as uncanniness and fear. Published in 1957—a few years after the famous Macy conferences on cybernetics (1946-1953)—the novel arrives in the dawning era of computer networks and automation. In this context, the chapter shows how the human encounter with technology is driven by a *cruel optimism* that is accurately registered in Jünger's writings through imaginations. Due to the mechanical and radical non-human principles underlying insect anatomy, the insect-machine blurs the boundaries between organic and mechanic, thus recalibrating the dualisms insect-machine and human-machine. My claim is that this blurring marks a reconfiguration of warfare toward a new technological order entailing an increased objectification and dehumanization of the body on the battlefield, a reconfiguration that was already present in

[3] The German word "völker," i.e. "*people*," has even more anthropomorphic connotations to human-like communities than the translators' choice "colonies" implies.

an early stage during World War I, yet escalating throughout the twentieth century to the present.

The focus of the chapter is to examine the technological reconfiguration through a selection of both early and late texts by Jünger. More specifically, besides of course *The Glass Bees*, the writings include his diaries from the trenches of World War I, *Storm of Steel* (*In Stahlgewittern*, 1920) as well as his essays on technology from the interwar period. With the historical as well as literary material, the aim is therefore neither to provide a coherent history of drone warfare nor of Jünger authorship. Rather my aim is to propose a historically qualified framework for the four figurations that I have claimed to be the key in constituting the drone imaginary and, above all, that of the *insect-machine*. In the following, I will therefore begin with a historical introduction to this figuration before I move on to Jünger's early writings, and finally I will return to the narrator's encounter with the robotic insects in *The Glass Bees*.

Insects at War

While the initial examples of drones shaped as insects might bring associations to science fiction, insects have been used as models for military technologies for ages. Since ancient times, catapulted hives, wasp warheads, fighting ants, and bacteria-laden fleas have played a veritable role in the history of warfare.[4] In modern times these alternative uses of insects for military purposes have become increasingly mechanized. For instance, in 2006 the US military research agency DARPA (the Defense Advanced Research Projects Agency) launched their so-called "Hybrid Insect" program with its tiny cyborg insects designed for a new "battle-swarm doctrine," in which swarming micro-drones are envisioned to play an increasingly important role as ever more stealthy and weaponized surveillance systems.[5] With names such as the Wasp, the Killer Bee, and the Black Hornet, new generations of military nano-drones are also modeled and named after insects. In fact, bioengineers have already developed innovative insects with microchip technology installed inside them, thus creating

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4 For a thorough history of entomological warfare, see: Jeffrey Alan Lockwood, *Six-Legged Soldiers : Using Insects as Weapons of War* (New York: Oxford University Press, 2009).

5 For more information on RAND and swarming, see Edwards (2005).

"cyborg moths" and "flying beetles" which can be remote controlled.[6] In other words, to our contemporary ears the techno-entomological kinship between insects and machines suggested by Jünger and Baumann above appears to be anything but future music.

While the mechanical insects in Jünger's *The Glass Bees* are the primary case study, the insect-machines can be traced elsewhere in Jünger's writings. As a soldier, thinker, writer, and entomologist, he examined in depth the intersection between insects and machines throughout his extensive oeuvre. Although probably best known for his front experiences of World War I—presented in a cold, detached voice in the war diary *In Stahlgewittern* (1920)—Jünger's entire authorship is occupied by an attempt to understand technology and its relation to nature, specifically to the realm of insects.

Especially the latter is pronounced in detail throughout his descriptions of the natural world and its six-legged inhibitors. As Andreas Huyssen has noticed, "when storm trooper Jünger was not leading an attack on English troops, he kept himself busy at the front as a botanist and bug collector."[7] In short, Jünger's works literarily swarm with insects and entomological imagery in a mixture of scientific observations and creepy-crawly metaphors. For instance, in his war diary the sounds of bombs and shells are frequently described as "mosquito-like droning" and the bullets "rushing and buzzing" above as "swarms of bees."[8] Not only do these metaphors mark a growing interest in the insect world practiced by Jünger, other entomologists, and amateur devotees at the time, they also reveal a distinct focus on insects as a way of understanding new technologies of warfare.[9]

Yet, behind the references to entomology, a more disturbing undercurrent runs through Jünger's world of insect-machines in the form of another, yet closely related, imagery: that of the fascist *machine-warrior* or, in Jünger's own terminology, the "worker-gestalt," which was his vision of a new steely warrior-type unfolded in the treatise, *Der Arbeiter* (1932). While it is not my ambition to give a detailed account of the historical and ideological background

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6 Nick Turse, "Weaponizing the Pentagon's Cyborg Insects: A Futuristic Nightmare That Just Might Come True," *Guernica*, March 31 2008.

7 Andreas Huyssen, *Miniature Metropolis, Literature in an Age of Photography and Film*, ed. Andreas Huyssen (Cambridge: Harvard University Press, 2015), 239.

8 Ernst Jünger, *Sämtliche Werke* (Stuttgart: Klett-Cotta, 1978), bd. 1. 193, 253, 95.

9 According to Jussi Parikka, in the early "entomology spread much beyond its confines and interfaced its agenda with those of technology and philosophy." Jussi Parikka, *Insect Media : An Archaeology of Animals and Technology* (Minneapolis: Univ Of Minnesota Press, 2011), 2.

underlying the worker-gestalt,[10] I prefer to see how it colors the historical drone imaginary as a proto-fascist desire for control and enhanced, surgical vision—a desire that marks a shift in the perception of warfare toward growing objectification of human bodies emerging from the mechanized battlefields of World War I.

For Jünger, though, the experience of warfare is not only represented aesthetically as a fascist imagery of steely machine-warriors, but also rendered through a particular "armored" and "fortified" style of writing. In other words, Jünger's works are characterized by technological detachment in more than one sense: While they thematically convey a traumatic confrontation between man and machine, they also stylistically perform a depersonalized and objectified mode of representation in the form of cool, detached observation. Thus, Jünger's techno-entomological gaze works, as Andreas Huyssen has noted, as an "armored eye that tries to wrench order and control from chaos, confusion, and terror." [11] Through this cool gaze, human beings are reduced to the size and value of insects, objects of examination and classification, thus dehumanizing individuals turning them into specimen for microscopy and scientific examination.

While the backdrop of both fascist and entomological imagery in Jünger's writings are well-treated by Jünger-scholars, these aspects have not received much attention by drone researchers. This is not to say that Jünger's works are completely neglected in the drone literature. The evident analogies between the swarming micro-robots in *The Glass Bees* and contemporary drone technologies have not surprisingly been noticed by several drone scholars in the field of humanities. For instance, Roger Berkowitz uses Jünger's robotic bees to problematize the question of the human in the intercourse with intelligent machines[12] while Devin Fore reads *The Glass Bees* as an accurate registration the transition to a new, posthuman technological order of computers. Yet, while scholars like those mentioned above have mostly read the novel as a decisive critique of new technologies,[13] I will propose an alternative reading by drawing lines to Jünger's earlier, and definitely more technophile, war writings.

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10 For an extensive examination of Jünger's fascist inclinations, see Klaus Theweleit, *Männerphantasien* (Frankfurt am Main1979).

11 Andreas Huyssen, "Fortifying the Heart - Totally : Ernst Jünger's Armored Texts," *New German Critique*, no. 59 (1993): 15.

12 Roger Berkowitz, "Drones and the Question of the Human," *Ethics & international affairs* 28, no. 2 (2014): 162.

13 However there are exceptions, see for instance: Allen Feldman, "On the Actuarial Gaze," *Cultural Studies* 19, no. 2 (2005).

As echoes of the past, these works—and the fascist ideology permeating them—are suitable tools for analyzing the drone imaginary as it appears in *The Glass Bees* as a robotic "swarm of steel." Yet before elaborating this claim, let me first dwell a bit more on the historical context and theoretical background of insect-machines and how they connect to Jünger's techno-entomological perspectives on modern warfare.

The Age of Entomorphic Technology

As mentioned, the analogies between Jünger's robotic glass bees and today's miniscule drones, also called microelectromechanical systems (MEMS), are clear and present. With their scale "decreased to something the size of a Chinese curio," (6) Zapparoni's Lilliputian robots indeed seem to come straight out of any recent study on new surveillance regimes. Besides the already stated example of the opening quote, David Lyon and Zygmunt Bauman also discuss "the rise in the number of drones reduced to the size of a dragonfly or of a hummingbird comfortably perching on windowsills."[14] One such example is the only four-inch long micro-drone with the name "Black Hornet," widely used by more than 19 NATO-allied countries to provide full motion live video feeds on the battlefield. In *The Glass Bees,* the narrator, Captain Richards, observes a similar type of micro-drones in Zapparoni's garden, which he strikingly describes as "hornets" ["hornisse"]. These robots are larger than the usual bees, "about the size of a walnut and completely transparent." (92) Richards' impression of these mechanical hornets derives mainly from the "glitter of their movements as seen in the sunlight" while they remain "almost invisible."(92) Concordantly, Baumann predicts the next generation of drones to be "comfortable invisible—literally as well as metaphorically—[…] while making everything else accessible to be viewed."[15] In short, the future generations of smooth and almost invisible micro-drones confirm what Baumann has described as a transformation into a "liquid" modernity of increasingly fluid and dynamic surveillance platforms.

Yet, the invisibility is part of a larger history of the disappearance of the human body from the battlefield in favor of biologically optimized machines such as robotic insects.

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14 Bauman and Lyon, 22.

15 Ibid., 23.

Accordingly, Lyon and Baumann mention the hawk moth as a prototype for next-generation drones because of its "exquisite aerodynamic skills," its "hovering skills," and its "potential to leave far behind anything 'our clumsy aircraft can do'."[16] They hereby touch upon a century long tradition among entomologists and technical innovators for recognizing the mechanistic principles underlying insect anatomy and perception.[17] As a matter of fact, the hawk moth featured prominently in a 1922 volume of *Science* by the entomologist E.P. Felt, who envisioned the airplane through insect technics. The monoplane, he stated, "does not differ greatly in its general proportions from those of our hawk moths," whereas the biplane was considered "almost a duplicate of a pair of dragon flies, one flying above the other; both models that have been favorites in the insect world for thousands of years."[18]

Yet, the history of biomimetic insect-machines has even deeper roots. In the mid-nineteenth century entomologists thus discovered the potentiality of insects as technical innovators. For instance, the two entomologists, William Kirby and William Spence, realized the martial aspects of insects in their classic *An Introduction to Entomology* (1858) as they described horseflies as war machines: "Wonderful and various are the weapons that enable them to enforce their demand. What would you think of any large animal that should come to attack you with a tremendous apparatus of knives and lancets issuing from its mouth?"[19] Among the pioneers of insect technics in the nineteenth century, the artist and scientist Etienne-Jules Marey was an equally important figure. In 1869, he created an artificial insect as a case study for measuring the flight patterns and the locomotion of insect wings. In fact, Jünger could easily have found inspiration to his glass bees in Marey's mechanical reproductions of organic insect movement, which was first published in *La Machine Animale* (1873).

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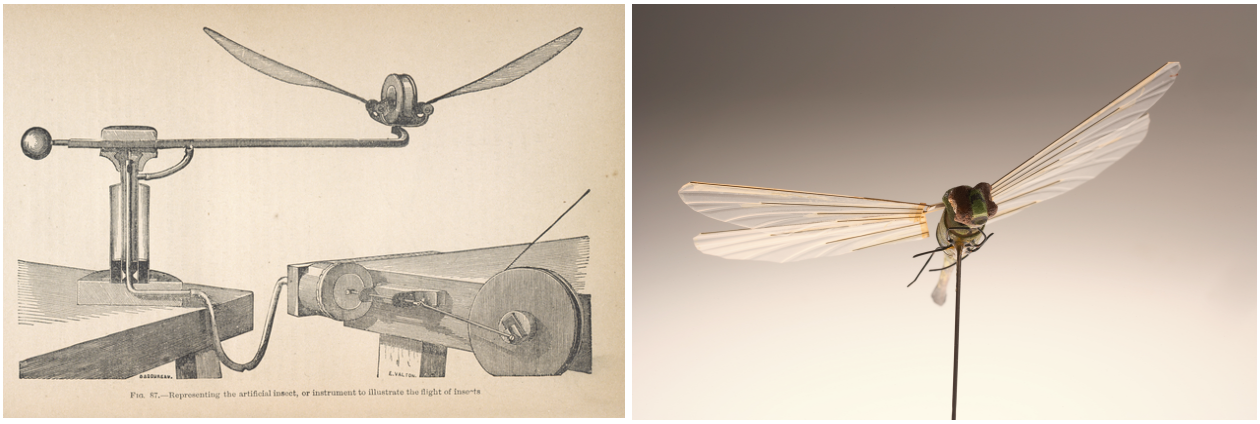
16 Ibid.

17 Parikka, 12-13.

18 E. P. Felt, "Bugs and Antennae," *Science* 55, no. 1429 (1922).

19 William Kirby and William Spence, *An Introduction to Entomology* (London1858), 85-86.



Étienne-Jules Marey's "Insect Flight Machine"(1869) and CIA's Dragonfly "Insectothopter"(1970's, exhibited at CIA Museum)

Marey's mechanical creation received massive attention in the newspapers and was furthermore noticed by the US military, who saw great potential in the machine as a model for an aerial solution to warfare. Ironically, about one hundred years later, the CIA invented a similar device as they tested a robotic dragonfly named the *Insectothoper* during the 1970s. According to CIA, this "bug-carrying bug" was to be used as a flying listening device "intended to prove the concept of such miniaturized platforms for intelligence collection."[20] Though never fully operational due to high sensitivity to crosswinds, the Insectothopter nevertheless illustrates the creativity and skills of imagination in an intelligence agency that shared the fascination of insect technics with the entomologists of the former century.

In short, insects not merely functioned as metaphors and models for the pioneers of engineering; they in fact opened up a whole new dimension for technical imagination and alternative ways of sensing. Marey, for instance, expressed deep interest in the sensory potentialities of his mechanical insect as he noted how it represented a new and much more precise mode of perception: "When the eye ceases seeing, the ear hearing and the sense of touch feeling, or when our senses give us deceptive appearances, these machines are like new senses of astounding precision."[21]

For Marey, the locomotion and sensation of insects thus made exemplary case studies for his prolonged monitoring of bodies in movement. But also other artists and technical

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20 The Insectothopter is exhibited at the CIA Museum in Virginia as part of the collection "Looking back to see the Future," 2008: https://www.cia.gov/news-information/featured-story-archive/2008-featured-story-archive/cia-museum.html

21 Étienne-Jules Marey, *La Méthode Graphique*, (Paris: G Masson, 1878), 108. Quoted in Parikka, 17.

innovators were inspired by the "radically alien mode of entomological vision" with its thousands of sensors. For instance in 1898 a writer even got the idea of "photographing through a fly's eye as a mode of experimental vision," and in another effort Queen Victoria was attempted caught by "the most infinitesimal lens known to science, that of a dragonfly." [22] This is just one out of many examples of how technology and art has imagined ways of imitating the "thousand-faceted eyes of the insect." [23] Also in visual systems "insects' compound eyes represented a powerful example of biologically inspired computation," just like biomimetics opened up "a new field in engineering nature-like behavior such as locomotion, navigation, and vision." [24]

Just like Marey and other entomologists preceding him, Jünger too regarded entomology as a window into new worlds and dimensions of technical imagination. For instance, the mechanical glass bees in *Gläserne Bienen* are described by the narrator as "not so much a new medium [Mittel] as a new dimension, opened up by an inventive brain." (102)[25] In similar phrases, Jünger some years later described his passion for "subtle hunts"—a recurring euphemism for his studies of insects—as a practice in which "the world is enlarged through a new dimension, partly as fitting engrams in review, partly as surprises."[26] For Jünger, insects marked not only an important source of inspiration for technological imaginary, but also a gateway into alternative worlds.

Jünger's idea of insects as new media—or even new dimensions—turns our attention to recent trends in media studies. Here I think in particular of the media archeologist Jussi Parikka, who offers a concordant and highly interesting theory of insects *as* media and mediation in his book *Insect Media* (2015). Drawing especially on the works of Henri Bergson, Parikka explores how the insect logic forms the basis of new technologies such as autonomous machines and networked computer systems. Yet quite surprisingly, he never breathes a word about drones and only brushes lightly upon the military aspects of insect-machines, for instance in the case of MEMS. Regardless of whether this de-selection of *drone-media* is coincidental or a mere rejection of the too obvious, Parikka surely touches upon a number of

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22 Ibid., 7.

23 Ibid., 90.

24 Ibid., x.

25 *Gläserne Bienen*, 468: "Es war weniger ein neues Mittel als eine neue Dimension, die der erfindende Geist anbahnte, ein Schlüssel, der viele Kammern öffnete."

26 Jünger, *Subtile Jagden* (1967), Jünger, *Sämtliche Werke*, bd. 4, 199.

key aspects of the drone imaginary salient to Jünger's writings. Especially, his idea of *insect technics*, borrowed from Bergson, opens up new insights into the mechanical worlds of insects and their extended sensorial capabilities. Here, the notion of insect technics works beyond the binary distinction between natural instincts and intelligent technics. Indeed, instinct is seen as a prosthetic mode of adjusting into the environment. Instinct should not, then, be understood solely as automated reflexes, but as "mechanisms whose relations are felt rather than thought of in an abstract way."(22) *Intelligence*, on the other hand, is another form of technological orientation, which transcends the material world of instincts and opens up "whole new worlds by extending the capacities of the organism."(21) In short, instinct and intelligence work as two different modes of insect technics, the one in immanent continuity of the natural world, the other in an abstract, analytical, and innovative way.

In line with Bauman's imagination of the next generation of insect-like drones—for instance mechanized moths and hornets—one could think of the moth automaton designed in 1949 by Norbert Wiener, one of the founding father of cybernetics, as part of his experiments on feedback in early phototropic and computing machines. Wiener's idea of the moth automaton was to create simple autonomous machines able to learn from the past with the help from light sensors (imitating the moth's reaction to light) and feedback data. And Wiener's mechanical moth was not an isolated case. It was, in fact, part of a veritable "cybernetic zoo" emerging around the 1950s [27] as outputs from the famous Macy Conferences on Cybernetics (1946-1953). Insects and animals were the top of attention on these conferences, which for instance counted William Grey Walter's robot tortoise. Niels Werber, among others, has noticed[28] how Jünger sends his subtle regards to Walter's tortoise as Richards notes how Zapparoni's robots "had started with tiny turtles."(6) Accordingly, Jünger was highly inspired by the cybernetic models and prosthetic hybrids between machines and living organisms, of which several references in his later works bear witness. For instance, the automatons in *The Glass Bees* are described as "artificially natural" regulated by some "central control or principle." (94)

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27 As Parikka notes, "a whole cybernetic zoo emerged after the Second World War, ranging from William Grey Walter's robot tortoises to Norbert Wiener's moth automata that reacted to light (the moth working toward light, the bug running away from light) and from Claude Shannon's maze-solving rat devices to the interest in ant and bee communication that emerged in the midst of the Macy conferences." Parikka, 123.

28 Niels Werber, "Ants and Aliens. An Episode in the History of Entomological and Sociological Construction of Knowledge," *Berichte zur Wissenschaftsgeschichte* 34, no. 3 (2011): 254.

Even more significantly in the context of *The Glass Bees*, The Macy conferences also fostered a strong interest in ant and bee communication intended as social and military tools required for the new post-industrial turn to informatics- and network societies. Placed in this historical context, *The Glass Bees* marks an equally significant turn in the authorship toward a changed perception of technology and warfare much influenced by the post-industrial era of computers, quantum physics and micro engineering. Published in 1957, a few years after the Macy conferences and just one year prior to the foundation of DARPA, the novel arrives amidst one of the coolest periods of the Cold War with its already-accelerating pace of technology. Devin Fore has convincingly placed the novel in this historical context as a tale about the reorganization of technology and consequential displacement of the human body. Interestingly, Fore associates the shift in technological order with metrification—the reformation and replacement of the old anthropomorphic measurements (the foot, the ell, the inch, etc.) with metric units, leaving behind the human body as an indicator of scale.

In this light, Zapparoni's robotic bees break with the anthropomorphic standards dominating the industrial age, which makes it difficult for Richards to even estimate the size of the bees: "The objects in question," he states "were beyond my experience, and there was, moreover, no norm in my consciousness. Measure depends upon previous experience."(107) Moreover, Fore links this reorganization of scientific measuring to entomology claiming that for Jünger the atomic age would be an entomic one: "The substitution of the human body by that of the insect, both as an indicator of scale and an anchor of experience, marks an epistemic threshold that separates the 1920s from the 1990s," he writes (Fore 2008, 29). While the "entomic age" was not truly realized until the 1950s, it was, Fore asserts, already underway in the first half of the twentieth century. Yet, his analysis does not go into details with this premature stage of entomological entrepreneurship and how it influences Jünger's earlier war-writings.

To provide a historical background, however, the entomic connection, suggested by Fore, between Jünger's glass bees and the post-industrial era of computers and nano-machines, can indeed be a useful place to begin when approaching the drone imaginaries in *The Glass Bees*. However, there is another historical background lurking simultaneously as a subtext to the novel, namely that of the aforementioned fascist-warrior imaginary saturating Jünger's earlier war writings. These two different historical backgrounds might not be as contradictory as they might seem; instead they can be read as two sides of the same techno-entomologic coin, as both of them seem to articulate the disappearance of the body of the human soldier in favor of still more mechanized insect-machines. I will now take a closer look

at how this transformation initially emerges in Jünger's texts as a totalitarian desire for *invulnerability* in the form of the "worker gestalt," while eventually changing again to the insect machine as a mutation from workers to drones.

From Workers to Drones

The micro drones in *The Glass Bees* certainly seem strangely modern from a twenty-first century *technological* viewpoint. Nevertheless, the *literary* style of the novel remains far from modernistic.[29] The story is narrated in an old-fashioned, stylized, almost kitschy, voice by the estranged Captain Richards, whose idea of warfare is frozen in a somewhat romantic codex of virtuous heroism and glory horsemanship: "These were not the great days of the cavalry" (43), the narrator exclaims as a melancholic reply to the escalating technological progress. This lament over the old martial code—unfolded through numerous flashbacks to Richard's past as a cavalry man—is thus in stark contrast to the high-tech mechanisms surrounding him in Zapparoni's garden. Yet, the transition from an old to a new mode of war, from virtuous to virtual war, might be more complicated than that in *The Glass Bees* as the instigation of a new technological order cannot but echo Jünger's early texts on automation.

Certainly, there are clear traces of Jünger's own past in the character of Captain Richards. As one of the highest decorated German soldiers of World War I,[30] Jünger idolized the old virtues of warfare—the bravery, danger, risk, and, of course, the violence—but at the same time he also welcomed the technological progress and increasing mechanization of the battlefield during World War I. However, Jünger found his own way of conflating what he understood as the old "natural" virtues of warfare with the new technological order by fusing man and machine into the cyborg-like warrior in the form of the "worker-gestalt" presented in his influential essay *Der Arbeiter: Herrschaft und Gestalt* (1932).

Published in 1932, it would be too kind to call *Der Arbeiter* a product of its time; rather it added fuel to the National Socialist's fire as Jünger (complemented by his colleagues and

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29 One of the fiery debates in the area of Jünger research is exactly whether Jünger should be considered a modernist or not; most prominently, scholars such as Hal Foster and Andreas Huyssen has argued against the modernistic position claiming the reactionary and cultic to be totally contradictory to modernist prose. See: Huyssen, "Fortifying the Heart - Totally : Ernst Jünger's Armored Texts."

30 Jünger was wounded seven times during the war, and among other medals of honour he received the highest military decoration of the German empire, Pour le Mérite.

friends Carl Schmitt and Martin Heidegger) formed a central figure in the conservative revolution. *Der Arbeiter* can arguably be read as the culmination of Jünger's intellectual contribution to the revolution, mixed with his own personal doctrine of technology in terms of an unconditional embrace of a mechanical post-humanity. The idea in the essay—and in many of Jünger's other writings during these years—is briefly stated that World War I marked a decline of bourgeois society and opened for a new class of warriors, more specifically the "Gestalt of the Worker" "Der Arbeiter Gestalt"].

In spite of the name, Jünger's worker-gestalt had nothing to do with a Marxist understanding of a specific class or product of historical materialism. Rather, Jünger's understanding of the Worker was more like an ahistorical, structural principle, a furious force rising from the ashes of the war in the manifest form of a new caste of hardened, steely warriors incapable of feeling pain or pleasure. As in particular Andreas Huyssen has insisted, Jünger's idea of the Worker can be seen as a logic causality, or casualty, of his traumatic memories from World War I. While I shall return to this traumatic link at the end of the chapter, the swarming robot bees in Zapparoni's garden are the natural continuation of this line of thought. In particular concordance with the description of the robotic glass bees in *The Glass Bees* (as they appear, for instance, in the quote opening this chapter) Jünger consistently defined the worker as "organic constructions,"[31] that is, as a fusion of organic and mechanic in the prosthetic coupling of man and machine, or perhaps *insect* and machine.

Accordingly, the bees in *Gläserne Bienen* appear exactly as *constructions* to the narrator, more specifically as "distinct units working as mechanisms, that is, not at all in a purely chemical or organic fashion."(6)[32] The small robots are neither entirely synthetic, nor purely organic. Rather they look and behave disturbingly much like real insects. For instance, a particular large type of insect, which Richards simply refers to as the "Smoky Gray," is described with great agency as a "controlling force or a cell transmitting orders" that hovered "almost motionless in mid-air, its feelers jutting forth."(140) Richards keeps a particularly sharp eye on this one as he tries to discover "whether changes in the crowd of swarming automatons corresponded to its movements or followed upon them."(107)

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31 Jünger, *Der Arbeiter*, (SW 6:127).

32 Jünger, *Gläserne Bienen,* (SW 9:376): "Dort wirkten sie wie intelligente Ameisen, aber immer noch in Einheiten, die als Mechanismen, also nicht etwa auf eine rein chemische oder physikalische Weise arbeiteten."

Also in a more literal sense, the robotic bees are preceded by *Der Arbeiter* through Jünger's characteristic entomological imagery. Throughout the essay, the worker-gestalt is envisioned through insect metaphors as a state "in which the world appears as the scene of a new species of insect."[33] The transformation of human beings into insects (or even into an entirely new species of insects) communicates the message of the essay well: The worker-gestalt inaugurates an age of objectification and dividualization of human life, in which the individual is nothing but an insignificant part of the mass, "the sum of a saleable quantity of individuals." (254)

Another passage from *Der Arbeiter* anticipates the entomic imaginary in *The Glass Bees* as it emphasizes the dividualization of the worker-gestalt through yet another insect metaphor: Here, Jünger uses the *ant* to illustrate the transformation of bourgeois society into a society of "automatic discipline:"

> Wherever the mass would be encountered, it is unmistakable that another structure begins to find its way into it. It presents itself in rows, in networks, in chains and bands of faces, scurrying past at lightning speed, or in *ant-like* columns whose forward movement is no longer from choice, but subjected to an automatic discipline. [34]

The entomological ant(i)-subjectivity presented here clearly underscores how the worker-gestalt embodies the total demise of individuality and pleasure substituting it with "ant-like columns." The choice of the ant as metaphor for a society of numb, soulless members is barely a coincidence. As Niels Werber has showed in his extensive work of ant sociology, *Ameisengesellschaften* (2013), ants are collective symbols representing a society of continuous and concise control. In fact, Werber includes Jünger's notion of a "termitenstaat"—a world of termites presented in *Der Arbeiter* as a metaphor for the worker-gestalt. [35]

The organizational optimization with its loss of individual identity, symbolized by the ant, is initiated by Jünger in a shorter essay published two years before *Der Arbeiter*, entitled "Die Totale Mobilmachung" (1930). In this essay, Jünger cuts into many of the themes in *Der*

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[33] Jünger, *Der Arbeiter*, (SW 6:254): "… die Welt als der Schauplatz einer neuen Insektenspezies erscheint." (This and the following English translations from *Der Arbeiter* are my own).

[34] Niels Werber, *Ameisengesellschaften : Eine Faszinationsgeschichte* (Frankfurt am Main: S. Fischer, 2013).

[35] Jünger, *Der Arbeiter,* (SW 6:254): "Wo man ihr auch begegnen möge, ist es unverkennbar, daß eine andere Struktur in sie einzudringen beginnt. Sie bietet sich in Bändern, in Geflechten, in Ketten und Streifen von Gesichtern, die blitzartig vorüberhuschen, der Wahrnehmung dar, auch in ameisenartigen Kolonnen, deren Vorwärtsbewegung nicht mehr dem Belieben, sondern einer automatischen Disziplin unterworfen ist." (my italics).

Arbeiter as he regards the past World War as a technological age of "total mobilization" when "states transformed themselves into gigantic factories, producing armies on the assembly line that they sent to the battlefield both day and night."[36] As an exceptionally illustrative example of Jünger's fascist-warrior imagery, this societal mobilization with its ant-like columns of soldiers and workers on assembly lines is another token of the dividualization of human life so distinctive in Jünger's works. The "total mobilization," Jünger states, "is far less consummated than it consummates itself; in war and peace, it expresses the secret and inexorable claim to which our life in the age of masses and machines subjects us."[37]

While the consumption and subjection of human life into a world of masses and machines mainly belongs to Jünger's early war writings with its fascist-warrior dreams of a total mobilization of the worker-gestalt, it nevertheless lingers on in his later works such as *The Glass Bees,* although in an ever more camouflaged form. As Andreas Huyssen has pointed out, Jünger's withdrawal into nature in the late 1930s remains embedded in the discourse of violence and danger: "The violence of war, which was discursively explicit in Jünger's writing in 1929, had become implicit and ever more hidden in ekphrastic descriptions of strangely beautiful flowers, dangerous plants, and destructive insects by 1938."[38] In other words, the insects so prominently featured in Jünger's texts since the early war writings implicitly substitute the violent imagery of the heavily armored machine worker in his later works, or as Huyssen notes in an early text on Jünger:

> Jünger's entomological texts about birds and insects, snakes and flowers have the same function as the increasingly aestheticized descriptions of his war experience and the fantasies of the armored, machine-like body with its petrified camera-like gaze.[39]

In this context, *The Glass Bees* can be read as a postscript to Jünger's interwar writings with the robotic bees as a concretization of the earlier more figurative use of insect as metaphors for

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[36] Jünger, "Die Totale Mobilmachung," (SW 5:133): "…in denen sich die Länder in riesige Fabriken verwandelten, die Armeen am rollenden Band produzierten, um sie bei Tag und Nacht auf die Schlachtfelder zu entsenden…"

[37] Ibid, 132: "Die Totale Mobilmachung wird weit weniger vollzogen, als sie sich selbst vollzieht, sie ist in Krieg und Frieden der Ausdruck des geheimnisvollen und zwingenden Anspruchs, dem dieses Leben im Zeitalter der Massen und Maschinen uns unterwirft."

[38] The source of all this technological and natural destruction, Huyssen places in Jünger's past as traumatic response to the unprocessed memories of the horrors of World War I.

[39] Huyssen, "Fortifying the Heart - Totally : Ernst Jünger's Armored Texts," 16.

the violence and destruction (synonym with the worker-gestalt). Thus, the robotic insects in *The Glass Bees* are a natural continuation, or perhaps even the ultimate consummation, of the drive toward armoring the human self by machinic and insect-like automation.

Thus, the mechanical bees mark a turn toward naturalization of technology, or more accurately toward technical perfection of the violence inherent in nature. Already in *Der Arbeiter,* Jünger talks about "perfection of technology" as "hallmark for the completion of the total mobilization." [40] Technical perfection marks the ultimate fusion of nature and technology, as it becomes a "unity of organic and mechanical" in which "the technique becomes an organ."[41] In the essay, he firmly distinguishes between *perfection* ["Perfektion"] and *fulfillment* ["Vollkommenheit"] as the latter belongs exclusively to the attributes of the worker-gestalt, the former to its symbols, which is alone what makes it become visible to the human eye. This line of thought certainly echoes in *The Glass Bees*, in which the narrator reflects on the how human perfection and technical perfection are incompatible: "If we strive for one, we must sacrifice the other […] Technical perfection strives toward the calculable, human perfection toward the incalculable." (113) The robotic bees clearly represent a grey zone between the two forms of perfection: the mechanic and the natural, the calculable and the incalculable. But it is a grey zone in which nature has become inferior to technology. As the narrator comments early in the book "nature was inadequate, both in its beauty and logic, and should be surpassed" (29) to Zapparoni. But when curiously observing the bees, Richards notes "the high degree of methodical planning" (94) behind the invention. While it has taken "centuries to discover the secret of the bees," (94) Richards now sees that it has been technically copied and perfected by Zapparoni.

In an implicit reference to *Der Arbeiter*, Jünger even describes Zapparoni's mechanical glass bees as "sexless workers" ["geschlechtsloser Arbeitswesen"] (95), a sterilization of nature in which there "were no eggs or cradles for the pupae, and neither drones nor a queen." Even here, Zapparoni had "simplified nature, which has already attempted a certain economical approach in the 'slaughtering' of the drones" (95).[42] By exploiting nature, Zapparoni extends

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[40] *Der Arbeiter*, (SW 5:88): "Die Perfektion der Technik ist nichts anderes als eines der Kennzeichen für den Abschluß der Totalen Mobilmachung, in der wir begriffen sind."

[41] *Der Arbeiter*, (SW 5:92): "Auch hier wiederum enthüllt sich die Einheit von organischer und mechanischer Welt; die Technik wird Organ und tritt als selbständige Macht zurück in demselben Maße, in dem sie an Perfektion und damit an Selbstverständlichkeit gewinnt."

[42] *Gläserne Bienen*, (SW 9:461): "Es gab da weder Eier noch Puppenwiegen, weder Drohnen nodi eine Königin. Wenn man durchaus an einer Analogie festhalten wollte, so hatte Zapparoni nur den Stand

the already natural economization of what could be called the bio-politics of the bees, or perhaps just pure evolution: "the slaughtering of the drones," referring to the immediate death of the drone bees after they have fertilized the queen bee. In other words, Zapparoni optimizes nature to the extent where his micro robots function as mere "worker bees" eradicated from their biological, but economical inefficient, forms and capabilities for natural reproduction. With this ultimate "triumph over nature" Zapparoni "once again trespassed on nature, or rather, had contrived to improve nature's imperfections by shortening and accelerating its working methods." (92) Thus, the naturalization of the worker-gestalt in *The Glass Bees* transforms workers to drones and drones to workers.

Surveilled by the Hive

Zapparoni's optimization is not only made in order to rationalize, but also to eradicate the feudal hierarchy in nature's own formation of the hive into workers, drones, and female queens, which is yet another echo of *Der Arbeiter*. With the nullification of the Victorian model of a society in which the social insects serve as an image of a tidy hierarchical structure,[43] Jünger thus continues his revolt against the bourgeois order. Instead, Zapparoni's automaton bees are the perfect image on the new societal order that Jünger imagined in *Der Arbeiter*, or rather it is a shadow suggesting what the totalitarian world view has become thanks to the emerging dynamics of neoliberal capitalism with its economic optimization of labor and control of markets and data. As Jussi Parikka notes, capitalism—and its speculative market structure and monetary flows—follows a kind of "swarm logic" working as part of its own "algorithmic perfection machine."[44] It is no coincidence, then, that Zapparoni's micro-robots are indeed constructed as swarming bees. Think of the notion to "be busy as a bee." The image of hard-working labor instantly pops up mixed with the metaphorical sensation of buzzing and swarming insects. This combination is exactly what characterizes capitalism in its current form. Thus, Zapparoni's robot industry can be read as an early version of the

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geschlechtsloser Arbeitswesen gebilligt und zur Brillanz gebracht. Auch in dieser Hinsicht hatte er die Natur vereinfacht, die ja bereits im Drohnenmord einen ökonomisdien Ansatz wagt."

43 As Parikka notes, in Victorian society, bees (and spiders) were considered to be superior insects. Parikka, 40.

44 Ibid., 31.

networked control society that Gilles Deleuze much later described as "continuous networks" in the essay "Postscript on the Societies of Control."[45]

It therefore comes as no surprise when the narrator starts to wonder about the alternative purposes of the miniaturized robot bees beyond that of gathering nectar. He soon senses that these things could also be dangerous as they

> […] contribute not only to the improvement but also to the shortening of life. The only thing these Great Powers had in common was the disgusting habit of mutual spying—the cowardly triumph of calculating brains over courage to live. (66)

Richard's sensation that the glass bees are not what they seem is only strengthened throughout the novel. He feels like he is being watched by the bees and that his doings are constantly monitored by Zapparoni, whose presence as an "invisible master" is pervasive. After an uncomfortable encounter with the smoky gray hornet robot, Richards is certain that Zapparoni is watching him from a screen in his study: "Very likely he was sitting there comfortably with his books, now and then following the messages of the Smoky Gray on his television screen." (114) In the computerized world of Zapparoni Industries, surveillance and control thus go hand in hand with technical perfection of the miniaturized automatons.

Richards' feeling of being put under ubiquitous surveillance by the bees is probably the reason why several scholars have read the novel as an explicit critique of technology. For instance, Roger Berkowitz warns that the "danger posed by Zapparoni's bees is the one we face today: that we allow our fascination with technology to dull our humanity." However, loss of humanity is not, I would claim, what concerns Jünger mostly in *The Glass Bees.* Although the perfection of the autonomous machines undoubtedly arouses mixed feelings in the narrator, he is still struck by fascination of the "perfect mechanisms" from which an "uncanny but fascinating halo of brilliance" stands that evokes "both fear and Titanic pride." (113)[46]

The word "titanic" again resonates in *Der Arbeiter*: Here Jünger's personal new age mythology is unfolded in which Titans were inaugurators of a new technological order that

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45 Gilles Deleuze, "Postscript on the Societies of Control," *October* 59 (1992): 5. Deleuze labelled the citizens in this emerging control society as *dividuals*: that is, a fragmentation of the subjects into "samples, data, markets, or 'banks'" that altogether constitute the networked societies of control.

46 *Gläserne Bienen,* (SW 9:476): "Perfekte Mechanismen umstrahlt daher ein unheimlicher, aber auch faszinierender Glanz. Sie rufen Furcht hervor, aber auch einen titanischen Stolz, den nicht die Einsicht, sondern nur die Katastrophe beugt."

forced out the gods.[47] In this light, Zapparoni could be seen as reminiscent of this new technological, or Titanic, order. In fact, his mere presence as an "invisible master" indicates a streak of totalitarianism underscored by the characterization of him as almost super-human, an impression he gets at their first meeting. In the description of his host, the narrator dwells particularly on the eyes that are described as "synthetic blue" and "slightly artificial, as if it resulted from some delicate operation." (62) Again the organic merges with the mechanical; however this time it does not concern the robots but instead their very creator, whose "mind must have looked like a control panel,"(75) the narrator notes.

In fact, Richards' doubts about Zapparoni's identity escalates during the description and ends questioning whether he is, in fact, the real Zapparoni or a robot, a perfect human replica: "I was slightly shaken in the presence of this un-likeness [Andersartigkeit] which affected me like an optical illusion and made me doubt the man's identity. Was this the right man?" (64)[48] Thus, the epistemic uncertainty triggered by this "*un-likeness*" coincides with the general indeterminacy of the novel toward what is considered natural and artificial. Similarly, it is strongly indicated by the narrator's difficulties with identifying the bees as either mechanisms or organisms (for instance, as it appears in the opening quote), this uncertainty is strongly related to the narrator's own visual perception that is constantly affected by optical delusions. As we shall see, this prosthetic experience not only affects the way our narrator actually perceives the bees; it also plays an important part of the vision and visuality of today's drones as a figuration of *total surveillance* and *omnivision*.

Cool Gazing

Already in the beginning of *The Glass Bees*, the relationship between the human eye and its prostheses is implied by the narrator: When Richards approaches Zapparoni's compounds, the taxi driver calls attention to a set of signs along the road indicating that they are now

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47 In *Der Arbeiter* (SW 4:194), Jünger talks of the Worker as a Titan and a "son of the Earth," not only as a new species, but a new type or category of the superhuman: "Der Arbeiter ist ein Titan und damit Sohn der Erde; er folgt, wie Nietzsche es ausdrückt, ihrem Sinn, und zwar auch dort, wo er sie zu zerstören scheint. Der Vulkanismus wird zunehmen. Die Erde wird nicht nur neue Arten, sondern neue Gattungen hervorbringen. Der Übermensch zählt noch zu den Spezies."

48 *Gläserne Bienen,* (SW 9:435): "Ich fühlte ein Schwanken vor dieser Andersartigkeit. Sie wirkte wie eine optische Täuschung, rief Zweifel an der Identität hervor. Wer sagte mir, ob ich hier vor dem Richtigen stand?"

entering a restricted area in which they are not allowed to carry "weapons, or Geiger counters, or cameras, binoculars, etc." Not even sunglasses are permitted. In other words, it is rather obvious that Richards has nothing but his own human sensorium to rely on—that is, his *eye*sight. This unfiltered first-hand experience holds true when he initially spots the bees, still convinced that they are indeed natural insects:

> I do know more or less how a bee or a wasp or even a hornet looks. As I sat there, watching the swarms, I sometimes saw creatures flying past, which seemed to differ in an odd way from the usual types. I can rely on my eye-sight: I have tested it. (91) [49]

Yet, it remains difficult for him to decide the real nature of the bees. To assist him, he accidentally discovers a pair of field glasses on a table in the garden, conveniently left there by Zapparoni. He describes these spectacles as "excellent" and "magnificent glasses" that "sharpened the sight surprisingly well." (86) His professional expertise in field glasses stems from his time in the military, where he served with the Panzers and where "optical instruments" were part of his duties. In short, the narrator's visual experience has previously been rendered prosthetically by optical mechanisms. Thus, the difference between the two types of vision—the natural human vision versus the mechanically mediated vision—remains highly significant throughout the novel. Even on the more formal level concerning the focalization of the narrative, the boundaries between natural and represented experience is deliberately obscured, and so is the credibility of the narrator:

> I had lost the capacity of distinguishing between the natural and the artificial. I became skeptical of individual objects, and, in general, I separated imperfectly what was within and what without, what landscape and what imagination. The layers, close one upon the other, shifted their colors, merged their content, their meaning. (138)[50]

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[49] *Gläserne Bienen,* (SW 9:457): "Immerhin weiß ich, wie eine Biene, eine Wespe oder auch eine Hornisse ungefähr beschaffen ist. Wie ich nun so saß und dem Schwärmen zusah, schienen mir auch einige Male Wesen vorbeizustreichen, die sich fremdartig abhoben. Auf meine Augen kann ich mich verlassen; ich habe sie nicht nur auf der Hühnerjagd erprobt."

[50] *Gläserne Bienen,* (SW 4:500): "Überhaupt verlor ich bei diesem angestrengten Prüfen und Schauen das Unterscheidungsvermögen zwischen dem, was natürlich, und dem, was künstlich war. Das wirkte sich den einzelnen Objekten gegenüber als Skep- sis aus, und hinsichtlich der Wahrnehmung im Ganzen so, daß sie unvollkommen trennte, was außen und innen, was Landschaft und was Einbildung war."

Thus, the narrator continuously destabilizes his own reliability as an eyewitness by interposing the telescope as an epistemic foundation for his narration. With this move, Jünger teases the reader (and the narrator) by playing upon the opposing effects of optics as both enhancement and delusion: An optic lens can sharpen one's sight, but it can certainly also blur it. Yet, the recourse to optical instruments is often regarded as an objective and precise method for obtaining scientific facts, especially when the objects examined are the size of insects. And the scientific ideal of vision is indeed what Jünger is best known for through his cool, matter-of-fact-like observations of the atrocities of war.

Throughout the entire authorship, the coupling of vision and its technical prostheses is reflected. In fact, Jünger was one of the first writers to fully recognize the massive impact that new visual media, such as photography, had on warfare. By considering vision to be an "Angriffsakt" [51] and photography to be a "politischen Angriffswaffe,"[52] Jünger certainly had a keen eye for depicting how the new vision machines reformed the technological order of warfare. Accordingly, Jünger praised the camera as "an insensitive and invulnerable eye" that once and for all changed the human experience of pain. Photography, he writes in *Über den Schmerz* (1934), has a "telescopic quality" that makes it "stand outside the zone of sensitivity."[53] Indeed, the very act of seeing through a camera lens adds a filter to the perception and creates what Jünger calls "a second and colder consciousness" that brings with it "the ability to see oneself as object."[54] Not only does the visual apparatus transform human beings into physical objects; it also makes the watcher become "an object" stripped of sensitivity and empathy.

In his book *Cool Conduct*, Helmut Lethen couples this "colder consciousness" to a certain type in Weimar Germany, that is, the "the cool persona." This figure, rooted in the New Objectivity (*Neue Sachlichkeit*) movement that primarily consisted of post expressionist and surrealist artists, and writers disillusioned by the memory and loss of war. By placing Jünger in this tradition, Lethen, in line with Huyssen, explains the need for perceptual acuity and "pure vision" as a postwar disillusion and collapse of meaning that finds restoration in the exactness of the empirical sciences and the new ideals of objectivity. According to Lethen, the

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51 *Über den Schmerz*, (SW 5:189).

52 Ibid. 181.

53 Ibid. 188: "Die Aufnahme steht außerhalb der Zone der Empfindsamkeit. Es haftet ihr ein teleskopischer Charakter an; man merkt, daß der Vorgang von einem unempfindlichen und unverletzlichen Auge gesehen ist."

54 Ibid. 187: "Dieses zweite und kältere Bewußtsein deutet sich an in der sich immer schärfer entwickelnden Fähigkeit, sich selbst als Objekt zu sehen."

aesthetic strategy of seeing an object "sharply" and removed from its moral entanglement is commonplace among avant-garde artists: "By excising the object from its moral, pragmatic, and atmospheric integuments, the artistic gaze isolates it in its razor-sharp contours."[55]

Yet, the desire for pure vision does more than prompt for passive registration of objects; it demands a transgression of moral boundaries that "*de*psychologizes the observed object," reducing it to sheer "physiological or economic data."[56] Yet, as both Lethen and Huyssen have maintained, Jünger's cool gaze remains far from a modernist or avant-gardist vision. Rather it is rooted in nineteenth century nostalgia of natural science with its strict objectivity criteria and emphasis on evidence and distanced observation. Here entomology enters the scene again as a certain "cool" way of observing.

As an entomologist, Jünger was evidently drawn by the scientific ideals that for example find expression in an almost manic need for categorizing insects as well as objects on the battlefield, but also in his immersion into the microscopic world of the insects. As previously mentioned, Jünger shared the nineteenth century entomologist's view of seeing insects as windows into new dimensions, described as a "remote, hopeful, and mystical world."[57] Clearly, optical instruments like magnifying glasses and microscopes played an important role in these "subtle hunts" as tools for accessing the secret world of insects. This is also the case for Richards in *The Glass Bees* who describes with help from the field glasses one of the larger bees as an "insect from the moon:"

> Although, as I said before, I know only a few insects, I at once had the impression of something undreamed-of, something extremely bizarre—the impression, let us say, of an insect from the moon. A demiurge from a distant realm, who had once heard of bees, might have created it. (91)[58]

A strikingly similar description can be found in his diaries from World War II, published in 1949 under the name of *Strahlungen*. Here Jünger explains how in the humid, damp seams of

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55 Helmut Lethen, *Cool Conduct, the Culture of Distance in Weimar Germany* (Berkeley: University of California Press, 2002), 147.

56 Ibid.

57 SW, 2:199.

58 *Gläserne Bienen,* (SW, 9:458): "Obwohl ich, wie gesagt, wenig Insekten kenne, hatte ich hier sogleich den Eindruck des Ungeahnten, des höchst Bizarren, etwa den Eindruck: ein Insekt vom Mond. An diesem Wesen konnte ein Demiurg in fremden Reichen geschaffen haben, der einmal von Bienen gehört hatte."

Paris, August 1942, he encountered insects so unfamiliar to him that they "deviated from every species I knew […] So I stood facing demiurges in the manner of children: 'I do not play anymore.'"[59] In both cases, the demiurges—denoting half-gods or Titans in Jünger's personal metaphysical worldview—represents a planetary, transcendental force of something beyond human perception. In one of Jünger's own distinctive words, the entrance into the microscopic and metaphysical world of insects could also be described as a *stereoscopic* perception. In his writing, stereoscopy blends several senses in an equally bodily and spiritual experience. In *The Glass Bees*, such a stereoscopic experience colors Richard's vision as he gazes through the field glasses that "were constructed for sighting within a restricted periphery, and they not only brought distant and semi-distant objects closer, but magnified them at the same time." (86) In other words, the optics provides a window to another dimension, simultaneously planetary and microscopic.

The planetary gaze appears as early as in *Der Arbeiter* when Jünger imagines a city "as if it were seen through a telescope from the surface of the moon." At such a distance, "the sympathy of the spectator becomes somehow colder and more burning at the same time," Jünger notices. As we will see later in the dissertation, this description is in strong alignment with how today's drone pilots experience war as split operations, concurrently intimate and distanced. Similar to photography, which according to Jünger makes the watcher become an object stripped of sensitivity and emotional awareness, the individual becomes remote and sees himself "microscopically, as a sum of cells."[60] Thus, Jünger's entomological gaze oscillates stereoscopically between telescopic and microscopic perception, dividualizing the human body into scales and forms inaccessible to the natural human eye: The microscope transforms bodies into particles and cells while the telescope reduces them to numbers, species, and demographic data.

In short, the entomological gaze "de-anthropomorphizes," as György Lukács labeled the effects of optical instruments. To be more exact, Lukács distinguished between two types of optics: The ones that merely distort the sight, such as glasses, and the ones that reveal "a

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59 *Strahlungen,* (SW 2:379), Paris, 12. August 1942: "Dann stiegen wir hinunter, um am feuchten, betauten Saum Insekten aufzulesen, die von jeder mir bekannten Gattung abwichen. […] So stand ich dem Demiurgos nach Art der Kinder gegenüber: »Ich spiele nicht mehr mit."

60 *Der Arbeiter,* (SW 6:71): "Stellen wir uns nun diese Stadt aus einer Entfernung vor, die größer ist, als wir sie bis jetzt mit unseren Mitteln zu erreichen vermögen – etwa so, als ob sie von der Oberfläche des Mondes aus teleskopisch zu betrachten sei. Die Anteilnahme des Betrachtenden wird irgendwie kälter und brennender zugleich [...] wie es dem Einzelnen gemeinhin fern liegt, sich mikroskopisch, das heißt: als eine Summe von Zellen zu sehen."

world that is inaccessible to the human senses."[61] The telescopes and microscopes can naturally be characterized with the latter. As Devin Fore notes, the optics are "inhuman" because they "institute alien proportions," not merely due to their amplifying technologies, but also due to "the very instruments of visualization that make these forms perceptible."[62] Thus, Jünger's entomic gaze is indeed a window into a new world, but it is a world of totalitarian de-anthropomorphization, a world that divides bodies into cells and data. I will now take a final look at how this entomic gaze of Jünger's coincides with more contemporary technologies of remote warfare and drone vision as a figuration of *surgicality* and the perversion of this idea in the form of insect crushing.

Bug Splat

The scientific gaze behind the microscope as well as the exactness and objective status of optical equipment remain symbols of the cool analyzing power so deeply integrated in Western thought and modern warfare.[63] A frequent metaphor for the accuracy of this clinical vision, recurring in both the discourse of Jünger and today's drones, is the image of the surgeon or doctor. Just think of the common conception of drones as a "humanitarian" weapon of "surgical precision" repeated by advocates for drone operations.[64] While these voices yearn for "a nice clean war, one in which only bad people will be killed using 'surgical' strikes that inflict no collateral damage,"[65] the air raids and carpet bombings of the Great Wars were obviously diametrically opposite.

Nevertheless, the military imagery of surgical operations and clinical vision is found in abundance in Jünger's accounts of World War I. As previously mentioned, Jünger is generally acclaimed, or notoriously, dependent on how you look at it, for the "razor-sharp" precision by which his account from the trenches is presented. His clinical gaze at the battlefield is thus

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61 Georg Lukács, *Ästhetik* 1:91, quoted in Davin Fore, "The Entomic Age," *Grey Room*, no. 33 (2008): 48.

62 Ibid.

63 Lethen, 150.

64 For instance, Bradley Strawser has claimed that deployment of drones is not only ethically permissible but, in fact, ethically obligatory. Bradley Jay Strawser, *Killing by Remote Control : The Ethics of an Unmanned Military* (New York: Oxford University Press, 2013).

65 Amitai Etzioni, "Unmanned Aircraft Systems: The Moral and Legal Case," (Washington: National Defense University, 2010), 71.

almost like one of a military surgeon's, with whom he identifies in his war diary. For instance, he compares the perceptual acuity of war reporting with the gaze of a "surgeon checking the roster in the bloody chaos," like a man "surrounded by elemental terror and anguish, studying the functioning of his organization with ant-like cold-bloodedness."[66] Notice again the metaphorical link between the cool, surgical gaze and the cool-blooded machine-like insects. The surgical gaze is evermore present in Jünger's essay "On Pain" ("Über den Schmerz") in which he addresses the coolness and inner distance necessary for examining pain as a phenomenon, namely that of "the gaze of a doctor or a spectator in a circus watching from the ring the gushing blood of foreign fencers."[67]

As will be more thoroughly unfolded in the fourth chapter on surgical precision, it is through some of the same metaphors that more recent counter-insurgency operations are present in the military and political discourse as a medical practice. For instance, a counter-insurgency field manual reveals how "counterinsurgents are like surgeons cutting out cancerous tissue while keeping other vital organs intact."[68] In other words, the clinical discourse on warfare and the imagination of the enemy as a non-human parasitic life form, an entomological or even bacterial intrusion of the political body, very much resonates with Jünger's clinical and dehumanizing gaze on the battlefield.

Whether it concerns the so-called "surgical" drone strikes of today or the clinical cool observations of Jünger's war writings, the use of surgical language to sanitize the violence and atrocities of war is just one of example of what I have examined in this chapter as the totalitarian desire for machine automation. This desire builds on a cruel optimism endorsed by promises of a higher form of warfare in which the human soldier does not need to put his life at risk anymore as automation and machines will now take over. Yet, these promises only apply to certain privileged subjects while other bodies in war are reduced to labels like "insurgents," "targets," "collateral damage," or "casualties," all of which are part of the gradual effacement of the individual human being in the battlefield.

Yet there is even more to this story. As it is now well-documented through documents and testimonies from ex-drone pilots, a particularly persistent and insensitive set of metaphors

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66 *Storm of Steel*, Modern Classics (London: Penguin, 2003), 30. (*SW* 1:39)

67 Ernst Jünger, *On Pain* (New York: Telos Press Pub., 2008), 2. "… den Blick des Arztes oder auch des Zuschauers, der von den Rängen des Zirkus aus das Blut fremder Fechter verströmen sieht," (*SW 5:52*)

68 Quoted from Nicholas Mirzoeff, *The Right to Look: A Counterhistory of Visuality* (United States: Duke University Press, 2011), 300.

have stuck in the discourse of drone operations, namely the exclamations "splash" and "bug splat" used by drone pilots at the ground control station when they see targets being hit on their screens. While "Bugsplat"[69] was initially the name of the US Defense software used in the Iraq war in 2003 for calculating collateral damage resulting from airstrikes, it quickly became military slang among the personnel. The meaning of these metaphors is obvious; they indicate the superior power of the perpetrator on the one hand, and the insignificance of the victims on the other, creating the sense of an insect being crushed.

Considering these quite inappropriate names in military discourse, one could in fact suspect that the very psychology behind the "bug splat" discourse is a bizarre fantasy, a crush fetish. In a remarkable essay, "I, Insect, or Bataille and the Crush Freaks," Jeremy Biles provides a detailed account of how this obscure fetishism involves "crush freaks" aroused by the sight of an insect exploded beneath a human foot (preferable a naked woman's foot or the impaling heal of a stiletto). [70] While entomologists and sexologists have tried to explain this fetish as a subset of foot worship or macrophilia, Biles, however, makes another and quite intriguing case: He suggests to analyze crush freakism as a manifestation of technophilia (sexual arousal associated with machinery) encompassing a violent literalization of the analogies between insects and machines.

According to Biles, "insects as machines" have invaded the popular imagination since the 1920s where surrealists' reacted to the encroaching machinery. And it is not difficult to see why, as he states: "Their highly organized labor, machine-like movements, and apparently imputrescible exoskeletons all liken them to machines."[71] But if the insect used to be a metaphor for the machine, it has now become its very embodiment, both a model *for* and a model *of* technology. Through this movement from organic to mechanical—"literalized in the many recent occasions of technology mimicking insects, as in the mounting production of entomorphic robots"—the insect has at the same time become "a machinic harbinger of death."[72] All this leads Biles to conclude that the crush freaks are, in fact, traumatized by the dehumanizing effects of machine culture, and act according to the loss of the self with equal anxiety and ecstasy by crushing the insects as surrogate for the "killing machines." [73]

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69 Chamayou, 216.

70 Jeremy Biles, "I, Insect, or Bataille and the Crush Freaks," *Janus Head* 7, no. 1 (2004): 116.

71 Ibid., 124.

72 Ibid., 125.

73 Ibid., 127.

If one should draw the line between the crush freaks and the "bug splat" discourse used by the drone pilots, the reason would not merely be that they share a desire for crushing tiny, precarious lives, but also that they are both symptoms of the traumatization by an alienating machine culture. What is more, the violence inherent in insect crushing—whether manifest or symbolic—is by and large similar to the violence that characterizes Jünger's writings, armoring him against his haunting war memories from the mechanized battlefields. As Huyssen notes, "this identification with the destructive forces of modernity that overwhelmed Jünger on the battlefield is a traumatic reaction formation, which resulted in a compulsive repudiation of his own body as organic and vulnerable."[74] In later works, such as *The Glass Bees*, this repudiation of "organic vulnerability" is, as I have argued in this chapter, displaced by technological perfection represented by the swarming insect-machines.[75] In short, the violent and destructive forces so explicitly present in Jünger's early works are also at play in *The Glass Bees*, however in a new and camouflaged form as they are now increasingly detached from the human body in a still more uncanny relationship between nature and technology.

This technological reorganization and disintegration of the human body in favor of machines becomes particularly clear in one of the final scenes in Zapparoni's garden. Here, Richards—still glancing through the binoculars—discovers something even more bizarre than the bees. In a pond in the far end of the garden he spots some strange objects, which to his horror appear to be severed human ears. Shocked by the sight of the "brutal exhibition", Richards instantly feels nauseous, yet somehow he also finds the scene familiar:

> But it was inevitable as motif. Wasn't it necessarily the result of a perfection of technique to whose initial intoxication it had put an end? Had there been at any period in the history of the world as many mutilated bodies, as many severed limbs as in ours? (112)

Here we perhaps find one of the strongest echoes of Jünger's own military past. The narrator's uncanny encounter with severed ears and mechanized glass bees—both markers of a new technological order that breaks with the anthropocentric norms of the industrial age—thus comes to mirror Jünger's traumatic war memories. As Devin Fore has remarked, this "depot

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74 Devin Fore has accurately described this development, extrapolating Huyssen's point: "If the pathologically armored bodies of Jünger's Weimar writings revealed their author's anxiety about the fragility of the human body in the face of modern warfare, in postwar works such as The Glass Bees it is technoscientific progress and invention rather than weaponry that threaten to violate the organic soundness of the human frame (Fore 2008, 35).

75 Huyssen, "Fortifying the Heart - Totally : Ernst Jünger's Armored Texts," 13.

of dismembered human parts on display before him is a fitting complement to posthuman, de-organized technologies such as glass bees."[76] But it also complements something else. In fact, the severed body parts represent the epitome of trauma in psychoanalytical theory, that is, the disturbing confrontation with a body in bits and pieces as a retrospective projection of the child's becoming-self. To Richards the vision leads "to a lower level of reality" and strengthens his impression that "everything might have been a mirage." (110)

Indeed, the entire novel with its multiple anecdotes and flashbacks to memories from Richards cavalry past can be regarded as such a reflection of a "before" the technological reorganization of the mechanized battlefields. Yet, Richards' memories of the glory past have a hollow ring to them, distorted as they are by the mirage caused by the optical distortion trauma of dismembered body parts. Again the fragility and "organic vulnerability" of the human body is the root of trauma for Jünger, and as always the solution is not therapy, but violence. Thus, like the crush freaks, Richards ends up smashing the large "smoky gray" hornet with the flat end of an iron golf club resulting in a coil of wires springing out of its belly. A "rust-brown cloud" then rises from the golf club, and a splash hits him burning a hole in his sleeve. The traumatic loss and dismembering of the human body is thus projected into the desperate crushing of the machine.

Cruel Automation

Whether Richards' crushing of the threatening hornet-drone is seen as an urge to find satisfaction and remedy through violence or simply as a desperate act of self-defense, his situation would in any case have looked much different, and definitely less secure, had there been not just one drone attacking him, but an entire swarm of drones. The narrator's meticulous and clearly fascinated descriptions of the technical design of the glass bees, their navigation capacities, their organization in hives, their swarming communication, their surveillance capabilities etc. all seem to indicate the Janus head of this technological wonder, should it unexpectedly decide to harm you. As we have seen, it is essentially this uncertainty and loss of control regarding automation that evokes the narrator's feelings of both fascination and anxiety. This is particularly clear in his depiction of the "uncanny but fascinating halo of

[76] Fore, 35.

brilliance" (113) that surrounds the robotic insects, enclosing the ambivalent figuration of automation in the novel as well as its configuration into the larger drone imaginary. These emotional responses—such as fear, fascination, and uncanniness—are key to the affective infrastructure constituting the drone imaginary. And in the case of automation and swarming these feelings are even more profound as they locate drone swarming at the delicate balance between technical ingenuity and human catastrophe.

In this context, Richards' words can be seen as rephrasing Berlant's idea of cruel optimism whose desire for and promise of a better life "makes it impossible to attain that expansive transformation for which [it] is striving."[77] The narrator's disturbing sensation of being surveilled, or even threatened, by the superiorly designed machines in Zapparoni's garden very much embodies the cruelty of this "technical optimism,"[78] which Jünger (cf. his early technophilic writings) can be considered as an exponent for. According to Berlant, the promises provided by this form of technical optimism nurtures the human being to "a life without risk, in proximity to plentitude without enjoyment."[79] Following this logic, there is not much to be happy about for Captain Richards. Rather, the increased automation of labor has removed not only the elements of risk and danger from the battlefield, but also drained society for jobs leaving him and his fellow cavalrymen unemployed.

As we remember, it was indeed unemployment that initially brought Richards to Zapparoni's garden with the prospects of getting a job in the robotic industry. Yet, as we know, these prospects did not end well, as Richards' destroying the hornet-drone certainly did not help him get the job. Yet, as I have argued through this chapter, it is, not merely the changed prospects of labor that is most disturbing in the novel's dystopic imagination of insect automation. Rather, the novel conveys a creeping sensation that the very existence of the human is threatened by the proliferation of autonomous machines, especially those of them that "hadn't the slightest connection with bees and beekeeping." (105) From here there is only a short step to the imagined prospects of armies of swarming, lethal robots which, as Richards notes, could easily be even more disturbing than glass bees as they are constantly replaced with more advanced models: "The struggle for power had reached a new stage; it was fought with scientific formulas. The weapons vanished in the abyss like fleeting images, like pictures one throws into the fire. New ones were produced in protean succession." (54)

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77 Berlant, 2.

78 Ibid., 41.

79 Ibid.

As I have shown in this chapter, the technological reconfiguration of warfare toward smaller, more advanced autonomous systems—which evidently is also the case in today's drone wars—was thus accurately registered by Jünger already in 1957. This history of unmanned and autonomous technology goes even further back in his authorship to the early writings on war and technology. Early contours of the four key figurations that I claim constitute the central pillars of the drone imaginary (*swarming, invulnerability, omni-vision, and surgicality*) are described in these writings: beginning with descriptions of the roaring machinery of World War I in the diary *Storm of Steel*, then casted in the form of the armored worker-gestalt in the interwar period, and eventually mutated into the insect-machines in *The Glass Bees* during the Cold War.

As a highly sensitive cultural seismograph, Jünger was keen to register the *loss* of experience entailed by high-tech warfare, for instance as a lack of risk and danger that for him remained crucial elements in not only warfare but in human existence as such. Yet, his prolonged fascination with the world of insects and machines also made him embrace technological progress as not only a natural process but also an almost mythic force (which is also sensed among the robotic insects in *The Glass Bees*). Here, the techno-entomologic thread running through the authorship, forming the peculiar link between insects and machines, can be read as the embodiment of this force and, more generally, of the reconfigured technological order of warfare in the age of intelligent machines.

The figurations I have focused on in the chapter—of which swarming, automation and insect-machines were primary—should be viewed, then, as an important set of condensed historical imaginaries shaping the conceptual contours of what I in the following chapters will examine as key issues of our contemporary drone imaginary. The next chapter takes up the figuration of invulnerability as a fantasy of total invincibility and a drive to remain untouched. While in this chapter, invulnerability has mainly been explored in relation to Jünger's steely worker-machine, analyzed as a traumatic response to his unprocessed memories of World War I, the next chapter is about how traumatizing this fantasy of invulnerability, as a practice of *killing without risk*, can indeed be.

CHAPTER II

(IN)VULNERABILITY

The Trauma of Killing without Risk

> The kamikaze: My body is a weapon. The drone: My weapon has no body.[1]
>
> Grégoire Chamayou, *Theory of the Drone*, 2015

> I'm not there I can't be killed the threat of death has been removed there is no danger to me none I am the eye in the sky there is no danger but my pulse quickens why does it quicken I am not in combat if combat is risk if combat is danger if combat is combat I am not in it.[2]
>
> George Brant, *Grounded*, 2013, 41

Of those imaginaries related to the alleged "riskless war" with drones, a certain technophile and metaphysical figuration flourishes of the drone as an all-powerful, even divine, weapon providing its agent with total invincibility. Reaper, Gorgon, Argus, Hellfire, Harpy—all these names back up the desired fantasy of invulnerability installing the drone as a mythological or sacrosanct figure that impregnates its human agent with an almost superhuman protection. In short, "the threat of death has been removed" as the female drone operator in George Brant's play *Grounded* phases it in the above quote. She is in her own words, "not there", which conveys the sensation that combat is not combat as we used to know it in terms of danger and risk. Rather, she is now "the eye in the sky": sealed off completely for the risks and dangers of war, thus sitting safe and sound behind the screen in a trailer thousands of miles from the combat zone. Only, her quickened pulse is the telltale that gives the game away, shadowing this figural expression of perfect invincibility with the evident fact that the pilot *is* still human

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1 Chamayou, 84.

2 George Brant, *Grounded* (London: Oberon Books, 2013).

after all; or, as we will see in this chapter, perhaps she is *all too human* with the flaws and frailties that go with the human psyche and imagination.

Yet, the fact that drone operators are not exposed to any form of physical danger anymore—that they are, supposedly, kept safe and sound, untouched and intact—has given rise to assumptions such as the one in the other quote above in which Grégoire Chamayou opposes drone operators to Japanese kamikaze suicide pilots during World War II. Chamayou's point is clear: While the kamikazes symbolized the ultimate bodily sacrifice, the drone, on the other hand, marks a total absence of a body in battle making it a somewhat superhuman instrument of power. These assumptions of the drone as an all-seeing "Eye of God" [3] with the ability to "project power without vulnerability" [4] have often been asserted, as well as problematized, in the academic field of drone studies. For that same reason Chamayou has also been criticized for mythologizing the drone by situating it into the context of Greek and Nordic narratives of invulnerability.[5] While some of the very same critics of Chamayou, Ian Shaw among others, have labeled the drone as a "metaphysical object"[6] in a similar vein, Benjamin Noys takes one step further suggesting that "[t]he 'god-like' capacity of drones, for both vision and killing, incites an attribution to them of theological and metaphysical powers."[7]

However, there seems to be a common factor preconditioning these different mythic renderings of drone invulnerability, namely that all of them seem to be doomed to fail. In short, the wide repertoire of myths depicting the human body invincible, from Achilleus and Ajax in the *Iliad* to the Nordic legends of Baldur and Siegfried, presupposes that invulnerability can never be absolute.[8] Thus, countering the imagination of the drone as a figure of invulnerability, the idea of a paradoxical frailty is often raised in relation to the otherwise "invulnerable" bodies of the drone operators.[9] Obviously, this vulnerability has nothing to do with the actual risk of physical damage, as the bodies of drone operators are

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3 Chamayou, 37.

4 Ibid., 12.

5 Shaw; Adey.

6 Explain how metaphysical xx (Shaw 2011, 127)

7 Benjamin Noys, "Drone Metaphysics," *Culture Machine* 16 (2015): 3.

8 Chamayou, 73.

9 Reportedly, drone pilots experience surprisingly higher levels of stress, combat fatigue and emotional exhaustion compared to regular soldiers, all of which increases the risk of posttraumatic stress and mental breakdown. Ibid., 108.

geographically displaced in safe distance from the war zone. Rather the vulnerability of the drone pilots concerns a more subtle danger, which is the threat of an "internal enemy" in the form of potential war neuroses, combat stress, and risk of traumatization.

What we are talking about here, then, is a "trauma of (not) being touched," [10] as Kris Paulsen adequately puts it. It is a mediated and virtualized experience of "not being there," as the quote from Brant's play suggests. Here the drone operator is passively witnessing or actively participating in the destruction of distant human bodies, whether hostile or innocent. Although a more exact and diagnostic delineation of this specific drone pilot trauma, including how it differs from other forms of war trauma, is still missing in the research field,[11] it is beyond the scope of this chapter to provide one such thing. Rather the chapter explores the figuration of drone trauma through its contrast, the fantasy of absolute and unconditional invulnerability, in order to expose how "any attempt to achieve invulnerability in turn engenders a corresponding vulnerability,"[12] as Chamayou has put it.

Fetishizing Drone Pilot Trauma

In fact, it has been contested whether such thing as "drone trauma" even exists as anything but a fetishized fantasy or media hype in the popularized war imagination. In this context, critics such as Chamayou have provokingly claimed that there is a "shadow darkening the media picture of empathetic drone operators suffering psychic trauma: it has no empirical basis."[13] He refers here to a study by military psychologist, Hugo Ortega, who interviewed a number of drone operators without finding any trace of posttraumatic stress disorder. What he did find, though, was a certain day-to-day stress expressed by the drone pilots, which he associates to the "shift work, schedule changes […] long hours, low manning", in short quite a "boring job".

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10 Kris Paulsen, *Here/There : Telepresence, Touch, and Art at the Interface*, Leonardo Book Series (Cambridge, Massachusetts: The MIT Press, 2017), 147.

11 The idea of a "trauma of (not) being touched" formulated by Kris Paulsen (2017) or the "trauma of the perpetrator" by Alan Gibbs (2014) is probably the closest we get.

12 Chamayou, 74.

13 Ibid., 109.

While Ortega and Chamayou might have a point in calling into question the psychological causes of so-called "drone pilot trauma," there has certainly been many more empirical cases to build on since Ortega's study.[14] Most prominently, four US air force whistleblowers with backgrounds as drone operators sent out an open letter to former President Barack Obama in November 18, 2015. In the letter, they explained how they all succumbed to Post Traumatic Stress Disorder due to their guilt in facilitating what they called a "systematic loss of innocent life."

Yet, sympathetic as such efforts to openly question the moral and psychological consequences of drone warfare might seem, they nevertheless entail a risk of self-victimization which takes away the focus from the loss of those same innocent lives that it intended to call forth. In other words, rather than attracting attention to the traumatization of the people living under the drones, such drone pilot accounts pose a danger of stealing the picture from the "real" victims. In fact, this is a danger that is surprisingly conspicuous in cultural representations of drone warfare. Far from reflecting upon their own imperial presuppositions, the accumulation of cultural drone imaginaries is steadily expanding with ever more Westernized narratives. Being hardly distinguishable, these narratives often tend to tell the same story of a traumatized drone pilot who, tormented by guilt and confronted by nameless victims in nightmares, slowly sees his life disintegrate. For instance, this type of narrative is reflected in prominent blockbusters and acclaimed documentaries such as *Goodkill* (2014), *Eye in the Sky* (2015), *National Bird* (2016), and *Drone* (2017), all of which comprise a persistent cultural imaginary that victimizes the drone operator in favor of civilian non-combatants killed in drone strikes.

These popularized narratives to a high degree build on accounts such as the letter mentioned above. For instance, the American whistleblower and former drone operator, Brandon Bryant, who is also one of the signers of the Obama-letter, expands his experiences as a sensor operator in a more detailed letter. Here he explains how ghosts of the victims he killed used to haunt him in his nightmares: "In the hospital, my dead stood in judgment of me in my nightmares. I was mocked and condemned for my actions by the legion crowd."[15]

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[14] Publications of personal interviews with current and former drone pilots have frequently undermined the idea of drone warfare as both physically and mentally "safe" for the user. For a critical analysis of these interviews, see for instance: Michelle Bentley, "Fetishised Data: Counterterrorism, Drone Warfare and Pilot Testimony," *Critical Studies on Terrorism* 11, no. 1 (2018).

[15] Brandon Bryant, "Letter from a Sensor Operator," in *Life in the Age of Drone Warfare*, ed. Lisa Parks and Caren Kaplan (Durham: Duke University Press, 2017), 322.

While, Bryant thought that he would learn to live with his "thirteen dead," he soon experienced how the thirteen seemed to rise in numbers. In his vivid words, "[they] kept me from sleeping [and] assaulted my psyche in my modes of consciousness. They became legion."[16]

As important as it may be to acknowledge Bryant for stepping forward and publicly sharing his firsthand experience of killing without risk, it should, however, also be stated that testimonies like Bryant's are always somewhat controversial. Among others, as Michelle Bentley has convincingly argued, the very media through which such testimonies are communicated, contribute to a "*fetishisation* of trauma"[17] supporting the highly Westernized perspective on drone pilot trauma that dominates the cultural war imaginary. Even though a majority of these forms of representation— be they letter accounts, interviews or fictionalized interpretations—might, in fact, want to take a critical stance against drone warfare in general, the global media and culture industry gorge more or less uncritically on this persistent imagination of the traumatized drone pilot.

Inextricably entwined with this cultural figuration of drone pilot trauma is, as I argued in the beginning of this chapter, the reverse imagination: that of the drone as a source of invulnerability and invincibility. The urgent question arises: Are there, then, any cultural or aesthetic forms left through which the paradoxical figure of (in)vulnerability can be expressed without indulging in westernized fetishizing of drone pilot trauma or myths of invincibility? My thesis in this chapter would be a cautious *yes*. I believe that works of art and aesthetics do still have the power to challenge, question and, above all, critically reflect upon the paradoxes and instabilities of the widespread imagination of drone trauma. How they do that I shall investigate in this chapter.

This is not to say, however, that the aesthetic realm is completely emancipated from any ideological or fetishizing figures. Cultural and artistic representations of drones can just as well be unwilling products or reproductions of the highly westernized and ideological imaginaries embedding the drone and should therefore be critically analyzed as such.[18]

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16 Ibid., 321.

17 Bentley, 89. (Italics in original).

18 It should be noted, however, that it is of course not only Western states that are known to deploy drones in warfare as other powerful nations such as Russia, China and Israel are as well developing and using drones as part of their military power. While this dissertation is, primarily, an investigation of the Western imaginaries surrounding drone warfare, I will, however, make an exception in the fourth chapter in which the Israeli deployment of drones in Gaza is critically analyzed through a literary account *from below*.

Similarly, the very premise not only for this chapter, but for a large part of the dissertation too, can become somewhat guilty of sacrificing the "real" victims killed in drone strikes for the sake of investigating the all so westernized imagination of the untouched and well-protected drone pilots. And in this investigation, art and cultural representations do, after all, contain potential layers of meta-reflection, something which letter accounts like Bryant's does not do to the same degree.

This chapter analyzes how the figure of drone pilot trauma and its corresponding fantasy of invulnerability are represented through two works of aesthetics: George Brant's play *Grounded* and Omer Fast's *5.000 Feet is the Best*. As will become clear, both of these works convey an ambivalence in relation to drone (in)vulnerability that becomes manifest, on the one hand, as a promise of perfect protection but, on the other hand, a threat to the psyche. Thus, I will continue the claim I started in the preceding chapters arguing that the imagination of drone invulnerability builds on the logic of *cruel optimism* which is essentially a *fake* optimism that comprises its own promises of a higher form of warfare. In the case of drone (in)vulnerability, this logic is formed as a desire for total protection which is, as already hinted at, highly self-obstructive. In other words, the fantasy of drone invulnerability is rooted in the idea of making the soldier's body *immune* to external threats and dangers, yet a process that sometimes involves an auto-immune reaction or with a Derridean term what I will suggest to conceptualize as "indemnity."

Drone indemnity and immunitary warfare

In the essay "Truth and Knowledge" ("Foi et savoir", 1994), Derrida introduces the idea of the securitizing of the human self in the figure "l'indemne" or "the unscathed." While the common meaning of indemnity typically refers to compensation after damage or loss, the verb "to indemnify" stems from the Latin "indemnis," which means "unhurt" or "undamaged". Originally, the term denotes the power to secure someone or something against harm or loss as well as against legal responsibility for own actions. For Derrida, however, the onto-theological figure of indemnity is understood as a drive to remain unscathed and a promise of both safety and salvation, which both religion and technology offer. It is two versions of the same abstract idea, two kinds of "lights"—"the light of revelation and the light of

enlightenment" [19]—that is found both in religion and in the "transcendence of tele-technology."[20] In this way, indemnity and "indemnification" designates, in Derrida's words, "both the process of compensation and the restitution, sometimes sacrificial, that reconstitutes purity intact, renders integrity safe and sound, restores cleanliness [propreté] and property unimpaired."[21] It is this dream of complete protection and securitization against any harmful force that I will claim is core to the cultural imagination of the drone as a figure of invulnerability.

In a passage that explicitly articulates the association between indemnity and modern tele-warfare, Derrida writes:

> the new 'wars of religion' are unleashed over the human earth (which is not the world) and struggle even today to control the sky *with finger and eye*: digital systems and virtually immediate panoptical visualization, 'air space,' telecommunications satellites, information highways, concentration of capitalistic-mediatic power—in three words […], *digital culture, jet and TV* [22]

In its modern form, the idea of indemnity is constituted by a triad of "digital culture, jet and TV," which can be roughly translated into something like decoded information, aerial mobility, and tele-visual communication, or, in one word, simply just *drones*. Thus, indemnity forms a central figuration of the drone as something that "control[s] the sky with finger and eye" and which supports a fantasy of perfect invulnerability and immunitary warfare.

Of course, this fantasy is not new in the history of warfare and particularly not in the context of aerial assault and tele-warfare,[23] which I also addressed in the previous chapter on Jünger. Rather, as Frédéric Neyrat has noted, the dream of becoming "impregnable, out of reach of harm, is no doubt one of the most recurring fantasies of metaphysics,"[24] which is underscored by the previously mentioned myths of the (almost) invulnerable heroes such as

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19 Jacques Derrida, *Acts of Religion* (New York: Taylor & Francis Books Ltd, 2002), 77.

20 Ibid., 43.

21 Ibid., 61.

22 Ibid., 61-62.

23 As Sven Lindqvist writes in *A History of Bombing* (2001): "Many Christians imagine that God can fly and lives in heaven. In other religions: too, flight is associated with divine power and immortality. So what people saw as they stood there with upturned faces was not merely a new means of transport. In the ability to fly they saw a sign of human perfection, and they received it with an almost religious ecstasy."

24 Frédéric Neyrat and Roxanne Tr Lapidus, "Intact," *SubStance* 40, no. 3 (2011): 107.

Ajax and Achilles. Yet, the figure of *indemnic* invulnerability, so salient to the imagination of drone warfare, challenges the conventional Clausewitzian ideal of war as an equal enterprise involving a necessary element of physical as well as existential risk and danger. For Jünger, who also subscribed to the Clausewitzian ideal, these *dangerous moments* were indeed quintessential not only to his conception of the old virtues of warfare, but also to life as such.

Opposed to this glorification of the dangers and risks of warfare—with its inherent praise of military valor and heroism—figures the fantasy of full-scale protection embedded in the late modern military paradigm of drone warfare. This paradigm has evolved from a more general tendency to immunization in Western societies that Roberto Esposito has labeled the "immunitary democracies."[25] Expanding on Foucault's notion of biopolitics as the dominant form of modern governmentality, Esposito demonstrates how this bio-political frame has been increasingly structured as a preventive "immunological drive" aiming to seal off its citizens from any harmful intruders.[26] What these immunitary societies grant their citizens is, in other words, consistent with Derrida's idea of indemnity, that is, a promise of *not being touched*, of absolute security and protection. Building on the two constitutive poles of biopolitics, *biology* and *politics*, this logic of immunization "saves, insures and preserves the organism, either individual or collective" (Esposito 2006, 24). Thus, immunitary governmentality is motivated by the same prophylactic drive that Derrida addresses as indemnity, namely the drive to prevent all forms of harm and damage from external intruders. Its goal is a resilient community that is capable of preempting or absorbing any kind of trauma while preserving its basic functions.[27]

In its most recent and iconic form, this immunitary regime rose out of shock waves that rippled through the Western societies after the 9/11 terrorist attacks. As a cover story from *News Week* perfectly illustrates, this drive to remain safe and unscathed was released, or perhaps *revitalized*, after the illusion of Western immunity collapsed along with the Twin Towers: "The explosion shook more than the building: it rattled the smug illusion that

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25 Roberto Esposito, "The Immunization Paradigm," *diacritics* 36, no. 2 (2006).

26 While Foucault, particularly in his later writings on bio-power (which is, above all, the 1975-76 seminars on war and racism), defines bio-politics negatively as something hardly distinct from sovereign power, Esposito, on the other hand, responds with a much more affirmative bio-politics in which life is always stronger than the (sovereign) power that seeks to control it. Ibid., 23-24.

27 By this endeavor, the immunitary democracies is a continuation of Ulrik Beck's idea of the risk society (1986) or, in a more recent conceptual context, to the concept of preemption elaborated by, for instance, Brian Massumi (2015), as a drive to secure society from any possible, or *im*possible, future threats. Massumi, 15.

Americans were *immune*, somehow, to the plague of terrorism that torments so many countries."[28] Thus, more than anything 9/11 intensified the immunological drive to secure the Western national states from any future attacks.

Naturally, many strategies beyond that of drone operations have been mobilized to achieve this immunization. For instance, Harun Farocki has artistically explored the military practice of preparing soldiers for potential combat situations and war atrocities through virtual reality scenarios. Following the medical logic of vaccinating the body with a fragment of the same pathogen that it wishes to protect itself from, this practice has thus been used as a way of immunizing the military psyche although the efficacy of such practices is still disputed.[29] Moreover, the massive exposure to images of the collapsing towers that circulated in global media—mirroring the cultural arsenal of all too familiar scenes from various Hollywood disaster and war movies—contributed to mentally prepare and emotionally immunize the Western self against possible future threats through a form of déjà vu effect.[30]

Yet, besides revitalizing the immunization paradigm, the events of 9/11 also triggered a kind of "auto-immune response"[31] that generated a veritable war on images flooding the global TV-screens with more or less strategically orchestrated content. While the images of the air war over Kabul that followed in the aftermath of the attacks on WTC was, initially, visually designed as binary split screens of the good (Bush, Rumsfeld, Meyers, etc.) versus the evil (disembodied grainy-green nighttime shots of a deserted Kabul), this pre-programmed war mediation was soon to be interrupted. Unexpectedly, images that compromised the Western states now emerged and, as an autoimmune reaction, they found their way into living rooms across the world. Thus, in the age of global networks, networked terror, and network-centric warfare, information has become a "virus" as James Der Derian notes in relation to

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28 Newsweek, March 8, 1993, p. 22 (my italics), quoted in Der Derian xx Der Derian.

29 In his series *Serious Games I-IV*, Harun Farocki exposes the flaws in this imagination of immunizing the soldier psyche from traumatic perceptions through intense war scenarios mediated by computer simulations and virtual reality. See, Harun Farocki, "Serious Games / Ernste Spiele," (Berlin: Harun Farocki Filmpriduktion, 2010).

30 This is a point made by both Der Derian (2001) and Slavoj Žižek in *Welcome to the Desert of the Real : Five Essays on September 11 and Related Dates* (London: Verso, 2002). However, for a more thorough examination of the déjà vu as a construct of memory, the passage of time, and the "end of history", see Paolo Virno, *Déjà Vu and the End of History*, Verso Futures (Brooklyn, NY: Verso, 2015).

31 Der Derian, 236.

the WTC explosions, the Bin Laden tapes, and the Abu Ghraib photos concluding that "the auto-immune response is often worse than the original contagion."[32]

Similarly, the alleged traumatization of drone operators could be regarded as a product of an overexposure to images rather than of the sense of being at risk or in danger. As Neyrat has productively demonstrated, the processes of immunization thus take place "simultaneously with contagious globalization."[33] Accordingly, two seemingly contradictory processes take place simultaneously: On the one hand, a contagious mixture of "epidemic-like communication of phenomena that form a kind of ontological continuity," and, on the other hand, "an immunization of the Self (individual or collective) against otherness and against anything that could alter the Self."[34] Evidently, these contradictory processes also include drone operations: While designed to take away any threat of death or damage and thus immunizing both body and mind against any harmful intrusion, the drone simultaneously overexposes its operators to images of pain and suffering of which they are often the causing effect.

Thus, under the neat surface of an imagined "clean" and riskless war with its fantasies of total protection and invulnerability, a fear of contamination and overexposure lurks. It is this darker side of the myth of invincibility that I shall investigate in the following. Above all, it is a fear from a threat within, or as Ulrich Beck notes in relation to his notion of the risk society: "[T]he risks which we believe we recognize and which fill us with fear are mirror images of ourselves, of our cultural perceptions."[35] Similarly, the experiences of waging war from the safe distance of the screen has the potential to backfire on the drone pilots in the form of an auto-immune reaction not completely unlike the one Neyrat describes in relation to auto-immunitary democracies: "When attacking the other, we attack 'something similar to ourselves'; if we imagine in the other who resembles us a feeling of sadness, 'we are ourselves affected with a like emotion'." [36] What Neyrat suggests, then, is that the dream of total indemnity implies a disaffection and entrenchment from the world, which will always be impossible as long as we constantly and emotionally are connected by contagious images and data.

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32 Ibid., 266.

33 Neyrat and Lapidus, 111.

34 Ibid., 105.

35 Ulrich Beck, *World at Risk* (Cambridge: Polity, 2009), 13.

36 Neyrat and Lapidus, 12.

As we shall see, the figure of indemnity is also an idea that compromises itself and opens up in an auto-immune fashion. In fact, it is one of Derrida's key points that the quasi-religious character of technology ironically reacts to itself as a "slag of immunitary, indemnificatory or auto-immune reactivity."[37] While the figure of indemnity implies a drive to be unequivocally insured, protected and *immunized* against all harm and loss, it simultaneously *also* opens up for an autoimmune frailty "in a movement that is at once immunitary and auto-immune."[38] In the case of drone operators, this frailty appears as a paradoxical traumatization of "not being touched" while at the same time being overexposed to the death and destruction of the non-immunized. It is this paradoxical circularity that Derrida addresses when he notes how

> the auto-immunitary haunts the community and its system of immunitary survival like the hyperbole of its own possibility. Nothing in *common*, nothing immune, safe and sound, *heilig* and holy, nothing unscathed in the most autonomous living present without a risk of auto-immunity."[39]

In other words, there are no safe places left untouched and unscathed anymore since anyone and anything is constantly being exposed and being subject to overexposure. While this contradictory process of drone (in)vulnerability—traversing between indemnity and auto-immune reactivity, or, more specifically in the case of drone pilots, between emotional immunization and traumatization —could easily be either rejected as a media constructed hype, like Chamayou suggests, or accepted as a mere fact and as an "infernal circularity" to use Neyrat's phrasing, some new perspectives nevertheless emerge with the aesthetic drone imaginary as prism. In the following, I will analyze these perspectives in the two works, *Grounded* and *5.000 Feet is the Best*, in order to discuss how these aesthetic works can both challenge, but also sometimes unintentionally support, the persistent, though contradictory, figures of indemnity and drone trauma.

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37 Derrida, 81.

38 Ibid.

39 Ibid., 82.

Auto-immunity in Grounded

When the drama *Grounded* (2012) by British playwright, George Brant premiered at Gate Theatre during the Edinburgh Festival 2013, it was critically acclaimed for its ability to weave together some of the key issues circulating in the public debate on drone warfare. The play, a one-woman monologue, features a nameless heroine who adores her job as a F16 fighter pilot in the US Air Force. She appears before the audience as a strong and highly trained aviator, whose personal and professional identity lies faithfully in her devotion to the Air Force. She is highly stimulated by the thrill of tearing across the sky at supersonic speed, mixed with the dangers and risk taken every time she flies.

When she unintentionally becomes pregnant, she is, however, forced to substitute her old life in the Air Force with a job as a sensor operator in the "Chair Force," one of the play's many military idioms for the evidently safer work as drone pilot operating from a desk at the Creech Air Force base in Nevada. In her own words she is *grounded*—devastated, and ashamed of her forced change of career, which she sees as a clear degradation. But while loving her baby she decides to consider her new job as an opportunity to combine her military career with that of civilian motherhood. However, the work-life balance of her new job as a war-commuter ends up breaking her as she becomes deeply traumatized by her experience of waging war without risk.

While many critics have praised *Grounded* for its powerful staging of the traumatic consequences of killing without risk and the theatrical experience of being "ambushed by empathy,"[40] few have engaged with the problem of drone (in)vulnerability or how the play aesthetically articulates the duplicity captured in the desire to remain unscathed. Naturally, *Grounded* has first and foremost been interpreted on the premises of its own *genre*—in terms of performativity and spectatorship—in which the "theater itself bec[omes] a space of surveillance and judgment."[41] While acknowledging such interpretations and the play's overall critique of global surveillance networks, I will, however, suggest a reading of the play in relation to the complex figure of drone (in)vulnerability through the autoimmune logic of indemnity.

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40 Elise Morrison, "Ambushed by Empathy: George Brant's Grounded," *TDR/The Drama Review* 58, no. 4 (2014).

41 Ibid., 168.

Goodbye Blue Sky

First of all, the figure of invulnerability is shaped through its contrast to the risks associated with war in general and to flying in particular. The one thing our heroine misses the most in her new job is the blue sky, which is repeatedly referred to as "the blue," a first clue of the significance and symbolic value of colors throughout the play. Both in the heroine's monologue and through the scenography surrounding her, colors dominate the visual design of the play, gradually fading from clear blue into the monotonous monochrome world of the drone. As we shall see, colors can thus be seen as a symbolic coding system representing certain qualities and affective modes of warfare, all of which have to do with the traumatic experience of killing without risk.

From the very beginning of the play, the color blue is ascribed to vital qualities such as speed, danger and valor, scenographically accentuated by a clear blue sky forming the background of the stage. These qualities can easily be associated with the traditionally masculine and risky job as a fighter pilot, which the heroine strongly identifies with: "I have color […] I have blue," "I've got the blue," "It's good to be back in the blue. Alone in the blue […] I want the sky I want the blue."[42] In her hectic monologue, the blue sky, and more generally the color blue, become nostalgic values in a lament of the old way of waging aerial warfare; a mode of operation in which the opportunity to go vertical indeed improved mobility and the access to visual information, aerial reconnaissance, and remote destruction, but also posed a permanent risk to the aviator.

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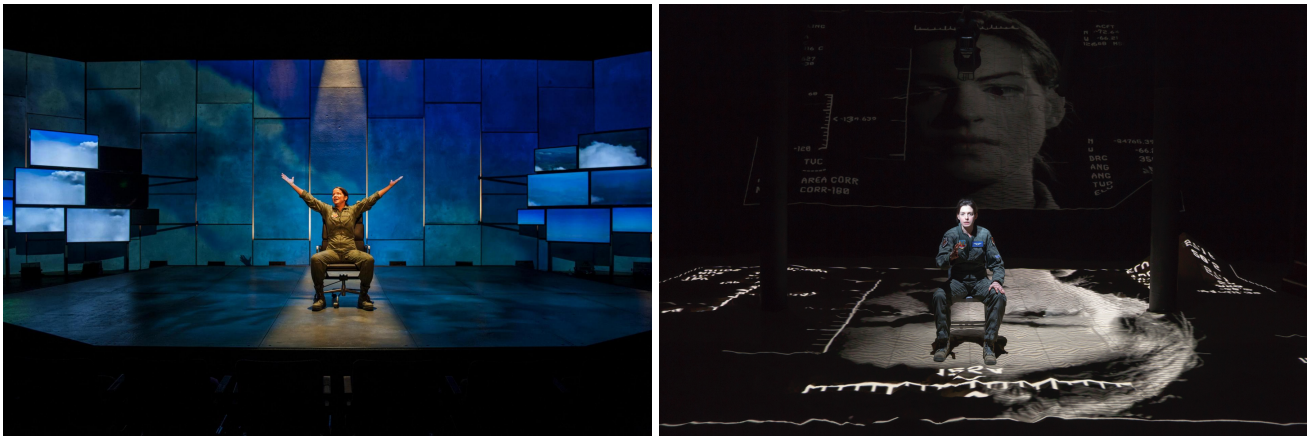
42 Brant, 23-24. (In the following paged in paranthesis).



Two different staging of Grounded showing the role of colors in the scenography (respectively at Everyman Theater, Baltimore, and The Public Theater, New York)

In this context, the pilot's passion for flying can be seen as a thinly veiled reference to *Top Gun*: "It's the speed / It's the G-Force pressing you back as you tear the sky […] I have missiles to launch / I have Sidewinders / I have Mavericks" (21), she states echoing Tom Cruise as Top Gun's Lieutenant Maverick, who feels a similar "need for speed."[43] Thus the play reacts to the set of conservative military values promoted by *Top Gun* and other war films from the 1980s that have been criticized for encoding the Reaganite ethos of militarism celebrating individualistic heroism, military valor, masculinity, and the honor and glory of serving in war.[44]

These are values that the pilot strongly identifies with, underscored by her appearance at the stage dressed in an Air Force flight suit: "I never wanted to take it off," she opens the play. Admiring herself in the mirror she believes she earned this: "This was who I was now who I'd become through sweat and brains and guts / This is me." (21). She is, in short, totally and unconditionally defined by her professional identity as a fighter pilot. Her pride and pleasure in flying is further emphasized when she meets Eric, the soon-to-be father of her child. Turned on by what appears to be a fly-girl fantasy, he asks her to put on her Air Force suit whenever they have sex declaring that he can "feel the sky" in her. The culturally installed

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43 Quite tellingly, an officer involved in the Feb 21 drone strike support this certain culture: "It's like Top Gun, everyone has the desire to do our job; employ weapons against the enemy". (AR 15-6 Investigations).

44 James Combs, *Movies and Politics : The Dynamic Relationship* (New York: Garland Publishing, 1993), 58.

celebration of the aerial world of speed, height, heroism, and sex could thus not be more clearly expressed. [45]

But then, the pilot feels as if "something's breached" (23). Taking a pregnancy test that turns out to be pink and thus positive she exclaims: "Pink. I'm pink. Pink. Fuck" (24). All of a sudden, the masculine-coded world of the blue sky vanishes with its separation of war and home and its culture of getting a beer at a bar after a successful mission. Instead she enters the pink world of maternity, marking her shift from one gendered position to another, as her gender now signifies vulnerability, something that should be kept protected, safe and sound.[46] After the "breach" she therefore becomes grounded and then, when her drone training is completed, she experiences the ultimate humiliation, or castration even, as she earns "the Chair Force pin" which is fastened to her suit. She notes how "[they] puncture my suit with the pin so it becomes part of it part of me / I try not to look in the mirror." (37). Here, the act of looking in the mirror is reversed from the merely affirmative reflection featured in the opening line of the play—where it evidently supported the pilot's self-admiration as a courageous war heroine—into a mirror that only pictures her feeling of shame, futility, and loss of flying: "A grounded pilot that wears a flight suit." (34).

For the pilot, to become *pregnant* thus also means becoming *pregnable*; she is now vulnerable, not to enemy bullets, but due to her biological gender and the child she carries. In short, the sexual intrusion of her body leading to her pregnancy is mirrored by the ceremonial penetration of her uniform with the pin. In this view, both penetrations serve as injections of her body with auto-immunity as the Chair Force pin, ironically, marks her new position as *impregnable*, out of reach of harm; yet, at the same time, it marks a repositioning of her as an object of male penetration.

Yet, the penetration of the pilot's uniform only makes her even more desperately attached to it.[47] In order to conceive her work as "real", the pilot thus begins to wear her

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45 In the history of Western thought courage has usually been casted as an archetypically masculine virtue, as exemplified by the Greek word for courage, 'andreia,' or literally, 'manliness.'

46 Of course, one could challenge such a rigid perspective on gender—as it is presented, for instance, by Christine Evans (2015) in her reading of the play—by seeing the drone (and its operator) as a much more "genderqueer" body (Daggett 2015, 352). Although highly interesting, however, this is not my focus here.

47 As Sara Brady comments in her reading of the play, the pilot needs her suit for the same reason that actors dress in costumes during rehearsals, "it's a way to *believe* in what she does at work, and by believe I don't mean believe that it is right or good but that it is *real*". Sara Brady, "God, the Pilot, and the Bugsplat: Performance and the Drone Effect," 8, no. 2 (2015): 36.

uniform all the time, even at home, and when Eric asks her to take it off, she refuses, telling him "It's how I know who I am." (57). For the pilot, then, her uniform functions as the "Armor Fou" of the play to use Hal Foster's phrasing elaborated in the previous chapter.[48] It thus attains a shielding function similar to that of Jünger's armored human-machine, the fortified warrior-worker gestalt, which I introduced in the previous chapter. However, as opposed to the steely worker gestalt of Jünger's, the pilot's uniform does not serve as a protection against any form of physical damage anymore (no need for that in an air-conditioned trailer in Nevada). Rather, the uniform works as an imaginary signifier supporting her personal belief in her new job as a Chair-force operator. In this job, all sorts of risk and danger have been erased from the equation—illustrated by her ironic comment that instead of missiles she now "arm[s] [her]self with coffee" (59)—which essentially turns the uniform into an emptied sign with only symbolic reference to war.

In short, the uniform becomes a figuration of the invulnerability of the drone in which the armoring of the body primarily serves as an illusory protection—a kind of emotional immunity that dulls the operator's affective impulses—rather than as a defense against any physical danger. Yet, as it was also the case for Jünger's ideologically and metaphysically coded worker gestalt, the armored body is more than anything a symptom of an unprocessed trauma; in the case of Jünger's worker-warrior it was the trauma of the roaring war machinery of World War I, while in the case of the heroine in *Grounded*, it is, as we will see, the trauma of killing without risk, of being *invulnerable*. So while the primary function of the uniform supposedly should be an emotional panzer shielding the pilot from the alluring psychological attack on her integrity caused by the increasing unease of bombing defenseless targets from thousands miles away, it actually turns out as quite the opposite.

Thus, the ritualized gesture through which the pilot earns her Chair Force pin can be interpreted dually as a kind of double penetration: On the one hand, the gesture symbolizes an infiltration of her body armor by which she imagined herself to be a courageous heroine, an identity and armored personality that is now "breached." On the other hand, the penetrating gesture is itself an injection with immunity—or, as termed in this chapter, of *indemnity*. In other words, the metaphorical transmission from the Chair Force pin to that of a vaccine needle is how indemnity is installed in the play as a figuration of invulnerability,

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48 With the term "armor fou", Hal Foster refers to the historical armoring of the body—as evoked in machine fantasies in particularly Max Ernst's early dada collages—to a psychic deforming of the subject. Hal Foster, "Armor Fou," *October* 56 (1991).

which Derrida describes in his essay as the "fatal logic" of "auto-immune auto-indemnification."[49]

It is precisely "the drive to remain unscathed, on the part of that which is allergic to contamination, *save by itself, auto-immunely*"[50] that makes the process fatal. What Derrida suggests, then, is that the act of immunizing inevitably reacts auto-immunely to *itself*. So it was for the religions that began to count too much on themselves, and so it is with the immunitary communities for whom nothing is immune, safe and sound, or unscathed, without a risk of auto-immunity. As always for Derrida, this auto-immunity hits the community like a boomerang as the hyperbole of its own possibility, taking charge of the same risk that it sets out to eliminate and without which it would be useless. As we will see, this "fatal logic" of auto-immunity is what eventually brings down the pilot, since the immunization with drone invincibility is what ends up violating her mental soundness.

As mentioned, this paradoxical (in)vulnerability of drone warfare is visually staged by George Brant as a shift in colors from blue to grey. Thus, when the pilot is informed by her superior that she will not return to the blue sky after her maternity leave, but instead stay grounded as a drone operator, her world literally turns grey: "An air-conditioned trailer that seals me off completely / from all sky all blue" (37). It is a *Goodbye Blue Sky* as the Pink Floyd song goes, referring to the loss after World War II of a "brave new world unfurled beneath a clear blue sky," or, in the more direct context of drones, it is mirrored in the quoting of a 13-year-old Pakistani boy, Zubair Rehman, in Belgian photographer Thomas van Houtryve's project "Blue Sky Days" (2013-2015). After barely surviving a drone strike that killed his 67-year-old grandmother, who was picking okra outside her house, Rehman explained to a group of lawmakers: "I no longer love blue skies. In fact, I now prefer grey skies. The drones do not fly when the skies are grey" (van Houtryve 2015). The reference to the boy's painfully articulated loss of his grandmother—and of the faith in the blue sky and a just world more generally—highlights the metaphysical character of the drone as an omnipresent and invulnerable power "controlling the sky *with finger and eye*," as Derrida noted. Yet, from the highly Westernized perspective of *Grounded* it is not the greying of the sky as seen below that is in focus, but rather the drone pilot's greying experience of war as seen from above, from afar, from home, as a lost world of risk, intensity, and military valor.

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49 Derrida, 78.

50 Ibid., 63.

In short, the goodbye to the blue sky is at the same time a farewell to warfare as we know it, in which elements of risk, danger, and bravery have played a definable role since ancient times. It is a goodbye, then, to the naively innocent and uncritically fetishizing culture of Top Gun, ironically underlined by reports that the recently announced sequel *Top Gun 2* centers on drone warfare as the definitive end of the fighter pilot era.[51]

Bringing War Home

The goodbye to the risks and vulnerabilities of the blue sky also means a hello to an entirely new topology of the warzone as waged from home —or is it perhaps more of a *salut*? As the starting point for his exegesis of indemnity, Derrida plays on the different meanings of the French word "salut," which can refer both to safety and salvation and, more commonly, to the greeting gesture "salut!" captured in the difference between health and the wish for health, "health" and "hail!"[52] As Michael Naas has noted in relation to Derrida's essay, the two former meanings of *salut* concern the abstract power or capacity to grant safety or salvation, while the third one is "indeed a welcome that just may compromise the power, capacity, and even the identity of a subject who believes him or herself capable of offering safety or salvation in the first place."[53] In short, the exclamation of *salut!* opens up the power for contamination. It is this form of *salut* that is inaugurated by the drone as an indemnifier that brings the battlefield home in safety.

While the political purpose of securitizing the battle zone by moving its active agent thousands of miles away is obviously to minimize any potential risk and danger, bringing war home instead compromises the apparently safe zone by opening its protection up for auto-immune threats. These threats are, as previously stated, the increasing traumatic re-actions in the form of combat fatigue, war neuroses and, above all, the day-to-day stress of switching between the two worlds of war and home.

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51 Matt Goldberg, "Top Gun 2 Will Explore Drone Warfare and the End of the Fighter Pilot Era," *Collider* (2015), http://collider.com/top-gun-2-story-details-drone-warfare/.

52 Derrida, 84.

53 Michael Naas, *Miracle and Machine : Jacques Derrida and the Two Sources of Religion, Science, and the Media*, First edition ed., Perspectives in Continental Philosophy (New York: Fordham University Press, 2012), 51.

The collision between family life and military violence has sometimes been conceptualized as a "militarization of everyday life."[54] While this civil militarization thus blurs the boundaries between war and civil life it also, as Joseph Pugliese notes, "articulates the colonizing of civilian sites, practices and technologies by the military."[55] One of the most iconic sites of this colonization is of course the grey desert of Nevada—at once a place for casinos, suburbia, and military airbases—all of which become the new home and working place for the pilot in the play. She is now "in war by way of Las Vegas" (32), a place where she can pursue her military career while simultaneously coping with the pleasures and pressures of civilian motherhood.

The pilot has now become the type of soldier that has been critically labeled "cubicle warrior" who "commutes to war," [56] which is underscored, as she describes her typical working day for her husband, Eric, as shift work: "I will work seven days a week a twelve-hour shift and then each night I will come home / home to you and Sam." (32). At first, the small family chooses to see these new conditions of warfare as a "gift," allowing them to live an ordinary domestic life, in which the routine of killing from the distance is casually regarded as just another day in the office. In the heroine's words, she thus gets the best of both worlds:

> I get to fly again
> sort of / […]
> I will see my daughter grow up
> I will kiss my husband goodnight every night […]" (32)

She therefore realizes that her Commander was right about how privileged it is to be one of the "untouchable" drone pilots who "get to kick ass and screw our husbands and kiss our kid's forehead goodnight." (47).

Imperative to this way of waging war in the mornings while living a family life in the evenings is the capacity to strictly partition between the two. Among others, Derek Gregory has identified this rhythm as a "switching between worlds" by which he refers to the constant emotional adjustments that one drone pilot describes as a "schizophrenic existence between

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54 Joseph Pugliese, "Drone Casino Mimesis: Telewarfare and Civil Militarization," *Journal of Sociology* 52, no. 3 (2016); Masco, 6.

55 Pugliese, 2.

56 Lambèr Royakkers and Rinie van Est, "The Cubicle Warrior: The Marionette of Digitalized Warfare," *Ethics and Information Technology* 12, no. 3 (2010).

two worlds."[57] Chamayou has referred to the practice of switching between these two worlds as an act of "compartmentalization," that is, the ability to switch on and off two radically different sides of the personality.[58] While reportedly, the military deliberately seeks to recruit personnel with well-developed skills in this regard, Chamayou critically notes how these strategies of compartmentalization function as a form of immunization—as "the industrial production of compartmentalized psyches, immunized against any possibility of reflecting upon their own violence, just as their bodies are already immunized against any possibility of being exposed to the enemy."[59]

In other words, what we are talking about here is indemnity understood as a practice of emotional immunization, something that can both be trained and recruited for. In this practice of "compartmentalization" and "immunization" of the psyche even the simplest rituals are used to maintain a strict barrier between home and the war zone. In *Grounded* this zone is illustrated by the aforementioned symbolic value of the uniform that served as a reminder of war. As I argued above, the problem for the pilot is not, however, that she forgets the ritual value of the uniform as a war signifier, but rather that she utilizes it *too much* by wearing it all the time. She therefore loses her ability to compartmentalize fairly quickly in the play as she keeps wearing the flight suit at home and even at night and thus breaks up the firm boundary that it was supposed to establish.

Anesthesia and Disaffection

As an alternative strategy of compartmentalization the pilot introduces what she calls "special time" in the mornings where she takes extra good care of her daughter, Sam.[60] Her idea of being at war while at the same time practicing a safe and sound domestic life in which "[t]he

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57 Gregory, "Drone Geographies," 8.

58 Again, Chamayou refers to the military psychologist Hugo Ortega who has stated that "[w]hen recruiting, one should select agents who spontaneously manifest a strong ability to compartmentalize, who "can switch off work and switch on home," put things to one side and not think about them – agents capable of not thinking." Chamayou, 123.

59 Ibid.

60 Again, the issue of gender appears as the name Sam—even though it could probably be short for Samantha—has a somewhat masculine ring to it, thereby signifying yet another lament of the pilot's broken Top Gun-dreams of flying.

threat of death has been removed" (32) thus seems to have been perfectly installed. Yet, as our heroine gets used to the repetitive routine of "[d]riving to war like it's a shift work" (36), her initial appreciation of the elimination of danger soon diminishes and turns into indifference, boredom, and emotional detachment; in short, she has become emotionally immunized or perhaps anesthetized.

As Neyrat has noted, building on Esposito's idea of immunitary democracies, this phenomenon of anesthesia is "consistent with protecting oneself from everything—from pain and its field of experience."[61] It is, in other words, the figure of indemnity surfacing again as the drive to remain untouched and unscathed even when experiencing the pain of others. In this light, the immunitary democracies "protect the immunized by producing a *disaffection from the world*, from the other."[62] It is a way of being immunized and anesthetized against a world of injustice, violence, and disaster, leaving the subject insensitive as a detached spectator, a kind of "disaffected eye contemplating the agony of the victims, the eye of intangible bodies gliding 'above' the world" (ibid.). Similarly, the pilot in *Grounded* hovers above the world gazing indifferently, sometimes even scornfully, at the tiny dots on the screen that represent men on the ground.

However, to obtain the perfect "disaffected eye" is indeed an acquired skill that needs to be trained. And even though the pilot has now become repositioned as an "eye in the sky" gliding safely above the world, she does feel something, not least when she is faced by her first kill. Her immediate affective response to the experience of killing without risk is apparent from the opening quote of this chapter:

> I'm not there I can't be killed the threat of death has been removed there is no danger to me none I am the eye in the sky there is no danger but my pulse quickens why does it quicken I am not in combat if combat is risk if combat is danger if combat is combat I am not in it.[63]

Even though the pilot is now immunized against any physical harm, as "the threat of death has been removed," her emotional filter has obviously not been completely immunized yet, which is indicated here and elsewhere by her white knuckles, sweating, quickened pulse, and

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61 Neyrat and Lapidus, 110.

62 Ibid.

63 Brant.

the hectic syntax with its lack of punctuation. But after blowing up an alleged "military aged male" she takes a break and her adrenaline level decreases, her hands stop shaking, she gets back in her chair, and the routine continues as she "look[s] at the grey for another six hours;" (42) in other words, she has moved one step closer to total emotional immunization.

As already suggested, the figural expression of the emotionally immunity, anesthesia, and disaffection is staged through the color grey: For instance, the pilot's working days are consistently described as "grey days" in which she "stare[s] at grey" (38) in "a dark trailer / grey even." (45) After "a month of grey," (47) her behavior gradually changes; she becomes absent-minded and her sense of time slowly dissolves. When she earns a week's leave, she sincerely wants to spend it on "special time" with her daughter going to the mall and playing with Sam's favorite pink toy ponies. However, exhausted by the month of grey, she ends up sleeping most of the week; a troubled sleep, though, guilty of failing her daughter's expectations to their special time. When she wakes up, there are ponies on her pillow: "Pink ponies everywhere / Guess we had special time after all." (50) While the sense of homeliness and family life—as opposed to the shift work of killing without risk—is here symbolized by the contrast between grey and pink, it is, however, a contrast that gets increasingly blurred as the play proceeds.

Like the pilot's indistinct account of the grey months and weeks—including her blackout and lack of special time with her daughter—clearly tells us the issue of temporality is a crucial problem in the play. In fact, what triggers the heroine's escalating mental distress is not a single traumatic event such as witnessing gruesome terror, violence, and atrocities. Rather, the trauma appears as an *absence* of events, revealed by what seems like endless repetition and a deranged temporal structure, which makes her experience of time become increasingly out of joint.

In the beginning, when she starts her job in the "Chair force," she meticulously keeps track of time by reporting the exact intervals of her and the family's comings and goings. For instance, the first morning she drives to war, she notes "then it's time / 0700 Eric kisses me goodbye I kiss Sam / I hop in my car and drive downrange," (33) as if the exact time indication formed as James Bond-digits makes her job more important, honorable, and dangerous. Slowly, however, her careful account of time dissolves and becomes absorbed in everyday routines and the monotonous rhythm of commuting to war:

> Every day
> Every day

> Every day they greet me home from the war
>
> It would be a different book
> The Odyssey
> If Odysseus came home every day
> Every single day
> A very different book (51)

As the passage clearly shows, the notion of time becomes a tricky constellation in the endless, repetitive drone waged war on terror, which the pilot refers to as a "never-ending mission." (35) Here, her reference to the Odyssey is yet another lament of the traditional temporal logic of warfare as it has been since Antiquity, in which the return of the warrior marked the end war and was celebrated as something extraordinary and honorable, *precisely* because it finalized a process involving danger and risk. She therefore hits the nail on the head when she concludes that the *Odyssey* would indeed be a very different book if its hero had returned from war every day, since, as we know, it takes Odysseus ten years to reach Ithaca after the ten-year Trojan War. Again the old martial code and military valor is thus established as a contrast to the smooth day-to-day routine of waging riskless war with drones from home.

Yet, at the same time a strange symmetry links the tactical maneuvers of the Trojan War to the figure of drone invulnerability. Beginning with Achilleus' rage and ending with Odysseus' cunning, Homer's epics indeed formed a sort of progression from raw passion toward intellectual and technological superiority, which foreshadows the era of drone indemnification. In this context, Odysseus' strategy of infiltrating Troy with a seemingly harmless horse builds on the logic of auto-immunity as the invading force of the Achaens was seen not as intruders or hostile "antigens" from the Trojan inside, but rather as friendly "antibodies" that were integrated into the Trojan organism and therefore not considered a threat. Following this "fatal logic" of auto-immunity, the Trojan's *salut* to the horse was therefore what opened up their fortress for contamination.

In other words, the invisibility, and hence "invincibility," of drone operations, in which the enemy is taken by surprise by an unseen or well-camouflaged force, is not at all new in the cultural history of warfare. Yet, a major difference between drone indemnity and Odysseus' strategy of infiltrating Troy is present as a displacement of the very place of battle. While basically being a well-planned ambush attack, the Odyssean invasion of Troy was, following the logic of indemnity, an injection with auto-immunity to the Trojans rather than an autoimmune reaction to the Greek "body" itself. In short this maneuver was a sneaky, though also risky, invasion of enemy territory that indeed involved imminent danger. Further, the deception of and subsequent raid against the Trojans was designed as a one-off affair: the

ultimate event. By contrast, the pilot in *Grounded* experiences war as a fundamental lack of exactly those two features, risk and event, which is ultimately what causes her loss of temporal sensation as she is greeted home from war every day. What is revealed by the plot structure in *Grounded*, then, is more than anything else a dismantling of the narrative logic of war according to the Odyssey. This is a logic that builds on a "there-and-back-again" structure, in which the hero is formed by his war experiences and returns as a wiser and more completed man. The same certainly does not hold true for the pilot.

While I shall soon return to the play's additional multitude of references to ancient Greek mythology, the mere monotonous and eventless transitioning between home and war is, on a more down-to-earth level, what slowly but surely drives the pilot toward insanity. Bringing war home thus means that the two worlds she was supposed to shift smoothly between—the world of home and the zone of war—become increasingly blurred. In short, she loses the ability to "switch between worlds," and instead the two worlds merge into one, the grey world of the screen in the dark trailer. While the figural value of the uniform failed as marker of the temporal adjustments between wartime and family life, she turns to colors as a way of partitioning time. But as we have seen, these attempts to compartmentalize fail too.

An important aspect of the problem of compartmentalization and the difficulties experienced by the pilot of switching between the military and the domestic world is linked to her imagination of being invulnerable and untouched, of being impregnable, out of reach of harm of anything, and thus in a sense "outside" the world. Core to this fantasy of indemnity is the mythological imagery that generally dominates the military discourse on drones,[64] which is particularly distinct in *Grounded*. Thus, the mythological names for the military technologies—Reaper, Hellfire, Gorgon (which will be elaborated in the next chapter)—feature frequently in an almost jovial and playful tone throughout the play.

Seemingly, the pilot starts making fun of these military metaphors out of mere boredom. For instance, after gazing at some suspect jeeps on her screen for almost 12 hours, she mockingly declares that "we watch over you my children we protect and destroy you yes Virginia there is a Santa Claus above you and there is a ninth reindeer and her name is Hellfire." (46) From the quote, it is clear that the pilot arrogantly imagines herself and her team of drone operators to be far above her enemies on the ground, both literally and

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64 As a matter of fact, through his extensive research for the play, George Brant interviewed several drone pilots in order to make his manuscript become as close to the military jargon as possible (source)

figuratively, achieving a divine position as gods. In her own words they are "drone-gods" communicating with "[t]he headset god of the sky" (46) and operating from "Olympus," that is, from the mountain where the Olympian Gods dwelled according to Greek mythology. "Olympus is a trailer in the middle of the desert," (46) she ironically notes. Again, we see the reference to ancient culture, but this time it is not the (semi-human) heroism of Odysseus or Achilleus that is at play but instead the most powerful, and therefore untouchable, forces of the universe. Here, the figural meaning of the camera system mounted on the drone called the "Gorgon stare" (which will be elaborated more in the next chapter) highlights the nexus between mythology and surveillance: "The Gorgon Stare: Infrared. Thermal. Radar. Laser. A thousand eyes staring at the ground," (35) as the pilot notes, clearly impressed by her new technological empowerment that brings her "1.2 seconds from anywhere in the world." (35)

What perhaps started as a joke, however soon becomes reality for the pilot. As she becomes more and more immersed in the virtual world of the screens, she begins to imagine herself from above as if she is split between two positions at once, partly on the top of Mount Olympus watching herself, and partly on the ground as the one being watched. Her sense of time and place dissolves and slides into an almost mythic time, which becomes cyclic in its endless repetitions. Her imagined god-like position of watching from above thus melts into a creeping paranoia and a sense of constantly being monitored. This feeling culminates on her trip to the mall with Sam where she spots a surveillance camera in the corner of the wall and notices that "someone is watching us." (48) Trying to calm herself, she calls out to those whom she probably imagines to be her fellow gods watching over her: "My Daughter is Not the Guilty and her Stroller is Not a Jeep." (48) But as her little game of playing god is gradually turning into a rapid-growing personality disorder, her distinction between war and civil life dissolves, and her sense of whether she is in "PC Penney or Afghanistan" (48) does so too.

Droning the Desert

The pilot encounters a lack of clear boundaries between war and home as an increasing paranoia, which escalates as she starts mixing up not only the colors, but also her very sense of where and who she is. Here, the grey desert landscape, which is predominant both on the screens in the airbase and in the natural environment she drives through every day, becomes subject to her growing temporal and spatial disorientation. Her uncertainty about what desert

she is actually looking at and driving through, is clearly expressed as she notes how "I am above me I am me / I'm not entirely sure where I am." (58)

The pilot's spatio-temporal uncertainty only escalates as she and her drone crew are given a new mission in which they are supposed to find and eliminate a prominent terrorist leader, an alleged "Number Two" on the kill list. But while observing a suspect convoy that suddenly splits up with each car driving in different directions, she gets confused. With her gaze fixed at the "guiltiest-looking" vehicle she then starts imagining it to be her own car as it "likes [to] drive in the desert" too. Her misperception becomes total as she starts doubting her actual location:

> Same war different desert
> Or same desert different war
> No different desert different war
> I don't know (53)

Here the metonymic relation between the Nevadan desert and the Afghan ditto is a principal force in the destabilization of clear boundaries between home and the warzone as well as between reality and imagination. In fact, the desert motif itself points to this uncertainty as it is known to provoke mirages, hallucinations, and fata morganas, and, above all, leading to the central problem of *deserta*, of absence.[65] Thus, the desert is etymologically defined by negation, that is, by its essential lack of any meaningful difference and thus also of any distinction between life and death. It is the ultimate figure of abstraction understood both as emotional immunity and pure absence of meaning. This absence is artistically orchestrated in the play by the scenographic grey emptiness surrounding the pilot, who at some point pronounces the object for her stare as

> […] grey putty
>
> Nothing
> Nothing
> Nothing
> Nothing (39)

Here the bleak and abstract landscape, which the pilot is then both physically surrounded by and tele-technologically immersed in, becomes yet another image of the ultimate absence of event and risk constituting the idea of drone (in)vulnerability.

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[65] Deriving from Latin "desertus" meaning "abandoned, deserted, left" (Oxford English Dictionary).

The relationship between the two deserts—the one mediated through the screen, the other physically experienced as a commuting space—also points to something else; namely to a certain "passion of the real", which Slavoj Žižek addresses in his book *Welcome to the Desert of the Real* (2002).[66] In the book's title, Žižek quotes the character, Morpheus, from The Wachowski brothers' film *The Matrix* (1999) who utters the iconic words after the protagonist, Neo, wakes up from his computer-generated virtual reality finding nothing but a post-apocalyptic desert. For Žižek, this utterance becomes the prime example of the late modern desire for the real[67] with the 9/11 terrorist attacks as its culmination marking the ultimate artistic expression.[68] Yet, my point here is not to follow Žižek in his ideological critique of the popular imaginary and its foreshadowing of 9/11, but rather to dwell for a moment on the subtext of both Žižek's book title as well as the line from *The Matrix,* both of which refer to Jean Baudrillard's classic *Simulacres et Simulation* (1981).

In his explanation of the simulacrum, Baudrillard draws on a fable by Luis Borges featuring a map that becomes so extensively detailed that it completely overlays the territory it portrays. In short, the map has come to replace the real territory and is now "the real, and not the map, whose vestiges persists here and there in the deserts and are no longer those of the Empire, but ours. *The desert of the real itself.*"[69] According to Baudrillard, the "desert of the real" is the few remaining shreds and ruins that are still discernable in the deserts as rotten carcasses and lost memories of the Empire's pride. It is the last token of a world that has been absorbed in digital simulation and virtual reality, and, hence, it is the physical remains of a world experienced virtually through the screen by the drone pilot in *Grounded*.

The Nevadan desert, through which she drives to work and back, becomes such a "desert of the real." This is evidently illustrated in a sequence when she drives home through the desert and imagines herself and the car as seen from above as "[a] tiny grey car driving

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66 Žižek.

67 Explored, for instance by Hal Foster in *The Return of the Real : The Avant-Garde at the End of the Century*, An October Book (Cambridge, Mass.: MIT Press, 1996).

68 Žižek's point here is not to reduce the 9/11 explosions to yet another post-modern media spectacle—like Baudrillard did with the Gulf war claiming that it never took place—but rather to ask the simple question: *where have we seen these images before?* The answer is of course: in the popular fantasies. So, even though the collapse of the twin towers appeared "unimaginable" to Western spectators, it nevertheless resembled *something* well-known, and that something was indeed "the desert of the real". Žižek writes: "for us, corrupted by Hollywood, the landscape and the shots of the collapsing towers could not be anything but the reminiscent of the most breathtaking scenes in big catastrophe productions". , 16.

69 Jean Baudrillard, *Simulacra and Simulation* (Ann Arbor: The University of Michigan Press, 1994), 1.

through the grey desert." (54) Like previously, her perception of where she is situated—above the map or as part of it—is blurred by uncertainty. Feeling unwell, she then stops in the middle of the desert to "stare up at the black / Remember the blue." Again, colors serve as signifiers of meaning in the pilot's imaginary world of greyness. Only now even the sky, which she recalls as a vital blue that she used to tear across in her beloved F16, has turned black and empty like the barren desert. Her *passion of the real* becomes even more desperate as she passes a bunch of crosses "hammered into the sand […] with no names on". Then she notices:

> Somebody put them here
> Maybe on the way home
> As some kind of
> Bringing it out of the grey
> Making it real (54)

Here the crosses evidently become charged with meaning not merely through their status as Christian symbols, but even more through their status as *graphic figurations* in the desolate landscape. The pilot's words are remarkable: She talks about a cryptic *somebody* who had put them there, maybe on the way home, and this indicates that it might have been herself, or perhaps some other war commuter. But she immediately cuts off her own sentence as she struggles to find meaning with the crosses anyway, except for their function as antithesis to the grey. In other words, the crosses are literally "vestiges" in the desert of the real, but vestiges of what? Are they monuments for the dead that she killed in her virtual war? Are they markers on her virtual map; are they targets of her bombs? Or are they crosshairs on her screen? The answer does not seem to be evident, neither to the pilot nor to the audience of the play. Rather, the crosses seem to indicate a "passion for the real" as a direct counterpart to the fantasy of remaining untouched. Yet, it is a passion without any link to the grey world of screens, safety, and total protection.

The desert's lack of answers, colors, and any firm distinction between war and home escalates when the pilot gets home and is for some reason convinced that her daughter, who sleeps soundly, is not breathing and has turned grey. But when she grabs her, the girl screams and as the light is turned on she notices how "[c]olor comes back / She's pink again / Pink is good pink is very good I'll take pink now I'll take it." (55) While the pink color was supposed to guarantee homely intimacy, stability and safety as the ultimate figure of the "unscathed, safe and sound" (remember how it also marked her pregnancy test as positive), its meaning has now been irrevocably damaged by the pilot's auto-immune reaction to her safety in the

form of a creeping paranoia, stress, and hallucinations. In other words, the immunitary logic of bringing war home ends up violating its own soundness as an auto-immune response.

You Are Not Safe

The pilot's psychological crisis culminates toward the play's grand finale as she, a couple of days later, again observes the desert from the grey screen tracking the suspected "Number Two" terrorist. Once more she is convinced that the car which she observes on the screen is identical with her own car. Then, she notes how "my car leaves the desert," (67) and as it stops in front of a building, the terrorist gets out and is quickly identified, she is immediately commanded to take the shot by her superiors. But then, a little girl enters the scene running toward the "Number Two" terrorist. Once again the pilot imagines the girl to be her own daughter, and instead of obeying the order to shoot, she pulls back the joystick turning the drone upside-down with "its swollen belly to the sky […] the innocent sky […] Blue / It's there in the grey […] Then black." (68)

On another screen, she then witnesses her crew blowing up what she believes to be her daughter noting how the "team cheers as my daughter dies." (69) As the scene changes, the light shifts and a sound of static grows, marking that the pilot is now tried at a court martial. In her own words, she is once again "Grounded," but while the title of the play initially referred to the word as a prohibition from flying, it now acquires an ironic double meaning: She is now "grounded" in the more informal and inherently domestic notion of the word as in placing a child under house arrest, once more underscoring the blurring of home and war. Or, perhaps she is "grounded" in a more sarcastic way, denoting a state of mind of being well balanced and sensible, of being mentally safe and sound, something that the pilot is certainly *not*. What happens with the pilot in *Grounded*, then, is a result of the "fatal logic" of auto-immunitary indemnity caused by the loss of military valor, emotional immunization, and the intrusion of war in the intimate home sphere. Or, in Lauren Berlant's terms, her traumatic response can be seen a result of the *cruel optimism* inherent in the drive to remain unscathed, which is a crucial part of the political imagination of drone (in)vulnerability.

In a last frantic outburst, the pilot talks directly to the audience—or to the larger publicity supporting this imagination—addressing the central surveillance theme of the play: "You who watch me […] Know this / Know That You are Not Safe." (70) This last exclamation very much sums up the duplicity of drone (in)vulnerability underlining the entire

play's uncovering of the fake fantasy of total protection. It lays bare the danger of believing in the delusion of an intact and untouched body in war, an impulse that, according to Neyrat, can be situated somewhere between Freud's life-affirming drive and the death drive as a place or feeling "outside the world," where one would never be touched or carried away by any declination and would thus "never be born nor confront the world."[70] This is what brings Neyrat to the quite surprising conclusion that "the only saved beings are those who have been destroyed,"[71] or, in the words of Derrida, indemnity exposed as the "most barren and desert-like of all abstraction."[72] In short, the fantasy of drone invincibility is unveiled as a principle of pure negativity and sheer self-destruction illustrated by the fate of the pilot, who in the last scene believes her daughter to be "slaughtered" and herself to be "buried" and sealed in a "tomb." (70)

Moreover, the pilot's final words—addressing those "who watch me" and those "who observe me watch my every move"—draw the link from the figure of indemnity to a more fundamental critique of immunitary democracies and contemporary surveillance culture and risk assessment. On the one hand, Brant hits the mark accurately and powerfully by drawing the critical line from drone warfare as a figure of indemnity to its corresponding autoimmune response in the form of a self-destructive surveillance culture. On the other hand, Brant's play also verges on reproducing the culturally constructed fetishism of drone pilot trauma problematized in the beginning of this chapter. The very form and genre of the play designates this danger. For instance, the pilot's monologue forms a one-sided, undisputed testimony emphasized by the performative way she addresses the audience as if she were confessing in a court or to a camera.

Similarly, the play's strong focus on the homely issues of remote warfare with its dangerous familiarization of killing mixed with domestic life, pink ponies, and the monotonous rhythm of war commuting, can indeed be problematized. After all, if privileged first world problems such as these take the figural expressions of traumatization, they are doing so in stark contrast to the traumatized innocent civilian lives that suffer under the constant and violent patrolling of drones in the Afghan borderlands and elsewhere (such as in Gaza, a situation that I shall return to in the fourth chapter).

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70 Neyrat and Lapidus, 109.

71 Ibid., 112.

72 Derrida, 42.

Yet, besides the risk of fetishizing the perpetrator's trauma, all of these features are exactly what the play questions. Although the genre, form, and point of view can be problematized, *Grounded* is, after all, a play about how the cruel optimism of perfect invulnerability, immunity, and indemnity builds on unstable ideological ground. To prevent any risk of death, harm, or injury and to keep the body *and* mind perfectly intact and untouched is, and has always been, an impossible task, which is doomed to mutate into an autoimmune reaction. The pilot is therefore more than right when she closes the play with the words "Know That You are Not Safe." (70) In short, nothing is ever untouched, safe and sound, intact, or unscathed.

As a final maneuver, I will now discuss this claim further through yet another figuration of drone indemnity and its dark underside, the drone pilot trauma, namely the film *5,000 Feet is the Best*.

PTSD and Evasion in 5,000 Feet is the Best

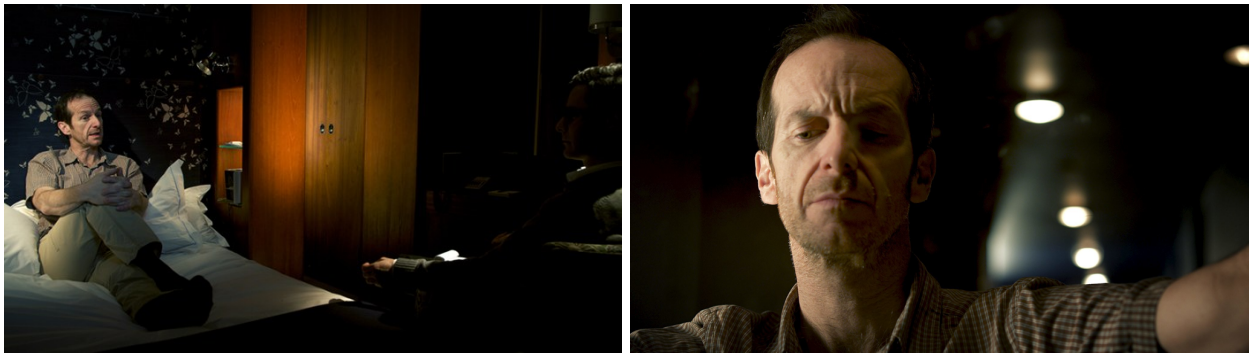
Premiered in 2011, Omer Fast's semi-documentary *5,000 Feet is the Best* has already become something of a canonical work within the aesthetic drone imaginary. While the title of the film refers to the ideal altitude at which an US Air Force drone might identify targets on the ground, it is anything but a regular matter-of-fact documentary communicating information about the technicalities of drone warfare. Instead I would suggest to see it as a highly critical inquiry into the problem of drone pilot trauma and hence the broader imagination of drone indemnity. By employing narrative strategies of evasion as part of its aesthetic reconfiguration of the traumatized pilot, Fast's film plays on the uncertainties and frailties of the clandestine world of drone operations, creating an artistic effect that I will argue mimics the cruel imagination of drone (in)vulnerability.

5,000 Feet is the Best might be best described as a hybrid between documentary and fiction. As such, the film and its enigmatic narrative structure have received much attention among drone scholars, journalists and artists. Above all, the aesthetic strategies that Fast employs to create a confusion between fact and fiction have been interpreted as an artistically dense exploration of the tensions, paradoxes and uncertainties relating to trauma and its representation. As T.J. Demos notes, the film "translates psychic effects into representational

problems […] captur[ing] the contemporary phenomenology of virtual combat."[73] In addition, and perhaps even more importantly, Fast's film has been linked to the political uncertainties shadowing the governmental and administrative strategies of drone warfare.[74] How this aesthetical as well as political uncertainty relates to the film representation of the specific figure of drone indemnity, I shall return to shortly.

On the narrative level, Fast's film continues where Brant's play ended. If *Grounded* was the first part of a story about drone indemnity, focusing on everything leading up to the pilot's mental breakdown, then *5,000 Feet is the Best* continues by narrating the second part of the story about a former drone pilot diagnosed with PTSD. Yet, as opposed to the quite linear narrative structure in *Grounded*, Fast's film portrays drone pilot traumatization in an undeniably more fractured and condensed manner—an artistic effect that, as we will see, destabilizes and questions the culturally fetishized figures of drone invulnerability and -traumatization.

Based on a series of interviews that Fast conducted with a former drone pilot in Las Vegas the film is arranged as a 30-minute video loop weaving together sequences from the original interviews with aerial drone footages and several fictional elements. A part of these elements is three almost identical scenes shot in a hotel room that restages the interviews with an actor playing the drone pilot and Omar Fast in the role of interviewer.



The interview scene with the fictional former drone operator in Omer Fast's 5,000 Feet is the Best *(2011).*

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73 T.J. Demos, "War Games: A Tale in Three Parts," in *Omer Fast: 5,000 Feet Is the Best* (Berlin: Sternberg Press, 2012), 80.

74 For instance, Svea Braeunert has demonstrated how Fast's film "mingle[s] fact and fiction and unsettle[s] a political constellation operating on claims of uncertainty" Svea Braeunert, "Post-Traumatic Stress Disorder in Drone Operations : Relying on Uncertainty in Omer Fast's *5,000 Feet Is the Best* (2011)," in *Visualizing War, Emotions, Technologies, Communities*, ed. Anders Engberg-Pedersen and Kathrin Maurer (New York London: Routledge, 2018), 103.

However, in each of these scenes the interview quickly takes a surprising direction as the pilot starts narrating seemingly irrelevant and bizarre stories that are cinematically dramatized as short independent films within the larger narrative. Particularly the first two stories—respectively about a faux train driver and a couple cheating people of money in Las Vegas casinos—seem to have a merely peripheral or metonymic relation to drones, while the last story addresses drone war in a much more direct way.

Even though the first two stories might appear strangely irrelevant, bordering on the grotesque, they nevertheless serve as central pieces in the bizarre logic of the film; a logic that I will interpret as a strategy of evasion and self-censorship in relation to the drone pilot trauma. This evasive strategy is, I would claim, the most important aesthetic figuration of drone indemnity in the film as its basic function is essentially to protect the self from the traumatic memories of killing without risk.

(In)vulnerability through Censorship

In each of the three almost-identical interview scenes, the pilot's digression into the seemingly pointless stories is triggered by an awkward exchange of words in which the interviewer, Omer Fast, questions the pilot's status as opposed to a real fighter pilot. Except for the last line, which differs from scene to scene, the dialogue is repeated, word for word, through all three scenes:

Fast: What is the difference between you and someone who sits in an airplane?
Pilot: There is no difference between us. We do the same job.
Fast: But you're not a real pilot?
Pilot: So what, you are not a real journalist.
Fast: No, I mean…
Pilot: I know what you mean. You are talking about… bodies and places.
Euclidian shit. Like… train drivers in the 1880's or something… [BLEEP]75

75 Omer Fast, "5, 000 Feet Is the Best," (2011).

At this point in the interview, the pilot is interrupted by a loud high-pitched sound, which makes him twitch uncomfortably as if in pain. The sound appears to be present both in his head and as a cinematic effect similar to the obscuring sound normally applied by TV productions when censoring profanity or classified information. Besides being a peculiar effect in the already bizarre and surreal universe of the film, the sound has at least three major functions in the film.

The first function in the film is that the bleep indicates one of the most classic symptoms of psychic trauma, that is the human impulse to unconsciously suppress or displace traumatic events from consciousness. Particularly among war veterans, the instinctive drive to protect the self by censoring and concealing the most horrifying or painful memories is commonly seen when processing the atrocities of war into narrative reconstructions.[76] In this way, the film by its bleeping sounds and far-fetched digressions mimics human capacity to escape confrontation by sectioning off certain parts of the memory in order to remain intact and emotionally protected. What is at stake is therefore the well-known figure of indemnity as a drive to keep the self intact and untouched. This psychological defense mechanism is not far from the idea of compartmentalization introduced earlier in the chapter in relation to the pilot in *Grounded*. Here we saw how the pilot's lacking the ability to compartmentalize her psyche—that is, the capability of shifting smoothly between her war persona and family persona—formed one of the basic traits in her traumatic experience of commuting between home and war. In a similar way, the PTSD-diagnosed drone pilot in Fast's film performs a form of compartmentalization as the sound bleeps and triggers his absurd evasion of the interviewer's questions.

Secondly, the bleeping sound drives a wedge between the realism and the artistic reconstruction of the interview, thus destabilizing the pilot's testimony and underlining the representational problems of documentary film. This schism between fact and fiction is further indicated by the pilot's meta-comment about Fast's status as a real journalist. Hence, the film's element of journalistic documentary is deconstructed by emphasizing its fictive restaging of the interview. Through this effect Fast effectively counters the risk of fetishizing drone pilot trauma as he undermines the truthfulness and objectivity of both his own work and its legitimate foundation in the pilot's testimony. Thus, as opposed to Brant's play, *5,000*

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[76] For instance, Harun Farocki's *Serious Games III* specifically explores how fictional scenarios of computer games are used n psychological care for troops suffering battlefield trauma when returning from war. Farocki, "Serious Games / Ernste Spiele."

Feet is the Best reflects more critically on its own function and complicity in constructing the drone imaginary. In short, the precarious position of the drone pilot as stretched between physical securitization and psychic traumatization is addressed and problematized through Fast's thickly ironic distance as he challenges the conventions of traditional documentary form.

Thirdly, the artistic function of the bleep sounds can also be seen in a larger political context as a metaphor for the secrecies and uncertainties dominating the covert sphere of drone warfare. Missing information, cut-out passages from government documents, and misleading statistics concerning drone operations and their civilian casualties are all examples of this broader political uncertainty. In this context, the film's bleeps come to symbolize a strict political censorship; this is a practice also known as redaction or sanitization that refers to the declassification process of removing sensitive or classified information from documents prior to their publication. Although the practice of sanitizing official documents for sensitive or compromising information during declassification is far from new, it has been particularly present in the recent cases of drone warfare.

During 2014, after having steadily denied the deployment of drones for targeted killings, the Obama administration finally gave in to the massive pressure of releasing governmental documents that could give the public insight into the legal justification of current drone operations. However, large parts of the released documents, which were collected and published as *The Drone Memos* in 2016 by Jameel Jaffer, were redacted as part of their declassification. For instance, more than a third of the memo regarding the extrajuridical killing of an American citizen, Al-Awlaki, was redacted so that citations, sentences, and whole paragraphs were stripped out. While these redactions might be due to protecting sources and methods, they can also be seen as a strategy to obscure the precedents underlying the government's legal arguments for using drones. This points to one of the perhaps most disturbing sensations that one gets when reading through the redacted drone memos,[77] that is, as Jaffer notes, they seem to "suggest the existence of a an entire body of secret law, a veritable library of authoritative legal opinions produced by Justice Department lawyers but withheld from the American public."[78]

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77 The critique of the art of redaction is visually expressed in a number of front covers imitating redacted governmental documents—for instance, it is used as visual technique on the front cover of Jaffer's *Drone Memos* (2016), and, in a more cultural context, on the cover of Roger Water's highly drone-critical album *Is this the Life we Really Want?* (2017).

78 Jaffer.

The political art of redacting and sanitizing every available piece of information regarding drone operations can be seen, then, in relation to the figure of indemnity. Yet, in this version of indemnity the focus is not primarily on protecting the individual body from external harm or injury, but rather to keep the *political* body safe and sound by "sanitizing" it and thereby vaccinating it with immunity in the form of redactions. These are the larger uncertainties that *5,000 Feet is the Best* engage with both directly, by mimicking redaction through beep sounds, and indirectly by deliberately obscuring the content and meaning of the film's narrative through evasive strategies of irony, displacement, and self-censorship.

So far, I have argued for an interpretation of the bleep sounds and their repetition through all three interview scenes in Fast's film as an artistic comment to drone indemnity on three different levels: that is, on an individual, representational and political level. On the individual level, the sound indicates the drone pilot's drive to self-censorship and suppression of his trauma; on the representational level, it marks an artistic and ironic distance to the pilot's testimony; and on the political level, it becomes emblematic for the uncertainties dominating the politics of drone warfare. The question that still needs to be answered is, however, how more specifically this figure of drone indemnity is unfolded throughout the film and, moreover, how and why the drive to remain untouched mutates into auto-immunity. To discuss this I will briefly go through each of the drone pilot's three stories to show how these digressions, used to evade the interviewer's questions, cannot easily be translated into a proper meaning and should therefore instead be seen as suggestive and excessive figurations that point to the paradoxes of drone indemnity.

Three Digressions: Train, Casino, Assault

Following the high-pitched bleep sound, the first of the drone pilot's three stories is about a man who has been obsessed with trains since his childhood. One day, he decides to live out his dream by stealing a train. After finishing a perfectly successful "work day" driving around the city disguised as a train driver—always on time and without anyone noticing his little game—the man unfortunately forgets his keys in the real train driver's locker and gets caught by the police breaking into his own house. Here the interviewer asks the obvious question: "All right, what does this have to do with being a drone pilot?" Symptomatic of the twisted

logic of the film, the pilot's response appears absolutely absurd: "The moral is the same, all right, you keep your work life and your domestic life separate."[79]

Considering that one of the major causes for drone pilot trauma is *precisely* the lack of ability to separate between work life and domestic life—in short, the capacity to compartmentalize, which I have already unfolded in relation to *Grounded*—the pilot's answer seems even more absurd. Yet, there is meaning in the madness, which in fact is insinuated by the pilot's initial remarks before he is interrupted by the bleep sound: "You are talking about… bodies and places. Euclidian shit. Like… train drivers in the 1880's or something… [BLEEP]." [80] In this far-fetched relation between drone pilots and train drivers lies, after all, a set of indefinite parallels which have to do with the spatial displacement of the human body. Yet, the film does not give away any more specific clues about how this connection should actually be understood, but rather remains cryptic and suggestive so that it is up to the viewer to draw the interpretative connections inquired by the question of what this has to do with being a drone operator.

The second story's connection to drones is no easier to decipher, although it might refer to the first story's cryptic analogies to the work-life balance of being a drone operator. It is a tale about a couple who robs casino patrons through a rather creative strategy at the Luxor hotel and casino in Las Vegas. The scam implicates a woman who seduces the male casino patrons by luring them to a hotel room. During their intense romance she secretly replaces their trousers with another pair before they are suddenly surprised by her partner, playing the role of envious husband, while she secretly copies their credit card details. Besides the completely absurdity of this side-plot, the metonymic relation between the Casino in Las Vegas and the geographically close Creech or Nellis Air Force Bases, from where US military drones are controlled, seems to suggest at least some kind of link between the two spaces. This is indicated not only because of the wierd side-story of the fraudulent couple, but also through the film's main setting of the interview in the very same Las Vegas casino hotel. Thus, the heavy emphasis on the casino in *5,000 Feet is the Best* might take a position similar to the casino featured in *Grounded* which, as we remember, was the workplace of the pilot's husband, Eric, a place that he particularly stressed as intensely surveilled. Here the surveillance theme of play was underscored through Eric's surveillance of the patrons thus mirroring his wife's drone's

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79 Fast.

80 Ibid.

surveillance of the Afghan people. And similarly it turns out that the fictional drone pilot in Fast's film is now working for casino security.

The casino can be taken as a sign, then, of not only the surveillance theme, but also of the precarious correlation between drone warfare and gaming, which Josef Pugliese has coined the "drone casino mimesis."[81] In his view the mimetic connection is installed partly through the nexus between the city of Las Vegas and the assimilation of an air force base within its urban fabric, and partly through the increasing virtualization of warfare through simulation and gaming. His bold claim is therefore that "[i]conographically and infrastructurally, casino gaming and drone technologies stand as mirror images of each other."[82] Although it may perhaps be disputed whether this form of drone casino mimesis might be stretching it, Pugliese is certainly right in pointing out the impact on the conduct of war by gaming industries and technologies. This point is literally spelled out in *5,000 Feet is the Best* as part of the interview with the "real" ex-drone pilot (that is, the one who is not the actor) whose face is blurred. In a voice-over to a sequence of drone-footage, the pilot thus makes the link between drone warfare and gaming: "It's like playing a single game every day but always sticking on the same level."

In this light, the film's strange casino sub-plot is indeed better grasped, including the dialogue that follows between the interviewer and the fictional drone pilot. Once again the interviewer asks: "What does this have to do with being a drone pilot?" and the pilot responds: "Nothing. I work for casino security now … We tell these stories to make our life a little less boring."[83] In other words, the "iconographic" and "mimetic" exchange between drones and casinos, claimed by Pugliese, seems highly relevant as an explanation of the metonymic affinity and mimetic convergence between casinos and drones in *5,000 Feet is the Best*. And then again, the peculiar link between drones and the couple's bizarre "game" of cheating casino patrons of money seems to be of more than a merely mimetic relation. Again, the irony and almost slapstick-like narrative style of the story appears to deconstruct the logic of (mimetic) representation in the film. Through this deconstruction, the scene additionally seems to insinuate a deeper and more troubling attachment between drones and casinos involving a variety of figures related to gaming, such as risk, addiction, desire, simulation, and… *imagination*.

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81 Pugliese.

82 Ibid., 11.

83 Fast.

The latter aspect is, perhaps, most important when taking into account the broader context of the film's overall obscuring of reality and fiction. The drone pilot's comment that he is now working in a casino where he and his co-workers use this kind of stories for pastime thus supports the strong focus on the realm of the imaginary in the film. In short, the imaginary domain of fiction provides a possibility of self-protection that the drone pilot uses to evade the interviewer's questions as well as his own painful memories. In this way, the imaginary becomes a means of protection in the film, or in the terms of this chapter, a figuration of *indemnity*. The evasive strategies of indemnity in the form of the bizarre digressions performed by the fictional drone pilot—and by the film's narrative modus as such—can, then, be seen as way of securing the psyche, shielding it from confrontation with painful memories of killing without risk.

However, these memories are finally confronted in a slightly more straight-forward way in the third of the stories. This story is about an average American family who abandon their suburban home in their station wagon to avoid some unknown trouble. However, as they hit the road and drive through more deserted landscapes, they eventually get lost in the mountains where they encounter a pickup truck and three men digging a hole in the road. As the family slowly passes the men—who are by the way armed with Kalashnikovs—the camera view suddenly changes to the perspective of a drone with its crosshair fixed on the pickup truck. Then, a shrieking sound pierces the air as a Hellfire missile hits the ground, blowing up both the three men and the family on impact. Accompanying the images of the fire, smoking cars, and scattered body parts, the voiceover of the fictional drone pilot carries on with the story: "The journey of the family continues their journey. Their bodies will never be buried."[84]

[84] Ibid.

Still from 5,000 Feet is the Best (2012) showing a drone strike.
Redactions in the form of black boxes underscore the film's strong emphasis on censorship.

What is most significant in this final story is the way in which the narrative mode—narrated by the voiceover of the fictional drone pilot—is displaced from the cinematic images. Without being totally explicit about it, the narration of the drone pilot thus seems to indicate a middle-eastern setting as descriptions of herds, goats, and tribal areas are included in the scenery. Yet, the images reveal another story, depicting mainly American-looking people and scenes. In this way, Fast once again plays on the imagination of drone warfare by blurring reality and fiction. Moreover, the story, which could naturally be interpreted as the drone pilot's distorted reconstruction of his trauma, touches upon fragility and vulnerability by "taking the war home" to American soil, so to speak. By displacing the setting of the drone strike from Afghanistan to America suburbia, the film establishes an artistically disturbing effect that reinforces a feeling of insecurity and uncertainty, or with the words of the drone pilot in *Grounded*, of "not being safe."

The Cruelty of Drone Indemnity

What *5,000 Feet is the Best* seems to imply, then, is how the experience of warfare in the era of drones has become increasingly blurred by distance and virtuality in the attempt to keep the

drone pilot's body perfectly safe. Moreover, the film shows in an aesthetically dense way how the psychological consequences of this blurring simultaneously threaten the mental soundness of the drone pilot. What is at stake here is, in other words, what I have termed *drone indemnity* with Derrida, as the drive is designated to remain unscathed and totally immunized to any harm or danger. Yet this drive's corresponding auto-immune reaction in the form of PTSD is what the film is all about. Here, as opposed to *Grounded*, the figuration of drone pilot trauma is certainly not fetichized, but rather exposed as yet another defense mechanism in the drive to remain not only physically but also psychically intact and untouched.

One of the major aesthetic qualities of the film is that this logic of indemnity is performed as a variety of different narrative and cinematic strategies. Among the most important ones is, as we have seen, the artistic effect of the recurring bleep sounds that alludes both to the self-censorship of the drone pilot as well as to the uncertainty, secrecy, and clandestine politics of drone warfare in an immunitary democracy. Another related mode by which the film performs the logic of indemnity is through the above-mentioned three stories that all make use of absurd digressions as an aesthetic, as well as psychological, strategy to evade a painful confrontation with the traumatic past. In short, these aesthetic modes and strategies are what together form the film's figuration of drone indemnity as well as their configuration in the larger drone imaginary.

While it has been beyond the scope of this chapter to engage in a more theoretical discussion of drone pilot trauma from the perspectives of recent trauma theory, I have therefore focused on trauma in relation and response to the fantasies of total invincibility and indemnity saturating the drone imaginary. This move is concordant with Lauren Berlant's notions of *cruel optimism* that structure the larger argument of this dissertation, since the promises of "not being touched" provided by the much-desired object of the drone is again compromised by their own drive toward perfection. With her idea of cruel optimism, Berlant, in fact, suggests to move beyond the classic discourse of trauma when observing what happens to human beings in times of disaster or crisis.[85] She proposes to think of trauma not as an exceptional shock or event but as a "process embedded in the ordinary," and ongoing

[85] By moving away from traditional understandings of trauma as "an exception that has […] shattered some ongoing, uneventful ordinary life", Berlant rather insists on "thinking about the ordinary as an impasse shaped by crisis in which people find themselves developing skills for adjusting to newly proliferating pressures to scramble for modes of living on." Berlant, 8.

"systemic crisis" or "crisis ordinariness" [86] that constitute what she sees as a genre for viewing the historical present.

In this way drone pilot trauma can indeed be seen as an effect not of a singular or exceptional event, but rather of the slow, often boring, process of waging riskless war from the distance. As we have seen, part of this process is also the military colonialization of everyday civil life and the day-to-day stress resulting from the constant "switching between worlds" [87] obscuring distinctions between domestic life and military operation. In this light, the dream of drone (in)vulnerability is not traumatizing in itself, but rather *cruel* in its optimistic promises of keeping the pilot safe and sound. How these promises are subject to failure has been clearly demonstrated through the figuration of drone pilot trauma in both *Grounded* and *5,000 Feet is the Best*. In short, the drone is not simply threatening; it is indeed *exhausting* the subjects that it promises to protect, or as Berlant phrases it, "[o]ur cruel objects don't feel threatening, just tiring." [88] (31)

In this chapter, I have only touched briefly on the broader political context of drone indemnity in the form of the Western surveillance societies emerging after the 9/11 terrorist attacks. In the next chapter, I will go deeper into this aspect of the counter-terror security state in order to investigate how the fantasy of total security, which has just been unfolded as the idea of drone indemnity, is manifest as yet another key figuration of the drone imaginary. This figuration is that of *omni-vision*, that is, the paranoid fantasy of being able to see everything at any time, provided by the drones' supposed "unblinking stare" capacities.

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86 Ibid., 10.

87 Gregory, "Drone Geographies," 8.

88 Berlant, 31.

Chapter III

(UN)BLINKING EYES IN THE SKY

Omni-vision and Mosaic Surveillance in Homeland

> [A]nalysts engaged in an Unblinking Eye atmosphere developed a target intimacy to the degree that they could easily recognize something unusual and in some cases even detect a visual signature of how the target walked, travelled in groups, or engaged other people. The ability to recognize a target's gait, dress, companions, parking patterns, and so forth became high-confidence targeting indicators.[1]
>
> *Former Director of Intelligence and US National Security Advisor, Michael T. Flynn, 2008*

> I missed something once before, I won't... I can't let that happen again.[2]
>
> *CIA agent Carrie Mathison in* Homeland*, Season 1 (2011)*

Among the arguably most notable, fetishized, and mythologized drone fantasies is the idea of a totalizing, perpetual, and lethal gaze that makes it possible to predict, prevent, and preempt any given threat even before it emerges. Yet, as the current chapter will demonstrate, this dream of total vision and unlimited knowledge of the surveilled subjects is easily obscured by its own totalizing and destructive aspirations. In this chapter my aim is therefore to question the fantasy of the drone gaze as a configuration of total vision and perfect omniscience (even of the future), a fantasy that may, in fact, turn out to be *blinding* due to the overflow of visual information sprouting from these new airborne platforms for mass surveillance. By using popular culture as a prism that both endorses, enlarges, and unveils the deeper ideological

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1 Michael T. Flynn, Rich Juergens, and Thomas L. Cantrell, "Employing Isr Sof Best Practices," *Joint Force Quarterly (JFQ)* 3, no. 1 (2008): 58.

2 Alex Gansa et al., *Homeland. The Complete First Season* (Beverly Hills, CA: Twentieth Century Fox Home Entertainment, 2012), 3 videodiscs (664 min.) : sound, color ; 4 3/4 in.

patterns vibrating violently beneath this megalomaniac fantasy, the chapter analyzes how exposing the dream of a totalizing drone gaze as blinding and self-obstructive can reveal yet another instance of the cruel optimism-logic structuring the Western military-political imagination of drone warfare.

Accordingly, the idealization of the drone as an all-seeing, all-knowing gaze is recurrent in the political and military discourse on drones. In particular, the metaphor of an "Unblinking Eye" features in various military reports and journals as well as in the public media. For instance, in an interview with *The New Yorker*, former CIA Director, Michael Hayden, describes the drone as a provider of "an unblinking stare."[3] The same metaphor is at play in the epigraph opening this chapter in which the "Unblinking Eye" serves as former National Security Advisor Michael T. Flynn's[4] overarching frame for the drone as a provider of so-called "persistent stare capabilities." But, as we will see in the course of the chapter, the desire for "unblinking" perpetual surveillance becomes the decoy for its own satisfaction. It is, in other words, a desire that is fundamentally *blind*—a blindness that I will interpret in opposition to the drone's cruel promises of total vision and limitless mass surveillance creating virtually infinite amounts of information which inevitably break down the basic hermeneutic prerequisites preconditioning a human interpretation of intelligence.

Among the reported blessings of the so-called "unblinking" or "persistent stare" capabilities of drone vision, Flynn's article emphasizes a phenomenon called "target intimacy," an intimacy so elaborate that a supposed "visual signature" can be detected, and thus "high-confidence" recognition can allegedly be claimed before striking a suspected enemy. In fact, the article is very clear about how this supposedly intimate target relation is to be understood—namely through intelligence analyses of various social figurations or "life-patterns" ranging from how targets walk and dress to who they meet with, where they travel, and even how they park their cars. What is at stake here is, in other words, the idea of the drone stare as an unblinking eye that sees *everything* from the most intimate details to the larger picture of large-scale big data surveillance. Yet, an inherent paradox jams this smooth imagination concerning how human subject-oriented vision is balanced against computer-

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[3] Steve Coll, "The Unblinking Stare. The Drone War in Pakistan," *The New Yorker*, November 24, 2014, https://www.newyorker.com/magazine/2014/11/24/unblinking-stare

[4] Lieutenant General Michael T. Flynn was Director of Intelligence 2012-2014, but in 2017 he became more widely known after, briefly, becoming National Security Advisor to President Trump and then resigning and being prosecuted by Special Counsel Robert Mueller for misleading the FBI in the so-called Russia Probe.

driven big data surveillance. This problem also has to do with what is often referred to as the disparity between embodied or disembodied vision, raising the question of *how* it is possible to perform so-called "target intimacy" while at the same time maintaining the capacity to see and know *everything* at every moment in every place?

Supporters of drone warfare would undoubtedly respond to this question by claiming that what makes the drone such a wonderfully potent surveillance machine is *precisely* its ability to combine both of these two functions in one apparatus. Yet, it would perhaps be more adequate to look for answers beyond the self-referential military discourses—more specifically within the realm of cultural and aesthetic drone imaginaries. While these cultural representations of drone vision can also be found to support the imagination of the all-seeing drone, they nevertheless provide a prism through which these imaginaries and idealized fantasies can be examined more thoroughly.

For instance, the imagination of the *all-seeing eye* is a rather quaint figuration within the traditional science fiction genre in which has become symbol of the menacing big brother watching you. While such anxieties concerning loss of privacy and personal freedom due to high-tech military drone policing of big brother states or big data-harvesting companies have traditionally been associated with sinister sci-fi scenarios, another and more timely variant has gradually emerged and slipped into the mainstream media culture: The drone gaze is a perfect instrument for surveillance and control, which has been regarded as particularly well-fitted for counterinsurgency operations, as its cultural configuration has traveled further into the political imagination and discourse on drones.

For instance, the rapidly growing reservoir of drone representations in popular culture has achieved significant prominence in the public perception of drones. In recent years, cinemas across the globe have boomed with productions featuring drone surveillance, such as *Body of Lies* (2008), *Eagle Eye* (2008), *Skyline* (2010), *The Borne Legacy* (2012), *Drones* (2013), *Good Kill* (2014), *London has Fallen* (2016), *Drone* (2017), and the list could go on. As most of these movies support the idealized imagination of the all-seeing, all-knowing drone gaze, the huge prominence of drones in popular imagination has frequently been blamed for blindly reproducing the Western drone ideologies. But it has also been documented how serialized TV narratives dramatizing topics such as military operations, intelligence analysis, and police

work have a strong impact on policymakers, the judiciary, and public opinion.[5] An impact which might end up translating into very real policies, procedures, and political preferences, in short, into the social and political imaginaries I am investigating in this dissertation.

During his presidency Barack Obama, for instance, praised the television production *Homeland* (2011-), a series following a young female CIA agent carrying out anti-terror intelligence work, claiming it as one of his favorite TV shows.[6] And for good reasons, some critics would say, accusing the show of producing "propaganda for the Obama administration's 'overseas contingency operations'."[7] Yet, as I will argue over the following pages, there is considerably more than sheer propaganda to conclude from *Homeland* as well as from other works of popular culture that have tackled the different issues of drone surveillance.[8] In order to fully grasp the drones' entry into this broader social imagination, rather than focusing narrowly on military discourses or, for that matter, their retaliations in critical drone art, one therefore must take seriously popular culture as an aesthetic genre. This includes, above all, locating the themes and narratives of these more popular drone imaginaries in their proper cultural and historical context in order to analyze their possibly ideological underpinning.

Yet before I get to that stage in the analysis, I will explain the metaphysical and ideological background preconditioning the desire to see everything, though primarily the changes toward a radically more paranoid political climate emerging in the shockwaves after 9/11. Then, I will continue the analysis by demonstrating how popular culture has registered this change, and in particular how the TV show *Homeland* faces the hermeneutic and archival problems implied by drone mass surveillance.

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5 See for instance Steven Keslowitz' 2009 *The Tao of Jack Bauer*, pp. 29-33, or Kathleen Tierny, Christine Bevc & Erica Kuligowski's 2006 "Metaphors Matter: Disaster Myths, Media Frames, and Their Consequences in Hurricane Katrina."

6 Chris Harnick, "President Obama Will Give 'Homeland' A Foreign Policy Heads Up," *The Huffington Post*, September 22, 2012: https://www.huffingtonpost.com/2012/03/22/president-obama-homeland-damian-lewis_n_1373175.html (retrieved October 21, 2018)

7 James Castonguay, "Fictions of Terror: Complexity, Complicity and Insecurity in Homeland," *Cinema Journal* 54, no. 4 (2015): 139.

8 I would therefore tend to agree with critics who have argued that *Homeland* "refreshe[s] what ha[s] become well-established conventions for representing the dangers of terrorism to America." Lindsay Steenberg and Yvonne Tasker, "Pledge Allegiance: Gendered Surveillance, Crime Television, and Homeland," ibid.: 133.

Flawed Vision: Blinks and Soda Straws

As implied by the example by Michael T. Flynn in the above epigraph, a high level of detail and proximity is at stake in his description of the "target intimacy." which is part of the "Unblinking Eye atmosphere" of drone surveillance. This discourse is clearly based on an imagination of the drone stare as penetrating, perpetual, and intimate, captured in the image of the "Unblinking Eye" that sees everything. Grégoire Chamayou touches upon this principle idea of the unblinking drone eye as a permanent watch, stating how the "reduction of the need for human eyes, over and above the technological powers of the machine, […] ensures a 'constant geo-spatial "overwatch"' by the institutional eye."[9] While Chamayou has often been criticized, sometimes perhaps a bit unjustly, for mythologizing the drone,[10] he is not the only one drawing up the image of the drone gaze as a pervasive, sleepless eye. In his extensive study of sleeplessness entitled *24/7*, for instance,, Jonathan Crary writes about the drone's Gorgon Stare as a surveillance system that "'sees' unblinkingly 24/7, indifferent to day, night, or weather."[11]

Yet, several other drone researchers and journalists have problematized the idea of an all-seeing, all-knowing drone gaze by documenting how it is easily debunked by facts and reports from real world drone operations. For instance, Jeremy Scahill deconstructs the idea of the "unblinking" stare by referring to a phenomenon called "blinks," which has been reported by the military to be one of the most "glaring problems" in many drone operations:

> A blink happens when a drone has to move and there isn't another aircraft to continue watching a target. According to the classified documents, blinks are a major challenge facing the military, which always wants to have a "persistent stare.[12]

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9 Chamayou, 38.

10 I have already accounted for this critique of Chamayou that primarily concerns his way reading drone warfare through Greek and Nordic mythology. Shaw.

11 Jonathan Crary, *24/7. Late Capitalism and the Ends of Sleep* (New York: Verso, 2013), 32. In his defense, Crary's book does not primarily focus on drones but on sleeplessness as a more general symptom in Western late capitalism culture, and in this line of argumentation the example of the unblinking drone stare seems justified.

12 Jeremy Scahill, *The Assassination Complex: Inside the Government's Secret Drone Warfare Program* (New York: Simon & Schuster, 2016), 107.

According to this report, the highly desired imagination of an "unblinking" drone gaze seems to have its limits. This is underscored by another document referred to by Scahill, revealing the US Army's "inability to carry out full-time surveillance of its targets [due to] 'the tyranny of distance,' a reference to the great distance that aircrafts must fly to their targets from the main U.S. air base."[13] What is at play here is therefore an instance of evident discrepancy between the ideal imagination of the drone stare as "unblinking" and the materialization of these ideas as flawed and "blinking" remote technology.

The discrepancies and flawed technologies of the mass surveillance systems that are increasingly employed by security states all around the world have naturally been subject to several, more or less critical representations in film and popular culture. One of these attempts to visualize the complex link between drone warfare and mass surveillance in a popular format is the graphic novel *Verax: The True History of Whistleblowers, Drone Warfare, and Mass Surveillance* (2017) by journalist Pratap Chatterjee and cartoonist Khalil (Bendib). As an international investigative reporter having worked for agencies such as the Bureau of Investigative Journalism, Chatterjee stages himself as the main character in the story which follows him in his persistent attempts to uncover the "truth" about the secret world of the American domestic and military use of big data surveillance and drones.

The pursuit of the intricate connections between mass surveillance and drone warfare brings Pratap from security trade shows with arms dealers and surveillance industries to meetings with whistleblowers and interviews with traumatized former drone operators as well as victims of drone strikes. Here, the cartoon format is well suited to visualize the multiplicity of threads and connections and to graphically illustrate how the advanced surveillance systems sacrifice privacy for security with state officials rejecting to admit the deadly flaws of the technologies. Moreover, the graphic format perfectly contemplates the synoptic vision of drones through its multiply organized frames, providing the ability to take the perspective from both above and below simultaneously. See, for instance, one of the opening passages featuring a group of soccer-playing children in Afghanistan and, on the opposite page, a drone operator watching them from his screens:

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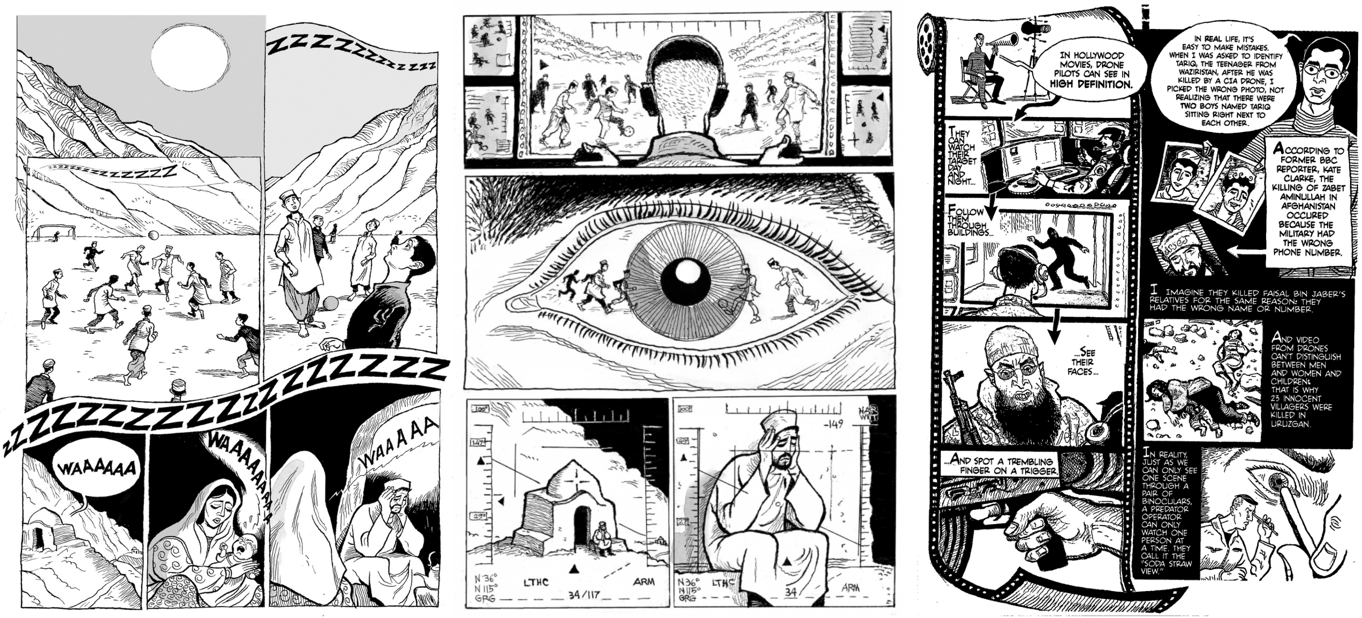
[13] Ibid., 111.



Excerpts from the graphic novel Verax *with the strong focus on vision and surveillance graphically visualized by the zooming in on the eye.* [14]

As it appears from the excerpted pages above, *Verax* is indeed highly concerned with investigating drone vision both as a disembodied and computerized process of big data mining and as the humanly embodied experience by former drone operators of the often all too intimate operation of watching targets from the distance. The book thereby questions the alleged "target intimacy" unveiling how the increasingly sharp lenses of drone cameras can cause serious psychological damage, thus tapping into the discussion of the previous chapter of drone pilot trauma. At the same time the graphic novel challenges the common imagination often promoted by Hollywood movies of a totalizing yet also exceedingly intimate drone gaze. The above example to the far right shows how the imagination that drones can see everything in cinematic "high definition" is discredited by real-life reports of how the images projected by the cameras of the drone often appear grainy, pixelated, or fragmentary without context on the ground. Here, the graphic novel refers to the limited vision often reported by drone operators who describe watching targets as "looking through a soda straw."[15] In that way they call attention to the striking disparity between the limited human-centered perspective and the imagination of the pervasive, omniscient technological eye of the machine.

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[14] Pratap Chatterjee and Khalil, *Verax : The True History of Whistleblowers, Drone Warfare, and Mass Surveillance* (New York: Metropolitan Books, 2017), 5-6, 217.

[15] Ibid., 217.

In other words, *Verax* poses vital questions of whether the massive surveillance saturating the experience of both warfare and civilian life is actually as accurate and securing as proponents for these technologies often claim. By focusing on the large amount of innocent civilians who are targeted in drone strikes, the graphic novel thus challenges the myths and fantasies of an "unblinking" and surgical precise drone stare and their underlying dreams of penetrating, even godly, omnivision.

As I have previously touched upon, the military fantasies of godly vision are indeed far from new: In the first chapter, I explored how Jünger's fascination of the technical and scientific gaze as a replacement or rather an *extension* of the metaphysical idea of the view of the gods eye converged with the advent of new telescopic camera technologies and aerial photography. In this "[technician's] version of an all-seeing Divinity, ever ruling out accident and surprise," as Paul Virilio has described it in his extensive explorations of military vision machines, "the drive is on for a general system of illumination that will allow everything to be seen and known, at every moment and in every place."[16]

The imagery at play here is in close alignment with the more general discourses on military surveillance in which the conceptual metaphors are, as always, drawn from the ocular realm of vision—above all the eye and sight. As we recall, this coupling of the eye and the weapon was already recognized by Jünger and has in more recent years logically directed much of the drone research toward the increased visual capacities of the drone. Thus, the majority of the research into drone warfare has been concerned with the "drone stare," [17] the "drone vision" [18] or, as Derek Gregory has coined it with a term borrowed from Martin Jay, the "scopic regime" of drones. [19] What is implied by this latter notion is not the exclusive operation of seeing, but "a mode of visual apprehension that is culturally constructed and prescriptive, socially structured and shared."[20] In other words, the scopic regime of drones denotes a plethora of visual cultures and subcultures configuring the highly differentiated

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16 Virilio, 4.

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

18 Daniel Greene, "Drone Vision," *Surveillance and society* 13, no. 2 (2015); Tyler Wall and Torin Monahan, "Surveillance and Violence from Afar: The Politics of Drones and Liminal Security-Scapes," *Theoretical Criminology* 15, no. 3 (2011).

19 Gregory, "From a View to a Kill."

20 Ibid., 190.

practices of seeing, visioning, and imaging in drone warfare, including an often mythical imagery surrounding the drone as spectacle.[21]

Godly Gazes and Panoptic Dreams

The metaphor of the "Unblinking eye"—supported by similar names in the military drone jargon framing the drone as an "eye in the sky," a "Gods eye view," a "light of God," etc.—indeed taps into the scopic mediation of modern warfare through divine and metaphysical metaphors. The same applies for the highly advanced optical technologies installed in the drones, which are often named after mythological figures such as Odin, Argus, and the Gorgons. While the references to Greek and Nordic mythology could perhaps be seen as mere marketing strategies applied by drone developing companies to signal the immense and almost superhuman scopic capacities of their recent technical innovations, it is my conviction that these mythic names serve another purpose as well—namely to reinforce the powerful imagination that, as Virilio commented with direct reference to drones: "[T]he eye of God is everywhere."[22]

In regard to this metaphysical configuration of the drone, Benjamin Noys noted how the "god-like capacity of drones, for both vision and killing, incites an attribution to them of theological and metaphysical powers." [23] Thus, he argues that drones "inhabit a field of theological metaphysics, embodying dreams of transcendence and destruction that have haunted the Western imagination."[24] This is one of the major reasons why the excessive use of mythic and metaphysical imagery surrounding drones should never be neglected or considered irrelevant, or a mere supplement that needs to be filtered out, or "expelled," in order to grasp the "true" essence of drone warfare. In contrast, there seems to be an

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21 In his seminal conceptualization of the term, Martin Jay problematizes the notion of a single, universal mode of seeing embedded in Western tradition of a Cartesian perspectivalism. Instead, he understands the scopic regime of modernity as "a contested terrain, rather than a harmoniously integrated complex of visual theories and practices." It may, in fact, be characterized by a differentiation of visual subcultures, whose separation has allowed us to understand the multiple implications of sight." Jay Martin, *Downcast Eyes. The Denigration of Vision in the Twentieth-Century French Thought*, ed. Jay Martin, Paperback print. ed. (Berkeley: University of California Press, 1994), 4.

22 Virilio, 4.

23 Noys, 4.

24 Ibid., 2.

imperative need to critically reflect on these metaphysical, mythological, or theological discourses in order to better understand *why* drones keep fascinating (or terrifying) us and our political leaders with their promises of total vision, omniscience, and perfect protection.

When engaging with such metaphysical configurations of drone vision there is, however, a danger of unintentionally feeding the techno-fetishization inherent in this imagination. As noted in the analysis of drone (in)vulnerability (specifically concerning the risk of fetishizing drone pilot trauma) in the previous chapter, one has to be cautious to not simply accept the myths, discourses and prejudices flourishing within the drone imaginary. Rather, these myths and idealized imaginations should be included in a critical reflection of how the gaze has achieved a powerful position in the Western history of imagination. Donna Haraway is therefore entirely accurate when she notes how the "eyes have been used to signify a perverse capacity […] to distance the knowing subject from everybody and everything in the interests of unfettered power." [25] What she aims at is the way Western history of science, militarism, capitalism, colonialism, and male supremacy have honed the imagination of an absolute, perfected, and disembodied mode of vision structured through fantasies of power and knowledge conceived from a godly position. Haraway calls this mode of vision a "god-trick" pretending to see everything from nowhere in a ravenous appetite for information:

> Vision in this technological feast becomes unregulated gluttony; all perspective gives way to infinitely mobile vision, which no longer seems just mythically about the god-trick of seeing everything from nowhere, but to have put the myth into ordinary practice. And like the god-trick, this eye fucks the world to make techno-monsters.[26]

Haraway's notion of "techno-monsters" seems apposite to grasp the various mythic names and discourses surrounding drones. As probably the most notorious among them, the optical system called the Gorgon Stare, is capable of covering 40 square kilometers of territory distributed through 12 visual fields that can send up to 65 different images at a time. Certainly, this name entails a cruel irony. According to ancient Greek culture, the Gorgons were monstrous sisters with Medusa as the probably best known family member, whose specialty is to turn anyone who looked them in the eyes into stone. Statues of Gorgons were therefore often used in Gothic architecture on top of buildings to scare off intruders, just like the Gorgon

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[25] Donna J. Haraway, *Simians, Cyborgs and Women, the Reinvention of Nature* (London: Free Association, 1991), 188.

[26] Ibid., 189.

Stare is inscribed in the military architecture of the drones as a truly petrifying symbol. But as Trevor Timm and Parker Higgins noted, "the army's version is much scarier than medusa and her less famous sisters [as t]here is no avoiding eye contact with these drones." In short, the lethal Gorgon Stare of drones is not dependent on mutual eye contact in order to operate. Rather, it is privileged by the invisibility inherent in the "God-trick" of seeing everything from nowhere. Yet, as the word "trick" suggests, this dream of infinite vision is, nothing but an illusion, according to Haraway; it is a desired "myth of vision as a route to disembodiment" put into practice.

A similar "god-trick" is at play in the case of the even more powerful camera system Argus IS—an acronym for the much less idiomatic name "Autonomous Real-time Ground Ubiquitous Surveillance Imaging System."[27] Like the name of the primordial giant Argus, better known by the epithet *Panoptes* (the "all-seeing"), refers to his hundreds of eyes, [28] so does the high-tech Argus imaging system use hundreds of small cameras in a mosaic to track moving objects within a 90 square kilometer area. The name brings associations to Jeremy Bentham's famous panoptic dream of the ultimate surveillance system. While the panopticon was originally thought of as an ideal architectural figure for prison surveillance, it later achieved great significance as a general model for society, particularly through Foucault's writings. As Foucault writes in *Discipline and Punishment* (1977) "[o]ur society is not one of spectacle, but of surveillance […] We are neither in the amphitheatre, nor on the stage, but in the panoptic machine, invested by its effects of power, which we bring to ourselves since we are part of its mechanism."[29]

Naturally, this broader use of Bentham's panopticon as a metaphor and model for the late modern surveillance societies has also been applied on the case of drones,[30] like when Chamayou notes that "[w]e are entering into the era of winged and armed panoptics."[31] And

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27 The optic technologies and image systems underlying the ARGUS-IS is a project developed by DARPA, the famous U.S. agency for military research. Chamayou, 236, n26.

28 The figure of Argus is known for having spawned the saying "the eyes of Argus," as well as in to be "followed by," "trailed by" or "watched by" Argus eyes.

29 Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (London: Penguin, 1991), 217.

30 For other conceptualizations of the drone panopticon, see: Mirzoeff; N. J. Waghorn, "Watching the Watchmen: Resisting Drones and the "Protester Panopticon"," *Geographica Helvetica* 71, no. 2 (2016); Lea Rosen, "Drones and the Digital Panopticon," *XRDS: Crossroads, The ACM Magazine for Students* 19, no. 3 (2013); Maurer.

31 Chamayou, 44.

for good reasons, the panopticon is frequently used to conceptualize the scopic regimes of drones: With its invisible eye and sadistically objectifying gaze, panopticism represents the ultimate materialization of a diffuse and anonymous power. Just like the Argus eyes and Gorgon Stares of the drone, the panopticon is thus the perfect "god-trick," putting the watched in a permanent and conscious state of visibility and exposure, itself remaining unseen. According to Foucault, this is what makes the panopticon such a "wonderful machine,"[32] as through this process subjugation will happen automatically as through a "fictive relation" when the power of the gaze becomes internalized into the bodies of the surveilled.

That being said, there are nevertheless quite a few divergences at stake between "the panoptic machine" and the drone, which have regularly been accentuated by surveillance scholars.[33] Above all, the element of discipline, by far the most essential idea in Foucault's theory of the panopticon, seems absent in the case of the drone gaze. Of course one could argue that a similar "disciplinary" mechanism can be observed among the people living under permanent drone surveillance who are constantly reminded of and terrorized by the machines whirring above them (something I shall elaborate on in the next chapter on drone surgicality). Yet, this effect is supposedly not the primary intention behind the general use of drones in warfare. In short, the drones are neither there to discipline, train nor to atone the surveilled population; they are there to kill suspected terrorists and to gather immense amounts of intelligence to preempt emerging or imminent threats.

Especially the latter has entailed new forms of mass surveillance, which are even further away from the panoptic idea of a stationary, fixed, and centralized gaze. As part of the larger intelligence circuit, drones perform a highly mobile and decentralized mode of surveillance, which have led some surveillance scholars to abandon the old model of the panopticon in favor of more flexible and networked modes of surveillance. Zygmunt Bauman, for instance, has argued that we now live in a "post-panoptic" society characterized by "liquid" surveillance technologies far more fluid and rhizomatic in their organization than the rigid "tree-like" panopticon.[34] Thus, Bauman's idea of liquid surveillance is more in line with what

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[32] Foucault, 217.

[33] See, for instance: Richard V. Ericson Kevin Haggerty, "The Surveillant Assemblage," *British Journal of Sociology* 51, no. 4 (2000); Torin Monahan, "Surveillance as Cultural Practice," *The Sociological Quarterly* 52, no. 4 (2011).

[34] Bauman and Lyon, 10.

Deleuze introduced as the "society of control" in which the individual is not as much in focus of attention as intercepting "dividualized" body *data* in the form of "samples, markets, networks or banks."[35] When it comes to the more specific configuration of drone surveillance, the figure of the "swarm"—explored and historically situated in the first chapter of this dissertation—therefore play an important part in the imagination of these "liquid" modes of surveillance. This applies both to the concrete technical innovations of "drone swarms," such as the ones analyzed in Jünger's *Glass Bees*, and the more abstract networks of big data surveillance, which the drone is part of.

Yet, my intent in this chapter is not primarily to engage in the ongoing discussion of what we should call these new modes of surveillance. Rather, my focus is on how these modes are configured in the cultural drone imaginary and, more specifically, on how they represent key problems of intelligence interpretation and archiving. As I have touched upon in the previous chapter and in the introduction, these problems emerged in the years following the 9/11 attacks on the World Trade Center with its escalating paranoia and demands for radically increased mass surveillance, data mining, and information gathering. As Bauman notes, "9/11 serve[d] to amplify already-existing obsessions with security and risk"[36] in the global north. Here, the constant TV replays of the collapsing Twin Towers helped "convey a sense of an ongoing imminent threat which, the authorities informed us *ad nauseam*, could be allayed by new security and surveillance measures."[37] In other words, the attacks on WTC revived Haraway's "techno-monster" and sharpened its appetite for information.

The two epigraphs opening this chapter should be seen in the light of the insatiable desire for total vision and infinite data mining triggered by the ongoing trauma of 9/11. As we will see, the protagonist in *Homeland*, CIA agent Carrie Mathison, is driven by a similar desire of "not missing anything" in her manic hunt for terrorists, a desire which, during the course of the show, pushes her toward a transformation from classic "puzzle-solving" detective to cold-blooded drone commander, or, as she is named in one of the episodes: a "drone queen." In what follows, I will place this transformation within the more general narrative logic of *Homeland*. Starting with a closer analysis on the interpretative and archival challenges faced by Carrie Mathison, visualized through the *mosaic* as a metaphor for

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35 Deleuze, 4.

36 Bauman and Lyon, 19.

37 Ibid., 62.

gathering and organizing pieces into a larger whole, I will discuss these issues in the light of other examples from the rapidly expanding archive of popular culture on US military drone surveillance. In short, I will examine how both hermeneutic intimacy and anarchic immensity of drone vision in turn end up obscuring the much desired fantasy of totalized and permanent vision.

Mosaic Surveillance in *Homeland*

When the first season of *Homeland* premiered at Showtime in October 2011, it was widely praised for its dramatic telling of a post 9/11 narrative full of insecurities and paranoia. [38] As early as in the main title sequence of the show, the creeping paranoia is highlighted through the now well-known figure of the *eye*: However, unlike the previously mentioned "unblinking eye" metaphor, which signaled incessant, uninterrupted surveillance, the eye in the title sequence of *Homeland* does in fact *blink* and, even worse, it *sleeps*. More specifically, the opening titles overlay a dreamlike montage consisting of multiple grainy clips: a blonde girl sleeping; close-ups of eyes wide open and eyes shut trembling in REM sleep; and strange images of the same girl playing trumpet, watching television, and wearing a bizarre lion mask in a hedge maze. This gritty, somewhat surreal montage then segues into a new montage of TV footage featuring explosions, panicking people, silhouettes of a smoking WTC, military operations, and a line of presidents addressing different acts of terrorism: From Ronald Reagan's announcement of the Quaddafi attack in 1986 over Bill Clinton and George H.W. Bush's statements on terror (the latter emphasizing the words "America, aggression, terrorism"), and then to an upside down President Obama claiming that "we must and we will remain vigilant at home and abroad." [39] Accompanying this montage is a medley of jazz improvisations and a chatter of voices, one of them particularly loud and clear: "It was right in front of my eyes. […] Fuck! I missed something once before. I won't… I can't let that happen again."[40]

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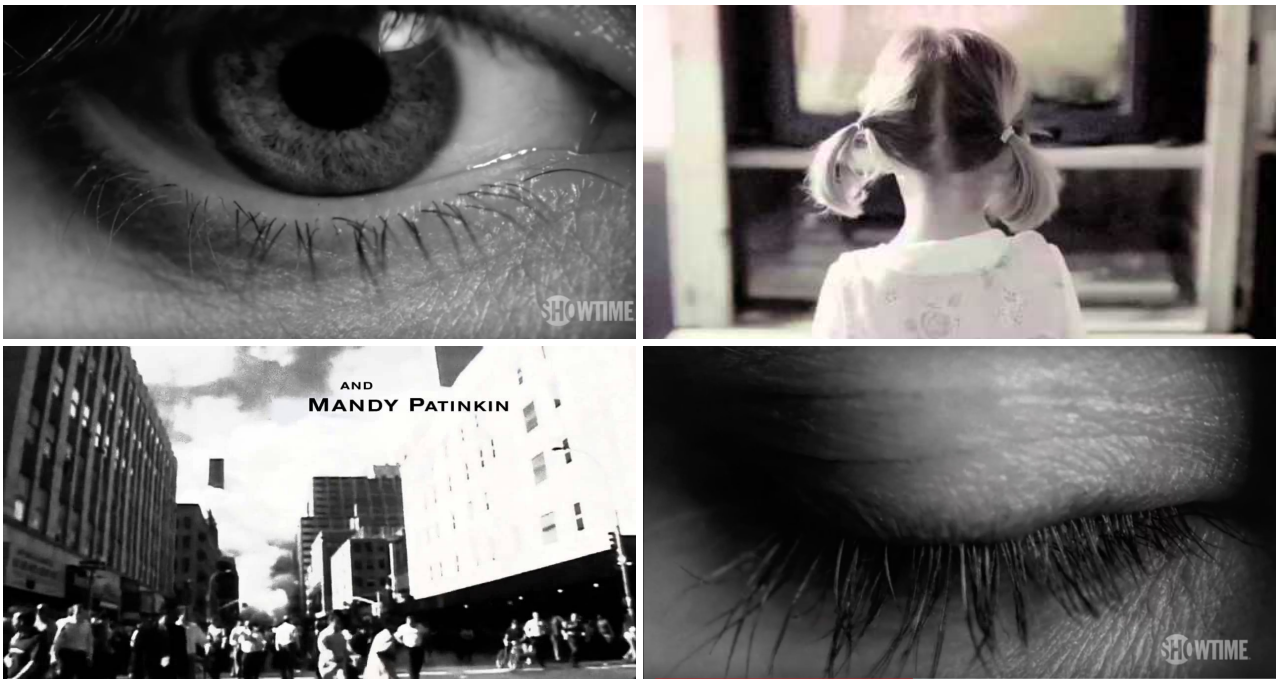
38 One review, for instance, underlined how "*Homeland* arouses […] suspicions" and "if the show had a sub-title, it would be 'Insecurity', not 'Security'." David Thomson, "Homeland, a Clever, Confident, and Cruel New Show That Trades in Paranoia," *The New Republic*, October 25, 2011.

39 Gansa et al.

40 Ibid.



Stills from the main title sequence of Homeland*, season 1 (Showtime, October 2011) visualizing the show's emphasis on the TV as medium as a metaphor for constant surveillance.*

As we recall from the epigraph opening this chapter, the voice belongs to the main character of the show, CIA counterterrorism agent Carrie Mathison (Claire Danes). And, as the viewer gets into *Homeland*, it also becomes clear that the blinking/sleeping eyes in the opening titles are, in fact, Carrie's, just like snapshots of the TV watching girl assumingly must be flashbacks to her troubled childhood exposed to terrorism on television. The shocking images of war and violence—in particular the blazing Twin Towers in a burning New York— clearly haunt Carrie in her adult life as a highly skilled intelligence savant and drive her in her paranoid attempt to not miss anything.

At a first glance, however, the voice in the title sequence appears just as ethereal and disembodied as the images accompanying it. It is thus not so much the voice of a person as a voice of an institution or position: The position of an intelligence community struggling to make sense in millions of bits of footage, data, and chatter floating through the ether. In short, it is a voice echoing the structural and institutional predicaments that ensue from the increasingly "fluid" information flow of big data surveillance triggered by 9/11. Yet, this configuration changes significantly during the show, indicating a similar shift in the cultural and political imagination from a hermeneutic practice of reading signs toward an archival practice of performing drone mass surveillance.

The first three seasons of *Homeland* are thus mostly concerned with classic puzzle-solving intelligence work, focusing on Carrie's desperate attempts to prevent a new devastating terror attack on American soil by piecing together seemingly random signs and clues into a coherent picture of the terrorists' identities and intentions. In the fourth season, however, the setting changes radically as Carrie is appointed drone station chief in Afghanistan where her paranoid desire to see everything and not miss anything is transformed into the destructive gaze of the drone.

In the following, I will pursue the transformation in Carrie's personality, which I will interpret as a metaphor for the paranoid surveillance state she works for. She is, in other words, the physical embodiment of the (in)securities and paranoid politics that sprouted from the 9/11 terrorist attacks symbolized through the above-mentioned "unblinking eye." Hence, her preferred tools for surveillance change in the course of the show—concurrently with the increased use of drones in US counter-insurgency operations during the three-year run of the show (2011-2014), developing from traditional, unlethal and "low-tech" bugging devices (such as hidden microphones and cameras) to the high-tech and very lethal drone surveillance. However, before reaching this fourth *drone season* in my analysis of *Homeland*, I will take a moment to introduce the reader to the first season of the series to show Carrie's desire for total surveillance. At the very initial stage of the show, her preferred method for intelligence gathering follows a hermeneutic logic of piecing together signs and clues into a *mosaic* of information. Yet, as we will see, this method results in failure and thus marks the shift to the drone perspective of the fourth season.

Post-9/11 Paranoia and Puzzle-Solving

As the viewer becomes more familiar with *Homeland,* it soon becomes clear that the opening titles and their strong emphasis on TV mediation of particularly the 9/11 trauma is highly suggestive of the entire first season. In this first large part of the show, Carrie is practically glued to the TV screen in her living room watching the private life of the returning American war hero, Sergeant Nicholas Brody (Damian Lewis), whom she suspects has been turned by his former Al Qaeda captors and is now planning an attack as a one-man sleeper cell. In the hope of obtaining clues to support her suspicion, she secretly (and illegally) bugs every corner of his house with "eyes and ears" to monitor the most intimate details of his private life, including quarrels, awkward sex, and adultery. Through all the noise and chatter, Carrie is

listening and watching intensely in order to find meaning and patterns in the constant stream of information.

Just like the unstoppable stream of traditional flow television, she is exposed to a steady flow of images from the Brody residence. The television footage and the fragmented words of the opening titles then get their true meaning as her 9/11 trauma is revealed to the viewer when she confides her CIA superior, Saul Berenson (Mandy Patinkin) her motives for illicitly monitoring Brody and his family:

Carrie:	I… I'm just making sure we don't get hit again.
Saul:	Well, I'm glad someone's looking out for the country, Carrie.
Carrie:	I'm serious. I missed something once before, I won't... I can't let that happen again.
Saul:	It was ten years ago. Everyone missed something that day.
Carrie:	Yeah, everyone's not me. [41]

As is clear from this dialogue, the haunting images of the collapsing Twin Towers have burnt into Carrie's eyelids and are thus the driving force in her paranoid desire for a total (post)-panoptic surveillance to see and know everything—an imagination perfectly in line with what I previously described as a desire for "godly" vision which was revitalized with the traumatic events of 9/11.

In her striving for total overview, Carrie's surveillance of Brody in the first season is first and foremost concerned with drawing up a hermeneutic field of potential signs, patterns, and passions. It is a strategy demanding a will to *read* the signs and clues and placing them in a meaningful context. In more formal terms, what she does is to work with an intelligence concept known as the "mosaic theory" of intelligence. [42] This method is basically about putting together pieces of information either from one source or from different sources in order to build a complete mosaic providing the best, most coherent image of any possible threat. The mosaic theory is therefore often compared with a puzzle game in which every single piece not itself constitutes a definable threat, but when combined with other pieces of information the entire puzzle can reveal a larger threat scenario. However, the mosaic theory has been criticized for following a paranoid or even "hysterical" logic in its struggle to discover

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41 Showtime, *Homeland*, season 1, episode 1 (October 2011).

42 See, for instance, Alfred Rolington, *Strategic Intelligence for the 21st Century : The Mosaic Method* (Oxford: Oxford University Press, 2013).

still more patterns, motives, and conspiracies.[43] In other words, it is a system that constantly expands by generating still new points of interests opening up to ever increasing attachments, connections, and conspiratorial contexts. Similarly, Carrie's manic efforts to find suspicious patterns and connections in Brody's seemingly innocent and random social behavior appear rather paranoid in the first major part of *Homeland*.

This is probably also the reason why some critics have blamed the show for having played a "significant role in the development of a post-9/11 culture of conspiracy, feeding on the paranoid mood fueled by the unpredictability of terrorist actions and by the implementation of strong security policies aiming to prevent future attacks."[44] While both paranoia and conspiration are indeed important character traits for the show's delineation of Carrie's character including her highly questionable working methods—which can indeed be criticized for being ideologically motivated—there is, however, another aspect to her paranoid configuration of post 9/11 America, namely that she suffers from an inherited bipolar disorder.

In fact, the show strongly indicates that Carries' brilliant skills as an intelligence analyst stems from her bipolar personality, including in particular her profoundly manic phases. Thus, *Homeland* is not only an obvious example of the well-defined genre "terror-tv"[45] but also of what David Coleman characterized as "bipolar cinema"[46] designating a genre of film and TV which evoke the qualities of manic-depressive episodes in their narrative strategies. Carrie's mental disease, her derived manic obsession and total immersion into her paranoid world of surveilling and interpreting clues and signs is therefore the actual narrative motor in *Homeland*. As the plot of the first series centers around the cat and mouse game between Carrie and Brody, her bipolar disorder gives her a special status as a kind of soothsayer, or Cassandra-figure[47], who can presumably see entities and connections invisible to others. Like

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43 Among others by Joseph Margulies Joseph Margulies, *What Changed When Everything Changed : 9/11 and the Making of National Identity* (New Haven, London: Yale University Press, 2013), 21.

44 Delphine Letort, "Conspiracy Culture in Homeland (2011–2015)," *Media, War & Conflict* 10, no. 2 (2017): 152.

45 Steenberg and Tasker.

46 David Coleman, *The Bipolar Express: Manic Depression and the Movies* (United States: Rowman & Littlefield, 2014).

47 According to Greek mythology, Cassandra was a Trojan princess who, after rejecting him, Apollo called a curse upon, so that no one would ever believe her nevertheless inherently true predictions. Ibid.

the mythological Cassandra figure, Carrie's curse is, then, that no one believes her despite the fact that she eventually turns out to be right in her intuitive sensations.

In a brief excurse to *Homeland* from his recent book *Image Science* (2015), the image theorist W.T.J. Mitchell also draws the link from Carrie to the mythological Cassandra thus framing her as a mad(wo)man no one believes. In particular, he notices a scene in which Carrie, in one of her manic phases, tracks the activities in the life of the terrorist leader Abu Nazir, the mastermind behind the imminent attack which she tries to prevent, and the one whom she suspects has turned Brody into a radical Islamist. Here Carrie's role is more like that of a classic detective collecting traces and information that she carefully organizes on her image wall (the obligatory bulletin board of any detective story) filled with photographs of suspects, clues, objects, newspaper articles, and various clippings.

Yet, according to Mitchell, the image wall also portrays a duality as it is both a "diagnostic instrument [...] an atlas that can exhibit and interpret symptoms" while at the same time it has become "a symptom in itself, a clue of the detective's own pathology."[48] Carrie's image wall has the same duality as it grows gradually more and more chaotic in concordance with her escalating mental instability. It thus ends in one big clutter of clippings and loose image fragments, a total mess that reflects Carrie's growing psychotic mind caused by her fundamental hermeneutic problem of connecting the right pieces to a larger picture.

Assembling the Mosaic

Carries' mental disorder functions as a double-edged sword during the show: On the one hand, it stokes her imagination beyond any "non-polar" consciousness, sharpening her ability to see connections and patterns in the otherwise chaotic and incoherent information flow as well as organizing these signs and patterns into a coherent *mosaic*. On the other hand, her bipolarity threatens the very same system with a creeping awareness that her personal theories and conspiracies are no longer a tenable strategy when the mosaic threatens to expand beyond any meaningful limit. This bipolar configuration of Carrie's surveillance becomes particularly evident in a key scene in which her mania has escalated so severely that she has been hospitalized. When her boss Saul Berenson visits her, she argues strongly against his

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48 W. J. T. Mitchell, *Image Science, Iconology, Visual Culture, and Media Aesthetics*, ed. W. J. T. Mitchell (Chicago: University of Chicago Press, 2015).

working theory which, in her opinion, suspects the wrong man. In one of her significant manic torrents of words and alliterations she draws up the basic principles of her own mosaic theory:

> Well, it's wrong! Or… it's incomplete. […] Walker is not even critical. He's just a part, a piece, a pixel, a pawn. He has no importance. There is a bigger pernicious plot. […] We have to code it, collide it, collapse it, contain it.[49]

By mentioning the main suspect in Saul's theory, Walker, as a subordinate character—"a part, a piece, a pixel, a pawn"—Carrie's point is that he just plays an insignificant role in the "bigger pernicious plot." However, this bigger plot can only be acted upon ("collapse[d] and "contain[ed]") if it has first been "code[d]" so that all the possible pieces can be gathered, organized and "collide[d]." The tragic irony of Carrie's hermeneutic problem is that her mosaic theory constantly adds new clues, new threats, and new suspects, thus contradicting every imagination of an ideal configuration. Rather, it is closer to what Derrida describes as *le mal d'archive*, "archive fever," that is, an endless accumulation of additions, appendixes, insertions, and notes turning the archive into an "anarchive" in the ever expanding form of a mosaic. The problem with the anarchive is, in other words, that the accumulation of data essentially never stops, and the effort to create the definitive overview is therefore impossible.

However, when Carrie returns to her home after having been momentarily discharged from the hospital, she finds her image wall reassembled by Saul. It then becomes clear that in the same way as a traditional mosaic is assembled by tiny pieces of colored glass or stone, Carrie has used an advanced system of color codes to organize all her information and gather it into a montage:

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49 *Homeland*, Season 1, Episode 11 'The Vest' (Showtime, December 2011).

Still from Homeland *Season 1, Episode 11, "The Vest," December 2011, showing Saul helping Carrie reassembling her mosaic image wall.*

As clear from the still above, each color in Carries image wall codes a certain phase of activities in the life of the terrorist leader Abu Nazir. However, Carrie's image wall also shows a critical gap in chronology, a missing link, a lost piece of the puzzle, marked by the color yellow. "The fallow yellow," she calls it, before realizing that the yellow period could mean a loss or tragedy—that Abu Nazir was mourning during the yellow period. And so he was, the viewer soon learns, as it is discovered that Abu Nazir lost his son in an American drone attack during the yellow period, and this is incidentally also the first clue of the impending shift toward drones in *Homeland.*

Yet, despite the reconstruction of Carrie's precious image mosaic with its latest hints and clues, ironically brought together by a *lack* of pieces in the puzzle, the season nevertheless ends with her realizing that she is (apparently) wrong about her main suspect Brody. The first season's long attempt to construct a mosaic through Carrie's desperate efforts to organize and limit a hermeneutic field thus culminates when she takes the consequence of her (apparent) misconceptions by voluntarily consenting to a solid dose of electroshock therapy. Her collapse is ultimately a metaphor for the collapse of the neatly ordered archive she has built throughout the season. In other words, what appeared to be a hermeneutic problem of assembling the right pieces of information into a meaningful structure then turns out to be an archival problem, that is, a problem related to the infinity and immensity of the (an)archive of big data surveillance after 9/11. Naturally, this problem is impossible to solve even for the brightest

and most skillful CIA agent when she is entirely on her own. Instead, Carrie must look for an alternative strategy to continue her intelligence work and, more importantly, satisfy her paranoid appetite for seeing and knowing everything in order to continuously protect her homeland. This alternative strategy is not surprisingly provided by the drone.

Becoming Drone Queen

When the fourth season of Homeland premiered in October 2014—exactly three years after the initial run of the first season[50]—it was with a significant modification to the sequence of the opening titles. Several bits of drone footage with thermal cameras and crosshairs aimed at crouching figures glowing white in dark rocky landscapes were now incorporated into the montage of grainy clips. These sceneries then fade into the previously mentioned hedge maze, now featuring white figures running bewildered around with a propeller of a Predator drone ominously hovering in the distance. Featured again in this montage is also the well-known close-ups of Carrie's eye, shut and then wide open, but otherwise most of the introductory sequence is dominated by the drone's detached perspective, indicating Carrie's new position as drone station chief in Kabul.

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50 The second and third season of *Homeland* essentially continue in the same track as season 1 with Carrie still relying on her hermeneutic method to unravel the conspiracies lurking under the surface, with frequent visits to the mental clinic as a result. Even when reaching the turning point of the second season—where it turns out that she was right about Brody and the pieces thus seems to fall into place—suddenly new pieces interrupt her (an)archive in the final episode where unknown forces blow up the CIA headquarter framing Brody for the attack.

Stills from the main title sequence of Homeland*, Season 4 (Showtime, October 2014) showing the season's heavy focus on drones.*

In other words, the altered opening titles herald the series' new-found preoccupation with drones—a change also highly noticeable in the camera work: As the fourth season gets under way, it is thus hard not to notice a highly increased number of scenes shot from the vertical perspective of the drone, providing the viewer with a feeling of an unhindered totalized view from above as opposed to the horizontal shots of the first season, emulating the naturally limited perspective of human vision.

The drone therefore seems to offer Carrie a new solution to her hermeneutic and archival struggles from the previous seasons by providing her with the opportunity to gaze unhindered, *unblinkingly* at anyone or anything at any time. Her previous mosaic configuration of the intelligence she receives from her surveillance is thus enhanced with the visual capabilities of the drone, which, as previously stated, include the multi-scopic Gorgon and Argus eyes, which can watch over any place anywhere simultaneously. With the drone Carrie's vision is no longer restricted by the limitations of a fixed camera or a stationary microphone or even by the physiological rhythms of the human body: While during the first season she would sometimes drop asleep in front of her screens and speakers, a weakness already hinted at by the close-ups of her sleeping eye in the opening titles, the new mode of drone surveillance in the fourth season is thus technologically enhanced. This is, of course, both due to the high-tech optical technology of the drone stare and to the fact that she is now

in charge of an entire team of pilots, sensor operators, and image analysts watching uninterruptedly for any lurking threat or suspicious target.

What is at stake in this fetishized configuration of drone vision is thus the aforementioned imagination of a permanently watching eye that, according to Jonathan Crary, watches "unblinkingly 24/7, indifferent to day, night, or weather."[51] This "non-time" of drone surveillance is in sharp contrast to the linear flow of TV transmitted images in the previous season, which naturally Carrie could not keep track of all by herself. The limit of her former highly embodied vision is thus extended and expanded through the prosthetics of the "unblinking" drone stare. Although there are thus significantly new modes and measures of surveillance at play in the fourth season of *Homeland*, this does not mean that all Carries hermeneutic and archival struggles have completely vanished. As we shall see, the appearance of the drone in the series rather entails a set of new paradoxes as Carrie's aforementioned *mosaic-method* is updated to a version 2.0.

As mentioned, the fourth season of the series displaces the setting of the events from America to Afghanistan as Carrie is now promoted CIA drone station chief in Kabul. From the very first episode, with the telling title, "The Drone Queen," the destructive capabilities of Carries new position are efficiently demonstrated. Based on an anonymous tip, Carrie starts out by authorizing an airstrike on the highly wanted Taliban leader Haissam Haqqani, who presumably hides in a farmhouse. In spite of Carrie's ostensive uneasiness with trusting anonymous intelligence blindly, she nevertheless orders the strike. And in an intense scene Carrie, her staff, and the viewer watch the silent drone images of the farmhouse go up in smoke.

After the grave scene of remote destruction, in which Carrie looks genuinely affected, the situation suddenly takes an unexpected twist when the light turns off and her staff presents her with a birthday cake on which "The Drone Queen" is inscribed in icing:

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[51] Crary, 32.

Still from Homeland, Season 4, Episode 1, "The Drone Queen" (Showtime, October 2014), showing Carrie's birthday cake with "The Drone Queen" inscribed in icing.

This is a bizarre scene for several reasons: Not only does the informal intimacy of the second part of the scene form a striking contrast to the uncomfortable tensions dominating in the first part, it also exposes how apparently mundane the everyday routine of remote controlled killings has become to Carrie, who now appears more like a cold-blooded assassin. Yet, as to cement this sudden cheerful, almost homely, atmosphere of collegial joviality, the staff starts singing "She's a jolly good fellow" followed by Carrie blowing out the candles on the cake. In short, this is how the safety of waging war from the distance is experienced in the fourth season of *Homeland*.

The strong associations to the intimacies of everyday life and casual birthday ceremonies continue after the "killing-and-cake" scene as it cross-cuts to Carrie's private quarters where a new surprise is revealed: It appears that Carrie has become a mother to a one year old girl, Franny, whom she has left in her sister's care back in America. After entering her new Kabul home, Carrie therefore looks forward to seeing her little daughter on a skype connection—thus mirroring the screen experience she has just had of waging war from the distance—but when she finally skypes her sister, it turns out to Carrie's regret that Franny just left with her grandfather after waiting for hours for Carrie to call.

In a significant way, the scene mirrors the situation in *Grounded*, analyzed in the previous chapter. It mirrors the challenges faced by the new generation of commuting screen warriors struggling to find a balance between warfare and domestic family life. Carrie falls under this

new category of military motherhood[52] and is affected, too, by what I have called the "(in)vulnerability" of drone warfare. However, the vulnerable experience of becoming a mother while at the same time being at war is not in any way as traumatizing for Carrie as it was for the female drone pilot in *Grounded*—perhaps because she is in fact in a warzone and separated from her child. In many ways it makes the privation emotionally simpler for her. This is probably also why we do not hear any more of the maternity side plot during the rest of the season, which precisely shows that unlike the traumatized female drone pilot of the last chapter, Carrie does indeed have a well-developed capacity to "compartmentalize" her psyche by being emotionally detached—to the privation of her daughter as to the remote violence she is now in charge of.

Voyeuristic Intimacy

The fact that Carrie now has become an emotionally detached "Drone Queen" does not mean that she has renounced all of her previous affects. Just like intimacy has always been an important aspect of Carrie's mosaic method for intelligence gathering—taken to the extreme through her intense surveillance of Brody's private life and her eventual sexual involvement with him— it still is. Only now it is an intimacy mediated by the drone's pervasive vision. In other words, it is a sort of "voyeuristic intimacy", as Gregory[53] describes the visually intense experience that many drone operators have of watching their targets in close detail prior to eliminating them.[54] As in real life drone operations, this voyeuristic intimacy is not confined to the often excessive amounts of surveillance used to create what Flynn called "target intimacy" *before* a strike. The voyeurism and intimacy of the images certainly also play a significant role *afterward* when the drone operators are tasked to identify bodies of victims and to make general damage assessments.

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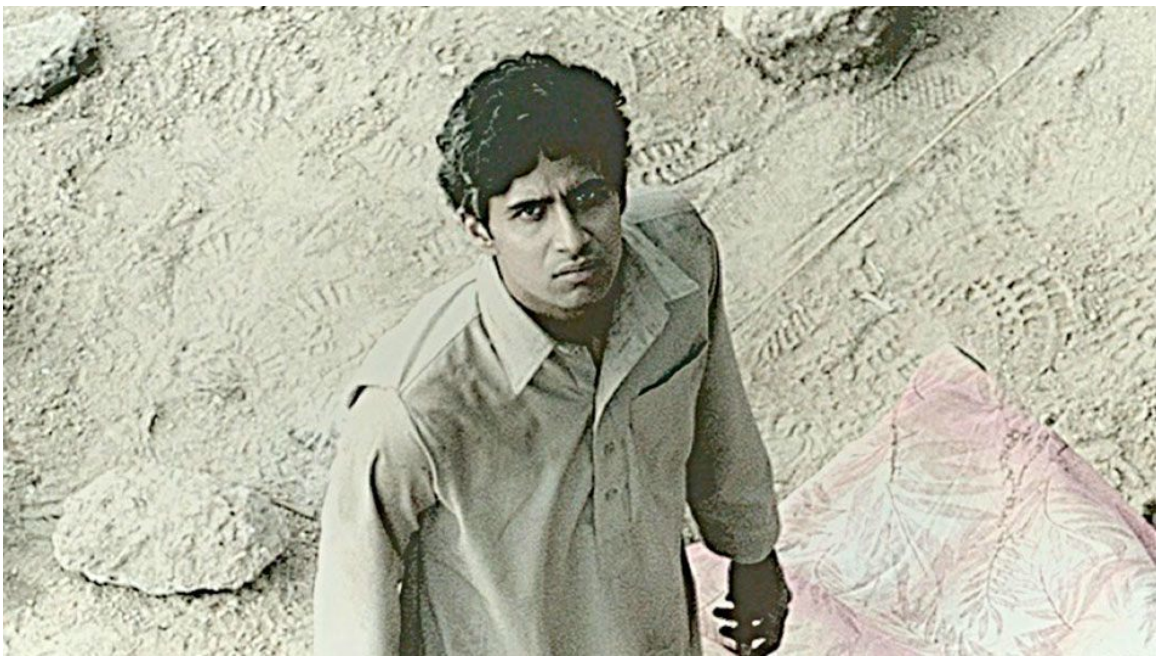
52 For more discussion of the feminist aspects of Homeland, see, for instance: L. Bradshaw, "Showtime's 'Female Problem': Cancer, Quality and Motherhood," *Journal of Consumer Culture* 13, no. 2 (2013).

53 Gregory, "Drone Geographies," 10.

54 Gregory draws this notion from an interview by the journalist Matthew Powers with the probably most "famous" traumatized drone pilot, Brandon Bryant. Bryant here uses the term "voyeuristic intimacy" to describe his visual experience of watching "targets drink tea with friends, play with their children, have sex with their wives on rooftops, writhing under blankets." (Powers 2013)

This is clearly also the case the next day when Carrie, through the video feed of a Reaper drone, inspects the casualties and realizes the tragic result of her drone strike: While she cannot get the elimination of the wanted terrorist, Haqqani, confirmed, it becomes painfully clear that the anonymous tip was fake and that she has instead accidentally bombed an entire Afghan wedding including a large number of civilian wedding guests. Slowly the drone zooms in on the lines of dead bodies to the point where—unlike the often grainy drone images of the real world—not only persons are easily identified, but also facial features are rendered sharp. As this visual aspect of the show indeed supports the imagination of a penetrating drone gaze that sees everything in clear detail, Carrie is therefore enabled to comfortably watch each of the survivors or relatives carefully, arranging the dead weeding guests. Among them she spots a boy kneeling beside his dead sister and, more importantly, the boy also spots her, that is, her drone. Looking straight up at the drone, his fixed gaze thus catches Carrie in a mixture of grief, blame, and disgust. Through this cross-cut between the eyes of the boy and Carrie, an illusion of what appears to be real eye contact is established, thereby touching upon the ambiguous experience that many real-life drone pilots have of watching their targets with voyeuristic intimacy:



Still from Homeland, Season 4, Episode 1, "The Drone Queen" (Showtime, October 2014) showing how the series uses drone vision to create a counter-stare.

Carrie, then, seems to experience a moment of her well-known affective immersion with the subject of her work, emphasized by elegiac background music and a sonic fusion of the buzzing cicadas on the ground in Afghanistan and the buzzing computer screens in the control room. Yet, her impression of the boy seems to be marked by both spatial and emotional distance established by the unblinking and all-powerful vision of the drone. The scene therefore illustrates the paradoxical "voyeuristic intimacy" of remote warfare and the asymmetrical power relation between the hunter and their prey:[55] a relation in which the predator, in this case Carrie, "the Drone Queen", can choose to be intimate only when it benefits the situation, which it does in the case of the boy. Clearly, there is something about him—staged by the heavy zooming in on his intense gaze—that attracts her attention and creates a spectacular visual dynamics to the scene. Although this dynamics is, of course, far from a true mutual eye contact it nevertheless constructs something like a counter-stare to Carrie's drone gaze. It is a construction that apparently gives the boy "the right to look," as Nicholas Mirzoeff calls the autonomy and reciprocity that is necessary to acknowledge and at all see "the Other."[56]

Yet, the staged mirroring of the two gazes is only a faint reminiscence of the old hermeneutics of Carrie's immersion with and intimate relation to her assets. Her drone gaze is therefore now primarily focused on what the drone can do, that is, as Chamayou has phrased it, to "detect, deter, disrupt, detain, or destroy networks before they can harm innocents."[57] Here, Chamayou's analysis of the manhunting capacities of the drone thus seems to echo Carrie's old mosaic method which, as we recall, was guided by a strategy to "code, collide, collapse, and contain." While the hermeneutic logic of Carrie's more old-school and puzzle-solving detective work consisted of *reading* or coding signs and colliding them to draw up a mosaic of possible connections and patterns, her new position as drone queen is thus about detecting and detaining signs to ultimately *destroy* them and their part in a potentially harmful network.

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55 As Grégoire Chamayou notes, the predatory logic of the drone follows that of manhunting: "The art of modern tracking proceeds by means of a cartography of the prey's social networks that the 'hunter-analysts' piece together in order to succeed in tracing him back, through his friends or relatives, to his hideout," Chamayou, 2.

56 Mirzoeff, 1.

57 Grégoire Chamayou, "The Manhunt Doctrine," *Radical Philosophy* September/October, no. 169 (2011): 3.

As it turns out, the boy from the drone images is involuntarily part of such a network: After tracking him down and establishing a very literal "target intimacy" with him, Carrie discovers that he is the nephew of Haqqani who is, it appears, very much alive. When realizing this, Carrie takes advantage of his family relation by first seducing him and then using him as a decoy to lead her to his uncle. When monitoring him the following day from the video feed of yet another drone, she then tracks the boy outside of the city to the mountainside where he meets up with his uncle. Haqqani, however, quickly sees through the setup and ultimately kills his nephew for recklessly leading the drone to him. In the same shocking scene, Carrie and her crew also discover that Saul Berenson, Carrie's close friend and former CIA director, who has been missing for days, has been taken hostage by the terrorists. In a clip resembling the previous scene with the established eye-contact between Carrie and the boy, the power dynamics of the gaze is then turned 180 degrees as it is now Haqqani who, while forcing Saul's face upwards, looks directly up at the drone with an expression of resentful triumph:

Still from Homeland*, Season 4, Episode 6, "From A to B and Back Again" (Showtime, November 2014) showing how drone vision renders both persons and faces clearly visible and recognizable.*

Naturally, the atmosphere in the control room is nothing less than chaotic and hence very far from the jovial cheerfulness of the previously analyzed *killing-and-cake* scene. Shocked by the sudden killing of her precious asset (and lover), Carrie, in a state of blind fury and revengefulness, therefore orders the drone pilots to strike, even though she knows that the explosion will undoubtedly kill Saul too. However, she is stopped by her friend and associate,

Peter Quinn, who reasons with her about the unacceptable in deliberately killing an ex-director of the CIA, even though the main target is number one on the kill list. Still, her intentions were clear to begin with as she had already given the order to strike even before knowing that the boy would be killed by his uncle and that Saul was hidden in the car. And just as she was ready to sacrifice the boy as a sad but necessary "casualty" to eliminate the terrorists, she almost also sacrificed Saul.

Consequently, Carrie's transition from puzzle-solving investigator to cold-blooded "drone queen" is drawing to a close. At the same time the transition has affected her specific type of mania: Previously it took the form of a paranoid obsession with analyzing and interpreting signs and clues within a hermeneutic field, while now it has turned into a predatory mania of extermination and destruction. This predatory hunter-prey logic created by the drone marks a radically different regime of intelligence and warfare involving cool destruction of all suspects as well as any distracting elements (even close friends) standing in the way of the drones lethal gaze. In short, the narrative logic of the show has tipped to a far more violent culture of intelligence, surveillance, and remote warfare than the one characterizing the previous seasons.

Smashing the Mosaic

As stated above, the transition from one surveillance regime to another is not random, nor is it exclusively a result of how *Homeland* attempts to introduce cutting-edge surveillance technologies to its drama. Instead, the configuration of drone surveillance in the show is an explicit answer to the increasingly anarchic situation of the first seasons of *Homeland*; a situation which was simply no longer sustainable, neither for Carrie personally nor from a more general homeland security perspective. To repeat Masco's phrasing from the introduction, there is thus always "more potential dangers to preempt, [and] other nightmares to locate and eliminate."[58] There is simply too much data, there are too many threats, and too many potential entries into the neatly ordered archive for Carrie's mosaic method of close and immersed interpretation to remain feasible in the rapidly growing archive of data provided by unblinking drone surveillance. It therefore goes without saying that an round-

[58] Masco, 36.

the-clock interception of video and image data captured by a huge number of patrolling US drones quickly mounts up to unimaginable quantities which can neither be assessed nor grasped.

What *Homeland* seems to suggest, then, is that no one, not even Carrie or the CIA, is able to keep a constant overview of the immensity of information harvested by the "unblinking stares" of these new technological platforms for mass surveillance. As we have seen, this structural impossibility is the source of the brooding paranoia embodied in Carrie's manic but fruitless attempts to regain control over the vast amount of information that ultimately threatens to drive her mad. Her bipolar disorder then becomes emblematic for the hermeneutic and archival struggles faced by the security state and its intelligence community at a stage when drone mass surveillance is becoming increasingly threatening to the very idea of upholding a meaningful archive for analyzing threats. As we have seen, these problems are essentially related to the impossibility of maintaining a hermeneutic mode of intelligence analysis when flooded by immense amounts of more or less relevant information fragments provided by the steady flow of big data drone surveillance. When the archive of possible parts, pieces, and pixels threatens to extend to the entire globe, there can be no neatly ordered mosaic anymore, only anarchy and chaos. The only practical response to such chaos, or so *Homeland* seems to suggest, is to actively *smash the mosaic* in remote-controlled destruction and violence. This destructive logic does not aim at restoring order through careful organization or interpretation, but rather aims at eliminating all elements that make up this chaos. It is therefore not only a logic of leaving the hermeneutic practice of making sense of signs and clues, but a logic of actively destroying the hermeneutic field in order to attain complete safety from any contingency or hidden threat.

The ideological imagination underlying this logic is not something that *Homeland* renders unequivocally. For instance, the show is clearly critical in its portrayal of Carrie's escalating mania and her increasing willingness to use violence and deceit to reach her ultimate goal in the elimination of any real or imagined threat. As we recall, the fourth season of the show is full of examples of Carrie's increasingly cynical and paranoid state of mind, such as when she demolishes an Afghan wedding; when she seduces and subsequently sacrifices a young boy; or when she is about to bomb a group of terrorists along with her close friend, Saul. The way *Homeland* depicts these brutal scenarios as signs of Carrie's transformation to "drone queen" is, in other words, far from glamorizing. Instead these examples expose her desire for total and unrestrained surveillance and destruction as

somehow monstrous in its uncompromising insatiability, symbolized by her use of Predator and Reaper drones.

While in this light *Homeland's* representation of drone warfare and surveillance can be taken as a somewhat critical or at the very least ambivalent rendering of this kind of military practice, the show nevertheless also has more problematic traits. As I have already accounted for some of these in terms of critics accusing the show for producing "propaganda for the Obama administration's 'overseas contingency operations'," [59] there might, however, be other critical aspects as well. One of these—which it has in common with several other popular drone representations—is the massive promotion of drones as all-seeing "winged and armed panoptics", rendering everything clearly visible and knowable (an aspect of the drone imaginary that will be elaborated more on in the next chapter on surgicality). As pointed out above, this trend to fetishize drone vision is evident in the scenes where Carrie spots the boy and establishes a voyeuristic target intimacy, which eventually leads her to his terrorist uncle. While the cinematic promotion of drone omnivision is, as the previously mentioned passage from the graphic novel *Verax* indicates, far from the experience of limited drone vision reported by real drone pilots as "looking through a soda straw," it might not be the most pertinent aspect of drone surveillance in *Homeland*.

Rather, the way in which the ongoing hunt for terrorists is incorporated into the narrative structure of the show can easily be seen as equally supporting the ideological imagination of the drone as a necessary solution to the political insecurities dominating the Western security states. This imagination is therefore established as a narrative necessity in order for the show to continue: It simply needs new emerging terrorists to eliminate. Following this logic, the well-known, although specious, arguments often asserted by advocates of drone warfare about "surgically" precise drone technologies limiting collateral damage, are overshadowed by a contrary assumption: The objection that drone strikes are counterproductive, because they allow insurgents to recruit more volunteers in an endless repetitive spiral. Yet, the show's solution to the problem seems to be an intensification of drone operations, which follow the idea that drones can and will "win th[e] race and eliminate individuals at least as fast as new ones are recruited," [60] to use Chamayou's critical remark. The vicious spiral of continuous violent elimination as part the breeding reproduction of

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[59] Castonguay, 139.

[60] Chamayou, *A Theory of the Drone*, 71.

terror is therefore not only something the show simply represents but rather something that constitutes its very narrative logic of paranoia and conspiracy as a way of securing the world against terrorism.

As this chapter has shown, the figuration of the drone gaze as a provider of "unblinking" and unrestrained *omnivision*, drawing on highly mythical and godly imagery and discourses, builds on a paranoid imagination of an unstable archive of potential threats in the form of an ever-expanding mosaic. The implicit solution to this problem, offered by Carrie and her drones in *Homeland*, is therefore to "detect and deter" any given threat, and further to "disrupt and destroy" it before it evolves into potentially traumatic events. What the drone promises in *Homeland* is therefore, using Masco's words, to "deliver a world without such events, projecting a vision of an everyday life unbroken by surprise, let alone trauma."[61] Yet, as we have seen, these promises are once more unveiled as flawed and self-obstructive because of the archival problems inherent in the infinity and immensity of mass drone surveillance. The ideological imagination underlying these promises of a safer world through pervasive drone surveillance therefore follows the logic of cruel optimism, enclosing fraying fantasies of the good life in the age of remote warfare.

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[61] Masco, 30.

Chapter IV

BLINDED BY PRECISION

Surgicality and Casualties in Eye in the Sky and The Drone Eats with Me

> It's this surgical precision, the ability, with laser-like focus, to eliminate the cancerous tumor called an al-Qa'ida terrorist while limiting damage to the tissue around it, that makes this counterterrorism tool so essential. [1]
>
> John O. Brennan, Assistant to the President
> for Homeland Security and Counterterrorism, 2011

> Death is so close that it doesn't see you anymore. It mistakes you for trees, and trees for you. You pray in thanks for this strange fog, this blindness.[2]
>
> Atef Abu Saif, The Drone Eats with Me, 2016

In the War on Terror, Zygmunt Bauman notes, "it is solely the casualties among military personnel who truly count and are counted … The other casualties of the war are 'collateral.'"[3] Collateral. Casualties. The words signify how the destruction of innocent lives appears accidental, subordinate, and secondary to the larger importance and necessity of war. Yet, deeply integrated into the imagination of late modern drone warfare is a dream of a weapon that, due to advanced targeting systems and meticulous calculations of impact and mortality rates, is able to minimize these unfortunate and messy side-effects of war. This

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1 Jaffer, 207-8.

2 Atef Abu Saif, *The Drone Eats with Me. A Gaza Diary* (Great Britain; Fasila: Comma Press, 2015), 20.

3 Zygmunt Bauman, *Society under Siege* (Malden, MA: Polity, 2002), 105.

imagination is particularly pronounced in the political discourse on drone warfare in which one metaphor is frequently employed by officials and supporters of the drone program, that is, the much-praised "surgical" precision by which drones allegedly eliminate high-profile targets with a minimum of unintended civilian casualties.

In this chapter I will scrutinize the idea of surgical precision as the fourth of the figurations that I have claimed constitute the central pillars of the drone imaginary. I thereby continue the line of argumentation from the previous chapters, in which I have moved still closer toward the crucial moment when the drone actual kills its target. While the previous chapter focused on the drone gaze as a figuration of total vision that turned out to be *blinding* due to the overload of information and big data surveillance, the current chapter both finalizes and extends this argument. As my previous analyses of the aesthetic drone imaginaries have shown, blindness and uncertainty are integral parts of the drone imaginary and act as explicit antitheses to the visual proximity and accuracy often associated with drone warfare. I will now explore how this blindness compromises the fetishized fantasy of the drone as instrument of great precision, including the derived assumption that drones are "humanitarian" since they allegedly minimize civilian casualties. The chapter therefore once again demonstrates how the politics of drone warfare follows the logic of optimism, which is *cruel* in so far as it is bound to obstruct itself. My aim in this final chapter, then, is to question the common assumption of drone warfare as "surgical" by suggesting—with two aesthetic drone representations as my (counter) imaginary lens—to reconsider the claim of the humanitarian and precise drone often made by proponents of drone warfare.

Here the idea of *indemnity*, which I unfolded in the second chapter, once again appears as a key figure in the imagination of the drone as a provider of surgical precision. As was the case in the second chapter on drone invulnerability, the fantasy of drone surgicality rests too on a drive to keep the human body intact and unharmed. What the idea of indemnity has to offer, then, is a promise of salvation and protection; a dream of shielding not only the body of the drone pilot, but also the bodies of innocent civilians and non-combatants living side by side with the terrorists targeted by the drones. Thus the vision of a completely sanitized warfare perfectly rinsed from any unwarranted victims is created. Yet, as it will soon become clear, this cruelly optimistic imagination of the drone as an instrument of surgical precision will once more turn out as rather phony if not simply self-deceptive.

As in the previous chapter, the aesthetic samples analyzed in this chapter include both works of cinema and literature. This time, however, the focus will not be limited to an exclusively Western-centric drone perspective. Rather, I would like to counter the highly

westernized political and cultural imaginaries of drone warfare by introducing an alternative view from "below," thereby investigating how drones are experienced as anything but "surgical" through the eyes, ears, and bodies of the people actual living under them. More specifically, I will analyze the Palestinian novelist Atef Abu Saif's personal account of the 2014 Gaza conflict published in 2016 titled *The Drone Eats with Me*. Abu Saif's literary representation of how he experiences life in Gaza in constant fear of the drones—whose omnipresence, enervating whirring, and conspicuous inaccuracy are well illustrated in the epigraph above—is heavily contrasted by the other analyzed work: A film which can indeed be called one of the most iconic drone thrillers yet produced by Hollywood, that is, Gavin Hood's 2015 blockbuster *Eye in the Sky*.

In spite of their shared topic, these works provide two highly different representations of the issue of precision in drone warfare, each in their very own way challenging the common idea of drone wars as surgical and the imagination of collateral damage as an unfortunate side-effect, which is reduced by the drone's surgicality. Yet, before diving into the concrete analyses, let me first introduce the idea of surgicality and its derived notions of casualties and collateral damage.

Surgical Warfare

Even though the idea of a surgically cleansed and sanitized war seems closely linked to late modern computerized warfare, this imagination has deep historical roots. As unfolded in the first chapter of this dissertation, Ernst Jünger, for instance, imagined war as an almost clinical and emotionally detached experience, helped by the emerging visual technologies of the early twentieth century.[4] By utilizing camera technologies in combination with aerial assaults, World War I thus functioned as a sort of military laboratory in which the battlefield could be examined just like a surgeon or scientist inspects bodies and organisms through a microscope. Similarly, key targets could be identified and decimated from the air with much higher precision than before: A military practice which did not primarily serve to protect the civilian population, but rather to penetrate the front line as efficiently as possible in order to find and destroy enemy forces finding cover and shelter in the trenches.

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4 See this dissertation's first chapter.

Later, strategic bombardments during World War II have been used as an even more striking case of surgical precision in military theory. In Harlan Ullman and James Wade's seminal work on late modern military strategy, *Shock and Awe: Achieving Rapid Dominance*, the matter of the German "Blitzkrieg" is, for instance, used as an example of "surgical precision." Here, the intent of the German Wehrmacht's densely concentrated attacks was, according to the authors behind *Shock and Awe*, to "apply precise, surgical amounts of tightly focused force to achieve maximum leverage but with total economies of scale."[5] The strategy was to spearhead the enemy's line in multiple locations in order to concentrate attacks in a "narrow salient." To illustrate this strategy, Ullman and Wade use the image of a "shaped charge, penetrating through a relatively tiny hole in a tank's armor and then exploding outwardly to achieve a maximum cone of damage against the unarmored or less protected innards."[6] In short, this illustrative example projects an imagination of surgical warfare, a potent, surgical cut into the enemy's body leaving great damage to the targeted vital organs. Even though the two military thinkers do admit that there are certainly situations, such as guerrilla warfare, where the strategy of "shock and awe" may prove to be less applicable, the idea of surgicality thus remains a powerful historical matrix in modern military-strategical thinking and in the modelling of advanced weapon systems.

In *A History of Bombing*, Sven Lindqvist uncovers the historical origin of the fantasy of a surgically precise superweapon. According to Lindqvist's comparative history, this dream was gradually developed during the 20th century as a combination of gyroscope-guided missiles, nuclear technology and fantasies of space travel. Initially, the idea took shape as the first modern missiles used during World War II, that is, the German V-2 rockets. However as Lindqvist notes, the German engineers behind the V-2 rockets were "blinded by the technical wonder of their creation."[7] Their costly experiments with the long-range rockets had turned out to be a lot more precise in theory than in practice as it was almost impossible to predict the exact coordinates of their impact, which even made it difficult to hit an enormous target like London.[8] However, during the aftermath of the war, the technology behind the V-2's was further developed as Russia and the U.S. imported many of the greatest German military

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5 Ullman Harlan Ullman and James P. Wade, *Shock and Awe : Achieving Rapid Dominance* (Washington, DC: Center for Advanced Concepts and Technology: National Defense University. Institute for National Strategic Studies, 1996), 25.

6 Ibid.

7 Sven Lindqvist, *A History of Bombing* (New York: New Press, 2001), § 212.

8 Ibid.

engineers in order to increase the precision of their missiles. Among them was Werner von Braun, who helped the Americans succeed in creating short and intermediate ballistic missiles. Later, during the nuclear arms race, these technologies were expanded to the invention of intercontinental ballistic missiles, which—considering the great distance and the fact that they momentarily left Earth's atmosphere—set new standards for the "surgical" precision of long-range weapons.

As the precision of military technologies rapidly improved during the Cold War period—according to Lindqvist by a factor of approximately 100.000 from 1945 to 1975[9]—it became increasingly possible to limit the impact of an attack primarily to military targets. Hence, remote technology now allowed for a considerable reduction in collateral damage which previously included entire cities and metropoles. But while the enhanced precision made it significantly more likely to successfully hit a given military target without simultaneously killing thousands of innocent people, it also increased the temptation to perform a strike. Paradoxically, the enhanced precision also increased the danger to civilian populations since it "undermined the balance of terror and made deterrence less dependable,"[10] as Lindqvist notes in regard to the imminent threat of an intercontinental nuclear war. Ironically, then, the threat grew with the supposed capacity to limit nuclear strikes on military targets. However, the surgical precision of an atomic war was fortunately never tried out in practice and with the end of the Cold War, new and more fine-tuned weapon systems were invented.

As a landmark in the post-cold war imagination of remote warfare as clean and surgical stands the First Gulf War (1990-1991), which was broadcasted to Western audiences through images of high-tech weapon systems, precision-guided bombs, and cruise missiles. As noted by military historian Douglas Kellner, the American forces worked to "project an image of a clean, precise, and efficient technowar, in which the U.S. military was controlling events and leading the coalition inexorably to victory."[11] It was a war which, according to the images displayed on Western television screens, depicted "cruise missiles that sneaked around street corners and with perfect precision, found their military targets."[12] However, as Lindqvist

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9 Ibid.

10 Ibid.

11 Douglas Kellner, *The Persian Gulf Tv War*, Critical Studies in Communication and in the Cultural Industries (Boulder: Westview Press, 1992), 186.

12 Lindqvist, § 369.

observes, this image of a "clean" war was soon to be revealed as sheer propaganda, covering up the deaths and destruction left by the bombs. In other words, what was presented to the public as a surgically clean and humanitarian war, in retrospect turned out to be nothing but war as usual:

> What we saw seemed to be a new kind of war that fulfilled the demands of both humanitarianism and military efficiency—custom-made destruction without messy side-effects. It was only afterward that we found out how tightly controlled that propaganda image really was." [13]

As I have argued throughout this dissertation, a similar propaganda image is spreading across global media and popular culture, which frame the drone as the provider of a cleaner and more humanitarian type of precision-based warfare. The figuration of the drone as a surgical weapon has been crucial to the Obama administration's well-known arguments of drones as lawful, ethical, wise, and carefully supervised. The surgical imagery so dominant in this political imagination was underlined in a speech by former CIA director, John O. Brennan, who at the time was President Obama's closest counterterrorism advisor and reportedly the chief architect behind the administration's targeted-killing policies. In the speech—from which the epigraph in the beginning of this chapter stems—Brennan addresses the drone's ability to "with laser-like focus […] eliminate the cancerous tumor called an al-Qa'ida terrorist while limiting damage to the tissue around it." [14] While the framing of drone warfare through a medical discourse connects the perceived surgicality of remote warfare with normatively positive developments within actual medicine—particularly within cancer treatment where the question of killing sick cells without also destroying healthy cells is decisive—it also hints at a certain biopolitical logic which permeates contemporary warfare: the idea of terrorism as a disease which can only be cured through the application of violence.[15]

This coupling of military and medical imagery into an imagination of a surgical war is neither something new nor exclusive to drone warfare. As already mentioned, this metaphorical exchange was also highly pronounced in the Ernst Jünger's highly clinical

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13 Ibid.

14 Jaffer, 207-8.

15 For more on the medical discourse on drones, see Elke Schwarz, "Prescription Drones: On the Techno-Biopolitical Regimes of Contemporary 'Ethical Killing'," Security Dialogue 47, no. 1 (2016).

memoirs of World War I. As we recall, Jünger's detached style and his juxtaposition of humans and insects on the battlefield worked as a dehumanizing mode of representation that made violence appear "natural" and stripped the warrior's ethos from morality and emotionality. In particular, the mounting of cameras on airplanes made the case for Jünger as well as for other young fascists of the early twentieth century by producing precisely such a morally detached gaze. Among them was Jünger's Italian writer colleague and founder of Futurism, Tommaso Marinetti, who praised the violence of war as "hygienic" and as "a moral education."[16]

However, it is not only fascism that has historically sanitized the body politics through the "controlling, cleansing and healing effects of violence."[17] In democracies too, medical metaphors and narratives have regularly been deployed to rationalize acts of violence, historian John Keane has convincingly argued, "as when politicians speak of surgical strikes, sanitary cordons, mopping-up operations and fighting the 'cancer' or 'plague' of terrorism."[18] This discursive junction between medicine and warfare thus signals a certain dualistic logic in the biopolitical imagination in which visions of success or failure are captured in oppositions such as life and death, illness and health, infection and cure, symptoms and remedies. This dualism is perhaps not too surprising given that, as Elke Schwarz has noted, "the medical profession and the military industry are located at opposite ends of the biopolitical spectrum: one serves to prevent death, the other delivers it."[19] According to this medical paradigm both sides are also inherently instrumental as the "one saves individual life, while the other is tasked with securing the life of a body politic."[20]

Moreover, the metaphoric traffic between medicine and warfare is a two-way street, as medico-scientific discourses have historically also been affected and colored by the brutality of war. Susan Sontag was highly aware of this metaphorical exchange and its consequences, noticing how "[t]he controlling metaphors in descriptions of cancer are, in fact, drawn not from economics but from the language of warfare: every physician and every attentive patient

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16 Lindqvist, § 77.

17 John Keane, Violence and Democracy, ed. John Keane (Cambridge: Cambridge University Press, 2004), 2.

18 Ibid.

19 Schwarz, 66.

20 Ibid.

is familiar with, if perhaps inured to, this military terminology."[21] Her point here, then, was to critically reflect on the tendency that military discourses colonize civil life and, in particular, the most precarious and vulnerable aspects of it in the form of disease. Reversing Sontag's critique of this metaphorical connection between disease and war, Hannah Arendt warned strongly against the dangers of using biological metaphors to promote violence. As early as in 1970, she foreshadowed the present surgical discourse of drone warfare as she reframed a debate of that time between conservatives and reformists as "a discussion between two physicians who debate the relative advantages of surgical as opposed to medical treatment of their patient. The sicker the patient is supposed to be the more likely that the surgeon will have the last word."[22] Indeed, her words reverberate in the current discourse on drones with its bio-medical metaphors in which the chief purpose is to remedy or cure a sickness in society.

While the language of medicine might be wrapped in military metaphors—articulated, for instance, as a "fight" or "crusade" against cancer—warfare is certainly also entangled in medical imagery. Within the intelligence community and in military circles, the ongoing war on terror and its counterinsurgency operations are often presented as medical practices in which the commander or warlord plays the role as a surgeon dissecting the battlefield or eliminating the infectious contaminants. Such imagery is exhaustively unfolded in an article with the symptomatic title "Curing Afghanistan" published by two American field commanders.[23] In the article, the two officers "diagnose" Afghanistan's illnesses to be rooted in "Taliban's infectious insurgency" and describe the American counterinsurgency forces as the "powerful antibiotic" necessary to secure the Afghan "immune system." Similarly, a passage from an American counterinsurgency field manual illustrates this bio-medical discourse (and the possible source for Brennan's description above) stating that "counterinsurgents are like surgeons cutting out cancerous tissue while keeping other vital organs intact."[24]

What interests me in these examples is not so much the specific metaphorical parallels between medicine and warfare (or whether counterinsurgency operations function as either antibiotics or "chemotherapy")[25] but rather how the intersection between these two domains

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21 Susan Sontag, Illness as Metaphor (New York: Farrar, Straus and Giroux, 1978).

22 Hannah Arendt, *On Violence* (New York: Harcourt, Brace, 1970), 74.

23 William Caldwell and Mark Hagerott, "Curing Afghanistan," Foreign Policy 7 (2010).

24 Quoted from Mirzoeff, 300.

25 Gregory, "From a View to a Kill," 205.

points to a biopolitical necessity motivating the War on Terror. Nicholas Mirzoeff, among others, has stressed this biopolitical—or rather *necro*political—logic, noting how the military-medical relationship creates an enemy who is "an unmistakable threat to life, requiring radical intervention. As cancer is a rapidly multiplying life-form, its (metaphorical) eradication is a necropolitics: this parasitic life must be withheld so that the 'host' can live."[26] Opposed to conventional concepts of the enemy in classic warfare, this idea of the enemy-as-infection, who is "multiplying" and "parasitic" naturally, calls for new surgical measures and strategies. Thus, the medical discourse on warfare and the imagination of the enemy as a non-human parasitic life-form, a malicious intrusion into the political body, very much resonates with Brennan's praise of drone surgicality and its ability to eradicate the "tumor" of terrorism without hurting the surrounding "tissue." More than anything, this medical figuration of drone warfare, and the biopolitical logic driving it, pathologizes and dehumanizes its target, transforming it into an abstract and hostile organism that must be defeated. In short, these medical metaphors constitute what Chamayou in *A Theory of the Drone* has called "discourse[s] of legitimation"[27] working to ensure the social and political necessity and thus acceptability of the military deployment of drones.

Following this bio-medical figuration of the drone as a surgical instrument, a remedy or even a cure corresponds to the idea of the targeted enemy as *contagious*—an imagination which in fact is not far from Derrida's idea of indemnity. As we recall from the analyses of drone indemnity and (auto)immunity in the second chapter, the imagination of modern warfare, and modernity as such, is marked by an immunitary logic, according to Roberto Esposito, in which protection against contagion is essential.[28] Just like the figuration of drone (in)vulnerability rests on a desire to remain unscathed, so is the idea of drone surgicality saturated with fantasies of purification and sanitization through violence, saturated by a medical imagination based on a drive to contain the damage and control the contagion.

In the US-led war on terror, the fear of contagion rests on a twofold risk, consisting of the possible recruitment of new terrorists on the one hand and the risk of imminent attacks on the other. So when Brennan refers to al-Qa'ida terrorists as a "cancerous tumor," he actually means it quite literally, indicating the contagious danger that these "cells" could possibly pose to the surrounding community, or "tissue," in terms of terrorist recruitment,

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[26] Mirzoeff, 300.

[27] Chamayou, *A Theory of the Drone*, 17.

[28] Esposito.

attacks, and civilian casualties. The latter aspect—the capacity to minimize civilian casualties—is frequently highlighted by promoters of drone warfare arguing that exactly the surgical capabilities of drones categorize them as one of the most humanitarian weapons in military history. According to this logic, drones must therefore be considered to be "ethically obligatory," which makes some military ethicists use this argument to impose upon politicians and decision makers a moral duty to use drones.[29]

However, as it has been well-documented by both investigative journalists and human rights organizations, [30] there is a vast quantity of unreported dark figures in the official statistics and reported numbers of civilian victims by drone strikes. Western authorities' negligence of the actual numbers of innocent deaths by drone attacks thus follows a strategy of concealment and non-communication by which the US state agencies are authorized to "neither confirm nor deny" the existence of documents and policies such as a secret war of assassination in Pakistan.[31] This critique becomes even more disturbing as some investigative studies indicate that proofs of civilian losses and mistaken drone strikes are deliberately and systematically being concealed by military or state agencies.

Drones and/as Forensic Aesthetics

In the project "Threshold of detectability," a team of forensic architects based at Goldsmiths, University of London, for instance, examines the visual imprint and material evidences of drone strikes. Through advanced and thorough investigations into drone strikes in Pakistan, Gaza, and other places, the architects led by the British-Israeli architect Eyal Weizman thus work like forensic scientists gathering evidence to reconstruct the "crime scenes" of Western drone strikes in order to document the scale and impact of these attacks. In their search for evidence, the architects have discovered how buildings struck by drones have a distinct architectural signature to them: A small hole in the roof drilled by the drone-fired missile before its warhead explodes deep inside the building. While most other aerial munitions explode immediately upon impact, the missiles used for this type of drone attack are much

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29 Strawser, 344.

30 See, for instance, The Bureau of Investigative Journalism: http://drones.pitchinteractive.com

31 Eyal Weizman, "Violence at the Threshold of Detectability," e-flux journal, no. 64 (2015).

more accurate as they are programmed to detonate with milliseconds of delay after hitting the roof. They can thus break through multiple layers of roof, walls, and floors before detonating in the targeted room, which makes them perfectly designed for urban environments with dense civil populations and can thus target designated individuals without doing too much damage to the surroundings.

Besides exposing how surgically precise this type of drone technology can be, Weizman and his team of architects made an additional point, namely that the size of holes left by drone missiles is smaller than the size of a single pixel in satellite images available to the public. Holes like this are visible, for instance, on the image below by photographer Kent Klich, who has documented the impact of drone strikes by Palestinian population in the series "Gaza Photo Album" from 2009:

Home hit by drone strike. Kent Klich, Tuffah, Northern Gaza, from the series "Gaza Photo Album" (2009).

In other words, missile holes like the one pictured above are at the "threshold of detectability" since they might appear only as minor color deviations in the pixels and therefore are hardly noticeable.[32] As Weizman has stated on several occasions, this undetectability has "direct

[32] Forensic Architecture. Violence at the Threshold of Detectability, ed. Eyal Weizman (Cambridge: The MIT Press, 2017), 27.

implications for the documentation of drone strikes in satellite imagery, which is often as close to the scene as most investigators can get."[33] Hence, it is the same precision that gives the military the possibility to eliminate a target with an accuracy of inches which simultaneously, or as an added "bonus," makes it possible to efficiently camouflage the strikes from public scrutiny.

Central to the way forensic architects work calls into question the facts and statements that governments and state agencies make available to the public. In the case of drone warfare, such facts or statements are conspicuously absent through governmental formulations of denial, or what Weizman calls "glomarization," that is, a "form of denial that aims to add no information whatsoever." But, as Weizman notes in regard to this strategy of concealment, "[t]o say 'this is untrue,' or 'this did not happen,' is an antithesis that requires a counter narrative."[34] To the forensic architects, this counter-narrative is formed through careful reconstructions based on material evidence such as the abovementioned roof holes. Along with the marks and traces left by shell fragments in the walls of the rooms in the building, this material evidence is used by the architects to estimate and reconstruct the exact details of drone strikes. This include calculations of the number and specific characteristics of the persons present in the room, for instance if they were children or adults, that would otherwise not be exposed to the public.

What is revealed by the forensic architects, then, is how the alleged surgical precision of drone operations can serve a dual purpose: On the one hand, it can be used as an alibi for employing the so-called "humanitarian technology" to save lives and limit casualties; on the other hand, it can also be used as a camouflage to conceal the loss of those very same lives that it claims to protect. What is at stake here is, in other words, another instance of what I have conceptualized in this dissertation as the *cruel optimism* of drone warfare through which optimistic fantasies of enhanced security and humanitarianism are compromised by their own possibilities. I shall now pursue this thesis further, elaborating and finalizing the argument I have made throughout this dissertation in the light of a more close analysis of two very different cultural representations of the surgicality (or lack thereof) that are so crucial to the drone imaginary.

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33 "Violence at the Threshold of Detectability."

34 Ibid.

In the following my intention is therefore to dismantle the myth of surgicality as a military as well as communicative strategy, and as a means of power. While the first analysis—featuring Gavin Hood's 2015 military thriller *Eye in the Sky*—critically examines the film's visual valorization of drone precision, arguing how this precision is itself obstructed by the messy play between inept politicians and semi-autonomous weapon systems, the second analysis of Atef Abu Saif's 2016 Gaza diary *The Drone Eats with me* inverts this perspective.

From above: *Eye in the Sky*

When Gavin Hood's British-South African coproduction "Eye in the Sky" premiered at the 2015 Toronto Film Festival and the following year hit cinemas across the globe, it left the audience in an ethical dilemma which mirrors that of late modern surgical warfare. Should the commanders in the war room risk 80 civilian lives because of just *one* collateral death—even if it is a sweet little girl in a hula-hoop? This brutal assessment based on rational statistics of potential civilian deaths would not be possible without the high-tech drone surveillance dominating the visual side of the film; an enhanced visibility—according to the film's valorization of technology—burns away the last remaining banks of war fog and thus makes way for a brand new regime of surgicality. As I will argue in the following reading of the film, this imagination of surgical warfare is, on the one hand, promoted by the film's visual economy and fetishization of technology. On the other hand, the idea of surgicality is at the same time problematized and criticized by *Eye in the Sky* as the movie exposes the frailties and arbitrariness of human decision power and vacillation in confrontation with uncomfortable ethical dilemmas.

The film begins with an operation to capture, not kill. In Northwood, London, Colonel Katherine Powell (Helen Mirren) receives intelligence that a British born Al-Shabab terrorist leader, whom she has been hunting for years, is meeting with other wanted terrorists in a house in Nairobi. The Nevada-based drone pilot (Aaron Paul) is her "eye in the sky;" in Nairobi local special forces are ready to engage; and in London, top-politicians, legal advisers, and a British general follow the war theater at a distance. In short, everything is all set and ready for an operation to capture Danford so that she can be prosecuted for her war crimes. Yet, the situation suddenly escalates as the terrorists unexpectedly move to an Al-Shabab

controlled location where capture is no longer feasible. The situation has now changed from an operation to "kill rather than capture" as Colonel Powell declares echoing Obama's official anti-terror doctrine and its change in strategy from the dirty torture-regime of the Bush era to the vaunted surgical precision of drone strikes.[35] Meanwhile in the board room, the military commander-in-chief, Lieutenant-General Frank Benson (Alan Rickman), does his best to convince the hesitant politicians—who came to witness a capture, not a kill—of the urgency to eliminate the terrorists while they still have the chance: "Using the Reaper we have the ability to strike the target with considerable accuracy,"[36] he notes, thus introducing the powerful imagination of drone surgicality to the film's vocabulary.

And it is not only on a discursive level that *Eye in the Sky* invests heavily in a surgical imagery. Also in terms of the film's visual effects, the idea of surgicality is promoted through crisp-clear high-resolution images shot from the drone's omniscient perspective. This is not a technique that is in any way exclusive to *Eye in the Sky*. Rather this aesthetic mode is present in multiple cinematic productions from the "drone age" which have incorporated these new aerial technologies into their cinematography for enhanced aesthetic and entertainment purposes.[37] Yet, *Eye in the Sky* stands out as a film in which the tense balance between fetishization and critique is exceptionally troubled. From the very first scene, this visual economy is instituted by close-ups of a little girl playing in front of her house while the camera ominously zooms out to the aerial perspective of the drone targeting a pickup truck. As this totalizing and highly detailed view is maintained throughout the film—cross-cutting between horizontal images from the ground and vertical drone footages, all in exquisite cinematic quality—the accuracy of visual evidence thus leaves no doubt whatsoever about the identity or the intent of the targeted terrorists.[38]

By rendering everything visible and knowable, the film then supports an imagination of the drone as a tool for total, all-pervading surveillance. Compared to *Homeland*, however,

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35 As Chamayou notes, the "drone has become one of the emblems of Barack Obama's presidency, the instrument of his official antiterrorist doctrine, "kill rather than capture" […] replac[ing] torture and Guantanamo with targeted assassination and the Predator drone." Chamayou, *A Theory of the Drone*, 14.

36 Gavin Hood et al., "Eye in the Sky," (München: Universum Film, 2016).

37 See, in particular, Steen Ledet Christiansen, *Drone Age Cinema : Action Film and Sensory Assault*, International Library of the Moving Image, 38 (London; New York: I.B. Tauris, 2017).

38 Among others, Susan L. Carruthers has critized the film for taking the level of detail and degree of precision in drone vision far beyond its current technological capacities. Susan L. Carruthers, "Detached Retina: The New Cinema of Drone Warfare," *Cineaste: America's Leading Magazine on the Art and Politics of the Cinema* 41, no. 4 (2016).

the surveillance technologies used to provide information in *Eye in the Sky* are amplified as new and highly surgical instruments are introduced, such as a stealthy mechanical bird perching in the terrorists' windowsill and a tiny mechanical beetle, which might very well have been modelled on Jünger's glass bees. Thanks to this surgical surveillance technology, a local Nairobi agent manages to steer the mechanical beetle into the terrorists' safehouse thus delivering images needed to confirm the identity of the terrorists. But as the agent navigates the minuscule beetle further into the house, he discovers a stock of explosives and suicide vests, which indicate the planning of an immediate attack. Naturally, the discovery that the terrorists plan to detonate their explosive vests in a shopping mall, which could potentially kill up to 80 innocent civilians, changes the rules of engagement drastically. The military necessity of a surgical strike is thus justified by the film lining up the so-called *ticking time bomb-scenario* well-known from TV shows such as Fox TV's *24*.[39] The ticking time bomb-logic is widely criticized for functioning as a narrative framework used to justify what CIA called "enhanced interrogation techniques" as the only viable way to get information out of captured terrorists about where they might have planted a disastrous, ticking bomb.

In *Eye in the Sky,* this scenario is eloquently illustrated by Colonel Powell[40] stating that "[i]f *we* do not strike, *they* will," thus reinstalling the old logic of the Bush-administration's torture-regime as narrative motor of the film. Yet, while the traditional ticking bomb scenario has typically functioned as a justification for torture,[41] the scenario has changed with the advent of the drone and Obamas' "kill rather than capture"-policies. As shown in the previous chapter, the task to prevent a given threat is thus not mainly dependent on achieving information from insurgents anymore, but rather of eliminating the insurgents before they even think of detonating the bomb. Nevertheless, the basic logic behind the ticking time bomb-scenario is the same: In both cases, it works as a temporal and narrative matrix serving to justify the need for action and decisiveness in order to ensure the safety of the many through the killing of the few.

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39 For a closer examination of the *ticking time bomb-scenario* in both *24* and the imagination of torture in the US war on terror more generally, see: Jens Christian Borrebye Bjering, "Working the Dark Side : On the United States Torture Regime after 9/11" (University of Copenhagen, 2016).

40 Here, the phonetic affinity between the name of the character, Colonel Powell, and the former National Security Advisor and Secretary of State, Colin Powell, can hardly be a coincidence, thus bringing associations to the Bush-administration's politics and catpure operations.

41 See, particularly, Darius Rejali, *Torture and Democracy* (Princeton, N. J.: Princeton University Press, 2007).

Following this logic, the political and military leaders in the film are faced with having to choose between possible collateral damage resulting from the attack and the potential casualties from the terrorists' ticking-time bomb scenario. While I shall return to how this logic structures the way in which *Eye in the Sky* depicts the highly affective experience of the leaders in the intense moments leading up to the strike, it is worth noting how the ticking time bomb scenario operates through a similar logic of emergency-conditioned necessity. It is a logic that draws on what Eyal Weizman has called the "lesser evil" argument, by which he understands "the optimal result of a general field of calculations that seeks to compare, measure and evaluate different bad consequences in relation to necessary acts, and then to minimize those consequences."[42] What is essentially at stake in this *lesser evil* logic is, once again, the dream of a weapon so technologically smart and surgically precise that ethical dilemmas as well as messy side-effects such as civilian casualties are easily dissolved through the rationales of computer calibrated precision.

Yet, the problems inherent in this imagination are further exacerbated when the little hula-hoop dancing girl from the opening scene suddenly positions herself in front of the terrorists' safehouse with the purpose of selling bread for her mother. This, of course, changes the situation and triggers the pertinent question which becomes the pivotal point for the film: Should the entire operation be aborted because of just one girl? Or should the imminent threat to the civilian population including innocent children justify the accidental killing of the child? In a farce resembling Stanley Kubrick's *Dr. Strangelove*,[43] these ethical, legal, and political issues unfold between the impatient military commanders and the shaky politicians who constantly shift responsibility between them in an attempt to avoid being the one who makes a final, painful decision.

Particularly three aspects of this interplay are critical to the film's narrative ticking-bomb logic as well as its visual valorization of surgical targeting, each of which I shall analyze in the following: that is, the *positive identification* of the terrorists, the *estimation of collateral damage*, and the *chain of decisions*—in the drone discourse also known as the "kill chain"—leading up to the attack. As we will now see, the first two steps in this process severely complicate the last

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42 Eyal Weizman, *The Least of All Possible Evils : Humanitarian Violence from Arendt to Gaza* (London: Verso, 2011), 6.

43 As we will see, Stanley Kubrick's *Dr. Strangelove* is an important subtext to the *Eye in the Sky* as it, too, depicts the contingency of a military operation getting out of hands. Only in Kubrick's film it is not "just" one child, but the prospects of a nuclear apocalypse that constitutes the potential casualties.

one, thereby demonstrating once more how the cruel optimism of the drone with its promises of clean and surgical warfare is compromised.

Identifying the target

As I have shown so far, *Eye in the Sky* endorses the techno-scientific imagination of the drone as a tool of surgical precision, even in spite of its intended critical stance toward drone warfare. This is done partly through the film's cinematic aesthetization of drone frames and partly by its fetishization of the technology in question as incredibly accurate. In this techno-fetishized drone imaginary, the notion of so-called Positive Identification (PID) plays a crucial part. PID is military language for having a confirmed identity of the target prior to engagement in order to know with reasonable certainty that it is a legitimate military target, in other words, that you are bombing terrorists, not civilians. Supporting the bio-medical configuration of surgical warfare, PID draws on the realm of forensics as it refers to the definitive determination,[44] typically employed by medico-legal experts and forensic pathologists on victims of crimes or accidents, that a body is that of a specified person.

The first part of the film is about gaining the PID in order for the military commanders to be legally cleared to authorize the strike. As the terrorists move into an Al-Shabab-controlled area of Nairobi, this information can only be obtained thanks to the sharp lenses of the Reaper drone secretly hovering 22,000 feet above in the sky. However, even with the highly detailed images offered by the advanced camera technologies of the Reaper drone, the identification of the most prominent of the Al-Shabab-leaders—the British-born convert Susan Helen Danford (Lex King)—turns out to be difficult since her face is covered by a Hijab. It is only with the perching bird-drone (ornithopter) and the micro-drone beetle (insectothopter) infiltrating the terrorists' safehouse that images of Danford's face are captured and that her identity can be positively confirmed. This is done by a Hawaii-based image analyst, who uses advanced facial recognition software to calculate the distance between Danford's eyes, ears, nose, cheeks, etc. matched with crime photos from the intelligence database. This is the nearly forensic identification practice as it is imagined by *Eye in the Sky*—an imagination that rests on fantasies of total surveillance providing practically unlimited

[44] Fingerprints, comparison of dental records, DNA analysis, and facial recognition are just some of those methods used to make a match in medical forensics.

knowledge which, at least for a while yet, seems to advance quite beyond the capabilities of current drone operations.[45]

Considering how keen the film questions other important issues of drone warfare, such as the assessment of collateral damage, it seems curious, then, that it passes that lightly over one of the arguably most controversial problems of the US drone program—namely that of the selection *and* identification of legitimate targets and the uncertainty guiding these procedures. As well-documented by both intelligence officials, researchers, journalists, and artists,[46] the practice of determining the identity of a target is in fact highly challenging in real-world drone operations. Due to poor-resolution imagery, distorted telecommunication, etc., the targeted individuals on the images often appear more like pixelated dots than recognizable persons of interests, making it hard to even distinguish combatants from civilians and adults from children. In short, this visuality remains far from the highly detailed and easily identifiable bodies and faces on the drone images presented by *Eye in the Sky*.

In contrast to this cinematic clarity, investigations of real-world drone operations have disclosed how the definition of legitimate targets as "military aged males" can indeed be stretched, *precisely* because of the uncertainty obscures these images. As the perhaps most canonical case, a released transcript of a US coordinated drone attack on an Afghan convoy killing 23 innocent civilians documents the fatality of such messy identification procedures.[47] The transcript proceeds like this: In the early hours of February 21, 2010, a Predator drone tracks a convoy which, according to unidentified radio communications, is suspected to carry high-level Taliban commanders setting themselves up for an attack. Despite a lack of video feeds, images muddled by bad weather and low light due to infrared sensors, the Predator crew is quick to identify "suspicious [and] tactical movements" as well as individuals carrying "cylindrical objects." Although it is not possible for the crew to positively identify whether these objects are in fact rifles, they still insist that the vehicles "would make a beautiful target."

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45 My aim here is not, however, to thoroughly "fact-check" the realism of drone film, but rather to analyze how the imagination of surgical precision is created. For a closer discussion of the realism of drone cinema, see: Carruthers.

46 For instance, Derek Gregory has documented the distortion of visual information provided by drones in numerous articles (Gregory, 2011) supported, as well, by other drone researchers such as Gusterson. Likewise, Sonja Kennebeck's documentary *National Bird* (2016) present interviews with former drone operators and image analysts who debunk the alleged precision of drones.

47 For instance, the records of the 21 February 2010 drone strike is included in full length as a prelude to Chamayou, *A Theory of the Drone*.'s A Theory of the Drone and analyzed by Derek Gregory in several occasions. The following quick summery of the strike is based on Gregory's account in his article "From a View to a Kill: Drones and Late Modern War."

However, among the men in the convoy, "two possible children" are identified by the drone crew's image analysist, but this assessment is quickly changed to "potential adolescents… possible teens," which are to be considered as much of a threat as adult men with rifles. If the crew were in any doubt about the identity and intent of the persons in the vehicles before, it thus seems definitively brushed off as the convoy and its passengers stop for praying, interpreted by the intelligence commanders as if they are "gonna do something nefarious." Consequently, the scenario ends up with an authorization to bomb the convoy. Only afterwards, when the smoke clears, the drone crew identifies women and children among the victims who all turn out to be civilian shopkeepers, students, and families off to visit relatives.[48]

Derek Gregory, among others, has described how the entire operation is heavily distorted by a hodge-podge of poor imagery, radio communication failures, general miscommunication and inaccurate reporting in which "objects become rifles, praying a Taliban signifier, civilians 'military-aged males', and children 'adolescents'."[49] It is, in short, distorted by a military-bureaucratic process which is anything but "clean" or "surgical." Yet, the transcript not only makes visible how a fundamental absence of positive identification could lead to the fatal loss of 21 innocent lives, but also how the outcome of the operation was almost predetermined by the crews' cognitive bias. In the aftermath the botched operation has become the favorite case for critics of drone warfare and has been denounced by both public media and by an internal official Air Force investigation. While the military investigation stated that the crew showed a "strong desire to find weapons," the *Los Angeles Times* pointed to the "eagerness" of the drone crew to locate and attack the suspected terrorists. In short, the enthusiasm by which the crew was predetermined to conduct the strike proves that to a hammer everything looks like a nail, or, as Gregory has remarked on the constructed visuality of a drone strike: "If seeing is believing, it is also techno-culturally mediated."[50]

Eye in the Sky is a striking example of such techno-cultural mediation. By rendering everything and everybody clearly visible and identifiable, the film reproduces that sort of military predeterminism and eagerness to find terrorists at all costs which the U.S. Airforce itself noted was at the heart of the above described tragedy. Through its visuality and unequivocal positive identification of persons and objects, the film thus supports a strong

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48 Gregory, "From a View to a Kill," 202.

49 Ibid., 203.

50 Ibid.

confidence in visual evidence constructed by drone images—evidence, which ends up making the case for the targeted assassination of Danford and her cohorts. This operation would typically have been categorized as a "personal strike"—a term used when the targeted person is known by name and considered to be high-value or particularly dangerous—as opposed to the so-called "signature strike," which targets unknown persons based on algorithmic analysis and machinic identification of life-patterns and suspicious networks. While the identification as well as selection criteria underlying the latter category are indeed highly problematic—as the aforementioned 2010 drone attack on the Afghan convoy clearly proved—the personal identification of Danford appears simple, surgical, and ethically uncomplicated according to the constructed visuality and narrative logic of *Eye in the Sky*.

Similarly, the legal justification for killing Danford, based on her value and ranking on the notorious "kill list," is not something that the film finds worthy of any critical inquiry. The sparse background information we get about Danford is that, as a member of Al-Shabab, she ranks four on the East-African most wanted list, and that she has been tracked by the British intelligence community for more than six years. While her high-priority position on the list is repeated several times during the film, the function of the list as a collective presidential death sentence is not given much attention in itself. However, in the academic controversies over drone warfare this aspect of "the list" has been frequently and severely criticized. The Obama Administration's 2013 expansion of the terrorist watchlist system, leaked to *The Intercept* in July 2014, received particular attention as it revealed how the secret processes behind drone assassinations required "neither 'concrete facts' nor 'irrefutable evidence' to designate an American or foreigner as terrorist."[51] The rules implied by Obama's so-called *Watchlisting Guidebook* thus authorize governmental officials to "nominate" individuals—or entire "categories" of individuals—to the watchlists on the basis of what is loosely defined as "fragmentary information."[52] While the uncertainty and arbitrariness of these "kill lists" have been critically exposed by artists and poets—such as Josef Kaplan whose poem "Kill List" names a long list of randomly selected contemporary American poets appearing through a peculiar system that resembles the Danish poet Inger Christensen's *Alphabet* [53]—the designation of a person as a terrorist and the following legitimation of their assassination appear far less precarious or problematic in *Eye in the Sky*.

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51 Scahill, 16.

52 Ibid.

53 Josef Kaplan, *Kill List* (Baltimore: Cars Are Real, 2013).

Even despite its tendency to fetishize drone technology, *Eye in the Sky* has become one of the most iconic and widespread cultural critiques of drone warfare. While ironically both supporting and dismantling the myth of surgical precision—on the one hand, romanticizing the technological precision while, and on the other hand, demonstrating its inaccuracy and the contingency and complexity of factors in play during drone operations—it thereby questions the fantasy of a clean and humanitarian weapon.

By depicting the transition from capture to kill as something which is debated intensely by the politicians and legal advisors in the war room, the film *does* after all call attention to the principal problems in assassinating an individual without indictment or trial, especially when this individual turns out to be a British citizen. In other words, the basic principles of law and prosecution are challenged by the proposed killing of Danford, who according to the Attorney General in the room should lawfully be brought back to England to be prosecuted and stand trial. However, this standpoint is only present in the early part of the film before the suicide vests are discovered and the well-orchestrated ticking time bomb scenario starts ticking. As mentioned, this new-found evidence—smoothly brought about by the miniscule beetle-drone's highly detailed images—instantly changes the narratological logic of the film as it shifts its rather credulous focus on positive identification of terrorists and bombs to the more serious issues of collateral damage assessment.

Estimating collateral damage

With the discovery of the explosives in the safehouse, the supreme commanders in the war room face a number of uncomfortable questions. What would be the potential civilian death toll if the terrorists carried out their suicide mission? And how much damage would a drone strike do to the area surrounding the safe house? These are the crucial questions presented in the second part of *Eye in the Sky* and, with another military acronym, they are transformed into a cynical calculus shortened CDE (Collateral Damage Estimate). CDE denotes a set of proportionality analyses and calculations of impact that military commanders must take into account when estimating the amount of force required to achieve a concrete military goal. In *Eye in the Sky*, the notion of CDE, however, is problematized as the film addresses both the legal circumstances and the unreliability and statistical uncertainty underlying this tool. In particular, calculations of collateral damage are being run over and over again throughout the film with shifting purposes; sometimes the purpose is to protect the innocent civilians

(visually focalized through the cute dancing hula-hoop girl) and sometimes the more tarnished intent is to protect the military commanders and politicians from any legal responsibility and to shield them from the risk of future prosecution.

That said, the film's message is unmistakably clear: No military commander, let alone any politician, would freely choose collateral damage. Hence, everyone involved in the operation has a strong interest in reducing the risk of civilian casualties, a sentiment put into words by Colonel Powell as she informs the drone crew that "[t]his is a friendly city. Collateral damage bust be kept to a minimum."[54] Yet, with the suicide vests forming the notorious ticking time bomb scenario, the situation has changed as the collateral damage of the drone strike must now be equated with a disastrous massacre that could be the potential outcome of the terrorists attacking a shopping center. For Colonel Powell, there is no doubt whether or not to strike: "We've got two suicide bombers inside that house but no one wants to take responsibility for pulling the trigger,"[55] she states, reminding everyone of the ticking time bomb scenario and its laws of necessity that sanction all available means in an emergency. In her view, then, the situation calls for fast and decisive action. This is also what eventually makes her push her crew hard for a lower CDE assessment—one that can be accepted by the wavering and vacillating politicians and lawyers in the war room.

Still from Eye in the Sky (2015) showing Colonel Katherine Powell (Helen Mirren) following the events on the ground from the video feed of a Reaper drone.

54 Hood et al.

55 Ibid.

The Colonel is aided by military lawyer, Major Harold Webb, whose job it is to ensure that no rules and laws are violated by the operation, and her targeteer, Sergeant Mushtaq, who is assigned to run the CDEs. From his computer screen, the targeteer displays images with concentric "collateral damage circles" visualizing the potential impact of the drone's Hellfire missiles, including the estimated mortality rates of the terrorists in the safehouse versus the area outside of the compound. As it is clear from the superimposed CDE-diagrams on the screen, the mortality rates on the street outside the building are problematically high and even higher when the explosives in the suicide vests are included. Based on these estimates, military lawyer Major Webb therefore warns Powell about the so-called "Rules of Engagement" she operates under, which only allow for a low CDE. He therefore insists that she should refer to the politicians in the war room for clearance to engage with the drone strike.

Locked in the Kill Chain

In the board room, however, the politicians and assistant Attorney General fear how a targeted assassination on not only a Briton (Danford) but also an American citizen (one of her partners in crime) could trigger public scandal and a diplomatic crisis. To make matters even worse, the little girl from the opening scene suddenly shows up in front of the safe house with the intention of selling bread for her mother, clearly within the CDE-diagram's concentric circles indicating high mortality rate. This naturally makes the politicians even more anxious about the whole operation as they fear for the political prospects of "surgical" counter-insurgency operation that could easily end up killing an innocent child.

While at first this political hesitation could perhaps resemble genuine moral wariness over assassinating not only Western citizens but also innocent children, there seems to be another political agenda at stake—that is, the issue of winning or losing a purported "propaganda war" and its heavy influence on public opinion.[56] The Attorney General fittingly describes the importance of this aspect of the operation and the importance of controlling the public imagination: "If they [the terrorists] kill 80 people, we win the

[56] As previously mentioned, the idea of a propaganda war is key to the imagination of surgical warfare as it appeared during the First Gulf War (1990-1991) through tightly controlled images broadcasted to the Western viewers.

propaganda war. If we kill one child, they do."[57] Here he uncovers the cruel logic and ruthless prioritization of whose lives matter, and *when* in the age of globally mediated warfare. The lack of determination is first and foremost rooted in a fear of the political scandal that could be triggered if it became publicly known that they authorized the killing of a child as part of their assault on the terrorists—or, on the other hand, if their hesitation and care for the girl should end up with the terrorists blowing up 80 people in a shopping mall.

As the ethical dilemma unfolds, including an infight between two ministers in the war room debating the risk of leaks of the military details of the operation, the general dryly notes: "Are the lives of 80 people including innocent children really worth the price winning the propaganda war? We are here to make the right military decision, not engage an argument about possible future postings on YouTube." [58] To this the Defense Minister replies: "Revolutions are fueled by postings on YouTube."[59] What the scene shows, then, is how the care for innocent civilian lives—which should presumably be the main purpose for running CDE's—is replaced by fear of one's own public image, career, and political legacy. This fear becomes the emotional manifestation of the highly affective politics of a waging war from a distance. Here, the attachment to the much-desired object of the drone evidently compromises its own fulfillment as the cascade of calculations, calibrations, and estimations end up paralyzing the decision makers in a deadlock.

What is at stake here is, in other words, a self-imposed obstruction of what is often referred to as the "kill chain" behind the military drone operations. In principle, this "kill chain" stretches from the President in the White House through generals, military commanders, and image analysts interpreting the visual material to the sensor operators and pilots controlling the drones. [60] While this hierarchical structure is dominated by an imagination of a central power controlling every single unit in the network, *Eye in the Sky*, however, tells quite a different story: This story is about how chaotic and contingent the chain of commands appears in the mission to eliminate the Al-Shabab terrorists—not only by design, but also by the simple reason that nobody wants to take responsibility for killing the dancing hula-hoop girl.

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57 Hood et al.

58 Ibid.

59 Ibid.

60 For more on the kill chain, see for instance: Andrew Cockburn, *Kill Chain : The Rise of the High-Tech Assassins* (New York: Henry Holt & Co, 2015).

As mentioned, the film's portrayal of the messy political play between shaky world leaders and military commanders somehow resembles Kubrick's *Dr. Strangelove*; a film that, like *Eye in the Sky*, is about a military operation getting out of hand; only in Kubrick's film it is not "just" one child, but the prospects of a nuclear apocalypse that constitutes the potential casualties of the operation. Yet, the paralyzing perplexity experienced by the leaders in *Eye in the Sky* when faced with the computer-generated extrapolations of possible worst-case scenarios, clearly echoes Kubrick's famous scene from the Pentagon war room, in which the president and his generals are equally paralyzed. In *Eye in the Sky*, the absurdity culminates with the officials in the board room deciding to refer their dilemma further up the kill chain to the minister for foreign affairs, who apparently is stuck on a Singapore toilet with stomach trouble. Here it goes—back and forth between British and American ministers and diplomats scattered around the world—until the British officials in the board room eventually are reluctantly convinced by the *lesser evil* logic and approve the strike on the terrorists and the little girl.

Then, when the drone pilot Steve Watts (Aaron Paul) is told that he is now finally cleared to engage and launch the Hellfire missile, he surprisingly rejects. In a final, heroic attempt to save the girl he instead asks to have the CDE run again, triggering a new cascade of calculations and statistical mortality rates complicating the situation further with the politicians getting even more wary about potential fall-out. Yet, as it has already been revealed, Colonel Powell pushes her targeting crew for a lower CDE, making it seem less likely that the girl will be mortally wounded, which eventually forces the pilot to pull the trigger. In a final scene, then, the viewers along with the film's entire "kill chain"—including the drone crew, the military commanders, and the politicians in the war room—witness the silent images of the missiles' impact and demolition of the terrorists' safehouse. Here silence plays a significant role in the film's cinematic figuration of the drone as it enhances the visual side of the film which in slow-motion shows the little girl, whose body is ultimately destroyed by the force of the explosion. The film's cross-cut between the violent destruction on the ground, filled with smoke, dust, ruble, and mangled body parts, is heavily contrasted by the silence of the watching drone crew, whose heavy breathing underscores the affective state that they are in. Yet, besides being a potent way of communicating the affective state of horror that these images convey, the silence in this final scene also becomes a symbol of the tacit approval that involves all links in the kill chain. This is probably the film's greatest critical achievement in its representation of the vaunted surgical precision of drone warfare: to show

how the surgical technologies of improved targeting, identification, and recognition do *not* make war morally easier to wage, rather it is the reverse.

Yet, as I have argued in the above, the paradox of *Eye in the Sky*—which it has in common with a number of other cinematic representations of drone warfare—is as follows: By rendering everything all too visible, the film exaggerates the drone's technological capacities and visual acuity, thereby supporting the myth of surgical precision; yet, at the same time, it dismantles the very same fantasy of unproblematic surgicality. It is above all the ambivalence toward drone warfare that is the most important takeaway from *Eye in the Sky*. With its irresolute hovering between the supportive and critical position, the film thus demonstrates how uncertain and ethically complicated the war on terror has indeed become in the age of drones. At the same time, the film shows how the fetishized object of the drone—with its excess of information, calculations, and damage assessments—in fact compromises its own surgicality resulting in a deadlock in which the war waging powers are either paralyzed or lost for words.

While *Eye in the Sky* can indeed be categorized as one of the most iconic cultural representations of the surgical qualities of drone warfare that has yet premiered in Western cinemas, the next work that I will analyze is strikingly different in almost all respects. As opposed to *Eye in Sky's* cinematic and vertically omniscient perspective, its purely fictive plot, and its highly Westernized focus on the political decision processes and applied data prior to a drone attack, the semi-autobiographical text that I shall now turn to presents a totally reversed point of view: A view "from below" which counters the alleged surgical precision of targeted killings—as it may appear from the distanced, verticalized perspective of the viewers from drone waging countries—uncovering a much less surgical experience of drone warfare.[61]

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[61] The paradox of Israel's extensive use of so-called "precision weaponry" and the amount of civilian casualties has been severely criticized from many sides. For instance, Amnesty International stated that: "Israeli forces have carried out attacks that have killed hundreds of civilians, including through the use of precision weaponry such as drone-fired missiles, and attacks using munitions such as artillery, which cannot be precisely targeted, on very densely populated residential areas, such as Shuja'iyya."

From Below: *The Drone Eats With Me*

In *The Drone Eats With Me: A Gaza Diary* (2016), the Palestinian novelist Atef Abu Saif offers a personal account of living with his family in Gaza under the seven-week Israeli 2014 offensive "Operation Protective Edge." From its outbreak on July 8, 2014 to the ceasefire on August 26, 2014, the Israeli offensive—including an extensive use of drones for surveillance and airstrikes—caused the death of more than 2,000 Gazans, primarily civilians.[62] Over 10,000 were wounded (including 3,374 children) and almost 90,000 Gazan homes were destroyed or severely damaged during the offensive. It is these numbers that Abu Saif puts into literary form as he converts them into a deeply personal, passionate, and poetic narrative. Although it has taken some time for Abu Saif's diary to reach a broader audience, it has gradually gained a foothold not only as an important personal testimony of the 2014 Gazan war, but also as one of the few literary pieces depicting what it feels like to be living under drones. The importance of the book is underscored in the foreword by Noam Chomsky, who praises its evocative description of surviving "under remorseless, relentless assault by the most advanced technology of killing and destruction that the ingenuity of modern civilization has devised." [63] Yet, as opposed to *Eye in the Sky*, it is not the technicalities of the surgical weapon systems themselves that are in focus in *The Drone Eats With Me*, but rather how the civilian population's day-to-day routines and intimate space are constantly violated by the drones' pervasive surveillance.

As the book title indicates, the drone's encroachment on these routines and spaces is to be understood quite literally. The suggestive statement that "The Drone Eats With Me" is thus not merely a metaphor, but an actual feeling. It is the creeping sensation of being constantly exposed to the drone's penetrating gaze that passes through walls and roofs into the most private and intimate moments of the long-suffering people huddling in what has been called "the most closely surveilled and intensely controlled patches of earth on the planet." [64] It is an atmosphere of fear that is internalized into the most basic social practices such as eating, cooking, and sleeping. This uncomfortable feeling of the drone as an

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62 According to the United Nations Human Rights Council, 1,462 of the approximately 2,251 deaths—or about 65 percent—were civilians. United Nations Human Rights Council, "Report of the Independent Commission of Inquiry Established Pursuant to Human Rights Council Resolution S-21/1," (2015).

63 Saif, vi.

64 Max Blumenthal, *51 Day War: Ruin and Resistance in Gaza* (Nation Books, 2015), 1-2.

unwelcomed, intrusive guest is presented early in the diary. Only a few days into the war, Abu Saif and his family gather in their living room to eat in complete darkness, since regular power cuts and blackouts are routine aspects of everyday life in Gaza:

> The food is ready. I wake the children and bring them in. We all sit around five dishes: white cheese, hummus, orange jam, yellow cheese, and olives. Darkness eats with us. Fear and anxiety eat with us. The unknown eats with us. The F16 eats with us. The drone, and its operator somewhere out in Israel, eats with us. [65]

As this scene shows, the family desperately tries to maintain a normal everyday life by caring patiently for the Palestinian food traditions, rituals, meals, and dishes. Yet, as the quote also shows, the presence of the drones is felt incessantly, strikingly illustrated by the image of the drone operator "somewhere out in Israel" eating with the family. The quote is permeated by an atmosphere of pervasive surveillance and a feeling of never being left alone or unwatched. But even more penetrating than the fear of being watched—or bombed—by the drone and its operator, is the constant sound of the innervating whirring drones filling the air above them, an ambient soundtrack reminding the Gazans that they are never alone or out of reach of the pervasive Israeli arsenal. The sound of the drones is always there:

> The drone keeps us company all night long. Its whirring, whirring, whirring, whirring is incessant—as if it wants to remind us it's there, it's not going anywhere. It hangs just a little way above our heads.[66]

As I will argue in what remains of the chapter, this sensed omnipresence of the Israeli drones embodies an ambience of fear and terror which is fundamentally *liquid*, to use Bauman's term, and hence is in stark contrast to the alleged surgical precision of drone operations. Rather, *The Drone Eats With Me* brings into play a variety of affects which speak not primarily to the eye—because of the all-encompassing darkness which runs as a dominant theme through the book—but rather to auditory and more tactile senses.

Thus, I will suggest reading the more affective and sensorial experiences represented in Abu Saif's war diary as a counter-imaginary to the strong Westernized imagination of the surgical drone that we have just seen unfolded in a supportive as well as critical way in *Eye in*

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65 Saif, 31-32.

66 Ibid., 31.

the Sky. While this imagination tends to privilege enhanced visuality over other senses, the more multidimensional and synaesthetic experience represented in *The Drone Eats With Me* forms the contours of what could more accurately be called an nonsurgical type of warfare—a mode of war which is closer to be atmospheric, liquid and polluting, as it contaminates all aspects of civilian life with its toxic omnipresence.

In the Drone Laboratory

While it could surely seem as quite a jump to go from the primarily US-lead drone operations featured in *Eye in the Sky* (and the other works I have analyzed over the preceding pages) and to Israel's massive use of drone raids in *The Drone Eats With Me*, there is, as we will see, a deeper reason behind this shift. Yet, it may indeed seem bizarre that the powerful imagination of drone warfare as surgical persists even in the case of the Gaza wars, a case in which the Israeli drone raids are so clearly deployed casually and in enormous scale upon the civilian population. However, the framing of the Israeli drone strikes as surgical can perhaps be explained partially through another important figure from the rhetorically rich arsenal of surgical and bio-medical drone imagery, namely that of the laboratory.

The image of the laboratory is often used as a metaphor for describing the clinical techniques with which Israel deploy and refine their massive pressure upon the Palestinian people in the Gaza Strip. This is certainly also the case for Abu Saif who, as a resident in the Gazan Jabalia refugee camp, is painfully aware of the ruthless Israeli strategies for domination in his account of the war. This includes a claustrophobic awareness of being trapped in the Gazan prison which is sometimes referred to as a labyrinth, sometimes as a laboratory. In addition to being an acclaimed novelist, writer, and literary editor, Abu Saif is also a professor in political science at the Al-Azhar University in Gaza. Hence, he has a sound knowledge of—and, as one should note, a natural political stance against—Israel's colonialization of the Palestinians, its defense politics and, above all, its deployment of unmanned aircrafts in the airspace above Gaza. Especially the latter is unfolded in a treatise by Abu Saif entitled *Sleepless in Gaza: Israeli Drone War on the Gaza Strip* (2014). Here he describes Gaza as a "laboratory for developing deaths machines" arguing, among other things, how Israel utilizes the occupation of Gaza as a source for testing new and innovative surveillance systems and weaponry.

And Abu Saif is far from the only one to call attention to the Gaza strip as an Israeli drone laboratory. Due to its violent history and geography, the Gaza Strip has in fact become

one huge test zone for the Israeli development and improvement of military merchandise including, above all, drones. According to Eyal Weizman, Gaza functions as "the world's largest laboratory for airborne assassinations,"[67] a zone in which Israel can test and refine various techniques of control and colonization and export their successes to the West, including, in particular, the American military. As a result, shifting US administrations have been hesitant to explicitly protest against the Israeli unmanned assassinations while instead "examin[ing] Israeli Air Force performances and results in order to draw lessons for its own wars."[68] Such a mutually beneficial arrangement between Israel and the US is, of course, not a new phenomenon. Rather there are close historical ties between the initial American development of military drones and the Israeli weapon industry.

For instance, the early American drone capabilities were originally imported from Israel. The prototype to the Predator-drone was invented by a former Israeli air force engineer, Abraham Karem (later nicknamed "the drone father" by *The Economist*),[69] who designed his first drones for the Israel Air Force during the Yum Kippur war. In 1977, Karem emigrated to Los Angeles and in the years following he worked in his garage on a radio-controlled drone called the Albatross, which was tested in 1981. Later, after working for General Atomics, he rebuilt the Albatross into the heavier GNAT-750, and then in co-operation with DARPA into the more sophisticated Amber, which eventually evolved into the notorious MQ-Predator drone. Thus, the partnership between American and Israeli military engineers, and the traffic of innovative weapon systems from Israel to the US, is an essential aspect of the drone's technical history. Moreover, it has left a bloody trail through the densely populated region of Gaza, where the civilian population has been subjected to the brutal military experiments of Israel. Gaza's extensive significance as a "laboratory of the extreme,"[70] as Weizman has labeled it, is therefore closely tied to the way well-proven techniques of control and domination proliferated by other regimes across the world. These regimes take great advantage of the Israeli surveillance- and weapon systems in their own military operations and defense policies (for instance the European border management

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67 Eyal Weizman, *Hollow Land : Israel's Architecture of Occupation* (London ; New York: Verso, 2007), 241.

68 Ibid.

69 "The Drone Father," *The Economist*, December 1 2012.

70 *Hollow Land : Israel's Architecture of Occupation*, 9.

agency, Frontex, uses the Israeli produced Heron drones for spotting migrant boats in the Mediterranean Sea).[71]

The imagery of the Gazan region as a laboratory or test zone for military experiments recurs in numerous studies of the Israel-Palestine conflict. The anthropologist Li Darryl, among others, has argued that Israel performs various "experiments [on] human beings" in search of the ideal balance between "maximum control over the territory and minimum responsibility for its non-jewish population."[72] When Israel uses the Gaza Strip as its preferred place to test and fine-tune innovative surveillance and weapon systems, it is according to Darryl because the thin strip of land is both perfectly concentrated and segregated and therefore functions "as a space in which the 'pure' conditions of laboratory experimentation are best approximated."[73] Thus, the conveniently confined geography of the Gazan territory—which is sometimes called the "world's biggest open-air prison"[74] —provides the perfect environment for testing military technologies and techniques of suppression on living human beings.

That this is the case has even been openly admitted by a former Israeli Air Force general, Shlomo Bron. He nevertheless maintains that the Palestinians in Gaza have asked for it themselves when he states that "it may be true that in practice the military uses the occupied territories as a laboratory, but that is just an unfortunate effect of our conflict with the Palestinians."[75] Supporting this strategy of justification, the Israeli government has repeatedly claimed that the high civilian casualty rate—in "Operation Protective Edge" as in other offensives—is a consequence of Hamas using the Gazan civilian population as human shields.[76] However, this is a claim which several NGO's and journalists have dismissed as "myths" as they have found no evidence for such allegations.[77] In short, statements like this

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71 Atef Abu Saif, "Sleepless in Gaza : Israeli Drone War on the Gaza Strip," (2014), 45.

72 Darryl Li, "The Gaza Strip as Laboratory: Notes in the Wake of Disengagement," *Journal of Palestine studies* 35, no. 2 (2006): 38-39.

73 Ibid., 39.

74 In 2010, for instance, David Cameron described Gaza as a prison to the BBC. The metaphor is also featured in Norman G. Finkelstein, *Gaza, an Inquest into Its Martyrdom* (Oakland, California: University of California Press, 2018), xi.

75 Paterson, Naill "UK Troops Use 'War Crime Drones' In Israel," *Sky News*, 14 January 2011 http://news.sky.com/story/830492/uk-troops-use-war-crime-drones-in-israel

76 "Hamas again uses Gazan civilians as human shields to prevent the Israeli Air Force from attacking operatives' houses", *The Meir Amit Intelligence and Terrorism Information Center;* retrieved 10 January 2019.

77 Israel-Gaza conflict: The myth of Hamas's human shields (Report). *The Independent.* 21 July 2014.

strengthen the suspicion that Israel imagines Gaza as a laboratory for testing new military innovations.

What is at stake here is, again, the surgical figuration of drone warfare through the previously mentioned bio-medical metaphors in which collateral damage is just an "unfortunate" side-effect of the higher necessity and economy of war. Yet, this cruel logic of surgicality is even more radically unfolded in the case of the Israeli use of drones compared to the previously analyzed cases. While recent political discourse on counterinsurgency operations in America has framed the terrorists as a disease or cancerous tumor, Israel goes one step further by reducing them to laboratory animals, apparently without caring too much about whether their experiments affect true terrorists or the civilian population. In short, the contours of another and even more brutal form of surgicality emerge when it comes to Israel's use of drones. Here, the entire Gaza strip functions as a laboratory in which advanced war machinery can be tested and perfected.

Surely, the reconfiguration of "the enemy-as-disease" into "the enemy-as-test animal" is what Abu Saif is getting at in his treatise, *Sleepless in Gaza*, when he criticizes the Israeli weapon industry for "[u]sing the Palestinian people as rats in its military laboratories."[78] Here Abu Saif points to the way big Israeli defense companies such as Elbit, IAI, and Rafael—all among the top arms dealers in the world—use the Gaza strip as a field test area to "convince their potential customers of the accuracy and effectivity of their drones so that they buy them."[79] The calculus is just as simple as it is cruel: "The more the drone has killed, the more likely it will sell."[80] These are the neoliberal conditions under which the Israeli drone wars are "marketing death," as Abu Saif notes. And this international marketing is not merely targeted at the US military institutions but also at European and Scandinavian countries such as Norway, Britain and France. In this light, the European countries have a responsibility too for the tragedies in Gaza as they not merely buy the Israeli-produced drones but also participate in funding their development through various investments. It is in this context that we should read Abu Saif's Gaza diaries: as an outcry to the Western world to realize what is

78 Saif, "Sleepless in Gaza : Israeli Drone War on the Gaza Strip," 42.

79 Ibid.

80 Ibid.

happening in the Gazan drone laboratories and how it is indirectly funded by, for instance, Scandinavian pension funds.[81]

Yet, the most striking literary strategy of Abu Saif's Gaza diary is its ability to convert these sinister "test results" from the Israeli drone laboratory into a personal, affective, and highly embodied experience; in short, it gives the cool numbers a human face, which brings drone war down to earth and into the human body. The literary effect of the diary is countering the tendency in global media and politics to focus on death rates, a perception of war in which "[e]verything is turned into numbers. The stories are hidden, disguised, lost behind these numbers. Human beings, souls, bodies—all are converted into numbers."[82] Through his aesthetic reconfiguration of the seven-week Israeli siege, Abu Saif calls attention to the lost stories of the drone victims. For instance, one of his literary strategies is to state in the footnotes the full names of a large number of victims of the drones, thereby insisting on remembering them as more than numbers. Yet, it is above all Abu Saif's own personal narrative which is at the center of *The Drone Eats With Me*. Characteristic of auto-biographic literature, the narrative hovers between hard facts and Abu Saif's own sensorial and imaginative experience of the war. Thus, *The Drone Eats with Me* is a narrative that naturally builds on the diarist's own interpretation of the war and, even more so, on his imaginative capabilities that, as we will see, turn out to be essential for his survival.

Sensing the Drone

When the light is out due to the countless blackouts haunting the besieged city, other senses must be activated to report—and more essentially to *survive*—the rolling explosions and shells pouring down randomly from the sky. Significantly for the diary's focus on sensorial experience of war, Abu Saif already senses the scent of war drawing in before it has even started, as the book's opening lines read:

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[81] According to Abu Saif, Norwegian pension funds have invested in the Israeli Elbit Systems that, among other things, produces the Hermes drones and Sky lark surveillance systems. See, also: Michael Deas, "Norway's Pension Fund Divests from Israel's Largest Real Estate Firm," *The Electronic Intifada*, 19 June 2012.

[82] Saif, *The Drone Eats with Me. A Gaza Diary*, 76. (In the following paged in parentheses).

> When [the war] comes, it brings with it a smell, a fragrance even. You learn to recognize it as a kid growing up in these narrow streets. You develop a knack for detecting it, tasting it in the air. You can almost see it. (1)

The last sentence is characteristic of the entire diary and its depictions of the Gazan bombs, ruins, and mangled bodies, all depicted by a striking lack of visual reporting. The word "almost" is therefore characteristic of the narrative economy in *The Drone Eats With Me*, which is adapted to the all-encompassing darkness filling the city during the relentless blackouts, as well as to the "almost" invisible drones operating high above on the threshold of detectability.

As barely visible to an untrained human eye, the drones are only vaguely, if at all, seen as dimly shimmering lights hardly distinguishable from the stars.[83] In a passage from the diary, Abu Saif successfully identifies one of the barely visible signs of drones on the dark sky, explaining how to distinguish between a drone and a star:

> [A] drone is different, the only light it gives off is reflected so it's harder to see than a star or a plane. It's like a satellite, only it's much closer to the ground and therefore moves faster. I spotted one as I turned onto al-Bahar Street, then kept my eyes firmly fixed on it. The missiles are easy to see once they're launched—they blaze through the sky blindingly. (53)

While this survival guide of how-to-spot-an-Israeli-drone-before-it-fires-its-missiles-after-you naturally relies on vision, such visually rich descriptions are rare in *The Drone Eats With Me*. Generally, the descriptions are obscured by blitzes, blasts, smoke, rubble, dust, sand, and darkness leaving the narrator and his fellow Gazans blinded, incapable of knowing what is going on.

To counter this lack of visibility, Abu Saif must actively listen to and learn the new sounds of war, which also make him express himself through other and more auditorily attuned channels. Above all, the aforementioned whir of the drones is an ever-present part of this new soundscape. The drone's characteristic buzzing sounds make them resemble mosquitos, or *Zananas*, which is the onomatopoeic word for "drone" unique to the Gazan dialect. More than once in the diary, the narrator feels an urge to smash and get rid of these

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[83] All the more tragically ironic is it to note how the big Israeli weapon manufacturer Elbit Systems has marketed its Skylark-drones through the slogan "A star was born in the Gazan skies." See, "Sleepless in Gaza : Israeli Drone War on the Gaza Strip," 43.

innervating whirring zananas. Yet, their sounds are more often interpreted as ominous signs of the Israeli omnipresence and capacities for constant surveillance and sudden death. As minutely registered by the author, these sounds slowly transform into a certain "rhythm of war" (129). In several passages, the rhythm is described through music metaphors, for instance as a "melody" or "an everyday song, forever playing in the background. Drones, F16s, warships, tanks: these are the instruments of the orchestra, playing the new song of their lives." (153).

At another instance, when tanks roll into the Northern part of Gaza, the diary describes how "the sound of the tanks' mortars introduces a new melody to the cacophony of F16s, drones, and missiles coming in from the sea. A new rhythm has entered the dance" (55). Evidently, the vocabulary of this alternative war reporting is in striking contrast to a more visually orientated representation of drone warfare demonstrated in most of the other cases throughout this dissertation. To Abu Saif, the roaring sounds of war thus become a song whose melody is performed by the Israeli war machinery forming a cacophony of instruments "fanfared by the sound of explosions" (46). The musical imagery at play here is clearly a token of the narrator's will to organize these maddening background sounds of war into something meaningful, even beautiful.

This practice of finding patterns and making order in the insanely noisy chaos of war recurs multiple times throughout the diary. For instance, Abu Saif notes how he starts "to retrace these [sounds] of the day to reinterpret them" (30). Crucial to surviving, the Gazans thus need to memorize and reinterpret the warning sounds in order to adapt their lives to the new rhythm of war. But what is at least as critical for Abu Saif is to keep his own personal routines and rhythm. He soon starts to establish new habits and simple rituals in his life such as taking the same short walk every night, even knowing how dangerous it is, visiting the same computer café, gathering with his friends, smoking hookah (water pipe), eating with the family, etc. Routines and repetitions like these help him get through the days and nights and "escape the torment of just sitting and waiting for the unknown to happen" (45). Likewise, the sounds of his children playing, shouting, and running in the apartment makes life easier for him as "they upstage the sounds of the terrible world outside" (30). These familiar and comforting sounds and rhythms make his life in the warzone a little more bearable, just as they help him "make sense in this senseless war" (47). In short, the rituals and new traditions he and his family adopt and get accustomed to during the war are, in the terms of this dissertation, imaginations materialized into practices: They are, then, the concrete

manifestation of the fundamental social imaginaries that constitute a normal civilian life in the chaos and mayhem of a war zone.

Yet, these everyday routines and rituals are all subject to the larger rhythm of war. According to Abu Saif, this rhythm of round-the-clock bombardments seems to follow a "cruel irony" as they intensify just about the two times of the day when food is served. Then "the raids go crazy […] it feels like there's a fanfare being played, especially for the food" (11). And then when the noise of the explosion subsides, it is simply replaced by the inevitable whir of drones, "sounding so close it could be right beside us. It's like it wants to join us for the evening and has pulled up an invisible chair" (ibid.) Thereby, the narrator once again reinforces the creeping feeling that "the drone eats with me": The drone is always there as an unwelcomed dinner guest overseeing and intruding on the Gazan families' most intimate hours. In short, this has become part of the everyday life of the Gazans, gradually normalizing the barbarity of war including its ominous sounds. As Abu Saif notes, war is simply just the new normal, "[t]he sound of explosions becomes the most normal thing in the world; the blinding light given off just before a drone attack—normal. The constant hum of the drones—normal." (140)

Although one would perhaps assume that to an accustomed Gazan ear this normalization would make the monotonous whir of drones drift almost unnoticeably into the background noise of war, their innervating hum nevertheless remains a terrorizing sound in *The Drone Eats with Me,* a sound that above all deprives the Gazan families and children of their sleep. Thus, the incessant night raids and constant whir of drones certainly seem far from a surgical strategy to eliminate single individuals. Rather these raids remain closer to what Jonathan Crary, with direct regard to drone warfare, describes as a strategy to "shatter the communally shared interval of sleep and restoration, and impose in its place a permanent state of fearfulness from which escape is not possible."[84] According to Crary, the drone thus exploits the "vulnerability of sleep" by making it subject to its "mechanized forms of terror."[85] Hence, insomnia and sleep deprivation are also recurring themes in Abu Saif's diary in which the narrator frequently describes his own sleeplessness as caused by the sonic terror of drones as well as by the anxiety these sounds convey:

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84 Crary, 32.

85 Ibid.

> How can you sleep through this? How can you even think of sleeping? And yet, sleep deprivation will drive you mad in the end: the flares in the sky, the symphony of explosions, the roar of mortars, the whir of drones […] all this chaos will beat you, if you let it. (57)

But Abu Saif refuses to let it in, at least in its raw, chaotic form. Instead, he activates his imaginative powers and uses them to filter these sensorial stimuli to order and organize them, and make sense of them. As it should be obvious by now, the narrator's highly poetic and metaphorical descriptions of the new rhythms and sounds of war, the explosions and the constant deep whir of drones, are thus carefully configured by his own aesthetical imagination. In short, the narrator's strategy for both mental and physical survival is bound to an aesthetic reconfiguration of the severe sensorial experiences of drone warfare into patterns, rhythms, and metaphors, all of which make him cope with the roaring madness of war.

Imagining the Drone

Considering the metaphorically rich language and poetic style of Abu Saif's diary—and of course the aforementioned multi-sensorial experiences at play—it would be misleading to refer to his book as simply an *eye*witness account. In fact, there seems to be a certain sense of suspicion toward images and visual reporting at play in his writing. This is for instance reflected in several passages where the narrator, in spite of his own background as both writer and essayist, distances himself from the war reporting journalists, a group which he characterizes as a "strange breed." According to Abu Saif, journalists love disasters and warzones as these settings provide plenty of valuable material to report from: "They like numbers, statistics, data. They like the sight of tears and emotions in front of the camera. Destruction is a rich meal for the camera." (76) Again the eating-metaphor from the book title comes up, although this time it does not designate the invasiveness of the drone, but rather the greediness of a world press feeding on the atrocities of the crumbling Gaza city. These vivid images of death and destruction, these "photographs of mayhem posted online by various media" (29), are therefore what the narrator refers to as a "rich meal" for the camera that just "devours and devours" as it is "constantly eating new images." (76)

Abu Saif's skepticism toward images thus seems to be related to the "chronic voyeuristic relation to the world" [86] that, according to Susan Sontag, is an inherent part of taking photographs. It does not matter then if the camera is in the hands of an eager journalist or mounted on a hovering drone; it is the same feeling of being reduced to cool numbers and statistics that are conveyed to the suffering people on the images. In other words, what is at stake here is a completely reversed perspective from the view *from above* dominating the visuals in both *Eye in the Sky* and, to some degree, in *Homeland* (analyzed in the previous chapter). The perspective *from below*, however, is characterized by a diametrical opposite view combining a fundamental lack of visibility with a creeping feeling of being watched. In this situation it is not so much the sensorial operation of watching that matters, but rather the imaginative experience of being watched.

For Abu Saif, this imaginative experience sparks highly speculative passages in which the drone, as we have already seen, is anthropomorphized into a predatory beast[87] intruding on the most intimate moments as it feeds on its prey "salivating with hunger for their souls." (19). Thus, Abu Saif's urge to animate the drone builds on a need to render it sensible—and hereby *making sense of it*—both for the reader and for himself. As mentioned, this need takes on highly different shapes and figurations throughout the diary as the drone sometimes appears like a ferocious monster and sometimes simply as a technical extension of another human being's sensorium. This particularly concerns the invisible subject of the drone gaze, that is, the drone operator whom the narrator imagines sitting somewhere in Israel watching him and his family. As a coping strategy, Abu Saif therefore pictures himself as the operator, trying to envisage what the person controlling the drone would actually see:

> This is how Gaza looks on the computer screen—a thousand images captured by a speeding drone and relayed back to a computer, perhaps a laptop on a desk. The images might include any detail. One of them could be of Hanna and me sitting on the blue sofa in our flat, staring into the darkness. Another might be of our children sleeping in the corridor, spied through the bathroom window at just the right angle. It must be quite entertaining for those soldiers, sitting at their computer screens; it must feel like the best video game ever. (31)

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86 Susan Sontag, *On Photography* (New York: Picador, 2001), 11.

87 This monstrous imagination of the drone is not too far from Donna Haraway's notion of "techno-monsters," which—as mentioned in the previous chapter—she saw as products of a "technological feast" in which "vision […] becomes the unregulated gluttony." Haraway, 189.

Indeed, the narrating diarist has a point in presenting the specific image of the drone operator as a detached voyeur for whom watching the suffering people and firing missiles is just like playing a computer game. The very situation in Gaza and the abysmal inequality between the Israeli occupying power and the defenseless people terrorized by the drones almost invites to such a depiction. Yet in the same breath, it must be noted how horribly stereotypical this imagination of the drone operator as "an unruly boy look[ing] at the screen of a video game" (31) also appears, not least in the light of the previously analyzed works in the dissertation's second chapter, which discussed the so-called "drone pilot trauma" and how emotionally damaging the highly embodied experience of watching and killing defenseless targets from the screen can be.

Yet, while Abu Saif's caricature of the drone operator could certainly seem a bittersweet mockery of the supremacy of the enemy, it could *also* be viewed as an empathic gesture. From this point of view, the diarist's literary strategy of putting himself in the shoes of the enemy becomes a figurative act that essentially reconfigures the enemy from an abstract and invisible force in the skies to a human being of flesh and blood. What is important here is therefore not so much the specific image of how the drone operator might look like, or if war for him looks like a computer game or not. Instead it is the gesture itself behind this imaginative act of envisioning the enemy as just another human being that is worth noticing in Abu Saif's diary, especially since this depiction somehow nuances the otherwise dehumanizing imagery applied to the technical formation of drones into monstrous beasts.

The narrative offered by *The Drone Eats with Me* thus provides a counter-imaginary lens through which the drone stare is reversed by the narrator's imagination. Through the imaginative capacity, the drone operator is pictured as a multifaceted figure; sometimes emotionally detached and indifferent to the "computer game" he is playing; sometimes as an "unruly boy" who finds the violence on the screens entertaining; and sometimes simply as an annoyed boyfriend abreacting on the Gazans after a quarrel with his girlfriend. The latter rather absurd scenario appears as the increasingly paranoid narrator starts fearing how even the slightest act or sign could attract attention or upset the drone operator:

> What if [he] is in a bad mood generally this morning and doesn't mind pressing the button on a whim, seeing steam fog up my window, thinking that will do as a reason? He might have quarreled with his girlfriend this morning or didn't manage to have sex with her last night . . . and I have to pay for this. (214)

As it appears above, the insidious sensation that random decisions and casual emotional impulses are governing the Israeli regime of drone warfare—including who is targeted and which families and houses are blown up—is thus slowly taking over Abu Saif's account as it moves toward the final phase of the war. Most importantly, these sensations convey an understanding of the drone not as the surgical precise weapon that is so often referred to in the political debate, but rather as an instrument which, although it might be accurate from a technical perspective, is used randomly and blindly.

The Blind Drone

As already mentioned, blindness is a theme that—in line with eating and sleeplessness—runs through the diary as an underlying atmosphere of anxiety, insecurity, and loss of orientation. Yet, this blindness is not only a basic condition the Gazan people have to live with, but also something that, at least in Abu Saif's imaginative configuration of the war, characterizes the way the Israeli drones operate. In the diary, the Israel army is therefore referred to as a "blind animal" (125) and the drones specifically as "blind" (65), like in the quote opening this chapter in which Abu Saif praises his luck after having just barely survived a drone strike: "Death is so close that it doesn't see you anymore. It mistakes you for trees, and trees for you. You pray in thanks for this strange fog, this blindness." (20) In this specific scene, the family senses a nearby drone strike wiping out a small orange orchard next to their house. The explosion is registered by the narrator as a flash lighting up the family's living room then rocking their house as a cloud of sand glides across their windows and trees flying into the air. Here the narrator makes reference to the "fog of war" created by a mixture of smoke, dust, and sand churned up by the heavy explosions, blinding the drone, and saving the family's lives. This time, Abu Saif can count himself lucky that his and his family were mistaken for trees.

Thus, the episode illustrates the blindness and faultiness of the alleged "surgical" drone precision. To stay in the arboreal imagery, the fatal civilian consequences of drone strikes have been noted by Chamayou too who, through a similar metaphor, argues how the claimed reduction of civilian victims can in fact lead to more strikes "thereby increasing the total number of victims. Another way of putting it is to say that the trees of a surgical strike conceal

a forest of tombs."[88] Through this image of surgical trees concealing a forest of tombs, Chamayou addresses what he calls a "[l]ying, discursive self-intoxication" inherent in the pro-drone arguments "repeatedly proclaiming that drones and other surgical strikes are so accurate that they cause no more than negligible collateral damage."[89] However, as I have shown in both *Eye in the Sky* and *The Drone Eats with Me*, the cruel optimism guiding this myth of the drone's surgicality is indeed both lying and self-intoxicative.

During the fifty one days of careful accounting, Abu Saif calls attention to numerous instances of such failed or mistaken drone strikes. For instance, "[a] young man who sold kids' food—sweets, chocolates, crisps—became, in the eyes of the drone operator, a valid target, a danger to Israel." (12) In fact, all Gazans whether "walking on foot, riding a bicycle, steering a toktok, or driving a car" are, according to the diarist, a "threat to Israel." (12) According to the paranoid imagination, which again refers to the paranoid security state of Israel, everyone could thus be potential terrorists. In other words, the proliferation of a singular threat to a multiplicity of potential threats and dangers is essentially undermining the logic of surgicality. The consequence is virtual blindness through which—once again using an arboreal metaphor—the person who controls the drone *cannot see the wood for the trees*.

The imagination of the *blind drone* is featured, once more, in a passage where the narrator meets with his friend, Abu Annas, in front of his house to smoke a pipe of shisha. However, as they heat the water pipe and start smoking, his friend's son warns them of the dangers of smoking shisha in the streets: "The drone might interpret the heat signal as a weapon," he says, and when his father objects, he adds: "The drone is blind […] it's a heat signal —that's all it needs."(65) What the son refers to is, of course, the thermal cameras and infrared lenses used by the Israeli drones to identify suspicious individuals or objects such as weapons or explosives.

As it should now be clear from the above examples, these heat signals can indeed be misleading, for instance when shisha pipes or coffee machines become excuses to attack ordinary civilian people trying to keep up their daily routines. However, as Abu Saif responds to Abu Annas and his son, they "should try not to give [the drone and its operator] an excuse." (66) Instead the narrator suggests that they should use their imagination as a means of surviving:

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88 Chamayou, *A Theory of the Drone*, 190.

89 Ibid., 64.

> We have to put ourselves in the shoes of the drone operator; we have to think like a drone operator; we have to respect his blind following of commands, the dumb logic of his mission goals. We need to keep that operator's unquestioning obedience ever present in our minds" (66)

Here, the classic detective's method of "thinking like a criminal" is reconfigured by the diarist's attempt to "think like a drone operator." While this imaginative task with its implicit "respect" for the operator's mindset can, as I have argued, be regarded as an empathic gesture, it is of course first of all a strategy for survival. For Abu Saif, the realm of the imaginary thus represents a potential for resistance to the drone's persistent stare, its terrorizing sounds, and its obliterating bombs. His message therefore seems to be that even though the drone might deprive the Gazans their sleep, it will not conquer their imagination. It might eavesdrop on their meals and intrude on their intimate spaces and moments, but it will not keep them from maintaining their daily routines, rituals and traditions.

These basic cultural practices and habits are, in short, what uphold the social imagination of a communal life even when it is crumbling in the warzone. It is what keeps up the civilian people's hope for a future without constant explosions and hovering drones, even though this dream might as well be a product of cruel optimism and therefore just as utopic and empty as the drone's cruel promises of a clean and surgical mode of warfare.

The Drone Still Eats

As we have seen, the routines and rituals established by Abu Saif as part of his imaginative (re)structuring of the war is what simultaneously installs hope in him. Similarly, the daily practices and undaunted gestures among the long-suffering Gazans is what make them stand and linger to the desperate hope that one day the war will be over and peace will come. Accordingly, the word "hope" is repeated over and over again in the diary as the only thing the Gazan people have to cling on to. It is their "only weapon" (67) and what "enables [them] to survive [because] hope never betrays you." (143)

This long-enduring hope for peace finds (momentary) redemption in the euphoria and celebration that finally fills the pages of the diary's last day, August 26, 2014, when the war

has finally ended. Here the diarist praises hope as the one thing that could possibly have predicted or calculated the unlikely fact that the family, against all odds, survived the shells and explosions, and lived to see this day. He joyfully welcomes the hopeful prospects of finally being able to eat without feeling the drone's persistent presence:

> Now I can eat alone with no drone watching over me. No longer will I have […] the drone operator sitting at a desk in Israel, or Netanyahu, eating with me. For the first time in fifty-one days, I will eat, drink, think, sleep, and take a shower alone, with nobody else there. The air will be all mine and I will breathe it. (234)

Yet, when Abu Saif in his afterword, written six months after the end of the war, looks back on the diary, he cannot help but feeling a bit foolish about these optimistic hopes expressed on the last day. As it is well known, the promises made of a permanent truce, the terms of which were agreed upon by all parties on August 26, 2014, were soon broken. Similarly, the suffering of the Palestinian people lingers on as the Israeli drones continue to hover in the Gazan air. The hopes for a better life then quickly turned into new feelings of hopelessness and helplessness, thereby following the logic of cruel optimism which, according to Lauren Berlant, can indeed be experienced "as an impasse shaped by crisis in which people find themselves developing skills for adjusting to newly proliferating pressures to scramble for modes of living on."[90]

While we should now be familiar with these skills and modes for living on—presented by Abu Saif as the daily rituals, habits, and routines constituting a "rhythm" that he and his fellow Gazans can enter into—these practices are basically expressions of a cruel optimism that, in Berlant's words, characterizes the "survival in the impasse of the present."[91] Certainly, the word *impasse* is suitable to grasp the situation for the people struggling for survival in the deadlock of the ongoing political conflict in Gaza. As Abu Saif notes in his afterword, the war and suffering thus linger on, in particular for the people whom the Israel offensive left bereaved or homeless with their houses and livelihood in ruins.

The latter architectural and geographical imprint of the Israeli war machinery on the Gazan landscape and urban infrastructure is another proof that drones are not always as surgical as they are often claimed to be. At least they are not surgical in the way we normally

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90 Berlant, 8.

91 Ibid., 16.

understand the word, referring to the clinical operation of excising "sick" parts from the body, or to repeat Brennan's metaphor from the beginning of this chapter to "eliminate the cancerous tumor" while "limiting damage to the tissue around it." Rather, the Israeli drones perform a form of surgery in which vital body parts are deliberately damaged or destroyed as when schools, hospitals, and markets are targeted, or critical infrastructure such as power supplies and communication networks are destroyed. Here the drone's destructive operations remodel the Gazan geography. In the diary this aspect is referred to as a "sculptor's workshop" (49), thereby signaling the significantly alternative mode of surgicality that the Israeli bombing of the city has come to symbolize. In short, Gaza has become a biopolitical laboratory for testing and fine-tuning the Israeli machines of death and destruction, including above all drones.

That there is no indication of the situation changing anytime soon, Abu Saif sadly notes in his afterword: "Gazans are not haunted by the past, or by grief, as much as they are haunted by the future, the uncertainty of whether they will cope." (236) This is how living in the "impasse of the present" looks like for the ordinary Gazan citizens, as drones continue to poison the air above them by their innervating whirring sounds and young Palestinians are killed by Israeli drone strikes.[92] The situation has certainly not become more stable after Hamas too has reportedly started using small drones equipped with explosives to reach Israeli targets.[93] These more dispersed attempts from Palestinian insurgents to counter the Israeli deployment of drones do therefore not help easing the tense situation in the area. Ironically, Israeli military and news sources now report of how Hamas, in their search for a new strategic weapon, is "turning Gaza into a laboratory for drone warfare."[94] While it is true that cheap unmanned aircrafts are increasingly utilized by armed non-state actors and terrorist organizations—including Hamas, Hezbollah, ISIS, and Al-Qaeda—it should be clear from

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92 On October 29, 2018, three Palestinian teenagers—aged 13 and 14 years old—were reported killed by Israeli drone strike close to the border fence between Gaza dn Israel. Israeli military claims the Gaza teens were attempting to place explosives: https://www.independent.co.uk/news/world/middle-east/israel-drone-strike-kills-palestine-teen agers-gaza-strip-middle-east-airstrike-idf-a8606591.html

93 For more on Hamas and Hezbollah's use of drones, see Dan Gettinger and Arthur Holland Michel, "A Brief History of Hamas and Hezbollah's Drones," (2014), https://dronecenter.bard.edu/hezbollah-hamas-drones/

94 According to the Israeli newspaper *Haaretz*, Israeli intelligence thus believes that Hamas is working on improving its drone capabilities in the Gaza Strip. In an article, it therefore claims that "Hamas is turning Gaza into a laboratory for drone warfare": https://www.haaretz.com/israel-news/security-aviation/new-dawn-for-drone-warfare-in-gaza-1.5762275

Abu Saif's diary account, however, that in the case of the Israel-Gaza conflict the balance in drone capacity is still quite disproportionate.

If anything, the reports of Hamas and other non-state actors using drones for military purposes confirm the understanding, which has been reworked in this chapter, of the drone as a fundamentally nonsurgical weapon. Thus the contours of a sinister future scenario of perpetual drone wars in which unmanned military technologies will be smaller, deadlier and still more intrusive are drawn up. For the ordinary people living in the impasse of the drones' ominous whir, these prospects indeed do not provide any trace of hope, only the cruel optimism of barely surviving.

Toward Nonsurgical Counterinsurgency

To sum up, the impasse of the Gazan people living in constant fear of the Israeli drones is highly significant for the cruelty encompassed in the optimistic idea of surgicality that I have analyzed in this chapter. As we have seen, the optimistic imagination of the drone as a "humanitarian" instrument of surgical precision with its promises of minimal civilian causalities has thus turned out to be flawed and self-deceptive. While from a purely technical perspective, the drone might actually be quite surgical (when calculating, calibrating, and estimating various circumstances regarding a drone strike), the bad news is, however, that it is rarely *used* in a particular surgical way. Rather, the myth of the "surgical strike" has functioned as a "discursive self-intoxication"[95] that encourages military and political leaders to use drones whenever possible.

As we have seen in Gavin Hood's film *Eye in the Sky*, this self-deceptive optimism is visually underpinned by a highly detailed imagery. The film's tendency to cinematically fetishize the drone's visual proximity—rendering everything and everybody clearly visible and easily identifiable—is therefore problematically discordant with its otherwise critical stance toward drone warfare. By idealizing the surgical blessings of drone warfare the film thus partakes in the cultural construction and affective attachment to the drone. Even in spite of well-documented reports and studies proving civilian non-combatants to be significantly

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95 Chamayou, *A Theory of the Drone*, 64.

overrepresented among the victims of drone strikes, this attachment might then lead to even more drone strikes, thereby increasing the total number of victims.

Yet, as the aesthetic reconfiguration of surgicality in both *Eye in the Sky* and *The Drone Eats with Me* has suggested, there is clearly more to the figure of surgicality than the mere visual capacities and proximities of drone vision. After all, Gavin Hood's film exposes the alleged surgical capacities of the drone as fixed in a deadlock of incompetent political leaders paralyzed by the ethical dilemmas invoked by these new surgical technologies. For the petrified decision makers in the board room, this affective state of impasse in drone warfare—experienced as paralysis and fear of the potential political scandal of accidentally killing an innocent child—is thus heavily contrasted by Abu Saif's account of living in constant fear of drone attacks. Here, the terrorizing sounds of drones hovering in the Gazan sky symbolize the Israeli occupation and exploitation of the Gaza strip not only as a colonializing space but also as a laboratory for testing future drone technologies.

What is more, the diary's aesthetic distribution of multiple sensorial modes of experiencing the drone—including in particular the auditory sensation related to the drone's terrorizing sounds—here reconfigure the much-vaunted surgical precision toward a nonsurgical mode of warfare. In this mode of war, the visual proximity of the surgical strike, fetishized by *Eye in the Sky*, in fact turns out to be *blinding* while the constant whirring of the drones comes to function as a reminder of Israel's omnipresence, thus poisoning the Gazan air with its toxic atmosphere of sonic terror and growing insecurity.

Epilogue

THE FUTURE OF DRONING

> We don't have the right words to stop "targeted killings" or "collateral damages" or "illegal assassinations." All we can do is drone on and on about. [1]
>
> *Drone Not Drones, 2014*

The investigation in the last chapter of this dissertation ended in a somewhat parallel track to where it began in the first chapter. As my reading of Abu Saif's Gaza diary revealed, the perhaps most traumatizing effect of drones is not merely supposedly surgical strikes. Rather it is the atmosphere of what I suggested calling *nonsurgical* warfare denoting the enervating whirring, surrounding them as a constant reminder of their menacing omnipresence. As we recall, the drones are fittingly named *zananas*, mosquitos, by the people living below them, thereby signaling their resemblance to annoying insects. The link between insects and drones, initially analyzed in the light of Ernst Jünger's texts, is therefore present once more through the sonic dimension of drone buzzing. This confirms the main thesis underlying the dissertation, namely that the drone refers to much more than a purely technical object. Rather, it is embedded in the aesthetically, historically and culturally mediated domain of social imaginary.

The connotation to the sonic dimension of the drone is indeed part of this imaginary sphere of figures and figurations that I have claimed constitute our shared understanding of drone warfare. For instance, the quote above by the Drone not Drones collective plays on the double meaning of the word "drone." Here the verb "to drone" is used artistically to reflect on targeted killings through the deep humming and slowly developed soundscapes of drone music. While drone music is characterized by a minimalist musical style of sustained or repeated sounds or tone clusters, the political and activist cause of the "Drone Not Drone"

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[1] Drone Not Drones, http://www.citypages.com/music/drone-not-drones-unveils-28-hour-drone-lineup-for-2015-6635512

project is to raise money and awareness for victims of drone strikes. As expressed in an announcement for one of their shows, the collective does not believe, then, that words alone can stop these targeted assassinations and extrajuridical killings. Instead it suggest simply to "drone on and on about it"[2] through the inarticulate and prolonged sounds of drone music. Therefore the statement accurately expresses what I have identified as the drone imaginary in this dissertation, namely that neither words, nor images, or music can alone change the politics of drone warfare. But as a joint force of cultural imagination, works of aesthetics such as art, literature, film, and music, can indeed create awareness and critical reflection of military drones in the broader social imagination.

Thus, the claim to "drone on" supports another key thesis of the dissertation, namely that works of aesthetics have an important role to play in establishing new ways of perceiving and thinking about drone warfare. Thus, the aesthetic realm of the drone imaginary functions as a cultural platform from which the cruel optimism of drones can be critically examined. Through the readings and analyses of the dissertation I have identified four key figurations that proved to be particularly recurrent in the cultural, political, and academic archive of drone imaginaries. While I see no reason to repeat these figurations once more (as I have continuously referred to them throughout the dissertation), I would rather use these final pages to draw out some of the essential aspects of the figurations to offer a preliminary estimate of how the future of droning might look like.

A New War Hero

One of the probably most important contributions of my investigation has been to show how historically and culturally anchored imaginaries are highly formative in relation to how we envision drone warfare today, including the emergence of a new type of war hero. Here, the Derridean idea of *indemnity*—the drive to immunize the self, or the state, in order to remain intact and untouched—have proven to be a powerful figuration, accurately registered already by this time by Ernst Jünger in his "armored" interwar texts as a fantasy of the cyborg-like warrior-worker. In a more contemporary context, however, I have shown how this figuration is conspicuous through the idea of riskless war and its dream of keeping the body of the drone

[2] Ibid.

operator completely safe and sound. Yet, as a snake in paradise, the drones' cruel promises of perfect protection are compromised, as we have seen, through auto-immune reactions such as posttraumatic stress, paranoia, and mental breakdown.

Thus, my analysis of drone (in)vulnerability has revealed the emergence of a new war hero. While the heroic figure of the warrior has traditionally been associated with bravery, masculinity, and physical danger, the new drone "hero" is characterized by diametrically opposite traits: With the geographically displacement and bodily inviolability, repositioning this new war hero, aspects such as gender, valor, and physical endurance are no longer critical on the increasingly virtualized battlefield. In contrast, the "immunization" of the operator's body against any externally imposed harm is what I have shown paradoxically to result in an auto-immune openness and psychic frailty, thus exploding the myth of the drone as a provider of perfect invincibility.

While my analysis of drone indemnity exposed this vulnerability as a cruel underside of the optimism characterizing the political imaginations of drone warfare, it also indicated a drive toward emotional immunization. To be heroic in the age of drone warfare therefore requires the ability to compartmentalize the psyche to shield it from the outside world of mediated violence and otherness. Yet as the Achilles' heel of this fantasy of total invulnerability and immunization of the warrior body *and* psyche, my readings have shown how trauma, auto-immune subversion of this fantasy, creeps in through the emotional armor of the new war hero. In this context, it will be interesting to follow future productions of drone thrillers in order to scrutinize how the imagination of the "drone hero" develops. Will the figuration of drone pilot trauma, which has arguably been the most iconic narrative of this decade, continue to color the popular cultural imagination—or will other figures and affects take over in the films and TV productions on drones? Perhaps a place to look for answers will be in *Top Gun 2,* which is reported to feature drone warfare as the definitive end of the heroic fighter pilot era. While time will tell how, and if at all, Tom Cruise is about to deal with the traumatizing experience of killing without risk, the film and its heavy references to the Reaganite ethos of militarism might, no matter what, provide interesting material for a future study of drone aviation and security in the age of (auto)immunitary warfare.

In the dissertation, the auto-immune subversion of the dreams and fantasies of a higher and safer form of warfare have, in fact, been subject for analysis in all the chapters: From the traumatic human encounter with technology in Jünger's writings to the experience of drone pilot trauma in *Grounded* and *5,000 Feet is the Best*; from hermeneutic intimacy to sensory overload and archival breakdown of big data drone surveillance in *Homeland*; and from the

optimistic idea of minimizing civilian casualties in *Eye in the Sky* to the experience of insecurity and fear through the terrorizing sounds of drones in *The Drone Eats with Me*—all of these aesthetic configurations have exposed an alternative drone imaginary challenging the political imagination of the drone as a wonder-weapon, and which the Western surveillance have stated as safe and sound.

Drone Terrorism

While the figurations of (individual as well as collective) security and safety have been major points of interest in the dissertation—in particular in the chapters on drone invulnerability and surveillance—the last chapter ended with a sinister prophecy: With consumer drones getting smaller, cheaper, and still more commercially available, the risk of future drone terrorism is on the verge of penetrating the former security state-controlled regime of counter-insurgency operations and targeted assassinations. The retirement of the iconic MQ-1 Predator drone in 2018[3] can indeed be taken as a sign of this waning of Western powers, thereby inaugurating a new stage of drone warfare. For more than a decade the embodiment of Western hegemony has been the Predator drone's menacing "eye in the sky," watching targets from the distance and destroying suspected terrorists in roughly the same pace as new ones are recruited. While this figuration of the drone has been the main focus of the dissertation (with the exception of Jünger's robotic bees), there are thus signs which indicate that this imaginative structure is about to crack.

As the reported cases of Hamas using consumer drones to attack Israeli targets[4] suggest, the inherently asymmetrical "hunter-prey" relation which, according to Chamayou, characterizes the Western mode of drone warfare,[5] might be winding down now that non-state actors can afford and access these technologies more easily. Another example is the reported cases of drones used by ISIS for both propaganda and assault: Through remarkably

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3 https://www.airforcetimes.com/news/your-air-force/2018/02/16/air-force-announces-official-retirement-date-for-iconic-mq-1-predator/

4 https://www.haaretz.com/israel-news/security-aviation/new-dawn-for-drone-warfare-in-gaza-1.5762275

5 Grégoire Chamayou, *Manhunts : A Philosophical History* (Princeton: Princeton University Press, 2012); *A Theory of the Drone*, 30-35.

well-produced high-definition drone videos, ISIS's official media agency, Amaq, utilizes the vertical perspective of drones to distribute images of supposedly ISIS-controlled territories, thereby falsely framing the organization as victorious.[6] In addition to this "aesthetization of war," the terror group has demonstrated how it can now use small consumer drones to drop grenades on military or civilian targets.[7] In other words, by weaponizing commercial drones ISIS and other terrorist groups are about to attain technologies that Western security states have used for decades, thus letting drone-waging forces "taste their own medicine," so to speak.

Naturally, terror organizations such as ISIS and Hamas are driven by the same cruel optimism that initially urged the world's most powerful leaders to believe in the miracle of drones. Blinded by promises of perfect invulnerability, omniscient surveillance, and surgical precision, the Western drone states have ignored perhaps the most obvious of all threats—that one day the enemy might eventually obtain drone capabilities as well. In short, the imagination of a stable technological gap between Western drone-waging powers and its dispersed enemies is fraying—along with the culturally constructed desire for total protection and political immunization. As shown in the last chapter, one of the major causes for this new threat is what I have called "nonsurgical" drone strikes. Rather than minimizing collateral damage, these strikes create a toxic atmosphere of persistent surveillance, sonic nuisance, and civilian casualties, terrorizing the lives of the people living below the drones and thus arousing more hatred toward the West. Following this cruel logic of drone warfare, the nonsurgical drone operations might therefore, paradoxically, end up as the hyperbole of their own possibility, thus instigating more terror than they prevent.

The underlying cause behind this boomerang effect can be boiled down to two words: vengeance and despair. The despair, and subsequent resent, of survivors losing their nearest family in drone attacks are featured increasingly in the aesthetic realm of drone imaginaries. For instance it is forcefully represented in Ian Ebright's short film *From the Sky* (2014) featuring an Arab father and son travelling through a region frequently targeted in drone strikes. When the father is mistakenly taken for a terrorist and killed by a drone strike, the grieving son sees

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6 https://www.almasdarnews.com/article/latest-isis-propaganda-video-shows-drones-dropping-bombs-iraqi-army/

7 According to the war reporting video journalist, Ben C. Solomon, the drones flown by ISIS are therefore "small, fit, hard to hit, and outfitted with grenades. They are tough targets, menacing for the battalion." Xx states in a video posted by New York Times witnessing an ISIS drone attack. Drone drops grenade hitting an Iraqi soldier with its shrapnels.

no other alternative than to join two passing jihadists. Thus the imagination that drone strikes indeed often recruit more terrorists than they kill is reinforced.

In fact, terrorists seeking vengeance has become a recurrent theme in the popular cultural reservoir of drone imaginations. As we recall, it was a drone attack that initially caused the terrorist Abu Nazir to avenge his son in the first season of the TV show *Homeland*. A similar narrative logic is at play in recent drone thrillers such as *Drone* (2017), in which a survivor from a drone strike tracks down and confronts an American drone operator, or *London has Fallen* (2016), in which the terrorist Barkawi, whose family is killed in a drone strike, inflicts a savage revenge by carrying out a devasting attack on London. While some of these popularized drone narratives are indeed stereotyped in their fetishization of weapons and violence, they nevertheless articulate a creeping sensation that the Western "immunitary" democracies might not be as safe and secure as they are often imagined to be.

In other popular drone narratives, the exposé of Western drone vulnerability is taken one step further, for instance in the ninth season of the Fox TV's show *24*, featuring terrorists hacking an American drone—or in an episode of the popular Netflix series *Black Mirror*,[8] in which a vicious hacker takes control of huge drone swarms. While it has been beyond the scope of this dissertation to engage more thoroughly in how such near-future scenarios of drone hacking and drone terrorism are imagined in and reconfigure the drone imaginary, this would indeed be an urgent issue to pursuit in future studies. Yet, the aspects of automation and swarming, unfolded in the first chapter of the dissertation, might give some clues in regard to issues of drone terrorism, and of the future of drone swarming more generally.

Swarming Sensations

I addition to my reading of Jünger's robotic bees as early drone imaginaries, I would argue that the analysis in this chapter also has outlined a more general theory of drones as hybrids emerging in the intersection between insect and machine. When we think about swarming, we typically think of insects—or more specifically, we think of the peculiar forms through which insects behave and communicate. As demonstrated in the first chapter, such forms have been used historically as both metaphors and models for designing autonomous technologies

8 Black Mirror, "Hated in the Nation", (Netflix: October 21, 2016).

and, moreover, for understanding how these technologies mimic insect-like swarm logic such as emergent behavior or collective intelligence. These aspects of the drone imaginary have become increasingly operationalized in recent military and strategic studies. With labels such as "the battle-swarm doctrine,"[9] the "swarm logic" thus anticipates future conflict scenarios in which engineered cyborg-insects or micro-drones could potentially be capable of overcoming the enemy by a combination of sheer number and a dispersed networked organization.

Yet, as the above examples of potential drone terrorism might imply, the optimistic military fantasies of a future battlefield swarming with miniaturized and autonomous drones are indeed threatening to compromise their own prospects. Here the most disturbing scenario is perhaps not the risk of future terrorists attacks with miniscule drones in swarms, but rather how the swarm logic might in fact lead the drones toward a collective or autonomous intelligence that exceeds the limits of human cognition and control. Naturally, the uncanny prospects of future drone swarming and autonomous weapon systems have been critically reflected in the public sphere of popular culture and activism. As a response to the growing concerns about automation in warfare, a coalition of researchers in artificial intelligence (AI) and advocacy organizations, for instance, cooperated to produce the short film "Slaughterbots." [10] The film, presented at the United Nations Convention on Conventional Weapons in 2017, is a dramatized near-future scenario in which swarming micro-drones have become ubiquitous, autonomous, and lethal to use. The film's key scene depicts how these small, palm-sized drones use facial recognition and shaped explosives to attack an entire university class in a lecture hall, thus showing the devastating effects of integrating and miniaturizing technologies already available.

A similarly disturbing near-future scenario is featured in the previously mentioned episode of the popular Netflix-series *Black Mirror*.[11] In this episode a dramatic collapse in the global bee population is countered by innovative robotic drone swarms (closely resembling the glass bees in Jünger's novel) serving as surrogate bees in order to restore the ecological balance. When a series of mystic deaths suddenly occurs, the robotic bees are suspected, but it turns out that a hacker has taken control of the swarms, thus revealing how vulnerable this

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9 John Arquilla and David F Ronfeldt, *Swarming & the Future of Conflict* (Santa Monica, CA: RAND (National Defense Research Institute), 2000).

10 Stewart Sugg, "Slaughterbots," (Space Digital, 2017).

11 Black Mirror, "Hated in the Nation", (Netflix: October 21, 2016).

technology could be to infiltration or attacks by hackers or terrorists. Yet, the episode also reveals something else, namely how drones might actually be framed as a technological response to ecological disasters such as the so-called "Colony Collapse Disorder" (CCD). As it has been increasingly covered in global media,[12] this phenomenon denotes a mysterious decrease in the honey bee population arguably triggered by man-made, technological impoverishment of nature. In this context the artificial bees in the *Black Mirror* episode—as well as Jünger's early prototypes in *The Glass Bees*—come uncannily close to current drone technologies developed by Japanese engineers as a possible solution to the CCD.[13]

The issues raised in the short film "Slaughterbots" as well as in the *Black Mirror* episode indeed call for further investigation. For instance, it would be pertinent to pursue the ideas on drone swarming to explore how fantasies of autonomous weapons challenge the drone imaginaries that I have worked with in the dissertation. Similarly, it would be interesting to discuss how figurations of the insect-machine enter into an alternative sphere of the drone imaginary, namely that of ecology—for instance in the light of ecocriticism and anthropocentrism, and which I have not touched upon in this dissertation. While the present project has thus been primarily concerned with the *military* drone imaginary and how it has changed the pre-drone imagination of warfare, the cases above indeed show an open landscape of alternative drone imaginaries—for instance regarding civilian drones and their attraction to us—which are yet to be discovered and analyzed.

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12 See, for instance: Susan Milius, "The Mystery of Vanishing Honeybees Is Still Not Definitively Solved," *Science News,* 2018.

13 "Japan Just Invented Robot-Bees That Can Pollinate The Earth", *Mandatory*, (February 23, 2018): https://www.mandatory.com/fun/1373435-japan-just-invented-robot-bees-can-pollinate-earth

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ENGLISH SUMMARY

The Cruel Drone:
Imagining Drone Warfare in Art, Culture, and Politics

This dissertation investigates how military UAV's (unmanned aerial vehicles), or so-called drones, are represented within the aesthetic field as a "drone imaginary," reflecting radical changes in the history of warfare. Using the imaginary as a conceptual framework, the drone is analyzed as a cultural construct fueled with ideological and political imagination, including, above all, promises of liberation from the burdens and vulnerabilities of human lives and bodies in war. The main goal of the dissertation is to critically analyze how the drone imaginary builds on a fantasy of the perfect weapon which is, essentially, *cruel*. Drawing on Lauren Berlant's thoughts and ideas, my claim is therefore that the social and cultural imagination of drone warfare follows a logic of *cruel optimism.* This means that the object for these desires, *the drone*, becomes an obstacle for its own flourishing by actively impeding the goal it promises to fulfill. In other words, my aim is to show how the popular attachment to drones is formed by fantasies and imaginations that are "cruel" in so far as they compromise themselves and obstruct their aims through a negative feedback loop, which constantly negates the promises these very same machines seem able to deliver on regarding a higher and safer mode of warfare.

Each of the chapters in the dissertation contains examples that demonstrate how these fantasies and promises in turn prove to be flawed or imperfect. Using the realm of aesthetics as prism, the analyses expose the darker side of this drone imagination focusing on its inherent cracks and frailties that altogether undermine the legitimacy as well as soundness of the fantasy of the drone as a new wonder-weapon. For instance, the analyses show how figurations of drone automation is uncannily non-human; how drone invincibility also entail trauma; how dreams of total vision become blurred by immensity; and how the myth of surgical precision ends up as carnage. Thus, each chapter specifically examines one of these drone *figurations* in order to show how they are *con-figured* into the larger drone imaginary.

Based on strategies of close-reading in combination with a cross-disciplinary conceptual approach, the dissertation offers new insights to the rapidly growing field of academic drone research. While this field has, however, so far mostly focused on the political, juridical, and ethical aspects of drone warfare and less on imaginary, literary, and aesthetic constructions and configurations vibrating beneath these debates, the dissertation contributes with an alternative cultural drone imaginary.

DANSK RESUMÉ

Den grusomme drone:
Forestillinger om dronekrig i kunst, kultur og politik

Denne afhandling undersøger, hvordan militære UAV'er (ubemandede luftfartøjer), også kaldet *droner*, er repræsenteret kulturelt og æstetisk som, hvad jeg kalder "dronens imaginære" – og desuden hvordan dette imaginære felt afspejler radikale transformationer i krigshistorien. Med imaginationsteorien som begrebsmæssig ramme analyserer jeg dronen som en kulturel konstruktion, der er drevet af ideologiske og politiske fantasier, herunder frem for alt drømmen om udfrielse fra menneskelig sårbarhed og svaghed i krigssituationer.

Hovedtanken med afhandlingen er derfor at analysere, hvordan dronens imaginære bygger på fantasien om det perfekte våben; en fantasi der dog er *grusom* af natur. Inspireret af Lauren Berlants idé om hvad hun kalder "cruel optimsism," er min påstand således, at de sociale og kulturelle forestillinger om dronekrig følger en logik, der kan betegnes som *cruel optimsim* eller fordansket: "grusom optimisme." Det betyder, at genstanden for disse fantasier og forestillinger (altså *dronen*) reelt set bliver en hindring for sin egen udfoldelse ved aktivt at obstruere de drømme, den ellers lover at indfri. Med andre ord er mit formål at vise, hvordan den populære fascination af droner bygger på fantasier og forestillinger, som er "grusomme" og selvdestruktive i og med, at de visioner og løfter, de stiller til rådighed om en højere og mere sikker form for krigsførelse, konstant viser sig at fejle.

Hvert af kapitlerne i afhandlingen undersøger, på baggrund af æstetiske analyser, hvordan disse fantasier og løfter igen og igen viser sig som fejlslagne og ufuldkomne. Med en række forskelligartede æstetiske værker (fra litteratur, kunst og drama til film og tv-serier) som prisme analyser jeg denne mørkere side af dronefantasien for derved at afsløre det såkaldte "supervåbens" indbyggede revner og sprækker. Hver af analyserne viser en bestemt måde, dronen er figureret på i såvel sin optimistiske som sin negative udgave. Det gælder blandt andet den stigende interesse for automatisering af våben, hvorved vi grundlæggende bevæger os uden for menneskelig kontrol og kognitionsevne; det gælder idéen om usårlighed, som også medfører traumer; det gælder drømmen om total overvågning, der samtidig risikerer at medføre såvel analytisk som lagringsmæssigt sammenbrud på grund af mængden af

informationer; og endelig gælder det myten om dronens kirurgiske præcision, som i praksis kan ende i uskyldige drab og terrorisering af civile. Således undersøger hvert kapitel én af disse drone-figurationer for dermed at vise, hvordan de er konfigureret i den bredere forestilling om dronekrig.

Baseret på nærlæsningsstrategier kombineret med en tværvidenskabelig teoretisk tilgang giver afhandlingen dermed et nyt indblik i et stadigt hurtigere voksende forskningsområde, der dog hidtil primært har været fokuseret på politiske, juridiske og etiske aspekter af dronekrig. Eftersom også den humanistiske gren af dette forskningsområde har rettet sig mod især visuelle og kunstneriske repræsentationer af dronekrig og mindre mod de mere imaginære, litterære og narrative konstruktioner og konfigurationer af samme genstandsfelt, vil jeg derfor mener, at jeg med afhandlingen bidrager med et alternativt blik på et relativt uudforsket del af den kulturelle droneimagination.