

JACK FABER

MILITARIZED NATURE



This publication brings together text and cinematic architecture, integrating one feature-length and a dozen short films, four major exhibitions, and a series of site-responsive installations and photographic studies, unfolding across 700 pages and 155 images. Tracing how these works emerge from specific sites and case studies while circulating across wider political and technological systems, the volume moves through shifting formats: cinematic sequences interwoven with critical theory, field notes translated into installations, and photographic works that operate both as documents and as independent compositions within printed space. Processes of making—filming, editing, mapping, assembling, analysis, reflection, and disclosure—are made visible alongside the works themselves. Meandering with intent between locations, mediums, and temporalities, each work extends into the next, forming an evolving landscape—an ongoing infiltration into Militarized Nature through artistic research.

MILITARIZED NATURE

How Drones Infiltrated Sensitive Ecologies
through the Anticipatory Imaginaries of Cinema

JACK FABER





Militarized Nature
Or
How Drones Infiltrated Sensitive Ecologies through the Anticipatory
Imaginaris of Cinema

By Jack Faber

Doctoral Programme at the Academy of Fine Arts at the University
of the Arts Helsinki.

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This book is dedicated to Newt, Suki & Sumo.

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Militarized Nature

Abstract

This Artistic Research investigates how drones infiltrate sensitive ecologies and reconfigure interspecies relations through cinema's anticipatory imaginaries. It proposes Militarized Nature as a framework for understanding the volatile convergence of ecological crisis, securitization, and technological acceleration. Across seven interlinked chapters and a body of artistic works, the research develops new concepts and methods—*Eco Noir*, *Asymmetric Cinema*, *Threshold Technologies*, *Extinction Economies*, *Cine-Cartography*, and *Modular Filmmaking*—to examine how militarized infrastructures saturate environments, imaginaries, and interspecies encounters.

The first part introduces *Eco Noir* as a political-aesthetic strategy that refuses resolution and embraces instability, enacted through collaborative exhibitions and publications. The second, *Asymmetric Cinema*, maps drone representations in film as both producers and perpetrators of militarized vision, while developing *Cine-Cartography* as a method of resistance. The third part elaborates *Threshold Technologies* and *Extinction Economies*, revealing how the so-called security crisis and ecological crisis are inseparable, two faces of the same escalating event, and that cinematic-subversive translation can expose this entanglement. Part four, *Future Proof Predators*, examines infiltration and how drones' animal mimicry is proliferating in the public sphere through the

cultural pantheon of popular fiction cinema. The fifth part, *Airborne Epistemologies*, situates drones within confinement regimes and pandemic conditions, exploring their entanglement with contagion and epistemic rupture through *Modular Filmmaking* practices. The chapter *Exhibiting Militarized Nature* returns to cinema and art-making not as representations but as speculative ground. The last chapter, *Subversive Subspecies & Upcoming attractions*, act as an ephemeral conclusion of the work, where Artistic Research function as both method and argument, simultaneously suggesting a new horizon for future inquiries.

Together, these inquiries advance Artistic Research as a practice of adaptability, infiltration, and constructive refusal. Through films, exhibitions, publications, and performative installations—including *Cooking for the Apocalypse*, *Eco Noir*, *Daily Disasters*, *Dictionary of Darkness*, *After States*, *State of Security*, and the *Militarized Nature* exhibition—the research demonstrates that artistic methods are not supplementary but constitutive: they both analyze and enact the conditions under study. The dissertation concludes by affirming that Militarized Nature must be understood as unstable, entangled, and ongoing, and that Artistic Research, by inhabiting rather than resolving collapse, can propose counter-cartographies. It points forward to future inquiries into imaginaries of interspecies surveillance, extending the project's insistence that the ecological and security crises are the same crisis, and that cinema, even if by other means, remains a crucial arena where these entanglements are both normalized and contested.

Militarisoitu luonto

Tiivistelmä

Tämä väitöskirja tarkastelee, kuinka droonit tunkeutuvat herkkiin ekologioihin ja muokkaavat lajienvälisiä suhteita elokuvan ennakkoivien kuvittelujen kautta. Se esittää Militarized Nature -käsitteen viitekehykseksi, jonka avulla voidaan ymmärtää ekologisen kriisin, turvallistamisen ja teknologisen kiihtymisen epävakaita yhteenkietoutumista. Kuuden toisiinsa kytkeytyvän luvun ja taiteellisten teosten kokonaisuuden kautta tutkimus kehittää uusia käsitteitä ja menetelmiä — Eco Noir, Asymmetric Cinema, Threshold Technologies, Extinction Economies, Cine-Cartography ja Modular Filmmaking — tutkiakseen, kuinka militarisoidut infrastruktuurit kyllästäväät ympäristöjä, mielikuvituksia ja lajienvälisiä kohtaamisia.

Ensimmäinen osa esittelee Eco Noir -lähestymistavan poliittisesti esteettisenä strategiana, joka kieltäytyy ratkaisusta ja omaksuu epävakauden, toteutuen yhteistyöhön perustuvissa näyttelyissä ja julkaisuissa. Toinen osa, Asymmetric Cinema, kartoittaa droonien esityksiä elokuvassa sekä militarisoidun katseen tuottajina että ylläpitäjinä ja kehittää samalla Cine-Cartography-menetelmän vastarinnan muodoksi. Kolmas osa syventää käsitteitä Threshold Technologies ja Extinction Economies ja osoittaa, että niin sanottu turvallisuuskriisi ja ekologinen kriisi ovat erottamattomia — saman kärkeistyvän tapahtuman kaksi puolta — ja että elokuvallinen-subversiivinen käänös voi paljastaa tämän kietoutuneisuuden. Neljäs

osa, Future Proof Predators, tarkastelee infiltraatiota ja sitä, kuinka droonien eläimellinen mimikry leviää julkiseen sfääriin populaarin fiktiivisen elokuvan kulttuurisen pantheonin kautta. Viides osa, Airborne Epistemologies, sijoittaa droonit sulkemisen järjestelmiin ja pandemisiin olosuhteisiin tarkastellen niiden kietoutumista taruntaan ja tiedollisiin murtumiin Modular Filmmaking -käytäntöjen kautta. Viimeinen luku, Exhibiting Militarized Nature, saattaa tutkimuksen täyteen kehään ja palaa elokuvaan ja taiteelliseen tekemiseen ei representaatioina vaan spekulatiivisena maaperänä.

Yhdessä nämä tutkimuslinjat vievät taiteellista tutkimusta eteenpäin sopeutumisen, infiltraation ja rakentavan kieltäytymisen käytäntönä. Elokvien, näyttelyiden, julkaisujen ja performatiivisten installaatioiden — mukaan lukien *Cooking for the Apocalypse*, *Eco Noir*, *Daily Disasters*, *Dictionary of Darkness*, *After States*, *State of Security* sekä *Militarized Nature* -näyttely — kautta tutkimus osoittaa, että taiteelliset menetelmät eivät ole täydentäviä vaan konstitutiivisia: ne sekä analysoivat että toteuttavat tutkittavia olosuhteita. Väitöskirja päättyy toteamukseen, että Militarized Nature on ymmärrettävä epävakaaksi, kietoutuneeksi ja jatkuvaksi tilaksi ja että taiteellinen tutkimus, asettumalla romahduksen sisään sen sijaan että ratkaisisi sen, voi ehdottaa vastakartografioita. Se suuntaa kohti tulevia tutkimuksia lajienvälisen valvonnan kuvittelusta ja jatkaa hankkeen väitettä, että ekologinen ja turvallisuuskriisi ovat sama kriisi ja että elokuva — myös muissa muodoissa — on edelleen keskeinen areena, jossa nämä kietoutumat sekä normalisoidaan että kiistetään.

Militariserad natur

Sammanfattning

Denna avhandling undersöker hur drönare infiltrerar känsliga ekologier och omformar relationer mellan arter genom filmens anticipatoriska imaginärer. Den föreslår Militarized Nature som ett ramverk för att förstå den instabila konvergensen mellan ekologisk kris, säkerhetsisering och teknologisk acceleration. Genom sex sammanlänkade kapitel och en korpus av konstnärliga verk utvecklar forskningen nya begrepp och metoder — Eco Noir, Asymmetric Cinema, Threshold Technologies, Extinction Economies, Cine-Cartography och Modular Filmmaking — för att analysera hur militariserade infrastrukturer mättar miljöer, föreställningsvärldar och möten mellan arter.

Den första delen introducerar Eco Noir som en politisk-estetisk strategi som vägrar upplösning och omfamnar instabilitet, förverkligad genom kollaborativa utställningar och publikationer. Den andra, Asymmetric Cinema, kartlägger drönarrepresentationer i film både som producenter och upprätthållare av militariserad blick, samtidigt som Cine-Cartography utvecklas som en motståndsmetod. Den tredje delen utvecklar Threshold Technologies och Extinction Economies och visar att den så kallade säkerhetskrisen och den ekologiska krisen är oskiljbara — två sidor av samma eskalerande händelse — och att en filmisk-subversiv översättning kan synliggöra denna sammanflätning. Del fyra, Future Proof Predators,

undersöker infiltration och hur drönarens djurlika mimik sprids i offentligheten genom den populärfiktionsella filmens kulturella pantheon. Den femte delen, *Airborne Epistemologies*, placerar drönare inom inneslutningsregimer och pandemiska villkor och utforskar deras sammanflätning med smitta och epistemiska brott genom praktiker inom Modular Filmmaking. Det sista kapitlet, *Exhibiting Militarized Nature*, för forskningen tillbaka till sin utgångspunkt och återvänder till film och konstskapande inte som representationer utan som spekulativ mark.

Tillsammans driver dessa undersökningar konstnärlig forskning framåt som en praktik av anpassning, infiltration och konstruktiv vägran. Genom filmer, utställningar, publikationer och performativa installationer — däribland *Cooking for the Apocalypse*, *Eco Noir*, *Daily Disasters*, *Dictionary of Darkness*, *After States*, *State of Security* och utställningen *Militarized Nature* — visar forskningen att konstnärliga metoder inte är supplement utan konstitutiva: de analyserar och iscensätter samtidigt de villkor som studeras. Avhandlingen avslutas med att fastslå att *Militarized Nature* måste förstås som instabil, sammanflätad och pågående, och att konstnärlig forskning, genom att bebo snarare än lösa kollapsen, kan formulera mot-kartografier. Den pekar fram mot framtida undersökningar av imaginärer kring övervakning mellan arter och fortsätter projektets tes att den ekologiska och säkerhetsrelaterade krisen är samma kris, och att filmen — även genom andra medel — förblir en avgörande arena där dessa sammanflätningar både normaliseras och bestrids.

Complete List of Doctoral Artistic Research Components (DARCs)

Cooking for the Apocalypse – Exhibition :

Feral (Site-Specific Installation)
Rewild West (Film)
Danger – Marine Life (Installation)
The Blind Divers Training Program (Installation)

Eco Noir: A Companion for Precarious Times (Publication)

Daily Disasters – Exhibition :

Countermeasures (Site-Specific Installation)
DreamWeapon (Film)
Future-Proof (Film)
Daily Disasters (Film / Site-Specific Installation)
New Beast (Sound Installation)
Eminence (Sound Installation)
Triggering Effect (Site-Specific Installation)

Dictionary of Darkness – Exhibition :

Dictionary of Darkness (Film / Site-Specific Installation)

After States (Feature-length film)

State of Security (Film)

Militarized Nature – Exhibition :

Sub Signs (Site-Specific Installation)
Vespertine (Film)
High Seas Drifter (Film)
High Arctic Drifter (Film)
Means to an End (Site-Specific Installation)
Zero Ground (Ultra Panoramic C-Print)
Undisclosed Location (Ultra Panoramic C-Print)
Dear Destroyer (Ultra Panoramic C-Print)
Slow Sunset (Ultra Panoramic C-Print)
Academy Logo (Ultra Panoramic C-Print)
X Marks the Spot (Site-Specific Installation)
Sign of the Times (Ultra Panoramic C-Print)
View from Working Cell (Ultra Panoramic C-Print)
Dirty Dawns (Site-Specific Installation)
Why Not Look at Animals (Ultra Panoramic C-Print)
Arctic Antagonist (Film)
North Wave (Ultra Panoramic C-Print)
Neo Nocturnal (Ultra Panoramic C-Print)
And There's a Bear (Ultra Panoramic C-Print)
White Hunter Black Heart (Site-Specific Installation)
UZ (Film)

Documentation of Doctoral Artistic Research Components (DARCs) can be accessed via the link:

<https://www.researchcatalogue.net/view/4211244/4211245>



INTRODUCTION

The manuscript includes passages previously published as part of this ongoing artistic research, each identified in the relevant parts. Accordingly, the various parts and the Doctoral Artistic Research Components of the dissertation—including the accompanying films, exhibitions, and artworks that constitute integral elements of the artistic research—are presented and written in different styles and formats. This approach, which might challenge the conventions of heterogeneity, both explores diverse textual strategies and extends the project's central concept of modularity, most clearly embodied in its methodological commitment to Modular Filmmaking.

At the Edge of It All

The militarization of nature can be traced back throughout documented human history, with artistic representations stretching from Shakespeare (with Birnam Wood coming to Dunsinane in *Macbeth*)¹ to biblical times (Samson tying burning torches to foxes' tails and set fields on fire).² Now, it seems to reach a new stage of dominance with the use of drones, designed for total territorial surveillance on the one hand, and assimilating animals³ forms and functions on the other. This troubling trajectory can be traced back to the 1960s, when the use of Agent Orange in the Vietnam War—later giving rise to the term *ecocide*—unfolded alongside the development of reconnaissance drones, tracking of wildlife by radiotelemetry and satellites, global deployment of the Sound Surveillance System (SOSUS) across all the world's oceans, the spreading of nuclear testing across the Arctic, Antarctic, Pacific, Australia, Asia and Africa, and decades later, the burning of entire oil fields during the Gulf War. By the end of the twentieth century, military control of ecologies was saturating nature across every domain, both physical and imaginary.

1 Shakespeare, William. *Macbeth*, 2005.

2 Charlesworth, James H., ed. *The Old Testament Pseudepigrapha*. Hendrickson Publishers, 2010.

3 The development and use of artificial animals is a form of dominance, originating in military research labs, as discussed later in this work.

This research aims to demonstrate that drones exemplify a new phase in the struggle between wild(er)ness and control.⁴ They serve as advanced exploitative tools that extend the reach of their controllers, while symbolizing not only technological ascendancy over nature but the outlandish fantasy of its replacement. To pursue this argument, the project employs various approaches, including textual and film analysis, curatorial practice, and Artistic Research experiments across moving image, site-responsive installation, salvage cinema and publication. Within this framework, the drone is studied as an attempt to dominate the wild(er)ness by surveying it, controlling it, and finally simulating and assimilating into it—for instance, when drones masquerade as organisms. These operations are read against the conceptual tension between “first nature,” understood as ecological relations (including humans), and “second nature,” understood as the capitalist transformation of environments.⁵

Drones, originally invented for military targeting and observation, now track and map environments on a vast scale, transforming landscapes into zones of endless visibility and rendering them ever more subject to militarization. This surveillance serves agendas of extraction and exploitation leading to ecological and bio-diversity destruction on unprecedented scale, which this work glosses as *Extinction Economies*.⁶ This form of surveillance fortifies the perception of nature as an endless repository of resources that can be continuously observed, handled, (mis)used and ultimately, depleted. We should keep in mind that for many corporations and billionaires the climate emergency represents huge economic opportunities – with future access to emergency state

4 In the spirit suggests by Deleuze in his *Postscript on the Societies of Control*, 1992.

5 Tsing, Anna, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, 2015.

6 Addressed in the following page, and its differentials from Economies of extinctions, common in literature.

funding and regulatory change which will allow easier profits from infrastructure, etc. – especially as Climate Change is transforming into Climate Control.⁷

From its original inception to the contemporary representation of drones in films, cinema has functioned as an anticipatory apparatus—modeling forms of aerial vision and control long before they became technologically operational. Before turning to these cinematic imaginaries, it is important to note that they extend directly from the dynamics already described: if drones operate materially to survey, control, and simulate the wild(er)ness, cinema works imaginatively to prepare the ground for such operations. In this sense, the study of cinema is not a departure from the focus on drones but a study of its origins and its continuation on another level. The *Anticipatory Imaginaries of Cinema* plays a key role in normalizing this sort of extractive relationship, while also holding the potential to subvert it. Through the mediated lens of the camera, drone usage accelerating destruction is often aestheticized, turning ecological harm conducted through technological militarized means into a visual spectacle. This dynamic reinforces a mindset where viewers consume scenes of exploitation detached from their real-world consequences—an economic and cultural mechanism that mirrors how *Extinction Economies* commodify nature, especially with the aid of the autonomous aerial apparatus known as the drone.

This research does not attempt to define Militarized Nature as a fixed category. Instead, it introduces the term as a conceptual and material condition—an evolving entanglement where infrastructures of violence and systems of environmental management are coextensive. In this framework, the drone is not an exception, but a crystallization: a mobile *Threshold Technology*⁸ that traverses

7 Marzec, Robert, *Militarizing the Environment*, 2015.

8 A glossed term that would be elaborated and exemplified through the entire research, especially in Part 3 – *Threshold Technologies & Extinction Economies*.



domains of military targeting, ecological monitoring, territorial policing, and cinematic narration. To speak of Militarized Nature today is to confront multiple overlapping registers: the intensification of surveillance infrastructures across climate-threatened regions; the normalization of remote sensing technologies everywhere, including wildlife conservation; the weaponization of environmental catastrophe as both tactical and collateral; and the aesthetic regimes that render these processes visible, knowable, and—crucially—consumable. The drone is not the subject of this thesis in any narrow technological sense. It is a figure, a method, a symptom, and an index of how environments are increasingly governed, visualized, and contested. This part initiates that argument by introducing several terms that recur throughout this research. The first is *Threshold Technologies*—innovations that manifest epistemological rupture within previous perceived popular perspectives, which functions at, and often collapses, the boundaries between formerly distinct realms: present and remote, human and nonhuman, military and civilian, organic and machinic, documentary and speculative. Another central term is *Extinction Economies*. This describes the economic and perceptual systems that treat environmental loss not as a crisis to be mitigated, but as a condition to be managed, calculated, and profited from. Within such regimes, drones serve a double role: they render loss visible while contributing to the conditions that accelerate ecological collapse. This double bind becomes even more entangled with cinema entering the scene. In this sense, cinema and the drone share a lineage: both are machines of perception, of military origins, producing particular ways of seeing, framing, and knowing the world. But while cinema has often celebrated its own reflexivity, drone vision is marked by asymmetry. It sees without being seen. It renders the target hyper-visible, while shielding the operator behind layers of glass, code, and distance.

This project confronts that asymmetry through practice. It refuses the spectacle of the drone strike, the grainy feed, the

crosshairs. Instead, it works laterally, approaching Militarized Nature through what I call *Cine-Cartography*—a method of spatial and conceptual mapping that draws from the temporal logic of montage, the disruptions of salvaged footage, and the associative potential of image and sound. *Cine-Cartography* is not a genre or style, but a practice of thought: a way to navigate complex terrains where no single viewpoint suffices. Complementing this is *Modular Filmmaking*, a methodology developed during the pandemic's interruptions to conventional production models. Here, filmmaking becomes an adaptive, collaborative process—responsive to place, participants, and contingencies. The modular approach resists the totalizing frame, instead assembling fragments, perspectives, and interventions that refuse closure. It opens space for human and nonhuman agencies to interrupt, redirect, or unsettle the narrative. Furthermore, this modular approach is not confined only to the practical acts of filmmaking but also had a ripple effect on the entire research arc, with different parts written in modality of evolving styles, according to their research objects, and with intentional inconsistency to highlight this process instead of hiding it under homogeneous looking veneer. Replacing the hegemonies of form and scalability with unstable textuality and systemic glossing, might sometime look as invested in naïveté as much as the notion that in order to change the world, one should change the words. Yet these methods are not mere tools—they are responses to the conditions under which this research takes place. They emerge from fieldwork conducted across militarized zones, protected habitats, and speculative infrastructures: from Arctic surveillance stations to decommissioned desert infrastructures and secretive crash sites, to contested climate frontiers and lockdown-era drone patrols during urban curfews. The work traverses exhibition spaces, archives, and screen-based experiments, staging its arguments through image, sound, and spatial montage as much as through written analysis. The research argues that such fluidity – a movement from the

specific jargon of economics and warfare into the poetic disruption of cinema – reveals critical new perspectives on the relationship between military conflict, economic systems, and ecological devastation. The study highlights how the translation of decoded dictionaries and dedicated vocabularies⁹ into forms of film narration allows for the merging of the immediate, the intimate, and the intimidating, offering a powerful lens through which to examine the planetary crisis.

Importantly, this introduction part begins to undo the false binary between technology and ecology, between destruction and documentation. In *Militarized Nature*, those terms often collapse into each other. A drone deployed to monitor wildfire spread may also be gathering biometric data on displaced populations. Tracking an endangered species migration may become part of predictive military algorithm. Technologies are never neutral; their deployment scripts the terms of legibility, inclusion, and erasure. What does it mean, then, to produce images within these kind of conditions? Can Artistic Research intervene in visual regimes otherwise designed for domination? Can it inhabit the thresholds between seeing and being seen, exposure and concealment, speculation and evidence? These questions are not rhetorical. They form the fabric of the parts that follow—not as problems to be solved, but as tensions to be held open. The research insists that any practice engaging with militarized ecologies must attend to its own entanglements: with the tools it uses, the infrastructures it relies on, and the species it speaks through, for or next to. There is no outside to this system. There is only the possibility of re-routing, of occupying and redirecting its flows. In this way, *Militarized Nature* is not a diagnosis. It is a condition of working, a mode of attention, and a demand for rethinking the terms through which knowledge,

9 Such as the 'Department of Defense Lexicon of Military and Associated Terms', further discussed in Part 3 – *Threshold Technologies & Extinction Economies*.

image, and ecology intersect. The drone does not hover over this research—it moves through it, hoping to draw attention to this very movement and its effect instead of perceiving it as a natural development of progress. That storm catching aerial beings by their wings, as Benjamin described,¹⁰ and further highlighting that the main problem with militarism is that it suggests itself not as the best solution but as the only conclusion, and therefore hides itself in plain sight, assimilating seamlessly not only *into* but *as* what is considered normal and right.

Contagions, Correlations and Drone Drifts

The work of this research project does not begin with a stable terrain. Nor does it seek one. What unfolds from here is shaped by asymmetric proximities: between image and infrastructure, perception and precarity, species and signal. Each of the research parts moves through sites where the cinematic and the ecological do not mirror one another but interfere — generating frictions that resist capture, that refuse coherence, that call for methods as disruptive as their subjects. This introduction has not attempted to define a field or defend a position. Instead, it opens with a series of methodological displacements: from genre to atmosphere, from authorship to assemblage, from clarity to latency. These displacements are not rhetorical gestures; they emerge from lived research conditions, from encounters with volatile ecologies and technologies of control, from the iterative failures and recalibrations of working with, rather than on, complex terrains.¹¹ What follows does not pro-

10 Benjamin, Walter, *Illuminations*, 2018.

11 Inspired by Trinh T. Minhha practice, who describes – in conversation with Nancy N. Chen – her practice as “speaking nearby rather than speaking about,” a mode that refuses to speak on behalf of others while remaining in close proximity to them (Chen and Trinh 1992, 87).



gress in linear fashion, nor does it build toward resolution. Each subsequent part engages a particular relations between research object experimented with and method explored that together act as a threshold — not as metaphor, but as a material and epistemic condition. The cinematic remains central, but not as medium alone — rather as method, sensorium, and spatial practice. It operates not to represent collapse, but to move within its architectures: infrastructural, affective, and more-than-human. If there is a throughline, it lies in the commitment to remain with complexity — to build research that does not reduce, resolve, or clean up the scene, but that insists on staying in the mess,¹² with all its compromised optics and entangled agencies. The parts ahead offer no conclusion in advance. Instead, they unfold as provisional encounters — each shaped by specific pressures, each asking how Artist Research might proceed when orientation is not a given, and when to see is already to be implicated.

Starting by looking into its own conditions of production as an Artistic Research, before diving into drone cinematic representations, their ecological economy and cultural currency – the project sets the scene around *Eco Noir*, a conceptual and methodological framework for navigating the entangled crises of climate catastrophe and securitization through cinematic acts. The term *Eco Noir*, explored through the first part, is positioned as a critical prism and political-aesthetic strategy through which these convergences are rendered visible, not through didacticism but through layered, dissonant, and affective cinematic forms. At the core of this investigation are the two interwoven methods mentioned before: *Cine-Cartography*, a practice of mapping knowledge through cinematic imaginaries, and *Modular Filmmaking*, a participatory, adaptive method developed in response to pandemic constraints and

12 Resonating Haraway's 'Staying with the Trouble' (2015), further discussed in later parts.

audience fragmentation. These methodologies challenge anthropocentric hierarchies, reframe the role of drones as epistemological agents, and interrogate the politics of representation in times of planetary distress. The first part therefore situates *Eco Noir* within a longer cultural genealogy of Noir, itself a response to the militarized devastation of the first half of 20th century. By extending the noir sensibility to ecological contexts, the work reclaims the genre's critical power to confront structural violence and fatalism in the age of extinction. *Eco Noir* refuses the paralyzing determinism of ecocide discourse, proposing instead a speculative, interspecies, and insurgent modes of engagement, informed by John Berger, Hito Steyerl, Walter Benjamin, T.J. Demos, and Paul Shrader, among others. Such modes are suggested with the reciprocal development of the international collective exhibition *Cooking for the Apocalypse* and its accompanying publication *Eco Noir – A Companion for Precarious Times* (2020). Both are presented through the part as performative experiments, enactments of *Eco Noir* in form and content which mutually challenge classic editorial authority and traditional curatorial structures. Positioned at the intersection of Artistic Research, environmental aesthetics, and critical media practices, *Eco Noir* is framed here not as a genre or theme, but as an active, situated strategy for traversing the overlapping terrains of ecological and epistemological precarity.

Perpetuating and proliferating asymmetrical hierarchies of control, contrasting advanced technologies and resources excess against populations (and species) with significantly limited abilities and capacities, drones are often discussed¹³ exclusively within these terms – as apex products of the information industry and (its) security economy. Studying the drone instead as an enmeshed

13 As with Chamayou (2014), Chandler (2020), Shaw (2016), Baraona, Otero and Shoshan (2016), to name a few among the many discussed throughout this dissertation.

conception of art practices – through versatile representations in media objects and their connection to interspecies relations – enables us to shed new light on the drone’s social, political, and climatic roles, no longer confined by its current dominating asymmetrical use. This research further positions drones as both products and agents of Militarized Nature—a condition in which the ecological, the technological, and the political converge through logics of control, visibility, and displacement. The drone, and its representation within art practices – mainly the cinematic – both embody and amplifies this entanglement: it renders the earth’s surfaces hyper-visible, while simultaneously acting as an elusive agent of extractive vision. The research therefore draws attention to how drones serve as both material actors of *Threshold Technologies* and symbolic figures in *Extinction Economies*, wherein nature is framed as an endlessly quantifiable and expendable resource. Inquiring how drones as *Threshold Technologies* further blur boundaries—between surveillance and care, visibility and violence, human and nonhuman—the work insists on reframing interspecies relations within militarized contexts. Crucially, these developments are not only infrastructural but perceptual. Through the *Anticipatory Imaginaries of Cinema*, militarized ecologies are aestheticized and normalized. Moving images do not merely document violence—they shape the ways ecological harm is visualized, consumed, and justified. From the cinematic inception of the invisible machinic aerial predator in Hitchcock’s *North by Northwest* (1959) to today’s screen productions populated by hyper-technological aerial vision, the film industry has long anticipated, rehearsed, and reinforced the integration of surveillance systems into everyday life.

Asymmetric Cinema is therefore suggested as a key term to investigate the drone as an enmeshed conception of art practices. *Asymmetric Cinema* refers specifically to filmic events (whether scenes, shots, films in their entirety, moving image experiences or other related elements) which reveal the roles they play within

asymmetrical ideologies and networks. Through them we can acknowledge, analyse, evaluate, and discuss the existence of asymmetrical equations. This, in turn, enables us to assess the functions they fulfil and their vast influence on our cultural perspectives, as well as our collective perceptions of interspecies relations. Across seven parts and several embedded artistic works, this research proposes a set of experimental methodologies, accompanying these key terms that challenge dominant narratives around drones, militarization, and species relations. Using this term, the research investigates how cinematic imaginaries participate in this process—how they aestheticize drone perspectives, render ecological destruction spectacular, and obscure the asymmetries of visibility and power. As shown in Part 2 – *Asymmetric Cinema*, film does not merely reflect the drone — it envisions it into being.

Cine-Cartography is the main methodological focus of Part 2, and further elaborated there, yet in order to lay the ground for this framework its worth stating the following: *Cine-Cartography* used to position relevant theories, media, and art objects in relation to each other, studying their connections and mutual influences while reframing them in light of recent discursive developments, historical context and contemporary relevance. *Cine-Cartography* is best understood as a multidimensional exploration taking place spatially and interactively (as a constellation of media objects). It is a composite of multiple layers – including sound and duration, movement, and stillness – of images and within images. Given the spatial and dimensional limitation of printed text, *Cine-Cartography* manifests itself through Part 2 as an annotated timeline. *Modular Filmmaking*, on the other hand, is a production practice based on assembling discrete, self-contained yet interconnected cinematic elements and audiovisual units. Often deployed in site-specific cinemas and site-responsive installations or iterative fieldwork-based projects, *Modular Filmmaking* resists linear narrative closure and instead invites multiplicity, dialogical engagement, and adaptive



storytelling. It is particularly suited to research-based artistic practices where the process of gathering, interpreting, and presenting material remains open-ended and responsive to unfolding conditions. These two modes of investigation are inspired by W.G. Sebald, Frantz Fanon, Achille Mbembe, Jane Szita, Marina Verzier, Paul Virilio and Lauren Wilcox, while simultaneously looking into a growing body of classic contemporary cinema works.

Shifting Sites of Interspecies Relations

While attempting to activate these methods and terms within Artistic Research terrains, the project is deeply concerned with language – cinematic, academic, poetic – and its failures. In Part 3 – *Extinction Economies & Threshold Technologies*, cinematic narration becomes a mode of resistance, countering the deadening effects of military and corporate jargon through poetic and speculative expression. Here, language is not used to explain away crisis, but to complicate and reimagine its terms. The part proposes an urgent and interdisciplinary reflection on the entangled logics of warfare, economy, and ecological collapse by exploring the shifting threshold between language and image, control and resistance. Drawing on Werner Herzog's *Lessons of Darkness*, Gilles Deleuze's *Postscript on the Societies of Control*, and my own film works (*Dictionary of Darkness* and *State of Security*), the part adopts an Artistic Research methodology exploring how language – in its movement from economic and military jargon to poetic and cinematic expression – reveals new perspectives on sites of Militarized Nature and its social settings. Through this fluid migration—from decoded dictionaries into hyper poetic film narration—the part identifies *Threshold Technologies* as epistemological ruptures that doubles as interfaces between systems of control and modes of expression. It further ties them as both accelerators and ongoing outcomes of *Extinction*

Economies – another key term that is exemplified and problematized in its compliance with the current escalating ecological-economic-security crisis. Rather than reinforcing fragmented “polycrisis” narratives leading to paralysis and indifference, through this work it calls for an expanded aesthetic and conceptual critique that exposes the infrastructural violence underpinning ecological devastation as its major outcome and product.

The notion of infiltration—of systems, spaces, and epistemologies—runs as a conceptual thread. The drone is not just an observer; it enters, alters, and remakes ecologies, cultures, and perceptual regimes. This idea grounds both the theoretical and practice-led components of the project, and further explored in Part 4 – *Future-Proof Predators*, which simultaneously expands and focuses the cinematic assimilations of drones' presence through animal forms and acts of predation. Continuing the process of *Cine-Cartography* commenced in Part 2, it draws an extensive evolvment of drones on the theatrical screen by extending its movies-mapping into new territories, with contemporary war, espionage and sci-fi cinema. Constructed as a cinematic meta-map of drones overwhelming proliferation on the silver screen, it offers a selection of essential study cases through the seemingly endlessly expanding ground of the unmanned machines accelerated cinematic appearances. Simultaneously, it is demonstrating the infiltration of another stealth artistic component into the close confinements of the written component of the Doctoral Thesis. In that sense, this part acts like the Borgesian Garden of Forking Paths¹⁴ – suggesting study cases that form diverse ways of experiencing, studying and surveying the suggested *Cine-Cartography* of these extensive accelerated landscapes.

The part further experiments with the conceptual framework of infiltration through the solo exhibition *Daily Disasters*. It resonates

14 Borges, Jorge Luis. *The Garden of Forking Paths*, 2018.

and correlates with the inter- and multi-spaces drones occupy in the discourses of Militarized Nature, ecological emergencies and inter-species encounters. These spaces are similarly traced through the exhibition *Daily Disasters*, with the infiltration methodology of the exhibition suggesting survival as subversion of *Extinction Economies*. Together with the exhibition, the study of drones' appearances in a rich variety of feature fiction films – which questions both surveillance and survivability in public and cinematic spaces (with the likes of *Eye in the Sky*, *Terminator*, *Dune*, *The Bourne Legacy*, *Avatar*, and many others) – better inform us on how these works correlate jointly to further understand film as a meeting (fore)ground of the militaristic, ecological, and cultural. It correspondingly inquires why Artistic Research could prove the most resourceful ways to approach them.

Throughout Part 4 – *Future Proof Predators*, *Cine-Cartography* further functions as a critical and creative methodology that rethinks how moving images can operate as spatial practices and discursive tools. Expanding beyond a strict chronological timeline (such as in part 2), the extensive movie-mapping suggested here develops correlations and conceptual constellations relevant to the research as a whole, in a tradition inspired by Sebald's seminal *Rings of Saturn*.¹⁵ Now contextualised into our Militarized Nature framework, it is an active structuring of relations across diverse media forms and theoretical terrains. Rather than isolating objects of study, *Cine-Cartography* continuously constructs dynamic networks of association—foregrounding how temporal, auditory, and visual layers coalesce into cerebral, cultural, and philosophical geographies. At its core, *Cine-Cartography* proposes an alternative form of mapping that embraces both the material and affective dimensions of media, assembling constellations that are attentive to historical shifts, ideological forces, and contemporary urgencies. While

¹⁵ Sebald, G.W., *Rings of Saturn*, 2002.

it can be rendered in different formats, such as annotated timelines or modular displays, its essence lies in the interplay between perception, politics, and place—mediated through the moving image working within the scope of our overexposed, fragile, conflicted and collapse-induced environments. Taking crucial notes from Katherine Chandler, Jean Baudrillard, Donna Haraway, Robert Marzec, Jussi Parikka, Anna Tsing, Eyal Weizman and Shoshana Zuboff, while examining around 30 cinematic study cases, this part indeed establishes *Cine-Cartography* as a major investigative methodology for moving images and their reciprocal cultural correlations.

Contamination as Method

Integrating *Modular Filmmaking* more intensively into its theoretical inquiry, Part 5 – *Airborne Epistemologies* deals with futures of confinement and interstellar encounters, and their mutual emergence through the drone as an entanglement of both epidemic and epistemological objects. These are embodied by examining several key roles drones played during the COVID-19 pandemic outbreak, and certain contaminations and correlations influencing this process. The potential encounters between different species (including viruses) and drones patrolling restricted areas, for one, suggest whole new array of possibilities for such contaminations and correlations, especially as seen from the perspectives of future interspecies encounters. *Airborne Epistemologies* brings to the foreground 3 major points regarding such imaginaries futures which were investigated as the research developed during the pandemic: the ways in which the lockdowns were opening the grounds for multispecies and drones encounters; the simultaneous investment in accelerated space colonization through drones (and its prospects of interspecies contact); and how self-isolation quarantines revealed connections between the fearful effects of pathogens and drones.



The essayistic feature-length film *After States* accompanying this part is an Artistic Research experiment exploring the above mentioned array of contaminations and correlations, as well as the nature of the essayistic feature-length film itself as a research vehicle and object. *After States* explores this intricate construction through 6 philosophical texts, presented through polyphonic voices. The film was formed working with several established philosophical projects (Foucault's *Disciplinary Societies*, Agamben's *State of Exception*) as well as selected essays by renown scholars (Jean-Luc Nancy, Achille Mbembe, Joshua Clover and Nikolaj Shultz) with whom I had the privilege to correspond on the matter, and further examine the proliferation of surveillance and interspecies relations in times of pandemic.

The 6th part,¹⁶ *Exhibiting Militarized Nature*, is exploring in curatorial and artistic form the speculative, affective, and material terrains of militarized ecologies—mapping the journey of the Artistic Research through a constellation of self-reflexive institutional infiltration acts. Continuing the previous parts, *Exhibiting Militarized Nature* examines their methodologies and findings through practice-based response to the entwined crisis of climate emergency and global security regimes. Anchored in the aftermath of ecological catastrophes and militarized conflicts—from the Australian bushfires to the Gaza War and the ongoing invasion of Ukraine—the part sets the stage for an expanded understanding of militarization as not merely territorial or strategic, but ecological and perceptual. Through entangled practices of research and creation, the part asserts the urgency of rethinking artistic methodologies, narrative structures, and representational ethics in an era where drones, species, and cinema collide across damaged territories. Positioned at the intersection of Artistic Research, ecological urgency, and Institutional Art, *Exhibiting Militarized Nature* argues that the

16 Correlating to the currently accelerating 6th global extinction event.

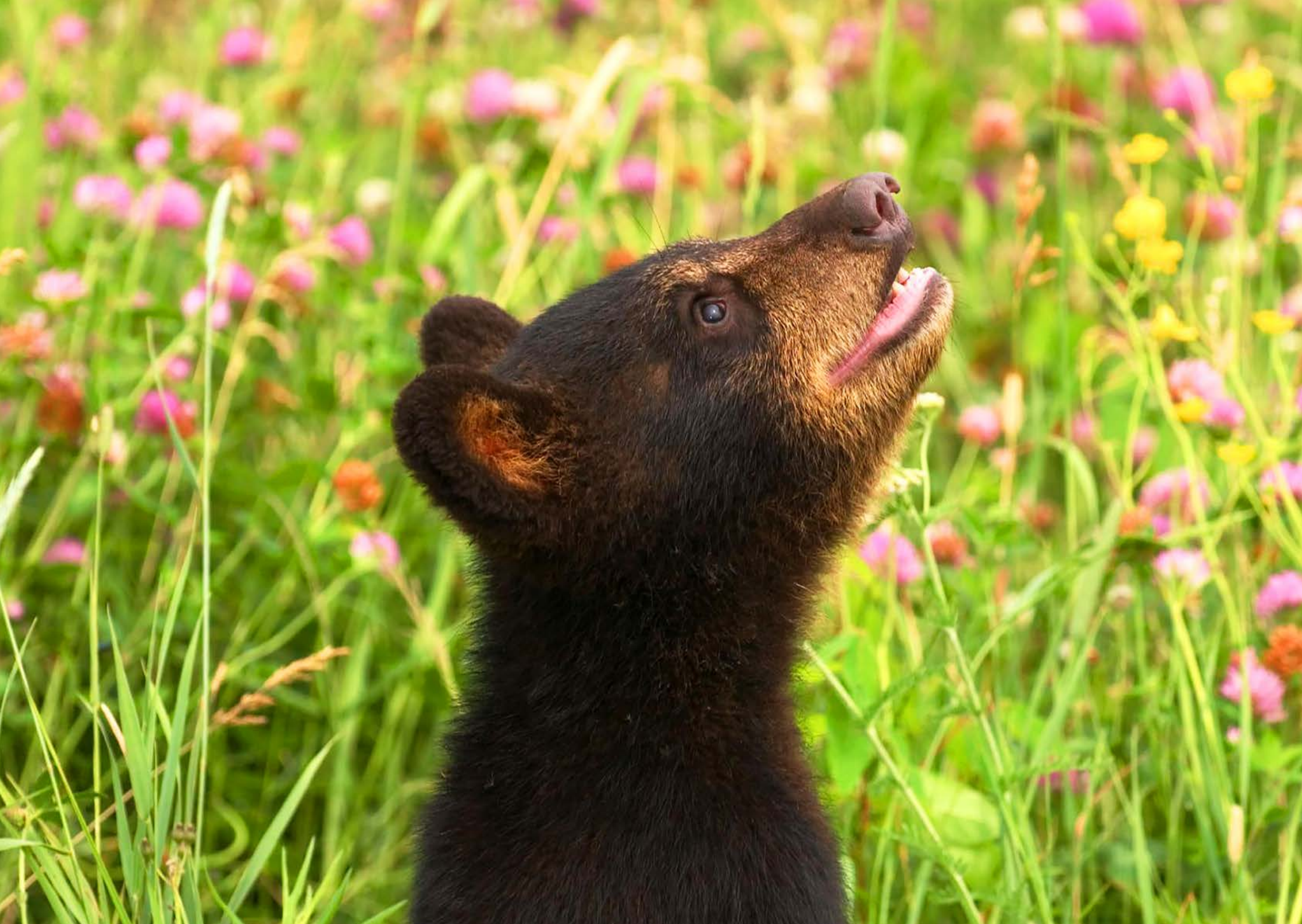
ecological militarization is not only a material process but also a perceptual and narrative one—actively constructed, circulated, and contested through artistic and cinematic forms. By tracing how drones infiltrate sensitive ecologies and assume roles once reserved for autonomous animals, this research foregrounds the anticipatory role of cinema in shaping the imaginaries through which we come to perceive, justify, or can hope to resist ecological violence.

Militarized Nature can be suggested as a set of cartographic acts, of mapping projects in various formats – exhibitions, books, installations, essays, films, articles, notebooks, posters, Post It broadsheets, sound art works, field recordings, archival hacking, cinematic work, institutional infiltration, etc. – which aim to find a third horizon between singularity and ecological eradication, charting territories unknown between *Threshold Technologies* and *Extinction Economies*, inspired by cinema's subversive nature¹⁷ (while still acknowledging its hybrid inception out of militaristic and animal origin materiality). This practice-led research has the potential of providing not only the academic and theoretical tools to deal with the task, but – perhaps more crucially – to allow a counter measure and a possible form of resistance by the use of the same media, whether it is drones or other surveillance systems, as artistic means. The prevalence of militarized vision machines turned wars, armed conflicts and climatic collapse into cinematic events, while increasingly blurring the lines between civilian and militarized spaces. Therefore, it is most important to develop ways to reclaim these technologies back to art, as part of the larger project of reclaiming our public and private spaces in general. This research therefore proceeds in search for that third horizon hiding beyond the blinding double sunset of extinction and the existential dread hibernating inside total digitization. It does not seek to

17 As referred to by Vogel, Amos, and MacDonald, Scott. *Film as a Subversive Art*, 1974.

secure a vantage point, nor to resolve the terrain it moves through. Instead, it begins in the middle of things — among unstable zones, contingent proximities, compromised optics. It tests the capacities of Artistic Research to remain in tension: not to clarify, but to stay exposed to conditions that are themselves unresolved.

If this introduction has outlined a set of methods, these are not frameworks to be applied, but practices that emerge under pressure — partial, contingent, situational. What follows builds not toward synthesis, but toward a disturbed and distributed field of entanglements: aesthetic, ecological, political. Each part navigates a particular site of conflict formed by an encounter of study cases. Theoretical and practical, cinematic and contradicted, the concern is not what these sites represent per se, but how they press back — how they reorganize the conditions of seeing, recording, sensing, making public. This is not a project of mapping from above, but of cartography while moving with, alongside. The cinematic, here, is not illustrative; it is infrastructural. It participates. It blurs with the fieldwork, with the editorial, with the tactical and the provisional. Research takes place as drift, not detour — not because it avoids grounding, but because the ground itself is volatile, constructed, already in motion. Rather than resolving this instability, the parts that follow inhabit it — not as failure, but as method. A practice of remaining with what exceeds capture, what resists alignment, what demands other forms of attention. Not a system. A situation. If needed again to be framed in such manner, one can claim that the main aim of this project is to reflect on the question(s): What is the current cultural currency of the drone — especially in light of mass extinctions and climate emergency? Could it be studied by destabilizing conservative categories of nature and culture, technology and being? And how can we learn to subvert surveillance and survive *Extinction Economies*?



PART

I



Eco Noir

(An Introduction to)

An Abstract

Eco Noir – An Introduction announces a conceptual and methodological framework for navigating the entangled crisis of climate catastrophe and securitization. The term *Eco Noir* is positioned as a critical prism and political-aesthetic strategy through which these convergences are rendered visible. At the core of this investigation, two interwoven methods are introduced: *Cine-Cartography*, a practice of mapping knowledge through cinematic imaginaries, and *Modular Filmmaking*, a participatory, adaptive method developed in response to confinement and audience fragmentation. These methodologies challenge anthropocentric hierarchies, reframe the role of drones as epistemological agents, and interrogate the politics of representation in times of planetary distress.

The part situates *Eco Noir* within a longer cultural genealogy of Noir, in itself a response to the devastation invoked by humanity in the first half of the 20th century. By extending the noir social, political and economic sensibilities to ecological contexts, the work reclaims the genre's critical power to confront structural violence and fatalism in the age of extinction. *Eco Noir* refuses the paralyzing determinism of ecocide discourse, proposing instead a speculative, interspecies, and insurgent mode of engagement. Anchored

by the collective exhibition *Cooking for the Apocalypse*¹⁸ and its accompanying publication *Eco Noir – A Companion for Precarious Times* (2020),¹⁹ the part present both publication and exhibition as performative experiments, enactments of *Eco Noir* in form and content, which challenge editorial authority and traditional curatorial structures. Positioned at the intersection of Artistic Research, environmental aesthetics, and critical media practices, *Eco Noir* is framed here not as a genre or theme, but as an active, situated strategy for steering through the intersecting terrains of ecological and epistemological precarity.

This part has been published earlier under the title ‘Eco Noir – An Introduction’ in the book *Eco Noir – A Companion for Precarious Times*, as the first chapter presenting the conceptual framework of the publication and exhibition project it accompanied.

18 Exhibited during November-December 2020 at Exhibition Laboratory, Helsinki.

19 Faber, Jack & Shraer, Anna (Ed.) *Eco Noir: A Companion for Precarious Times*, 2020.

The End of an Argument

The images of firestorms engulfing the Australian bush are blazing on our screens, pulsing in neon orange light on the walls of the small working cell in which this is written. The immenseness of these fires, on a scale never before documented, hit you like a crashing wave from an almost forgotten surfing days. Similar to that huge surging swell decades earlier, it carried the same terrifying speed, which exponentially accelerated over thousands of miles of sea surface – only to find you in its way, too far from shore, too close to escape. All that wild mass of this thing called nature coming straight at you – devastatingly merciless, beyond breathtaking. That physical embodiment of the untamed, roaring down to crush all illusions of control and imagined mastery over the elements. At the end, we have to meet nature on its own terms.

Watching these towering firestorms with their thick smoke covering half the continent, followed by destructive thunderstorms, is like watching the planes hit the twin towers in slow motion at the turn of this century. Almost twenty years apart, the same particular sense of dread and sheer astonishment grabs you when confronted by such spectacles of horror.²⁰ Numbed and neutralized from action, snuffed emotions when faced with the eerie consequences of humanity’s follies. It seems like they come back with vengeance to show us how far things got while we still thought that our deeds are barely noticeable. While understanding permeates us slowly, the velocity of nature’s reaction is again accelerating – soon to surpass our grasp.

The idea for this first part was ignited in the wake of such cataclysmic eventualities, melting security and ecology into a simultaneous crisis. Starting with the catastrophic Australian bushfires of 2019, continuing with COVID-19 and perpetuating in the still ongoing Ukraine invasion and the Gaza war. It was originally conceived

20 Baudrillard, Jean. *The Spirit of Terrorism*. 2012.



to serve as an effective reaction to the current climate and security emergencies and their inherent entanglements. An active attempt to look at the two as the complimenting sides of the same crisis. To examine the militarization of nature, which only seem to reveal itself publicly, and even then only in glimpses, when manifested through ecological catastrophes. The Aerial spraying of Agent Orange over vast areas in Vietnam, the burning of numerous oil wells in Kuwait during the Gulf War, the building of secret nuclear bases in the arctic (only to be abandoned when ice took over) while conducting nuclear weapon tests leading to ecological extinctions,²¹ as well as many other Cold War projects, serve as examples for such catastrophes. It urgently reminding us of the need to examine them anew as our planetary crisis escalates rapidly in the last conflicted years.²² This examination is mostly taking place through a methodology of knowledge mapping known as *Cine-Cartography*,²³ supported by a practice of *Modular Filmmaking*²⁴, both glossed during this Artistic Research. Working through both these terms enabled a new and much needed way of disclosing essential interactions between surveillance technologies and interspecies relations through the *Anticipatory Imaginaries of Cinema*.

One way to describe *Cine-cartography*, is as meticulously meaning method of mapping movies through their imaginaries territories, theoretical claims, thematic trajectories and time-space relations with each other. Another way would be to envision a

21 Such as in the Bikini Atoll, during the 1946 Operation Crossroads, which was also documented by military drones (and discussed further in Part 4 - *Future Proof Predators*).

22 With the COVID-19 pandemic, Ukraine invasion and Gaza war as the most obvious manifestation of escalating catastrophes, simultaneously embodying and displaying the notions of Acceleration and Accident as discussed by Virilio in *The Information Bomb*. Vol. 10, 2005.

23 A practice discussed in detail and exemplified in Part 2 - *Asymmetric Cinema*.

24 Another practice further discussed and exemplified in Part 5 - *Airborne Epistemologies*.

journey similar to the one Sebald articulate in his seminal *Rings of Saturn*,²⁵ yet instead of taking a long walk in the English countryside – as an arc for discussions about European literature, holocaust and herring,²⁶ and diving into discourses on cultivating silkworm and Suffolk history, among others – we travel now through cinematic terrains, triggering correlating constellations of related thoughts and resonate ideas (even if their immediate relevance might seem redundant at first), subverting in this fashion the dominance of hierarchal order and its top-to-bottom structure.²⁷ First formulated through participatory installations such as *Feral* and *Countermeasures* (featured in Parts 1 and 4, respectively), *Cine-cartography* challenges conventional hierarchies between species, representations, narratives, images, authoritative positions and creative roles. The drone—a recurrent figure in this methodology—is treated not simply as a tool of surveillance but as an epistemological actor, intersecting machinic vision with ecological entanglement.

Modular Filmmaking, on the other hand, is a production method involving audience members within the editing practice, while working on cinematic elements or parts that also act as stand-alone short films. This method was developed and responded at real time to the restrictions which highly limited filming, production resources,²⁸ shared spaces and physical screenings conditions (specifically for those of the independent kind) during the COVID-19 pandemic. It also aimed to answer the limited duration of audience members attention, which allowed only working in segments of few minutes under such conditions. As a practical and spatial expansion

25 W.G. Sebald, *The Rings of Saturn*, 2002.

26 As suggested for example by Blumenthal-Barby, Martin. *Holocaust and herring: The resuscitation of the silenced in WG Sebald's The Rings of Saturn*, 2011.

27 Which Mbembe highlight as the oppressive feature of the surveillance economy and Chandler suggest as adopted by the drone to become its signature feature, further discussed in Part 4 - *Future Proof Predators*.

28 Therefore encouraged working with available archives, personal as well as public.



of *Cine-cartography*, it was simultaneously developed during the research across a series of site-specific cinema and ephemeral installations, particularly participatory ones. This process further experiments with said issues of equality and hierarchy between species and representations, filmmakers and audience members. This participatory approach, presented and elaborated with the works *Feral* and *Countermeasures*, later evolved to form the feature-length essayistic film *After States*.

Together, *Cine-cartography* and *Modular Filmmaking* converge within the conceptual framework of *Eco Noir*, which guides this project's critical engagement with militarized ecologies and the representational apparatuses that sustain them. *Eco Noir* proposes a lens through which the entanglements of environmental destruction, surveillance, and asymmetrical power are rendered visible—not through didactic exposition, but through fractured, layered, and affective cinematic forms. These methodologies do not merely illustrate the condition of militarized nature; they perform its unravelling. They expose how drones, disaster optics, and damaged species relations are embedded within visual economies that normalize catastrophe. In this way, *Eco Noir* becomes not only an aesthetic strategy but a necessary epistemology for navigating the intertwined crises of climate and control.

A Short History of Environmental Destruction and Noir

The cultural concept of Noir originated in the aftermath of the unprecedented destruction raised by the fascist regimes of the first half of the 20th century. This ashen and burnt ground proven fertile for the original, disillusioned view Noir conveys on the violence humanity brought upon itself, resulting in colossal collateral damage. Noir, as an almost feral and completely fresh literary and cinematic

approach,²⁹ suggested a realistic yet highly stylized reflection upon the inherent abuse of power, and the fatal consequences of its shadowy allure. This abuse of power – embedded in all social hierarchies, whether fascist, communist or capitalist – was criticized by the new narratives, inventive storytelling and imaginative audio-visual forms. Noir refused diverting its (and our) gaze from the darkness of the corruptive qualities hidden in the center of our dominant ideologies.³⁰ It kept a sharp eye to the places where our socially deflected dreams are shaped as individual nocturnal visions – nightmares in disguise.

As humanity grappled to raise from the exterminating catastrophes of the last century – with the great epistemological rapture of the Second World War and the Holocaust – Noir brought a perspective on life on Earth as an enduring struggle for sustaining an endangered existence. This gritty struggle, conducted by women and men caught in moral ambiguity, lead often to violent collisions, leaving havoc in their wake. In a sense it seems we are still walking (or actually running) down this same path paved by the legacy of totalitarian regimes, manifested in the all-encompassing corporate logic and its central stock markets short-term profit ideologies. Between the constant distractions propagated by the ethically questionable algorithm-based Attention Economy, the exponentially growing fears festered by the Security Economy and what would be revealed throughout this work (and coined accordingly) as *Extinction Economies*, we are very much at a loss. While the demands for immediate measures needed to decelerate the climate crisis are being ignored by almost all governments and corporates, as well as by most of humanity,³¹ it is evident we lost our grip on

29 Noir is often considered as a film genre, although it is a wide cultural movement encompassing literature, art and many cinematic categories. See: Shrader, *Notes on film noir* in *Film Comment*. 8-13, 1972.

30 Ibid.

31 Casper, *Climate Justice: Holding Governments and Business Accountable for the Climate Crisis*, 2019.

the state of the ecosystem. Instead we're expanding our role in its accelerated mass destruction.

The same questionable Attention Economy tools that aim to distract us from the literally burning facts, are used and legitimized through an array of seemingly democratic processes.³² They solidify the influential positions of those indifferent to the notion that their actions (and sometimes inaction) are scorching our collective lungs. From the Amazon to Australia, through the American West Coast and up to the Arctic Circle, their spur seems to be dividends promised by the highly damaging extractive logging, fossil fuels and animal agriculture industries.³³ In Australia alone, the bushfire season of 2019-20 took the lives of over a billion wild animals, bringing many to the verge of extinction.³⁴ It is clearer than ever that our ancient relationship with nature has been broken, and as John Berger suggested, the actual presence of animals – which used to be at the center of our existence – is now marginalized, replaced and reduced to a spectacle.³⁵ The responsible parties for these broken ties resonate the same careless bureaucratic approach and corporate philosophies that have been time and time again proven extremely harmful to all life on earth. We are indeed living now an *Eco Noir* existence.

In light of the current situation and the threshold of climate catastrophe we're hovering over – thanks to the later discussed *Threshold Technologies* – we wish to raise a new awareness and empathy towards our over-militarized environment. Bringing our focal point to the importance of demilitarizing nature and

32 Bueno, Claudio Celis. *The attention economy: Labour, Time and Power in Cognitive Capitalism*. 2016.

33 Escobar, *Deforestation in the Brazilian Amazon is still rising sharply*, 2020. Taylor, and Watts, *Revealed: the 20 firms behind a third of all carbon emissions*, 2019. And: Tullo et al. *Environmental impact of livestock farming and Precision Livestock Farming as a mitigation strategy*, 2019.

34 Filkov et al. *Impact of Australia's catastrophic 2019/20 bushfire season on communities and environment. Retrospective analysis and current trends*, 2020.

35 Berger, *Why Look at Animals?*, 2009.

collaborating with the plant's co-inhabitants, we call for attention to the connections between the corporate perceptions and militaristic activities which have been deeply embedded in our daily lives. The aim of this project is therefore double: to lay the foundations for the framework of *Eco Noir* and its conceptual constellations (including original practices such as *Cine-cartography*, *Cinematic Salvage* and more); and by that to encourage positive cultural actions for the betterment of our lives with all other species within the unique environments we share.

My conviction is that environmentally engaged art bears the potential to both rethink politics and politicize art's relation to ecology, and its thoughtful consideration proves nature's inextricable binds to economics, technology, culture, and law at every turn.³⁶

Following this notion by T.J. Demos, we find that nowadays all cultural agents play a crucial role in the climate equality struggle, from both sides of the trenches. The difference between accelerating crisis and actively striving for species survival is often a question of attention and accessibility. Attention to our conditioned conduct, single-serving ethics and the language we tend to use and spread with little afterthought. And accessibility to knowledge, mainly regarding the interconnectivity between conflict and climate (and cinema), or militarization and nature. Especially in these days of growing social polarity, catalyzed by the aftermath of the COVID-19 pandemic, with fast-spreading armed conflicts and fatal climatic changes.³⁷

36 Demos, *Decolonizing Nature: Contemporary Art and the Politics of Ecology* 2016, pg. 8.

37 Miles-Novelo and Anderson. *Climate change and psychology: Effects of rapid global warming on violence and aggression*, 2019.



Territorial Terminologies

Ecocide is the official term coined to denounce the environmental destruction the use of Agent Orange by the U.S. brought to Vietnam's ecosystem, as part of the American covert campaign of chemical warfare.³⁸ In one of the most prominent modern examples of militarized nature, the term Ecocide echoes the genocides committed throughout history – now encompassing the entirety of the world ecology. Despite the fact that the concept of Ecocide is around since the 1970s, it is still foreign-sounding to most of the population on this damaged planet. Dissimilarly, it creates a deadly paralyzing effect among those familiar with its impending threat.

To bridge this binary gap, countering both the general apathy and corruptive short-term profit ideology, one can recognize a dire need for quite a different attitude and an appropriate emancipatory terminology to reflect it. The linguistic scope of the term *Eco Noir* is therefore positioned as a fresh approach to engage within a deeper understanding of interspecies relations – suggested in the context of climate cataclysm and its economic and cultural accelerators. By avoiding the hope-devouring tone and the deterministic irreversible view that Ecocide points to, *Eco Noir* suggests the capacity to transgress the conservative cultural logic of late capitalism and subvert the submissiveness to its devastating economic powers³⁹ – enclosed in one's perception.

In the core of this entire project stands the urge to explore through a collective spaces disruptively positive strategies which can conjoin Artistic Research, critical theory (in the various textual, visual, auidial cinematic, and other forms) and their audiences.

38 Zierler, *The Invention of Ecocide: Agent Orange, Vietnam, and the Scientists Who Changed the Way We Think about the Environment*. 2011.

39 Transgression as a means of tackling the cultural logic of late capitalism is a central idea in Fredric Jameson's *Postmodernism, or, the cultural logic of late capitalism*, 2016.

A triangulation that each of its parts connects with the others while autonomously affecting them to form an experience of reciprocal dependence. The sort of dependence inspired by the mutuality of human-nature-more-than-human relationship. Hence, all the works discussed and displayed are cross pollinated and contextualised, their significance amplified through this kinship as the connections between them highlight the interspecies relations they address. The new alliances and commonalities emerging from these encounters invite constructive, unexpected discourse and contemplation. Fusing culture critique with animal studies, process philosophy, visual and sound art, cinema and media studies, the project opens a possibility for the readers to journey through a diverse constellation of feral textual visions, savage soundscapes and untamed imagery.

Brushing Against the Fur

This work has been accompanied throughout by the COVID-19 pandemic outbreak, and continuous news of its fatal impact on human life and economy, as well as the biosphere, kept flooding in during the research. And alongside surprisingly reassuring reports on decreased pollution and wild animals returning to the territories they were expelled from by man⁴⁰ – we also witnessed dreadful consequences. Of course, the subject matter of the connection between the Coronavirus crisis and the biosphere deserves a whole bookshelf of its own, but still some of the accounts were hard to bear and impossible not to mention. From German zoos issuing kill lists of animals to be fed to other animals in the premises – stating this as one of the needed measures they will resort to for cutting

40 Rousseau and Deschacht. *Public Awareness of Nature and the Environment During the COVID-19 crisis*, 2020.

costs⁴¹ – to numerous bat colonies being brutally eradicated in China after they were wrongfully blamed for igniting this crisis.⁴² And then there was Denmark’s declaration to exterminate its whole 17 million mink population due to a fear of a COVID-19 mutation. Although the threat of the mass mink culling⁴³ was dropped for later by the country holding the title as the world’s biggest mink farms industry and fur exporter,⁴⁴ and the German zoos didn’t feed monkeys to the polar bears – we ask how come we view such solutions as feasible. It seems that the immediate reaction to a problem (which speculated at the time to be caused by the consumption of the highly endangered pangolin⁴⁵) is resorting to the mass annihilation of other animals in order to protect the human overpopulation. Our own species is so invested in surplus killing of other species – as well as humans which are perceived to be ‘others’, as history keeps reminding us – it became almost an instinctive resolution.

Walter Benjamin’s key concept, “To brush history against the grain”⁴⁶ was originally translated to my native tongue – which is how I encountered it first during my teenage years– as “to brush history against the direction of the fur”. This resonates the animalistic nature of our use of language in attempts of understanding the world.⁴⁷ It is a demanding task, requiring the re-evaluating of our motives and interests while making sure we’re not standing still in

41 Schuetze. C. F. *Zoo may feed animals to animals as funds dry up in pandemic*, 2020.

42 Dalton. *Coronavirus: exterminating bats blamed for spreading COVID-19 would increase risk of further diseases, warn experts*, 2020.

43 Culling is defined as the reduction of wild animal population by selective slaughter.

44 Kevany, Sophie, and Carstensen, Tom, *Denmark drops plans for mass mink cull after Covid mutation fears*, 2020.

45 Wong et al. *Evidence of recombination in coronaviruses implicating pangolin origins of nCoV-2019*, 2020.

46 Benjamin, Walter. “On the concept of history.” (2009): 389.

47 In a similar manner to how, in that same ancient language mentioned above, the word ‘Community’ is actually a very close derivative of the work ‘Pack’, describing a close group of animals living together.

the heart of a vast blind spot, which was not long before the now desolated habitat of diverse and versatile life forms. Whether this brushing of history against the grain is something sustainable, while we’re on the fast lane for planetary burnout, is part of what we aim to discover. *Eco Noir* expand this idea while functioning as an inter-space dedicated to experimenting, through different means, with the initial ideas, theories and collaborations presented throughout the Militarized Nature research.⁴⁸ This Artistic Research and its practice-led approach play a significant political part in the struggle against exploitative hierarchies and entrenched positions of extractive privilege, which the arts and their collateral cultural industries rely heavily upon. It seems only appropriate to re-appropriate these positions as the issue of equality, in its broader, interspecies sense, stands in the heart of this project. Hopefully, it will enable us to shed new light on our intricate relations with nature and other species, even in the midst of accelerating militarization and collapsing climate, while suggesting positive critique on complex systems.

48 Known before under the working title *Autonomous Animals*.



Collective Acts

Why and for whom is contemporary art so attractive? One guess: the production of art presents a mirror image of post-democratic forms of hypercapitalism that look set to become the dominant political post-Cold War paradigm. It seems unpredictable, unaccountable, brilliant, mercurial, moody, guided by inspiration and genius. Just as any oligarch aspiring to dictatorship might want to see himself ... Both models operate within male bonding structures that are as democratic as your local mafia chapter. Rule of law? Why don't we just leave it to taste? Checks and balances? Cheques and balances! Good governance? Bad curating! You see why the contemporary oligarch loves contemporary art: it's just what works for him.⁴⁹

To effectively manifest theory inside practice, experimenting with merging the two and allude to the similar nature of the climate/ security crisis – as two sides of the same ongoing event – the international group exhibition *Cooking for the Apocalypse*⁵⁰ came to be during 2020. After the first year of extensive studies, and as accumulation of all earlier research on the subject, I initiated participated in, and curated this collective endeavor taking place at Helsinki's Exhibition Laboratory.⁵¹ The starting point was that with the increasing ecological instability accelerated by both pandemic and the militarization of nature (especially through drones), our societies now face the urgent necessity of studying this process from new scholarly and artistic perspectives.

49 Steyerl, Hito, "Politics of Art: Contemporary Art and the Transition to Post-Democracy," *e-flux journal* 21 (December 2010) →.

50 *Cooking for the Apocalypse*, November-December 2020, Exhibition Laboratory, Helsinki.

51 A unique experimental art space that was sadly shut down in 2021 due to new centralist funding policies.

Therefore I suggested this premise to fellow artists (-/), researchers and scholars who seemed both interested and having an original approach toward the subject. Encouragingly the turnout of participants was surprisingly high, and soon we found ourselves as a group of 34 makers – many with physical works presented in the exhibition spaces while other had a textual representation (usually accompanied by a correlating original visual work) in *Eco Noir – A Companion for Precarious Times* printed and digital book formats.⁵² Due to pandemic restrictions the group never met physically, working instead as an imaginary collective under the confinements of isolation, remoteness and travel limitations. The symposium *Eco Noir: A Dark Day for a Brighter Future* which I organized as the center event of the exhibition⁵³ (halfway between its opening and finissage) ended as a purely online occurrence, albeit with many attendances, following the same confinements and restrictions. During the symposium the exhibition was presented as an online live tour, with only the book's co-editor⁵⁴ and me present in the actual exhibition space, surrounded by site-specific artworks and large-scale installations.

These artworks and installations offered a wide range of perspectives on the connections between cinematic and visual technologies, elements of militarization and interspecies relations. They propose meditation on kinship and empathy as means of mediation and possible answers to the ongoing technological (and optical) arms race, while further examining their influence on environmental misdeeds – whether of overwhelming scale or of almost mundane nature. At the same time I approached the whole exhibition as 'a work of cinema by other means, part of the project to

52 See more in the following *Double Disclosure* sub-section.

53 And as the last among the University of the Arts Helsinki annual *Research Days* in its 2020 edition.

54 Again, more in the following *Double Disclosure* sub-section.



disarticulate “cinema” from “film”⁵⁵. More than simply hosting a hub of talented art practitioners and scholars, it aimed at expanding the idea of interspecies relations as if taking physical place between the individual artworks. An example for that is the avoidance of earphones for the different artworks which involve sound, instead placing them rate spaces with overlapping areas, which created audial intersections and an overall atmosphere of co-existence.⁵⁶

The texts in the book *Eco Noir – A Companion for Precarious Times* were paralleling and expanding the artworks on display. Instead of acting as a conventional catalogue, contextualizing and positioning them one next (or many times under) the other, the book is suggesting complex relationships that at the same time connect, contrast and complete the works in the exhibition – surrounded by visuals of related artworks, that many times could not be installed in the space:

Yvette Vatt’s started with sharp observations and an inventive singular solution to the double standard of ‘invasive’ species, looking at relevant study cases from Australian Animal Studies; Naomi Roelf’s investigates how cinema foresaw the ways animals re-appropriated public spaces during the pandemic lockdown by forming a survey involving the history of menageries; Amir Vudka look further into futuristic territories to offer insight on the vast investments of the military-industrial-entertainment complex in popular culture commodities, in the shape of anti-insect propaganda campaigns; Ido

55 Although the quotation is from Balsom, Erika, *Michael Snow’s ‘Closed Circuit’*, <https://www.e-flux.com/criticism/241614/michael-snow-s-closed-circuit>, coining the term and its framework has originated by Pavle Levi, in his foundational eponymous book ‘Cinema by other means’ (2012).

56 A method I kept developing through later solo exhibitions, such as *Daily Disasters* and *Militarized Nature* discussed further in the dissertation, as well as installations participated in group exhibitions (following agreement with curators and fellow artists). Interestingly enough, in contrast to its co-existence conceptual core, these attempts were many times met with aggression and sabotage by unknown assailants – with artworks that their audio and electricity cables being torn and cut off, repeatedly.

Hartogssohn takes a different approach by embarking on an inspiring epistemological journey via the possibilities granted by psychoactive plants, giving the readers a unique view on interspecies relations through the works of pioneer scholars; Nir Nadler’s explore the use and abuse of animals in contemporary artworks, expanded through his personal work with animals as part of the artist-duo Hertog Nadler; Guy Königstein, on the other hand, revisit his childhood experiences growing up on a farm next to the Syrian-Israeli border, where a dissonant approach towards animals prevailed, with his adult reflections upon it still acting as a source of confusion, awkwardness and wonder; Daniel Peltz poetically pondered on the prospects of finding refuge for modern-day elephants emancipated from the logging industry; Mika Elo reflects upon the relations between scientific conventions of animal testing and Artistic Research at large; Annette Arlander, respectively, writes a letter to a pine tree which is part of her own Artistic Research, giving the readers a closer look to the distinctive relationship fostered between them; Mohamad Sleiman Labat and Pekka Niskanen research among the Sahrawi people their forced transition from being a nomadic desert community – between whom and nature was no buffer – to a life in which maintaining a link to nature is a daily struggle; Through analysis of recent cinematic representations, Siiri Siltala studied the connection between man and nature and their manifestation on various islands of isolation; Kalle Hamm presented a personal reflection on the contrasts and correspondence between the works of Pier Paolo Pasolini and Doris Lessing, integrating text and visual works; Dreaming of a very different hidden haven, Marte Kiessling guides us through humanity’s captivation with imaginary lands and lost continents; Lastly, Lea Kantonen revised her encounter with artists from indigenous culture through an unexpected approach – inviting the reader to see the world with the “eyes” of a very specific mango.

And then there was the editorial text – an introduction to the whole printed project, as mentioned in the abstract. Rather than

serving the conventional role of an editorial introduction it challenges the reader's expectations by questioning the boundaries of editorial authority and inviting interpretations that undermine linear readings. In doing so, it reframes the editorial as an active participant in the dialogue of the work, one that resists passive consumption and instead provokes a critical engagement with the themes and form of the project.



Cooking for the Apocalypse

Exhibition film / 2020 / 4 minutes / Stereo sound

Cooking for the Apocalypse was born as a reaction to the current fragile state of our relations with nature—an ongoing rupture bringing us to the threshold of climate crises. By concentrating our focal point on the importance of nature and our co-inhabitants we wish to raise awareness and empathy towards our shared environment. The short exhibition film explores interspecies relations through the intermediation of art and technology with works of 16 international artists.

<https://vimeo.com/499615869?share=copy&fl=sv&fe=ci>

Eco Noir – A Companion for Precarious Times

Printed publication and e-book / 2020 / 312 pages / 71 images

The book accompanying the exhibition is a textual and visual collaborative study of interspecies relations in time of crisis, featuring the original artworks and writings of 34 international artists and researchers. Eco Noir suggests new readings into the fragile and complex ways in which we inhabit and share our environment with other species. It acts as a cartography for cultural and artistic strategies, showing how relations with other species correspond with ancient tales and rumors, while offering new ways in which humans and animals can join to create a contemporary common story.

Download the complete e-book :

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<https://urn.fi/URN:NBN:fi-fe2020120499495>



PART

II



Asymmetric Cinema

An Abstract

This part examines cinema as a field of anticipatory and participatory imaginaries through which drones and their entanglement with interspecies relations have been envisioned long before they became a prevailing reality. It introduces the crucial concept of *Asymmetric Cinema* as a way to analyze how film stages and normalizes hierarchies of visibility and power, while simultaneously offering spaces for resistance. A seminal point of departure is Hitchcock's *North by Northwest* (1959), where the unseen crop-duster pilot prefigures the unmanned aerial manhunter and crystallizes the asymmetrical equation of "man versus predatory aerial machine." This cinematic trope recurs across subsequent decades, situating the drone at the apex of a reconfigured ecological pyramid and foregrounding its role as both an ultimate technological prowler and cultural agent.

The part argues that drones must be studied not only as military or technical instruments but also as cultural figures produced within artistic practices and visual traditions. By tracing their representation across feature films, mythological origins and related media objects, the research situates the drone within broader histories of surveillance, animal studies, and interspecies imaginaries. This approach reveals how drones are embedded in evolving relations between humans, animals, and ecologies—whether through military conflict, resource extraction, conservation efforts, or planetary exploration.

To map these trajectories, the part develops *Cine-Cartography*, a method for assembling films, theories, and artworks into annotated constellations. Through this multidimensional mapping, drones are repositioned as both products and producers of asymmetrical relations, enmeshed in cultural imaginaries that extend beyond their technical and military origins. The part highlights that the epistemology of the drone—its capacity to surveil, infiltrate, intrude, and destabilize—was first rehearsed in cinema and art, and that these imaginaries continue to shape how drones are integrated into militarized ecologies and interspecies relations.

An earlier version of this chapter was published as “Asymmetric Cinema: Dawn of the Drone through Film, Cartography and Interspecies Relations” in *Drone Aesthetics: War, Culture, Ecology* (Pong & Richardson, eds., 2024), published by Open Humanities Press.

Encounter of the First Kind

A man stands next to a dusty road in the middle of nowhere, squinting towards the horizon, waiting for a fictitious appointment which (although he doesn't know it yet) will never take place. The aerial machine, flying low on the other side of his field of vision, is getting closer. It seems to be a crop-duster. As it approaches, we notice it has a single engine, double wings. We can't see a pilot, nor a gunner for that matter – as to the surprise of the man still standing there (and ours) the machine rapidly opens fire at him. Caught completely unprepared, the man is running for his life, falling on the hard ground and sprawling for cover, as the deadly machine keeps going at him, missing and fly-over again, almost mowing him down. Luckily, the man is able to escape into a cornfield, finding ephemeral shelter among the tall thick stalks around him. Yet this feeling of safety proves false as the low-flying machine start spraying the vegetation with heavy vapors. It is spreading a concentrated chemical substance which now brings to mind the extensive American military use of Agent Orange in the upcoming Vietnam War. Escaping the chemical smoke, in a last attempt to save his life, the man runs toward the open road. His aerial pursuer follows close. Almost failing to stop a fuel truck driving in the middle of the road, the man falls back on the tarmac while the relentless flying machine, now too close to pull back, crashes into the braking truck, engulfing both in flames. The man is finally saved, yet the rest of us have just been hurtled into a future of uncertainty.

This seminal scene from Hitchcock's *North by Northwest* (1959)⁵⁷ introduced the crop-duster whose pilot remains unseen as the principal design for man-made aerial manhunters, to be perfected

57 *North by Northwest* (1959), directed by Alfred Hitchcock.

in generations to come with the Predator drone family⁵⁸ and its future successors. It also articulates the essential asymmetrical equation of Man vs Aerial Machine, to be repeated in movies in the following years to the point of becoming a cinematic trope and cultural cliché.⁵⁹ This asymmetrical equation, placing the drone at the top trophic level of dominance, also suggests a radical shift in the ecological pyramid. Situated as one of the most technologically advanced and rapidly expanding fields of interaction with our surrounding environments, the development and usage of drones is shaping new relations between us and the ecologies we co-inhabit with other species, animals especially. Such interspecies relations are forming simultaneously as part of expansive military, industrial, and civilian drones' growing activities in various territories, and their intensified presence in war zones. Whether as part of an accelerating commercial reconnaissance to locate and exploit new natural resources on remote areas on our planet (and others, as seen by NASA's⁶⁰ recent Ingenuity Drone Mars Mission); as a derivative of corporate infrastructure surveying missions; as a direct effort of wildlife conservation and research; or an offshoot of a post-colonial 'safari' attitude extended into new altitudes by political actors in conflict arenas – the multiple ways in which drones are changing our relations with other species are overwhelming. Yet examining how the drone is embedded into the very fabric of interspecies relations, suggests an unaccounted history from which the drone originally emerged.

58 A military industrial term which includes the Predator MQ-1, Reaper MQ-9, Predator XP and other models of the most prolifically used assault drones, produced by the San Diego-based firm General Atomics.

59 See further examples in the following pages.

60 As further elaborated in Part 5 – *Airborne Epistemologies*.

The part before you draw a map of cultural representations and interspecies relations,⁶¹ which situates the drone as an outcome of artistic practices and imaginaries⁶² – envisioning both its inception and military proliferation. This is a crucial perspective shift from the traditional reading of drones as technical tools invented in aviation workshops and military labs, one which is essential for our environmentally precarious times. It suggests alternatives for perceiving the drone mainly as an asymmetrical agent⁶³ of progress and appropriation, invading (albeit mostly unseen) into physical and theoretical terrains. Perpetuating and proliferating such asymmetrical architectures of control, drones are routinely framed in these restricted terms—hailed as pinnacle products of the information industry and its security apparatus. Approached instead as an enmeshed conception of artistic practices, emerging through its manifold mediations across media objects, cultural forms and their interspecies inflections, the drone discloses social, political, and climatic valences no longer bound to the limits of its prevailing asymmetrical application.

Asymmetry, Art and Cinema

Since the early days of art and cinema, the same technologies invented for projecting dreams and stories about the relations between humans and nature – from cave paintings to high-resolution screenings – were simultaneously used to create asymmetrical relations between humans and other species, especially animals.

61 Both expanding and exemplifying the methodology of *Cine-Cartography* discussed in this part and throughout the dissertation.

62 Including study cases from mythology (expressed through poetry, literature, paintings, ceramics, etc.) and moving images in the following pages, that further prove this point.

63 As defined earlier in Part 1 – *Eco Noir*.



As a recent prominent element in this equation,⁶⁴ drones hold the potential to perpetuate, accelerate, and destabilise them. In the following pages the idea of *Asymmetric Cinema* is suggested as a key term to investigate the drone as an enmeshed conception of art practices. *Asymmetric Cinema* refers specifically to filmic events (whether scenes, shots, films in their entirety, moving image experiences or other related elements) which reveal the roles they play within asymmetrical ideologies and networks. Through them we can acknowledge, analyse, evaluate, and discuss the existence of asymmetrical dynamics. This, in turn, enables us to assess the functions they fulfil and their vast influence on our cultural perspectives, as well as our collective perceptions of interspecies relations. This text aims to highlight some of the less explored and unexpected paths linking these relations and different fields of study (such as surveillance and animal studies, film theory, art history, etc.) while offering new reflections regarding them. It acts as an introduction to the conceptual framework and relations between the representations of drones and animal beings as shown by art and cinema. This part studies these relations simultaneously as seen horizontally, on a historical timeline, and vertically – both from a bird’s eye-view and as an unmanned aerial mapping of this theoretical landscape. It positions the drone as the contemporary embodiment of the divide between human and nonhuman that relies on practices of violence, following Franz Fanon’s observation that ‘Sometimes this Manichaeism reaches its logical conclusion and dehumanises the colonized subject. In plain talk, he is reduced to the state of an animal’.⁶⁵

64 Simultaneously able to incorporate and be the embodiment of AI technologies – drone are currently the most effective representations of its software-hardware hybrids in the physical world – therefore acting in close proximity and inviting encounters with other-than-human species.

65 Fanon, Franz, *The Wretched of the Earth*, 2004. Pg. 7.

Through an interdisciplinary perspective, spanning from storytelling traditions and cultural artefacts to contemporary conflict areas, we can trace the development of the drone not only technologically but epistemologically. Through ancient mythologies and their modern metamorphosis into cinema and visual art, these traditions amplify and affect our understanding of the political nature of surveillance and its perceptual integration into interspecies relations. Existing research addresses interspecies relations with drones through lenses such as monitoring biodiversity,⁶⁶ conservation,⁶⁷ or ethics and activism,⁶⁸ to name a few. Yet investigating drone presence as a new system for producing cultural representations and imagination – within the frame of interspecies relations – remains largely uncharted territory. To navigate through this ‘Terra Incognita’ my research required the development of a new methodology center around a practice coined here as *Cine-Cartography*. It is a practice used to position relevant theories, media, and art objects in relation to each other, studying their connections and mutual influences while reframing them in light of recent discursive developments, historical context and contemporary relevance. *Cine-Cartography* is best understood as a multidimensional exploration taking place spatially and interactively (as a constellation of media objects). It is a composite of multiple layers including sound and duration, movement, and stillness – of images and within images. Given the spatial and dimensional limitation of printed text, *Cine-Cartography* manifests itself here as an annotated timeline. This timeline starts with the birth of the idea of remotely controlled flying devices. It continues toward our contemporary days through

66 Wich, Serge A., and Lian Pin Koh, *Conservation drones: mapping and monitoring biodiversity*, 2018.

67 Jiménez-López, Jesús, and Margarita Mulero-Pázmány, *Drones for conservation in protected areas: present and future*, 2019.

68 McCausland, Clare, Susan Pyke, and Siobhan O’Sullivan. *The Ethics and Politics of Drones in Animal Activism*, 2018.

cinema – acting as the modern mass media myth-making machine – by using prime examples of filmic representations. The reading of these representations, aided by revisiting ideas from Achille Mbembe, Katherine Chandler, Paul Virilio, Marina Verzier, Anna Tsing, Donna Haraway, and John Berger’s notions of animals’ intrinsic connection to human culture and perception, suggest that the origin of the drone, and perhaps its future, is in artistic representations of interspecies relations.

Mythologies of Machines

What seem like new relations⁶⁹ forming nowadays between humans, animals and drones⁷⁰ have a rich history, hidden in two quite remote mythologies. Tracing the artefacts and art objects left by the cultures which created these mythologies reveals that the concept of the drone was originally conceived in ancient times as an artificial autonomous aerial animal. The famous Greek story on the punishment of the immortal titan Prometheus⁷¹ concludes with the less known scene in which the passing-by hero Hercules is shooting down Prometheus’ eternal aerial tormentor, the Caucasian Eagle,⁷²

69 ‘It is in the interest of the process in charge of drones to divorce them from history – the appearance of discontinuity is a deliberate political strategy. As artists and researchers, we poke holes in this.’ Matthew Stadler in a discussion in Szita, Jane, *A New View from Above, a report on the Drone Salon in Drone: Unmanned*, pg. 116.

70 These last two categories would fit into the steadily spreading ‘more-than-human’ classification.

71 Who stole fire from the gods and gift it to humankind and therefore been chained to a mountain and having his liver daily devoured by said gods-sent (or made, as soon claimed) tenacious eagle. In an interesting twist, millennia later, the IDF conducted a program of saving a rare Griffon Vulture by feeding it daily with a drone. See more: Braverman, Irus. “Mother Drone, Mother Nature: The Griffon Vulture and Israel’s Military.” 2023.

72 Also known as Aethon, named for the Greek word for ‘Burning’ or ‘Blazing’.

which is revealed as a bronze-made bird-like automaton. This airborne entity⁷³ is depicted in a detailed image on a well-preserved wine-cup from the sixth century BC, as well as described by a second-century AD Roman mythographer, Pseudo-Hyginus, in his *Astronomica*:

He [Zeus] sent an eagle to him [Prometheus chained on Mount Kaukasos] to eat out his liver which was constantly renewed at night [...] many point out it [the eagle] was made by the hands of Volcanos [Hephaistos] and given life by Jove [Zeus]. (Theoi Project 2019)⁷⁴

Hercules’s accurate archery ended an ordeal repeating itself for 30,000 years⁷⁵ on a remote mountain peak – a retaliation for the titan’s rebellious act of bringing the eternal fire, representing knowledge and technology, from the high spheres of the gods down to the mere mortal humans. While Some sources state that the Caucasian Eagle is actually a fell creature – spawned by the she-dragon, Echidna – the second major mythological tradition, created in the vicinities of the Baltic Sea around 1,000 BC, clearly speaks of an elaborately constructed bird of prey:

73 ‘The eagle was variously described as a bronze automaton constructed by the god Hephaistos (Hephaestus), or as a fallen creature spawned by the drakaina Ekhidna (Echidna).’

See: <https://www.theoi.com/Ther/AetosKaukasios.html>.

74 *Pseudo-Hyginus, Astronomica 2. 15 (trans. Grant) (Roman mythographer C2nd A.D.)*. See: HEPHAESTUS MYTHS 4 WORKS - Greek Mythology (theoi.com)

75 This duration supports the sources claiming the Caucasian Eagle as a mechanical construction, excelling in repeating the same action with great accuracy, ad infinitum. *Pseudo-Hyginus, Fabulae 54 (trans. Grant) (Roman mythographer C2nd A.D.)*.



Smith Ilmarinen
the everlasting craftsman
forged an eagle of fire
a wivern of flame;
the feet he shaped of iron
of steel the talons
for wings the sides of a boat.⁷⁶

This description of a mechanical flying predator from the Finnish *Kalevala*⁷⁷ depicts how the ingenious invention of an artificial eagle was manufactured in order to fulfil and fit a specific mission profile which no human (or humanoid, such as Ilmarinen, the immortal blacksmith) can accomplish – catching a monstrous pike ‘without a net or a seine, without any other trap’.⁷⁸ This is an imaginative shift from the Herculean confrontation with the Caucasian Eagle daily devouring the ever-regenerating liver⁷⁹ of the chained Prometheus. Unlike the bronze-made eagle, excelling in his endlessly repetitive bloody act which no man can complete (yet robotic systems are perfect for), the Finnish Iron Eagle is not an adversary to the protagonist but part of a collaborative relation with its creator. Ilmarinen is observing from the safety of a remote shore how his artificial giant eagle is executing its pre-programmed task of extracting an elusive marine threat. It is important to notice that this deadly extraction is committed against an unconstructed animal, the Tuoni Pike, forming a triangulation in which man is pitting an aerial artificial animal (a drone, for all matters) against a biotic one, the pike – therefore putting the two in opposition. After extracting the giant

pike from the waters, the Iron Eagle disregards Ilmarinen’s original programming, leaving him only with the pike’s head as evidence of the entire affair, while autonomously soaring to the skies never to be seen again by its maker.

While the Herculean story puts the conflict between man and animal-like machine at the centre, the Kalevala’s foretelling of the drone-eagle offers a more complex triangulation in which the remotely controlled mechanical bird-of-prey is built to achieve dominance over an infamously wild animal, and nature in general.⁸⁰ As Ilmarinen first climbs upon his constructed eagle’s back, he is soon hurtled from it and the drone-eagle continues the hunt for the pike by itself. The drone-eagle therefore prove to be a better fit for its role and working properly only as an unmanned construction, before attempting multiple ‘attack profiles’ which conclude by capturing and eliminating its designated target.⁸¹ These detailed stories prefigure the concept of Unmanned Aerial Vehicles (UAV) and the latest developments in this field, in the shape of ornithopters and animal-simulating drones.⁸² They also set the operational area of early drone-prototype in the wilderness, the chosen conflict zone for encounters with flying machines and collisions of interspecies relations, while setting the essential elements for what would be later known as the Theory of the Drone.⁸³ An intriguing mix of elements worth examining from both mythologies will later appear in the early 1980s in what emerged as the most effective apparatus of modern myth-making, acting as an epic storytelling device and a visual narration of human thought – the cinema.

76 Lönnrot, Elias, *The Kalevala*, 1999. Canto 19:175-191, p. 242.

77 The official Finnish mythologic text – a collection of epic poems which form the modern base of ancient Finnish identity.

78 Lönnrot, Elias, *The Kalevala*, 1999. Canto 19:173-174, pg. 242.

79 Or heart, as painted in one version on an amphora dated 530BC. See: <https://www.theoi.com/Gallery/T20.1C.html>

80 The conceptual equation of Drone Vs. Wild(er)ness is something that we’ll encounter again and again as our *Cine-Cartography* advances further into deeper and darker technological and cinematic territories.

81 *The Kalevala*, Canto 19: 192-312, pp. 242-245.

82 For example the BionicFlyingFox and the SmartBird by Festo.

83 Chamayou, Gregoire, *A Theory of the Drone*, 2013.

Bees, Bugs and Crop-dusters

Whether the first drone was the 1918 Kettering Bug, an American aerial torpedo pre-programmed to strike distant ground targets, or the 1935 Queen Bee, a British pilotless radio-controlled seaplane, is not central to our current discussion. Although the official term 'drone' is attributed to the latter, the former seems to manifest much of the philosophy of unmanned aerial asymmetrical engagement. In both cases, naming these unprecedented autonomous aircraft seems to be a steppingstone to how 'the military seems to anticipate this changing relation with nature and technology in naming its drones: Global Hawk, Heron, Killer Bee, Mantis (...) Scan Eagle, and so on. Electronic birds hovering in the air, circling over war-zones, until they spot a prey and attack'.⁸⁴

These and other early experimental drones modestly planted seeds for later explorations of the relations between unmanned airborne machines and animals, while shifting the aerial gaze from reconnaissance to remote attack. Intertwining the development of war and cinema in modern times, this aerial gaze was assimilated into pivotal weapon systems almost seamlessly as 'the function of the weapon is the function of the eye'.⁸⁵ Virilio studied how the accelerated progress of the ocular machine and the military asymmetrical means of oppression – physical, psychological, and spiritual – coincide. Acknowledging that 'even when weapons are not employed, they are active elements of ideological conquest',⁸⁶ he proposed this interconnection between the abilities to see and to eliminate, highlighted by the fact that both seeing and targeting emerged as acquired skills, learned from perspectives created by cinematic techniques. This process accelerated as cinema became

84 Pater, Ruben, *Twenty-First Century Birdwatching in Drone: Unmanned*, 2016, pp. 44-45.

85 Virilio, Paul, *War and Cinema: The Logistics of Perception*, 1989, pg. 26.

86 Ibid. pg. 8.

accessible to unprecedentedly larger audiences. It is worth noticing that cinema itself was born from a merger between interspecies inquiry (following a legendary bet over the nature of horses)⁸⁷ and military technology (by altering a machine gun into taking sequential images)⁸⁸ while film as a material bore its physical existence to an essence extracted from animal residues.⁸⁹

Paralleling the technological progression and popularity of films with its own development and proliferation, the drones' flight plan from inception to present day has been drawn continuously throughout the twentieth century, as Szita points out:

Despite the confusion, drones are not a new invention. Nicholas Tesla pioneered the concept one hundred years ago. The army began to adopt them after the Second World war, with the Ryan models of the 1950s being the prototypes of today's drones. (Szita 2016)⁹⁰

The military adoption of drone technology, four decades after its appearance in the form of the Kettering Bug, precisely corresponds to the first appearance of the concept of the drone in popular cinema. The scene from Hitchcock's *North by Northwest* (1959) opening

87 Muybridge's photographic sequence of "Sallie Gardner" (1878) settled Leland Stanford's bet by proving a horse's hooves leave the ground mid-gallop. This series of chronophotographs pioneered motion capture and directly influenced early cinematic technology. See more on this alledged bet and actual major influence in Braun, Marta. *Picturing Time: The Work of Étienne-Jules Marey (1830-1904)*, 1992.

88 The evolution of the chronophotographic gun (1882) and its influence on early cinematographic technology. Mannoni, Laurent. *The Great Art of Light and Shadow: Archaeology of the Cinema*, 2000.

89 Gelatin, a key component of photographic and film emulsions – derived from animal hides, bones, and cartilage—became essential for photographic and film emulsions, from the late 19th century onward. See: von Waldthausen, Clara C. *Reflections on the Material History and Materiality of Photographic Gelatin*. 2015.

90 Szita, Jane, *A New View from Above, a report on the Drone Salon in Drone: Unmanned*, 2016, pg.115.



this part introduced the pilotless crop-duster as a prototype for unmanned aerial pursuit. In doing so, it cements the asymmetrical formula of Man versus Aerial Machine⁹¹ as a cinematic and cultural trope, to be explored to different extents and revisited in varied registers by *From Russia with Love* (1963),⁹² *Night Moves* (1975),⁹³ *Close Encounters of the Third Kind* (1977),⁹⁴ *First Blood* (1982),⁹⁵ *Red Dawn* (1984),⁹⁶ *Midnight Run* (1988),⁹⁷ *Mission: Impossible* (1996),⁹⁸ and *A Good Day to Die Hard* (2013), among numerous others, with few to be soon discussed. Many key elements which attack drones rely upon are all evident in *North by Northwest* early representation of a detailed drone-Targeted Killing mission: the ability to remain hidden in plain sight (in this case, with the aerial aggressor camouflaging itself as an innocent mundane machine – a crop-duster); the capacity to remain in the air for long duration while carrying different payloads for different attack profiles (including automatic machine guns, chemical attack, predation and ramming); alongside the capability to conduct repeated aerial sorties as needed to accomplish the pre-assigned mission (including a final ‘suicide strike’). As the aerial assault machine is soaring above to hound down a sole person who tries to escape into the cornfield ‘forest’, the film reveals its own nature in the most precise and fundamental form – as a sequence of moving images devoid of any dialogue or other narrative devices. It is devoted completely and purely to

91 The emphasis here (and in other places in this text) of the term ‘Man’ is done intentionally to highlight its problematic origins, traditional context of excess conflict, chauvinistic-militaristic usages and assimilations.

92 Directed by Terence Young.

93 Directed by Arthur Penn.

94 Directed by Steven Spielberg.

95 Directed by Ted Kotcheff.

96 Directed by John Milius.

97 Directed by Martin Brest.

98 Directed by John Moore.

constant and contrast movement, that of the single human and that of the artificial aerial entity seeking to destroy him.

Earlier cinematic explorations of aviation in asymmetrical confrontations – such as in *The Thief of Bagdad* (1924),⁹⁹ *Sora no daikaijū Radon* (1956),¹⁰⁰ *The Deadly Mantis* (1957)¹⁰¹ and *The Giant Claw* (1957)¹⁰² – pitted man against a flying terror in the shape of a giant animal, usually some sort of fantastic bird, bat, or insect. Such oppositions used complicated stop motion techniques to address the disproportionate struggle, matching a mere human figure versus the unequal surplus of size, strength, maneuverability, and attack measures – manifested by the huge animal’s predatory talons, beak, or teeth. The violent attempts to survive these encounters were framed within fantasy and science-fiction settings, placing the entire ordeal far from the potential experience of the safely seated spectator. *North by Northwest* subverts these settings by offering quite a different level of involvement, now that the aerial attack can commence without warning, from a ‘mostly harmless’ looking machine, in completely mundane and unsuspected surroundings, by unseen and unknown assailants, against any ordinary individual, completely unprotected and mistakenly targeted.

The scene contrasts the two conflicting bodies through space – with the gravitationally limited human body revealed in all its fragility against the omnipotent artificial body, which is moving freely through the air, simultaneously raining down metal and breathtaking hazardous haze in an overwhelming display of surplus. This contrast highlights even further the way this scene acts as an autonomous artwork within a film which until this point was loaded with sharp narrative twists, sophisticated snappy dialogues, and high pace humour. The lack of any utterances or other human

99 Directed by Raoul Walsh.

100 Directed by Ishirō Honda.

101 Directed by Nathan Juran.

102 Directed by Fred. F. Sears.

KODAK SAFETY FILM



KODAK SAFETY FILM



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KODAK SAFETY FILM



1743 R 76

1743 R 76

1743 R 76

sounds (except for some coughing due to the poisonous vapor) is unprecedented in a cinematic vehicle of this sort. This almost minimalistic approach within the landscape of a charismatic commercial thriller, reveals a hive of ideas ahead of their time. The fact that the subject of this Targeted Killing is an innocent, mistakenly marked civilian, will echo in a future full of wrongly identified targets of drone attacks (mostly led by the CIA), as Arthur Holland Michel indicates in a discussion in the 2014 'Drone Salon':

The Bureau (of investigative Journalism) has calculated [...] between 12 percent and 35 percent civilian casualties (caused by drone strikes). The New America Foundation numbers put the proportion at between 8 and 15 percent.¹⁰³

In order to solve, at least conceptually, the proliferating cases involving the false identification of civilians as combatant targets, the US government transitioned to drone 'signature strikes',¹⁰⁴ here meaning aerial attacks authorised on the basis of traces, indications, or defining characteristics. Such strikes target individuals whose identity remains unknown but whose behaviour suggests membership in what the authority defines as a terrorist organisation. The targeted protagonist of *North by Northwest* (played by Cary Grant) is mistaken for a non-existent man – a fabrication of an unnamed American intelligence agency¹⁰⁵ as part of their clandestine espionage strategies. That is very much the epitaph of 'signature strike' – aimed at an unknown person, yet one whose behaviour suggests membership in a secret organisation with insurgent intentions. As Chamayou points out, 'strikes of this type, against unknown

103 Arthur Holland Michel in a discussion in Studio-x, New York City, April 10, 2014, as appeared in *Drone: Unmanned*, 2016, pg. 75.

104 Chamayou, Gregoire. *A Theory of the Drone*, 2014, pg. 47.

105 'We're all in the same Alphabet soup' explains later one of the unnamed intelligence organization's chiefs, in the 97th minute of film's running time.

suspects, appear to constitute the majority of cases'.¹⁰⁶ The targets of these unmanned aerial attacks are chosen based on collection of data arranged into models assimilating habits and behavioral categories of theoretical men, which can then fit any number of individuals. This has been pushed to yet another extreme with the integration of AI systems into the profiling process, exemplified in the use of the Lavander system for targeting the IDF attacks on Gaza following the earlier 7/10/23 Hamas surprise attack on Israel.¹⁰⁷ This further resonates with Achille Mbembe's notion of 'enemy by nature':

Many innocent people are killed, not because of errors they had committed but instead for yet-to-be-committed errors. The war of conquest is thus not about upholding the law. If it criminalises the enemy, the aim is not to apply justice. Whether or not he bears arms, the enemy to be punished is an intrinsic enemy, *an enemy by nature*. (Mbembe 2019: 25)¹⁰⁸

In his examination, Mbembe highlights Necropolitics' strong connection to aerial policing and urban siege in the post-colony. Chandler elaborates and claims that 'the machinelike framework of the drone is doubled to establish threat as inhuman, even as denial never fully erases humanity [...] This denial builds on longstanding practices of violence that rely on the divide between human and nonhuman'.¹⁰⁹ Another visionary aspect of *North by Northwest* is the new hierarchy of interspecies relations shaped through the scene, as the imagined mastery man has achieved over nature is

106 Chamayou, Gregoire. *A Theory of the Drone*, 2014, pg. 47.

107 Tharoor, Ishaan. 'Israel offers a glimpse into the terrifying world of military AI', in *The Washington Post*, April 5, 2024.

108 Mbembe, Achille. *Necropolitics*, 2019, pg. 25.

109 Chandler, Katherine. *Unmanning: How Humans, Machines and Media Perform Drone Warfare*, 2020. Pg. 9.

now reversed when he is hunted by the technological entity of his own creation. In order to survive, he now has to try and find refuge in the nature he has forsaken. Yet this is an artificial nature, a constructed man-made 'forest' of tall corn stalks, and the next evolutionary aerial invention is proven to have already been fully equipped with means to its end, as evident from the earlier mentioned Agent Orange allusion.

This iconic scene demonstrates an effective repositioning of humanity within the same very scales it invented to assert its authority over all other species and ascend from their ranks to unparalleled heights. The new order now being formed as modern technology reaches even higher hierarchical altitude, and replaces man, is achieved not only through relatively rudimentary elements but through the medium most recognised with that image of authority and ability for self-grandeur – the high-budget fiction film. Hitchcock, globally known as the master of suspense, was also exceptionally good at hiding his intentions in plain sight, sending subversive messages and placing political gestures, even if cleverly covert as clues, carefully packed inside the commercially crafted commodities of the Hollywood studios.¹¹⁰ In his investigations on how global politics are designed and set in motion through complex espionage apparatuses and their reliance on codified images – as seen also in his *Topaz* (1969) and *Torn Curtain* (1966) – it is as if Hitchcock would play with Virilio's future notion that following 'the Second World War, it became possible to sketch out a strategy of global vision, thanks to spy-satellites, drones and other video-missiles'.¹¹¹ Yet, this global strategy is reliant on the fact that 'a war of pictures and sounds is replacing the war of objects (projectiles and missiles)'.¹¹² This convergence of complex connections between

110 See also: Comolli, Jean-Luc, and Paul Narboni. "Cinema/Ideology/Criticism" *Screen* 12.1 (1971): pp. 27-38.

111 Virilio, Paul, *War and Cinema*, 1989, pg. 2.

112 *Ibid*, p. 5.

military strategies, representational mediums, vision-based technologies and art is perhaps most evident in McLuhan's classic statement claiming art to be an 'early alarm system, as it were, enabling us to discover social and psychic targets in lots of time to prepare to cope with them'.¹¹³ Cultivating his public image as the master manipulator of moving images, Hitchcock tapped into the mass media forms of his time and directed the collective gaze toward some of the terrors hidden within the mundane (like a crop duster, or an earlier confusion in a restaurant which will later lead to being mistakenly targeted by unknown forces and hunted by an aerial aggressor). From their early inception in the late 1950s these ideas would resonate in decades to come, amplified exponentially through an ever-growing ripple effect.

The Chase of the Cinematic Drone

Following the drone's cinematic debut in *North by Northwest*, at the same time that American unmanned aerial vehicles were trialed and tested as guiding systems for assaults by other means in the Vietnam War, their actual presence was generally omitted from the proliferating motion pictures. The military intelligence gathered from these drones was used for various missions: from massive carpet bombings by strategic B-52s bomber, to aerial napalm attacks, to assault helicopters raids and the spraying of vast forests and vegetation areas with Agent Orange as part of an unofficial chemical warfare campaign.¹¹⁴ Still, the notion of an anonymous aerial hunt conducted by opaquely operated machines – or ones that are guided by faceless crew members – found its way into

113 McLuhan, Marshall. *Understanding Media: The Extensions of Man*, 2001.

114 Shaw, Ian GR. *Predator Empire: Drone Warfare and Full-Spectrum Dominance*, 2016.

**THE BIRD HAS COME
FOR ITS PREY.**



A CINEMA CENTER FILMS LIMITED PRODUCTION

ROBERT SHAW · MALCOLM McDOWELL
"FIGURES IN A LANDSCAPE"

A CINEMA CENTER FILMS PRESENTATION

SCREENPLAY BY **ROBERT SHAW** · PRODUCED BY **JOHN KOHN** · DIRECTED BY **JOSEPH LOSEY**

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cinema a decade later in artistic endeavors such the highly existential *Figures in A Landscape* (1970)¹¹⁵ or the more commercially oriented *Capricorn One* (1977).¹¹⁶ Both works came as direct reactions to the heavy usage of helicopters during the Vietnam War as aerial monitors and highly efficient asymmetrical attack platforms.

While *Figures in A Landscape* revolves around the escalating escape attempts of two fugitives from a relentless chopper which keeps tracking and confronting them through a changing landscape, from the wild to the semi-cultured, *Capricorn One* suggests a repeated chase in which a couple of renegade astronauts are fleeing through the American desert from a flock of black helicopters. Popularly known as ‘whirlybirds’ at the time, these helicopters are signified as pure machines, opaque metal and dark glass bodied, autonomous birds-of-prey mediating between their remote senders and those they seek to eliminate. This signification of the ‘bird-of-prey’ is emphasised even further in *Figures in A Landscape* where the image of the helicopter in flight is cut in motion to a flying eagle,¹¹⁷ replacing the former’s exact position and direction within the frame, continuing its aerial manoeuvre. This shot is then cut to a point-of-view shot, closing fast from just above the tree line on a dozen of escaping wild horses. This alteration from a mechanical aerial hunter to a fine feathered one is a cinematic gesture to be reversed later in the film, as a shot of a flying eagle is cut back to the very same helicopter. Accompanied by the galloping horses’ escape into the forest and its analogy to the silhouettes of the two human fugitives running away in the early morning light, it contextualises the relations between human, animals, and seemingly autonomous flying machines as part of a complex interspecies construction which brings to the fore questions of borders, orientation,

115 *Figures in A Landscape* (1970), directed by Joseph Losey.

116 *Capricorn One* (1977), directed by Peter Hyams.

117 Right at the end of the 1st minute of the film.

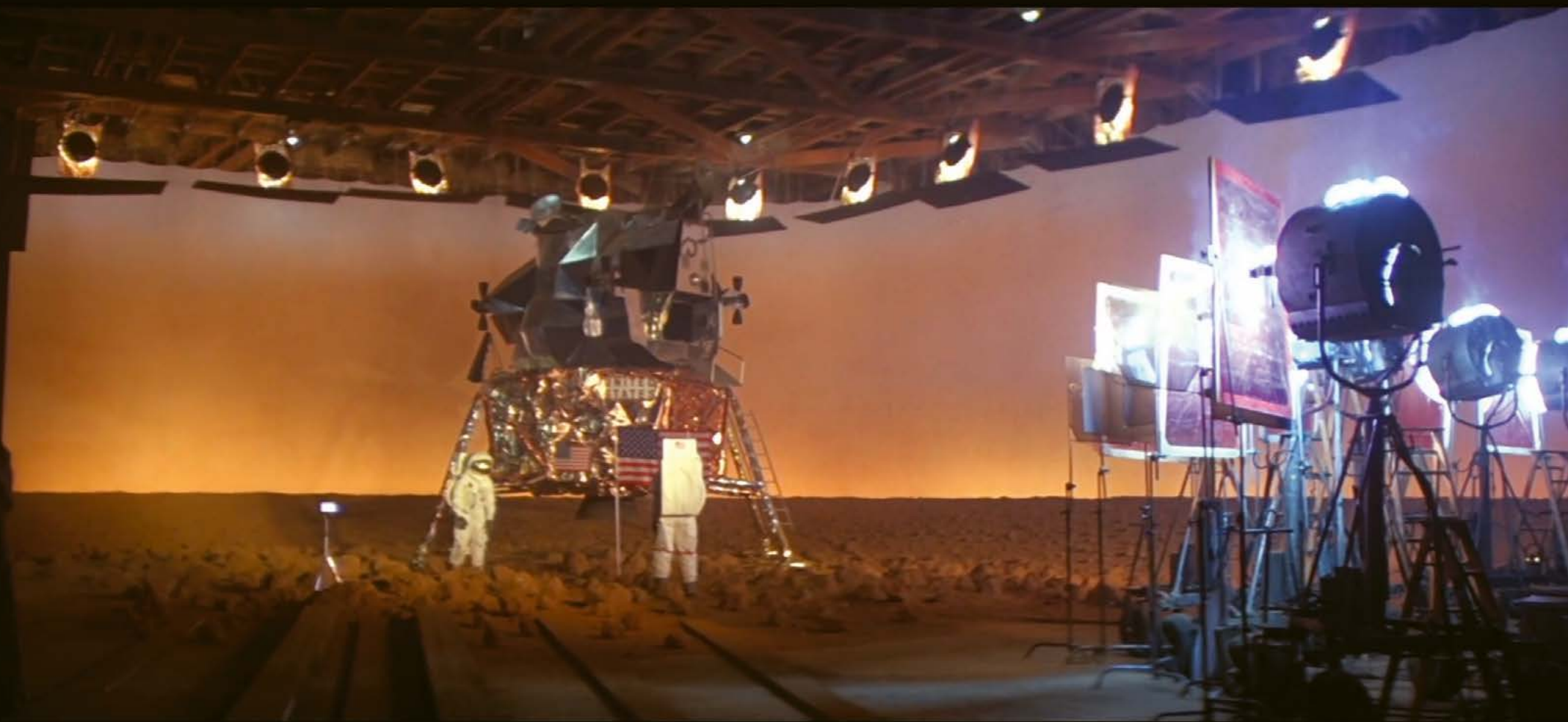
and spatial dominance. Through these broader questions that lay at the core of the film’s existential meditation on movement and space,¹¹⁸ deriving issues of identification and domestication are explored. The machine-animal-human equation in motion, defying the binary setting of ‘Man vs Flying Machine’ discussed earlier, allows new freedom when investigating the amorphous nature of identification. This manifests itself both in the inability to keep the various elements of machine-animal-human within fixed categories and in the inconsistency of the film’s landscape which keeps changing from wild to constructed to feral to artificial. In that sense, the examination of this equation maintains a constant interaction with the characters and the problem of their domestication. Both of the film’s human protagonists are struggling against compulsory domestication while being forced to assimilate into its restrictions, as well as to continually adapt to a changing land while trying to blend with the other species inhabiting it.

Capricorn One doesn’t give space for the same scope and magnitude of discussion, yet it offers two important points – the desert as the ultimate hunting ground for future drones and the relation between such perception of a ‘No Man’s Land’ and interplanetary remote missions. The film’s dual dark helicopters, repeatedly engage in an aerial choreography that seem to be based on mutual non-verbal gestures¹¹⁹ – act as a cultural trope for deep state enforcers and the conspiratorial military-industrial-entertainment takeover of the United States,¹²⁰ which first appeared as such in rela-

118 As Virilio claims ‘the camera function was less to produce images (as painters and photographers has long been doing) than to manipulate and falsify dimensions.’ Virilio, Paul, *War and Cinema*, 1989, pg. 21.

119 Through which the machines seem to communicate and coordinate their persistent peruse.

120 Der Derian, James. *Virtuous war: Mapping the Military-Industrial-Media-Entertainment-Network*, 2009.



tion to cattle mutilation in the early 1970s.¹²¹ Just like in *Figures in A Landscape*, they also seem to appear in frame to replace wild animals – a dissolve from dark birds in one case, a cut from a serpent in another.¹²² Furthermore, the helicopters scanning *Capricorn One's* deserted landscapes resonate the vast settings of iconic Westerns. They re-appropriate the wilderness to serve the ideology of spatial dominance under the new technological gaze. In this respect, they foresee the extensive American military use of the Targeted Killing drone doctrine as part of a world view perceiving the world outside the US as a lawless, remote wilderness where authority is to be enforced by violent means.¹²³ This perfectly coincides with the dominant cinematic perspective of the Western – which was used to retrospectively justify past colonial crimes, mass land-grabs and genocide of First Nations peoples – as well as to propagate and encourage contemporary and future militaristic campaigns around the world.¹²⁴ Moving images of flying effortlessly over deserts, badlands, arid mountain ridges and dry ravines, which fill the screens in relation to the American military conflicts of the twenty-first century – mostly as part of drone activities, real or projected – reinforce this notion in the public's eye and establish it through a cinematic land claim. Similar wilderness landscapes, including the ideological infrastructure embedded in their audio-visual presence, are to be later seen in what is considered as one of the greatest achievements in the history of unmanned operations and mankind's recent accomplishments – the Ingenuity drone taking off and flying over Mars, streamed live by NASA on 19 April 2021.¹²⁵ Given this

121 Barkun, Michael. *A Culture of Conspiracy: Apocalyptic Visions in Contemporary America*, 2003.

122 (01:20:32:00) and (01:40:45:00), respectively.

123 Verzier, in *Unmanned: Drone*, 2016, pg. 12.

124 Lusted, David. *The Western*. Routledge, 2014, pg. 20.

125 As mentioned earlier, this historical event is further problematized in Part 5 – *Airborne Epistemologies*.

precedent and the many missions to follow, it is quite a safe assumption that any life form which might be found on other planets will be first encountering a drone surveying their habitat's surface.

Interstellar (2014),¹²⁶ another high-budget film dealing with pioneer missions of interplanetary colonisation (albeit focusing on the more technical and procedural aspects of this ideology), opens with a scene depicting a lone Predator-looking drone flying low over high-stalked corn fields. In this case the planet is our very-near-future Earth, which is rapidly dying from overexploitation, pollution, and the ongoing climate crisis. The drone seems to be surveying the surface, foreshadowing the main character's task-to-be throughout the rest of the film – searching for signs of life. We never return to this drone after this scene, yet it is a clear case of cinematic *mise-en-abyme*,¹²⁷ compressing together advanced autonomous technology, ecological emergency, aerial authority, drone progress and interspecies relations. In the scene, which cleverly alludes to *North by Northwest*, the roles have been reversed: this time it is the protagonist, with his two teenage kids, that are chasing the low flying unmanned aircraft through the tall corn fields. After collaborating in catching up with the drone, gaining control remotely, and landing it (in a subtle of coming-of-age and initiation-through-tech ceremony for Murphy, the young daughter), the three examine their catch. Murphy asks reclusively if they can't just let it go, softly adding that 'it wasn't hurting anybody', as if it was some trapped wild animal yearning for freedom. Her father's answer 'This thing need to adapt (...) like the rest of us.' Further suggests the drone as a free-willed non-human agent, capable of evolving and adapting to rapid changing environment. In that sense, the drone dual role here as a hybrid of metal machine with animal will, also mark it as

126 *Interstellar* (2014), directed by Christopher Nolan.

127 The technique of inserting a short story within a story, which acts as a condensed version of the longer one, often in a way that suggests an infinitely recurring sequence.



an aerial emissary of approaching catastrophe – a bird before a tsunami hit, an early warning for the real disaster in the air – the dust. This actual aeronautic enemy is storming on crops and homes¹²⁸ while imposing force immigration and killing all things living in its effected areas, while rapidly advancing.

Capricorn One's hypothetical plot, on the other hand, suggests that a failure in the design of the first manned mission to Mars required a cover up of the entire affair by the authorities. A fabricated landing, produced and shot on a soundstage in an isolated desert base, will be presented to the public instead.¹²⁹ Such plotting is echoing the popular theory that the historic Moon landing (on July 20, 1969) itself was a fake, staged in a Hollywood studio. Since the late 1960s such conspiracy narratives surrounding the Apollo 11 mission have persisted, often embellished with the provocative suggestion that the acclaimed director Stanley Kubrick—fresh from his groundbreaking work on *2001: A Space Odyssey* (1968)—was secretly recruited by NASA to stage the lunar landings on a film set. Proponents of this theory argue that Kubrick's mastery of cinematic illusion and special effects made him uniquely qualified to simulate the lunar environment and astronauts footage, and that his participation would have allowed NASA to convincingly fabricate the event as a Cold War spectacle. Deciding to go against this fake official narrative of *Capricorn One*, the three dedicated astronauts escape the isolated desert base with its soundstage setting¹³⁰ and try to survive the wilderness while running away from the opaque dark machines flying fast to hunt them down. This clearly resonates

128 And referring as well, like in *North by Northwest*, to the Agent Orange usage as an aerial chemical weapon by the American military in the Vietnam War and its cementing of the term Ecocide.

129 For example, see: Ghosh R. Palash. "Were Moon Landings Faked by Film Director Stanley Kubrick?" January 13, 2021, International Business Times.

130 In a reflexive resonance of actors escaping from their fictional settings – something explored more directly in later films, such as *The Purple Rose of Cairo* (1985), directed by Woody Allen.

Punishment Park (1971),¹³¹ one of the most influential albeit heavily censored cinematic masterpiece of Militarized Nature, which placed disobedient citizens in a quest to survive a desert that became their official hunting grounds by oppressive armed authorities. Yet this truly remarkable artwork, with its subversive and groundbreaking use of documentary style and political tropes in the subject for its own essay, outside of this part.

Positioning the drone within the war effort and the film effect – whether by earlier surrogate representations such as the crop-duster or the opaque helicopters visual trope – highlights that:

War can never break free from the magical spectacle because its very purpose is to produce that spectacle [...] 'The force of arms is not brute force but spiritual force'.¹³² There is no war, then, without representation, no sophisticated weaponry without psychological mystification. (Virilio 1989: 8)¹³³

Spectacles of Interspecies & Aerial Entanglements

Discussing further the role both forms of spectacle play, as a theatre of operation for drone representations and interspecies relations, will take us to the beginning of the 1980s. That is when Hollywood's ideological excess, economic surplus, and postmodernist pastiche all diagonally aligned to form a high mark in visual effects and a low point in filmmaking, better known as *Clash of the Titans* (1981).¹³⁴ It is an assorted alteration of Greek mythology tales, loosely based on the story of Perseus that is filled to the brim with inaccuracies,

131 *Punishment Park* (1971), directed by Peter Watkins.

132 Virilio quoting Sun Tzu, *The Art of War*, 1963.

133 Virilio, Paul, *War and Cinema*, 1989, pg. 8.

134 *Clash of the Titans* (1981), directed by Desmond Davis.

mashups, and added-on inventions. One of these surprisingly prominent and unexpectedly interesting inventions is a mechanical metal owl sent by the gods to assist young Perseus in his hero's journey to slay other rare mythological species. One of these is Medusa, the gorgon who will later lend her name to an American airborne system known as the Gorgon's Stare, considered a breakthrough in drone mass-surveillance technology. Allowing sophisticated forms of identification and following multiple targets at the same time, the Gorgon's Stare sensor has been referred to as 'a surveillance team's wet dream'.¹³⁵

This film's clever creation, only supported within the Greek mythology in a far resemblance to the Caucasian Eagle myth mentioned before, as an earlier metal-made bird of prey constructed by Hephaistos.¹³⁶ The film makes an original intervention by combining the Caucasian Eagle tale with that of Kalevala's Iron Eagle – as an immortal invention aimed to aid in accomplishing monumental tasks and unapproachable challenges. The mechanical almost real-sized owl is built by Hephaistos to the request of Athena, goddess of war and wisdom, as a surrogate for her beloved 'all-knowing, all-seeing'¹³⁷ owl. Refusing to give away the actual bird, her eternal companion, to Perseus as was ordered so by the ultimate patriarchal Zeus, Athena counts on Hephaistos to devise for her an iron and bronze duplicate. The owl, acting as one of Athena's main symbols by embodying knowledge, wisdom, and erudition, is already the second immortal artifact which Zeus forces Athena to distribute Perseus. It is planned to replace her helmet of invisibility

135 He then continues asking 'but can software tell the difference between a kid building a sandcastle and a terrorist burrowing a homemade explosive? When drones are increasingly used domestically, we may find ourselves in a state of permanent surveillance where algorithms end up deciding who is a target and who is not'. Pater, Ruben, *Twenty-First Century Birdwatching in Drone: Unmanned*, 2016, pg. 47.

136 The Greek god of blacksmiths.

137 63rd minute of the movie's running time.

(another allusion to the most common trait of military drones – remaining unseen) which the careless human lost earlier in the swamps. Now, trying to replace the biotic animal with an artificial one, Hephaistos's skills as the god of smithing, sculpture, masonry, fire, and volcanoes do not fail. As an evidence to this skill, it seems that Perseus understands perfectly the mechanical owl's wise advices when all others (including us) merely hear clicks, ticks, clunks, and beeps. This language of digitally inspired auditory signals resonates suspiciously like the sounds made by another recent artificial sidekick, the unprecedentedly popular R2D2 from the original *Star Wars* (1977).¹³⁸

Clash of the Titans' artificial owl first appears in the empty skies of the wilderness only to crash comically at the feet of Perseus and his companions. Soon, the small automaton bird proves invaluable, being the one to actually leads them to the lair of Medusa, the Gorgon with the petrifying stare. Yet at the end of the day the small artificial owl is more than mere surveyor and adviser, relaying remote information and warning its companions from approaching threats. In a later scene it acts as an assault drone, chasing out from a far hidden cave a gargantuan eagle who is watching over caged Pegasus, the mythical flying horse. In its autonomous rescue mission, the metal owl unlocked not only gates but new possibilities of interspecies relations, as it confronts one flying animal to help another, and in the process burns down the whole cave in a full-on aerial attack.¹³⁹ In this, the artificial owl also embodies that earlier discussed pivotal transition in drone history – from reconnaissance to attack missions. To add another drone attack profile to its repertoire, the mechanical owl later salvages the decapitated yet-still-active head of Medusa, accidentally dropped by Perseus into the Mediterranean. By doing so, the artificial owl makes possible the

138 *Star Wars* (1977), directed by George Lucas.

139 101ST minute of the movie's running time.

EXPERIENCE THE FANTASTIC



HILDEBRANDT

CLASH OF THE TITANS

Metro-Goldwyn-Mayer Presents A CHARLES H. SCHNEER Production "CLASH OF THE TITANS"

Starring HARRY HAMLIN as Perseus JUDI BOWKER as Andromeda BURGESS MEREDITH · MAGGIE SMITH
URSULA ANDRESS · CLAIRE BLOOM · SIAN PHILLIPS · FLORA ROBSON and LAURENCE OLIVIER as Zeus

Creator of Special Visual Effects RAY HARRYHAUSEN Music by LAURENCE ROSENTHAL Written by BEVERLEY CROSS

Produced by CHARLES H. SCHNEER and RAY HARRYHAUSEN Directed by DESMOND DAVIS

PG PARENTAL GUIDANCE SUGGESTED
SOME MATERIAL MAY NOT BE SUITABLE FOR CHILDREN

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A Transnational Company

use of this ‘ultimate weaponized technology’ to fossilise the unstoppable destructive massive Kraken¹⁴⁰ into stone,¹⁴¹ forming another sort of human-drone-animal triangulation, one in which Perseus is using the metal owl to aim the weapon that would subdue a unique aquatic dweller.¹⁴²

Despite its questionable cinematic quality, *Clash of the Titans* suggests some fresh perspectives in its mix of mythologies and metaphors, as it almost accidentally brings the first hybrid idea of artificial aerial animal into visual life on the big screen. The all-knowing metal owl not only supplies some answers to how, in effect, the future meeting grounds of drones and various species might look, but raises major questions in regard to the various roles drones could play in these areas, as well as the threats they can pose. One of the early key scenes of *Blade Runner* (1982)¹⁴³ highlights this further. In the scene,¹⁴⁴ Rick Deckard, the investigator who specialises in identifying renegade androids by distinguishing the real from the artificial, enters the neo-noirish headquarters of the monolithic Tyrell Corporation. He is fascinated by a magnificent owl, the sole occupant of the vast hall, as the winged creature is crossing the great high ceiling room in a low silent flight.

140 In the original mythological tale the creature was Cetus, also used as a name for any gigantic sea monster and the origin of the official zoological term Cetacean (either for a whale or for the aquatic mammal family).

141 110TH minute of the movie’s running time.

142 The act is contextualised as a necessary protective measure from that terror of the sea – saving both the virginal Andromeda who was reluctantly offered as the seasonal sacrifice and the entire city of Jaffa which suffered under the Kraken for centuries, in constant threat of complete ruin. Until the early 2000s, there was still a mass of rock standing in the waters just outside the ancient harbor of Jaffa, which we were led to believe as the petrified body of that mythological sea monster. When the area was gentrified, that rock was removed, to be replaced by a waste filtering system overspilling some of Jaffa’s sewage into the sea and nearby public beaches.

143 *Blade Runner* (1982), directed by Ridley Scott.

144 17th minute of the movie’s running time.

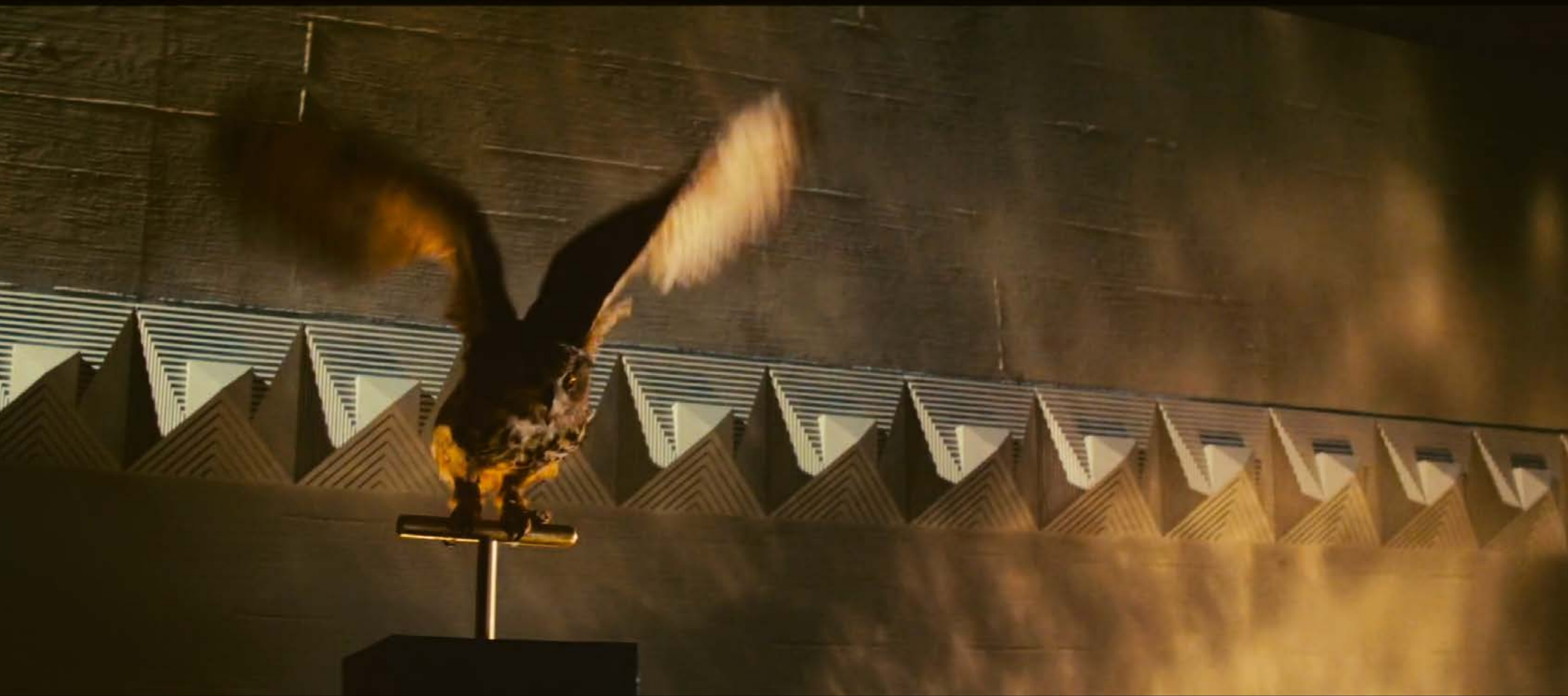
Yet he can’t tell whether this beautiful specimen is genuine. When he is informed it is not, Deckard automatically inquire about its economic value. ‘Very expensive’¹⁴⁵ is the answer he is given. In the near future in which *Blade Runner* takes place¹⁴⁶ most animal life forms have already been made extinct by mankind, who drove the planet beyond the brink of climate collapse and must face the deeper and darker social and psychological implications of mass extinctions. Now, artificial animals act as surrogates in a variety of roles, ranging from work animals and companions to lucrative investments and status symbols. In this way, the highly influential film materialises its main questions of what is real, and what is the meaning of real – through the introduction of constructed animals.

Asking what is human and what defines it in an artificially technological existence,¹⁴⁷ the film suggests that our kinship and relations with other species is what actually make us humans. It indicates that the idea that humanity can exist in isolation, completely devoid of close relations with other species, is a strange capitalist hyper fantasy with no foundation in any logic, theoretical and philosophical structures, history or real-life experiences. Quite the contrary, the notion that we can survive the mass extinctions of our fellow species – which many people seem to accept as the unavoidable and falsely advertised ‘price of progress’ – is that same hollow fantasy in fancier design, hiding horrifying consequences. The almost-real owl, a highly sophisticated drone as a matter of fact, is the future of the ongoing and still clumsy attempts to deploy such

145 18TH minute of the movie’s running time.

146 Originally envisioned to take place in 2019, Los Angeles, at the time of its theatrical release in 1982.

147 where optically based machines testing empathy are used to determine humanity as a legal classification.



animal-assimilating aerial machines, as in recent attempts of the Russian aviation industry in manufacturing owl-like spy drones.¹⁴⁸

These attempts go together with the understanding that our expanding technological resilience is very much at the expense of prior familiarity with the natural surroundings and the knowledge it enriches us with. It is getting clearer that things have drastically changed since:

Our first ancestors could tell a lot from looking at the sky. Spotting and recognizing birds provided crucial information about the weather, where to find food, and what predators were near. In the urban landscape of the 21st Century, our knowledge of the natural environment has been replaced by knowledge of technology. Most of us can't tell the difference between the calls of an osprey or a hawk, but everyone can tell the difference between a Nokia ringtone and an iPhone one. We have grown so accustomed to technology that we perceive it as our natural habitat. Drones are quickly becoming a new species in this environment.¹⁴⁹

It is not too far-fetched to assert now that our ability to differentiate between the natural and artificial in our surroundings is not only destabilised by these changes, but may lead to a collapse of classifications, just as drones are, to a certain degree, collapsing geographies. As Liam Young puts it, "The drone network is a form of teleportation – a drone station in Australia coordinates strikes in the Middle East".¹⁵⁰ Destabilisation of contemporary categorisations, putting animals in conflict with drones and using the latter

148 Simkins, 2019. See also: <https://www.militarytimes.com/off-duty/military-culture/2019/06/25/this-emo-russian-owl-drone-is-a-real-hoot/>

149 Pater, Ruben, *Twenty-First Century Birdwatching in Drone: Unmanned*, 2016, pp. 44-45.

150 Liam Young in a discussion in Szita, Jane, *A New View from Above, a report on the Drone Salon* in *Drone: Unmanned*, 2016, p. 116.

as a device to threaten, invade, and colonise the habitats of the former – was soon to follow. The notion of destabilisation seems to be central to the asymmetrical engagements that drones are involved in, as the films discussed above exemplify. Yet *Asymmetric Cinema* reveals more than new perspectives of the origins, history, and how drones have been simultaneously assimilating as competitors, replacements, and foreign elements occupying other species' natural environments. It shows how the drone 'design for destabilisation' reaches the point of undermining humankind's dominance over nature, with AI assistance. It now seem to be pushing humanity – if not necessarily back down the trophic pyramid it descended upon during its technological evolution, then definitely aside and out of the loop. It is further pointing to and problematizing the sheer notion of what is considered 'Human' (and therefore what constitute us as a species), especially according to militarized algorithmic systems as the ones which are now responsible to many armed drones activities, as Wilcox points out.¹⁵¹

The careful *Cine-Cartography* drawn through these earlier and major appearances of drones in films, not only supports this claim but also strongly suggests drones as new sorts of hybrid entities invading interspecies relations and classifications. Although still dependent on human involvement (which is a matter for a whole other discussion), drones' autonomous capacities are rapidly evolving with the growing governance of AI and automation. These fast-changing conditions suggest that there is much to explore in regard to drones' relations toward and with other species. It seems that, thus far, film representations have been largely focused on animal figurations in the context of unmanned apparatuses rather than

151 Further highlighting Wilcox's essential analyse of what is actually considered human according to armed drones and other militarized algorithmic apparatuses, revealing inherent racism and eradication hierarchies embedded to the very core of these so-called autonomous systems. See also: Wilcox, Lauren, *No Humans in the Loop: Killer Robots, Race, and AI*. Oxford, 2023.

actual interspecies encounters, as we're not yet willing to direct our gaze at the possibilities that direct exchanges between animals and drones might bring. Still, the majority of the films presented here subvert, to different degrees, the asymmetrical military-industrial-entertainment drone-producing ideologies by revealing their own cinematic role in the public presentation and assimilation of such ideologies. In doing so, in what was glossed through this part as *Asymmetric Cinema*, these movies expose both their industry's compliance and a cinematic complicity, reflecting all too well the drone's duplicity which is often presented as an objective perspective. These films reveal the ways human fragility is reinstalled into the animal kingdom, after humanity has been dethroned from its apex role, by the drone.

By presenting opportunities to discuss their own nature as apparatuses for constructing meaning and organising knowledge along said ideologies, the films and works addressed here reveal the drone problematic presence within the frame of interspecies relations. At the same time, the films mirror the drone, suggesting that they act for similar asymmetrical purposes as its counterpart, given the correlation between seeing and targeting and the significance moving images play in the drone's existence since its early days. Cinema – with its deep understanding of the nature of conflict,¹⁵² the versatile potentials for examinations of interspecies relations, technological inventions, their epistemological interplay and socio-political interpretations – can be used not only for identifying and analysing these fields' flux so far, but as a cartography for the explorations ahead. It is clearer than ever now that our traditional relationship with other species has been broken. Again it worth repeating John Berger claim that the actual presence of animals, which used to be at the centre of our existence, is now marginalised,

152 Eisenstein, Sergei. "Montage is Conflict", *Film Form*, 1949, p. 46.

replaced, and reduced to a spectacle.¹⁵³ This approach could exponentially grow now, with drones coming to a foreground which is being aggressively cleared from all other species that might present competition. Yet drones, while being guided by algorithms and artificial intelligence and progressively assimilating the shapes and traits of various animals, can also serve other agendas and be used¹⁵⁴ to discover new ways of living together with other species. Still, cinema has yet to project such compelling and capable representations of relations between drones and other species without being mitigated by humans and their machine-mediated actions. Showing us such a lack of representations, especially through the exposure of its own *raison d'être* and the ideological structures that work within *Asymmetric Cinema* – simultaneously suggesting the limitations of the frame and hinting toward entire fields of perception existing outside of it – can act as an urgent and feral call for things to come.

153 Berger, *Why Look at Animals?*, 2009.

154 Besson, M., Alison, J., Bjerger, K., Gorochoowski, T. E., Høye, T. T., Jucker, T., Mann, H. M. R., & Clements, C. F. *Towards the fully automated monitoring of ecological communities*, 2022.

This is Not a Footnote

This part originally appeared in the book ‘Drone Aesthetics: War, Culture, Ecology’¹⁵⁵ as its 11th chapter, under the title ‘Asymmetric Cinema : Dawn of the Drone through Film, Cartography and Interspecies Relations’. In order to stay within the set perimeters of Open Humanities Press ‘Technographies’ series, in which the book was published, its editors – Beryl Pong and Michael Richardson – wished to avoid footnotes as much as possible. Cutting them down was quite a challenge, then bringing them back here to their full form , as you could see, was quite a learning curve on academic proceedings. Other than this major difference of format, together with few unavoidable new articulations, the part is much the same.

155 Pong, Beryl, and Michael Richardson. *Drone Aesthetics: War, Culture, Ecology*, 2024.

New Species Relations through Cinema & Surveillance

on
Species Survival in Cinema

or
the Cinematic Climate Crisis
is

2. mapping project of
(cine) Connected Concepts, research
methods, conflicting ideas
hidden structures, ideologies,
assimilation possibilities, exposed
economies and Counter Cinema.

Survival as Subversion of
extinction economies with/against

Anticipatory Imaginaries of
Surveillance Cinema

threshold technologies^(I)
(surveillance: drones, a.i.)

of Extinction Ecologies^(II)
(extraction, fossil fuel, etc.)

being Subverted for Survival^(III)

Current Chapters

I Eco Noir (Publication + Exhibition)

II Asymmetrical Cinema (" + ")

III Airborne Epistemologies (After States)
(Film) Series
[drones and interspecies relations during pandemic]

IV Were Wolves (Installation + Community)
[the history of wolves demonizing in art and film]

V Dawn of the Drone (Fiction Film)
[asymmetric relations as baseline for drones and animals in art]

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PART

III



Extinction Economies & Threshold Technologies

An Abstract

This following part proposes an urgent interdisciplinary exploration on the entangled logics of warfare, economy, and ecological collapse by studying the shifting threshold between language and image, control and resistance. Drawing on Werner Herzog's *Lessons of Darkness*, Gilles Deleuze's *Postscript on the Societies of Control*, and expanded by my two works (*Dictionary of Darkness* and *State of Security*), the research investigates how the movement of language from military jargon to poetic cinematic expression reveals fresh perspectives on sites of Militarized Nature. Across these sources, a shared process emerges: the transformation of specific military-economic terminologies into cinematic forms that merge the intimate, the intimidating, and the immediate.

Through this process the part identifies *Threshold Technologies* as epistemological ruptures that doubles as interfaces between systems of control and modes of expression. It further ties them as both accelerators and ongoing outcomes of *Extinction Economies* – another key term that is elaborated, exemplified and problematized in its compliance with the current escalating ecological-economic-security crisis. Rather than reinforcing fragmented “poly-crisis” narratives leading to paralysis and indifference, it calls for

an expanded aesthetic and conceptual critique that exposes the infrastructural violence underpinning ecological devastation as its major outcome and product. In this way, language itself becomes a site of resistance, where subversion, poetic disruption, and cinematic translation open original epistemic and affective pathways for confronting the economies of extinction.

Lessons Unlearned

Out of the darkness emerges an omnipresent ominous sound, engulfing us as we drift in moonlike movement into realms of estrangement and rupture. Over the next hour of its running time, Werner Herzog's somewhat forgotten *Lessons of darkness* (1992)¹⁵⁶ will employ several cinematic strategies that corresponds with the conceptual framework presented here of *Extinction Economies & Threshold Technologies* – two central terms this text is exploring. Instead of conducting a traditional Science and Technology Studies survey or a classic account from the field of Economics, *Lessons of darkness* act here as the bridge for understanding *Extinction Economies & Threshold Technologies* both role and relevance. It would further demonstrate the entanglement of cinematic, conceptual and textual grounds in relation to *Postscript on the Societies of Control* by Gilles Deleuze, a short and sharp essay translated and published in English at the same year Herzog's film was released.¹⁵⁷

Unconventional texts, whether in print, film or other forms¹⁵⁸ deserve a correspondingly unconventional translation to our conflicted present. Such sort of translation proved as one of the most effective ways to excavate their inner potential while salvaging these texts from historical erasure.¹⁵⁹ This purpose is served by two recent short films – *Dictionary of Darkness* (2024) and *State of*

156 An hour long film that documents the aftermaths of the 1990 Gulf War, most prominently with aerial shots, yet presenting it within a fictionalized frame of an observatory travelogue narrated by an outer planetary visitor.

157 Deleuze, Gilles. *Postscript on the Societies of Control*, 1992.

158 Especially ones which envisioned the terrible turmoil of our current troubled times with painful precision.

159 Couple of prominent examples are the adaptation of Dick's 1968 *Do Androids Dream of Electric Sheep* into Scott's screen masterpiece *Blade Runner* (1982), or Cronenberg's visionary *Naked Lunch* (1991) adapted from Burroughs' 1959 provocative novel.



Security (2024),¹⁶⁰ respectively exploring connections to Herzog's film and Deleuze's text, as well as between the two. They do so through an interpretative interplay that examine their covert correlations while contextualizing them within the escalating security and climate crisis. It referred here not in plural form, in order to further highlight this crisis as a singular product of the same systemic order – a planetary crisis enhanced and conducted through the identical ideologies and infrastructures of the Societies of Control Deleuze has informed us about. The framework presented here reveal relations which are replacing what was seen before as separate (even if somewhat parallel) events. It enmeshed together incidents which are no longer simply taking place in close proximity – coincidentally or through a chronologic cause-and-effect process – countering the spreading contemporary cries of polycrisis. Such polycrisis claim is hereby proved to perpetuates the problematic paralysis of passive desolation, one which is ingrained in the idea that such 'multiple, interconnected crises converge and amplify each other, resulting in a predicament which is difficult to manage or resolve.'¹⁶¹

Against such an unproductive paralyzing approach a different kind of collaborative contamination¹⁶² is called for. It is suggested here through the articulation of *Threshold Technologies & Extinction*

160 Two films made as part of this project and included in the Doctoral Artistic Research Components: *Dictionary of Darkness* is examining the Department of Defense (recently renamed as the Department of War) Lexicon of Military and Associated Terms – the secular 'holy book' of militarized terminology – and its normalization through society, while *State of Security* is further exploring the Deleuzian Societies of Control.

161 Helleiner, Eric. "Economic Globalization's Polycrisis". *International Studies Quarterly*. 68 (2), 2024.

162 In the spirit suggested by Tsing in *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, 2015. For example: 'Staying alive—for every species—require livable collaborations. Collaborations means working with difference, which leads to contamination.' Pg. 28.

Economies,¹⁶³ a set of two complementary terms re-appropriated and glossed while developing this Artistic Research. In this part we will therefore entangle the above-mentioned films and text with each other and with others, in a journey entwining ecology and economy, cinema and security, technology and theology. Taking cue from Herzog's merging of an epic approach with lyrical language and Deleuze's philosophical argumentation, this journey begins by looking at how *Postscript on the Societies of Control* finds a new form within the short essay film *State of Security*, then exemplified within Herzog's *Lessons of Darkness* and the later inspired *Dictionary of Darkness*. But first, given such an ambitious claims for both the poetic and unconventional, it could actually start like this:

In the beginning there was the bass, resonating thorough the depth of the thermally vaporous space which is revealed to us from above as its visual expansion.¹⁶⁴ Then came the word, as the titles 'State of Security' and others¹⁶⁵ are fading fast into lyrical narration that locate us within an immediate authoritative-historical context

163 The term *Threshold Technologies* has rarely used before in the research field, as an arbitrary generalized way to describe a 2004 application for gas detection: Behrens, A. W., J. Ginzler, and F-L. Bruhns. "Threshold technology and its application for gap status detection." *Journal of materials processing technology* 149, no. 1-3 (2004): 310-315. Other than that it has been appropriated as the name for a Californian aviation services company, an Emirates security and a crypto currency trading firms, as well as a New York recording & rehearsal studios, among others, revealing yet another entangled layer involving security, aviation and economy (as well as sound). Although it has been written before about the Economies of Extinction, mostly in analyses of specific species extinction – as a broad economic perspective on the issue of extinction, or in relation to wildlife trafficking – the term *Extinction Economies* has yet to appear as such. Therefore we reappropriate it here, for a more critical purpose and comprehensive common use, which this text makes claims for, amid it multiple aims.

164 This description of *State of Security* opening shot could equally fit the first minute of *Lesson of Darkness*.

165 'A Short Film About Extinction Economies & Threshold Technologies'.



– that of the Disciplinary Societies.¹⁶⁶ Consolidated through the growing economic forces of industrialization and modernization, they cleared a well-paved path to their successors – the Societies of Control. Deleuze identified this change of societal constructions and their institutions from discipline to control as the main design of our contemporary lives.¹⁶⁷ The militarized modulations of the Societies of Control would soon ruin any resistance to their inherited inequalities and the great distractive project it finances – the ongoing 6th extinction event. In the film *State of Security*, Deleuze’s role as the Voice Over author is only disclosed as things are about to finish, with the end credit roll.

The strategy of delaying disclosure signals how authority has been handed over to an unknown entity¹⁶⁸ which assume little responsibility, if any. This strategy simultaneously subverts the idea that such entity actually holds any authority, as well as subjugation to this sort of oppressive imaginaries. Throughout the film, the text is presented by an anonymous female narrator in a practical matter-of-fact manner, detached from any other information regarding her role or identity. Cut to bare necessities, she guides us through the essay as a site recently discovered: “Control’ is the name Burroughs proposes as a term for the new monster, one that Foucault recognizes as our immediate future.”¹⁶⁹

166 “[O]ne can speak of the formation of a disciplinary society’ Foucault writes, ‘that stretches from the enclosed disciplines, a sort of social ‘quarantine’, to an indefinitely generalizable mechanism of ‘panopticonism.’” Foucault, Michel. *Discipline and Punish: The Birth of Prison*, 1977. Pg. 216.

167 In a confining sense which requires ‘overcoming the contemporary’ – as suggested by Rolando Vázquez, for example in his conversation with Sammy Baloji in *e-flux Architecture Appropriations* published May 2023 (retrieved 27/11/2024). See: <https://www.e-flux.com/architecture/appropriations/536663/overcoming-modernity/>

168 “But the corporation is a spirit, a gas.” Deleuze, Gilles. *Postscript on the Societies of Control*, 1992. Pg. 4.

169 Ibid.

This future can be further explored through an array of text and film connections to the above-mentioned framework of *Extinction Economies & Threshold Technologies*. Recognized as *Extinction Economies* are financial regimes that actively engage in accelerating environmental degradation, mass species extinction and climate collapse. Extractive capitalism is a primary example. The *Societies of Control* that Deleuze address are internalizing systems which propagate endless exploitation of all resources (labor, raw materials, salvage, etc.) for the sake of market expansions and capital accumulation through escalating conflicts.¹⁷⁰ In order to do so, efficiently as possible,¹⁷¹ these economies set to continuously develop various *Threshold Technologies*, acting as catalysts which enhance the process and pervasiveness of *Extinction Economies* while hastening their impact. A prominent exemplar for this process can be found in the field of surveillance,¹⁷² even in the specificity of environmental surveillance.¹⁷³

Threshold Technologies are innovations that mark epistemological ruptures, often forming or augmenting asymmetrical relations.¹⁷⁴

170 “the corporation constantly presents the brash rivalry as a health form of emulation, an excellent motivational force that opposes individuals against one another and runs through each, dividing each within.” Ibid.

171 As dictated by their endless encroachment of all things into cost-effectiveness, even if only heading toward a horizon of total depletion and destruction, filled with Sacrifice Zones. See: Bullard, Robert D. *Sacrifice zones: the front lines of toxic chemical exposure in the United States*, 2011. Pg. 266.

172 See for example Shoshana Zuboff’s extensive studies on Surveillance Capitalism (2015, 2016, 2019, 2023).

173 “The intensification of wildlife surveillance continues regardless of whether or not it achieves its stated objectives, typically framed by the rhetoric of security and health. Like the NSA’s mass surveillance programme, wildlife surveillance entails disciplining impulses that tend toward proliferation and intensification over and above the protection of individual freedom. Legal scholars debate the validity of the ratchet effect, perhaps because the term describes a phenomenon that is itself extra-legal: the tendency of power to self-perpetuate.’ Pick, Anat. *Why not look at animals?*, 2015. Pg. 109.

174 As discussed throughout the entire project’s arc and especially elaborated in Part 2 - *Asymmetric Cinema*.



Altering our understanding of what knowledge is and how societies interact by actively rearranging it, *Threshold Technologies* further disrupt established ontologies. Therefore, these technologies are capable of revealing how economic, ecological and political constructions are reshaped by systematically prioritizing control over equality, by selecting conflict over equity. Popular examples for *Threshold Technologies* range from electricity¹⁷⁵ to AI and from gunpowder¹⁷⁶ to smartphones. Most evidently explored through *State of Security* are drones and the cinematic gaze, which restructure perception, control and influence. Drones especially excel in exposing this dynamic to the eye, serving as groundbreaking surveillance category and clear epistemological objects that extend the reach of their controllers as sense and react organs, while both symbolizing and executing technological dominance over nature.

Similarly, cinema is a prominent example¹⁷⁷ of how *Threshold Technologies* shape public perception, constructing cultural narratives as myths that may reinforce, rather than question, the motives of *Extinction Economies*. Prioritizing financial gain, often with little regard to ecological costs and environmental effects, it shows how such economic regimes drive immense habitat destruction and increasing climate instability by using *Threshold Technologies*.¹⁷⁸ In that capacity these technologies are highly-effective apparatuses for exponential resources and data extraction, enforced over impacted areas. At the same time they act as advertisers of

175 McLuhan, Marshall, *Understanding Media: The Extensions of Man*, 2001.

176 Diamond, Jared M., and Doug Ordunio. *Guns, Germs, and Steel* 1999.

177 Being itself a *Threshold Technology* hiding in plain sight.

178 '(...) the global warfare prefigured today in the great manoeuvres of 'information warfare' will be based on a scientific radicalization, threatening – not so much with extermination as with extinction – not a particular population or even the human race (as the thermos-nuclear bomb might), but the very principle of all individuated life, the *genetic* and *information* bombs now forming a single 'weapon system'. Virilio, Paul. *The Information Bomb*, 2005, pg. 140.

futuristic and fantastic (although rarely contested) promises for *Deus-Ex-Machina*¹⁷⁹ tech solutions which might fix all the exorbitant devastation caused so far, and still planned ahead – therefore perpetuating a nightmarish loop that justify and accelerate this ongoing devastation.¹⁸⁰

While contemporary conventional cinema, especially in its exceedingly commodified form, usually propagates (even if somewhat covert) cultural and market agendas supporting *Extinction Economies* – it also holds the potential to critique, uncover harms and suggest solutions.¹⁸¹ *State of Security* seek to expose *Extinction Economies'* ideological structures, verbalized virtuously with Deleuze words, by challenging some of these economies central cinematic conventions, a primary of which is the traditional audience-protagonist identification.¹⁸² Taking the high risk of alienating passive viewers, who will resent the invitation to participate in deciphering the spectatorship experience,¹⁸³ the 27-minutes film avoids this identification mechanism altogether. It supports such avoidance as a valid cinematic strategy¹⁸⁴ by setting it alongside

179 Or even *Machina-Ex-Deus*, as will be further discussed in Part 5 – *Airborne Epistemologies*.

180 'Futures are hastened, not by spending future incomes, but by making future deaths happen in the present; a sort of application of the mechanism of debt to that of military control, occupation and expropriation.' Steyerl, Hito. "How to Kill People: A Problem of Design." *Steyerl 2017d* (2017): 9-19. See: <https://www.e-flux.com/architecture/superhumanity/68653/how-to-kill-people-a-problem-of-design/> (retrieved 8/12/24)

181 'No society has ever known enough about its actions to have developed immunity to its new extensions or technologies. Today we have begun to sense that art may be able to provide such immunity.' McLuhan, Marshall, *Understanding Media: The Extensions of Man*, 2001. pg. 71.

182 Huang, Kate Y., Helene H. Fung, and Peifeng Sun. *The effect of audience-character similarity on identification with narrative characters: A meta-analysis*, 2024.

183 As seen in a few screening session with audience members which escalated into surprising displays of angst.

184 Expanding on the (previously mentioned) delayed disclosure of the voice-over author's identity.



the refrainment from other related and almost requested tropes, like the common location titles informing the viewers where film scenes are taking place, which became standardized for movies with constantly changing whereabouts.¹⁸⁵ *State of Security* never announces on which exact position on the globe we are at – although it rapidly and sharply shifts from Arctic to urban settings and from deserts to snow covered cities. Instead it treats these very different ecological environments and sites as a single impending mass disaster zone. That cinematic attitude corresponds to how drones are altering our understanding of spatial orientation within geopolitics. *State of Security*¹⁸⁶ articulate this artificial exertion of dominance over nature by actually collapsing geographies¹⁸⁷ through the aerial footage and its invasive shadowy presence in changing surroundings – whether these are the outskirts of pandemic-stricken San Francisco or the calving glaciers in the far reached Svalbard archipelago.

Burning Questions

Toward the end of the First Gulf War, Werner Herzog set out to document the numerous oil wells set ablaze by the Iraqi army as they were retreating from Kuwait.¹⁸⁸ These infernal fires seem to be stretching from the earth's core toward the darkened heavens in immense pillars of flame. Engulfing the skies in thick black smoke and apocalyptic red glow, they accompany Herzog's uniquely

185 A trope cemented through genre films with clear imperial militancy, such as global espionage and action – with James Bond movies being prominent examples, since *Dr. No* (1962) to these days.

186 SoS will fit as an appropriate acronym, in light of all that's discussed.

187 Liam Young in a discussion in *Szita, Jane, A New View from Above, a report on the Drone Salon* in *Drone: Unmanned*, 2016. Pg. 116.

188 Under the explicit orders of Saddam Hussein. See: <https://www.ebsco.com/research-starters/military-history-and-science/gulf-war-oil-burning>

melodic and highly recognizable Voice Over as he narrates a travelogue of a bewildered interstellar visitor, accidentally caught up in this extraordinary and incomprehensible situation. It is a spectacle of unprecedented deliberate ecological disaster serving no purpose but sheer destruction¹⁸⁹ – a rupture in the fabric of formerly familiar reality. Such devastation, according to Herzog, can only be deciphered by a planetary outsider.

And, akin to the title of Goethe's poem,¹⁹⁰ Herzog's choice of poetic language abandons the event's topical-explanatory dimension in favor of probing for deeper roots. The complex cinematic movement crafted here out of documentary footage and fictitious narration seems to question the very possibility of a linear continuum of time and space while facing a cataclysmic event. The specificity of this event is used to reveal an inner tension between the secular spatial context of catastrophe and the religious origins of ruin, in unprecedented scale. It touches directly, even if by remote technologies such as the cinema camera¹⁹¹ and screen, the raw dark matters from which traumas are made of. This narrative approach offers us fresh perspectives through a somber lens on the essence of human endeavor and its violent nature. Perspectives which reiterate the 'metastable states coexisting in one and the same modulation, like a universal system of deformation.'¹⁹² These states reverberate among the ruins of war as they transform into an absurdly bustling enterprise, where relentless military-hired

189 The burning of oil field had no military purpose nor served any economic gain, instead acting solely as a megalomaniac act of revenge by a defeated tyrant wishing to wreak havoc on a land (and a world) he can no longer possess and appropriate for his private gain.

190 von Goethe, Johann Wolfgang. "Guest on the Dark Sphere" in *The Essential Goethe*. 2018. Referred to by Herzog in a private conversation with the author, March 2017.

191 And later, the actual remote controlled aerial cinema camera – the drone, as in *Dictionary of Darkness*.

192 Deleuze, Gilles. *Postscript on the Societies of Control*, 1992, pg. 5.



demolition technicians and firefighters strive to collapse the constant fluctuation of the towering columns of flame. Masses of energy are relentlessly extracted into the void while the vast oil reserves beneath them, formed over thousands of millennia under golden deserts, rapidly deplete. These dark oceans of inflating value now roar their purposeless and dazzling demise into the world, simultaneously of 'short-term and of rapid rates of turnover, but also continuous and without limit.'¹⁹³ And the only way to cause the well-heads to collapse into themselves and suffocate the endless burning is by conducting controlled explosions – a battle of fire against fire as a continuation of an ancient act.

The narrative offers us different ways to think through the technological-thermal while unfolding and unraveling the suture between fictional and metaphysical. Simply speaking, it assumes the present as a future revealing the past. Employing such ambiguity is the film's central cinematic strategy, working to undermine the recognizable order in favor of longer exposures of doubt and estrangement within our perception. This ambiguity places us immediately within an unfamiliarity which fundamentally resists clear markers. Such markers would have allowed us to orient ourselves in relation to our viewing position, or with prior knowledge about the physical space and actual events the film investigates. Instead, a cinematic space takes its place, offering us alternative history and geopolitics. Almost unsuspected, it shows how 'the operation of markets is now the instrument of social control and forms the impudent breed of our masters.'¹⁹⁴ These unfold before our eyes as a spectacle devouring itself, an ouroboros overdrive of the energy markets' ultimate commodity in its pure entropic form – a spectacle which otherwise we would have sheltered our senses from seeing.

193 Ibid. Pg. 7.

194 Ibid. Pg. 6.

Ouroboros Overdose

Lessons of darkness does not divert our gaze¹⁹⁵ and instead shows directly – even if telling otherwise, as part of its earlier discussed cinematic strategy – the brutal burning issues at the core of the entanglement of extractive capitalism, Militarized Nature and moving images. The later acts as the culprit of the formers by glorifying their practices within the traumatic technological spectacular. As such, *Lessons of darkness* serves to reveal the Deleuzian blueprint of the *Societies of Control* in an undidactic and suggestive manner which is almost counterintuitive to the text itself. The measured, deliberately lofty language of the narration suggest it inherently belong to an expedition into uncharted territories. It is part of the long cinematic tradition of journeys to “terra nova”, that unfamiliar domain where we must suspend our immediate perception of reality in favor of careful observations.

The spectacular imagery, for example, no longer only renders the visual field in countless colorful shades ranging from deep black to raging oranges. It analyzes and preemptively reads the space as a movement of energetic transfer—physical alteration born from exchanges of heat and cold between materials and atmosphere. Edited early in the film together with scenes of thermal footage in military infra-green,¹⁹⁶ it testifies to the scientific-military origins and purposes of the technologies extensively on display. It is more than just the estrangement of transitioning a war film into a sci-fi documentary or its inversion; its works like the thermal imaging

195 One of Werner Herzog favorite phrases is 'A poet must never divert his gaze.' Throughout the couple of weeks I was working with him, in the aftermath of the 2016 US elections, the sentence repeatedly resonated.

196 Reminding us another form of military green, that of laser guidance systems – 'It's not a coincidence that the laser-targeting marker used to direct hellfire [missiles] from a drone is called "the light of God" by marines and the military.' Pohl, Ethel Baraona, *On the Other Side of the Screen in Drone: Unmanned*, 2016. Pg. 127.



itself which has been fundamentally designed to track traces not visible to the naked eye, to see the heat emissions and remnants of movements that have long since passed.

This sort of almost spiritual tracking underpins the film's mystery through deliberate concealment – now exchanging not only the states of energy on display, but the realistic into the fictional and vice versa. However while celebrating the confusion created by this cinematic camouflage of the conventional (motives, methods, military maneuvers and more), the film shifts our attention to its other, inner layers. With these layers in the foreground, *Lessons of Darkness* double acts as a documentation of an expedition attempting to decipher the nullifying nature war. The film focuses on its relation to the human ritualistic activity that occurred on and around it, and the essence of ecocide – with the massive oil reservoirs no longer reserved to practices of being processed, transported and consumed (by the car industry, for example) but are now simply splashing in flame form¹⁹⁷ straight out of the well, burning high in the air.

Still, against this bleak backdrop, the narration also offers ironic gestures almost from its very start, contradicting the seen with the heard while merging estranged images with hidden layers of meaning. At times more painful than others, it is done with a laconic assured voice or operatic music¹⁹⁸ that undermine what is visibly clear to us: starting with concrete sci-fi structures (actually industrial oil refinements) that cut to misty mountainous desert landscape, then to a burning oil well site with a sole human figure

197 Echoing the military 'Splash!', a terminology of termination used frequently by drone operators as verbal confirmation indicating that a missile (or other guided ordnance) is exploding on hit, during an assigned air strike or Targeted Killing activity. The word is usually heard over the thermal footage of aerial assaults.

198 Subverting as well that iconic *Ride of the Valkyries* aerial assault scene from *Apocalypse Now* (1979) – this time the helicopters are shooting film and not ammunition, and the targets are mostly desolated and empty landscapes, not a village crowded with women, children and men.

standing beside it – scarce and lost, completely out of scale. Later examples include the torn down communication towers and derelict satellite dishes, now abandoned among the desert dunes, then cut into the slow examination of terrifying torture tools. These are displayed as if they were ancient musical instruments,¹⁹⁹ reconstructed artifacts in an art museum, or the traditional working tools presented in an ethnographic museum – albeit it's not clear to which side it might belong, when we keep in mind the war crimes committed by CIA and American soldiers in Abu-Ghraib prison during the Iraq War in 2004. These crimes, many of which self-documented by the US military serving men and women, included physical abuse, sexual humiliation, psychological torture, and rape, among others.²⁰⁰

This display brings us back to the role assigned to artifacts, on which political power is projected, many times through mythical resonance. This is indeed in the nature of myth, contended often with the erosion of a lost original purpose by establishing a singular, cohesive narrative that serves the needs of the society for which it is created.²⁰¹ The myth, which besides implying “an abnormal regression from meaning to form”, further “transforms history into nature”²⁰² through interpreting significant findings and signifiers. Yet Donna Haraway suggests that, “redistributing the narrative field by telling another version of a crucial myth is a major process in crafting new meanings.”²⁰³ Herzog's film takes these careful claims, stacking from

199 Especially due to the rich classic musical score accompanying this scene.

200 Hersh, Seymour Myron (June 25, 2007). “The General's Report: how Antonio Taguba, who investigated the Abu Ghraib scandal, became one of its casualties”. *The New Yorker*. Archived from the original on September 12, 2007. (Retrieved 6/12/2024). Taguba said that he saw “a video of a male American soldier in uniform sodomizing a female detainee.”

201 Campbell, Joseph. *The Hero with a Thousand Faces*, 2008.

202 Barthes, Roland. *Mythologies*, 1972. Pg. 116, 128.

203 Haraway, Donna J. “Primateology is politics by other means.” In *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*, 1984.



Joseph Campbell to Roland Barthes to Donna Haraway, as a ladder leading to a better vantage point from which we can observe the role of cinema as the modern myth-making machine, while inspecting its own nature. It simultaneously investigates correlations – such as that of the “God trick of seeing everything from Nowhere”²⁰⁴ – to other well-cemented myths, mostly military ones, exactly through this act of telling other versions. Doing so, Herzog reaffirms that “Art plays an important role in contributing to a diversity of stories in circulation, addressing myths and revising incomplete histories that perpetuate ecological violence.”²⁰⁵

With all that in mind, *Lessons of darkness* shows how the military myth not only originates in traditional theological rituals of sacrifice and fire offerings, but how its modern manifestations are unearthed – not as adjacent monomyths moving on parallel axes but as the sole trajectory of the same story. It is as though we are seeing it now for the very first-time thorough Herzog’s film, with the intrusion into the restricted military zone as a forbidden entry into a sacred area where fire descending from the heavens is still wildly worshiped.

Thermal Terminologies of Termination

In her lecture-performance at Amsterdam’s Stedelijk Museum about a decade ago,²⁰⁶ Hito Steyerl sought to trace the ideological and conceptual dynamics underpinning contemporary art. She arrived at the startling realization that in today’s society, more than at any other historical moment, works of art function as a

204 Haraway, Donna. “Situated knowledges: The science question in feminism and the privilege of partial perspective 1.” In *Women, science, and technology*, 2013.

205 T.J. Demos, *Decolonizing Nature: Contemporary Art and the Politics of Ecology*, 2016.

206 Hito Steyerl, ‘The Secret Museum’, Lecture-performance at The Stedelijk Museum, Amsterdam, 27/11/14.

superficial layer concealing a deep epistemological rupture in time and space. By examining the forces of financial power; their parallels to military prowess and their global grids; the mega-industries that drive them; and the principles of economic warfare that sustain them through hierarchies of control, Steyerl connects cultural and national ethos – at the center of which, within a complex network of struggles, lies the museum. At the epicenter of this struggle is the targeted impact zone: the absolute point of destruction, the “ground zero” of contemporary art that actively works to obscure its own existence. Art therefore becomes an external patch for the rift within that conflicted internal time-space continuum that our society seeks to present as an undisputed historical process. However, Steyerl, through her analysis which combines abstraction, dreaming, and questioning the roots of this very perception, gives time and space back their capacity for reflection. In doing so, she echoes Walter Benjamin’s description of the Angel of History, who “where we perceive a chain of events, sees one single catastrophe, which keeps piling wreckage upon wreckage and hurls it at his feet.”²⁰⁷

One of the manifestation of that catastrophe which *Lessons of Darkness*²⁰⁸ attempts to explore is the primordial fire-worship and sacrificial ritual that began with offering animal and human lives on the stake. A practice (and pile, in line with Benjamin) that expands dramatically into the present with military campaigns and the growth of exponentially designated Sacrifice Zones – places damaged through locally unwanted land use “where residents live immediately adjacent to heavily polluted industries or military

207 Benjamin, Walter, *Theses on the Philosophy of History*, 2020. Pg. 262.

208 And respectively, my modest *Dictionary of Darkness* (2024), which is inspired to set a counter-spectacle gaze upon the current catastrophe unfolding in the form of armed conflict in the Middle East, suggesting that none of the lessons were not learned.



bases.”²⁰⁹ This practice is further investigated through a terminology of thermality that places extreme heat exchange and flame emissions at the foreground of the film. Not only because the equipment through which we view and discover the film’s “terra nova” is designed for this purpose but also through the way the narration emphasizes these elements. The desolated desert landscape itself seems to speak through it, as a site intended for ancient fire ceremonies – whether in the context of the Bible,²¹⁰ the Quran,²¹¹ or the contemporary Western Allies aerial assault and live munition exercises, which are revealed to be a direct continuation of this religious activity. It acts as a burning red thread that run throughout the film,²¹² justifying and reinforcing the way in which progress and devastation are entangled through the cinematic:

Undoubtedly he would like to stay, awaken the dead, and repair what has been smashed. But a storm is blowing from Paradise; it has got caught in his wings with such violence that the angel can no longer close them. The storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress.²¹³

This poetic-political meditation permeates the heart of *Lessons in Darkness*, reflecting the earlier mentioned array of correlations

209 Bullard, Robert D. *Sacrifice zones: the front lines of toxic chemical exposure in the United States*, 2011. Pg. 266.

210 The Burning bush, the flame descending from the heavens to inscribe the tablets of the covenant, the sacrificial pyres, etc.

211 For example, ‘the sea that is set by fire’ in Surah At-Tur 52:6.

212 In an analogy to the opening of *Mission Impossible* (1996), the film franchise that highlights globalized espionage and action in one of the most successful revival of Cold War remnant (its original source TV series). See this revealing montage of all the opening films intros: <https://www.youtube.com/watch?v=9cgH6X7FRB8> (retrieved 14/12/24).

213 Benjamin, Walter. *Theses on the Philosophy of History*, 2020. Pg. 262.

between the military, the economic-ecologic, and the scientific-religious-sacred. These connections overlap, creating a multi-layered, intricate enmeshment of time, place, and human agency, all encapsulated within the cinematic constellation. It presents an ironic interplay between tradition and progress, echoing the observation of Benjamin’s Angel of History, who is helplessly witnessing the relentless pileup of ruins.²¹⁴ The method employed by the filmmaker here is in itself a kind of cinematic mythmaking. By merging the ambiguous narration, aerial and terrestrial imagery with sophisticated soundscapes, Herzog weaves a tapestry that questions our understanding of linear time and progress. This *mélange* leads us to ponder not only on the significance of the oil wells as sacred sites – and their consistent hidden burning which war aggressively breaks into the surface – but also on the technological tools of armed conflict that dominate our discursive fields, perception, and understanding of these spaces today.

The thermic and almost hermetic hermeneutic nature of the work is amplified by its use of said spectacular aerial imagery, which in its extreme forms reduces the landscape to an abstracted interplay of heat and energy, of patterns and perpetual movement. This aesthetic choice underscores the themes of erasure and reconstruction, compelling viewers to confront the veiled traces of the past and the often-invisible forces shaping the present. It also mirrors the manner in which modern military and scientific technologies reinterpret, reframe, and often weaponize the natural and historical world, turning it into something utilitarian and stripped of its former meanings. In the broader sense, *Lessons in Darkness* positions itself as a critique of contemporary modes of storytelling and historiographies. It interrogates the way myths – be they modeled into modulations of modern militaristic, future scientific or the traditional theological molds – are constructed, consumed, and continued.

214 Ibid.



Ultimately, *Lessons in Darkness* is a cinematic contemplation on the intersection of mythology, technology and ecology as it is being militarized by the *Societies of Control*. Through its experimental approach, the film creates a space for critical reflection, invites us to inspect the different layers that construct it and simultaneously confront the unsettling realization that what we perceive as progress may, in fact, be a storm created by an ancient practice propelling us further into the unknown.²¹⁵ Benjamin's remarks about the Angel of History can be used to position *Lessons in Darkness* and my modest *Dictionary of Darkness* in one bend, as films occurring between the pile of rubble and that advancing storm. The lyrical text (whether by Herzog's voiceover in the former or the DoD²¹⁶ lexicon in the latter) serves as a buffer zone against that burning remnants that groups of armed militias²¹⁷ have laid in front of us as ruinous evidence, blazing sky high. It reveals visions beyond our prior perception of the world (like the almost liquid aerial shots of the flaming wells), so that the 'Terra Nova' which we came into at the beginning of the films is now fully revealed as 'Terra Obscura'.

The Point of View predominant in these films presents the cinematic composite act partly as a product of purposeful documentation by a flying eye – embracing each and every surface and heat signatures in sight. It places us inside speculative fiction's critical

215 Albeit without knowing if it is 'a known unknown' or an 'unknown unknown', to echo one of the most de-constructivist epistemological moves made during the Iraq War. It was coined by United States Secretary of Defense Donald Rumsfeld as a response to a question at a U.S. Department of Defense (DoD) news briefing on February 12, 2002, about the lack of evidence linking the government of Iraq with the supply of weapons of mass destruction to terrorist groups. "Defense.gov News Transcript: DoD News Briefing – Secretary Rumsfeld and Gen. Myers". *United States Department of Defense*. February 12, 2002. Archived from [the original](#) on April 6, 2016. See also: <https://www.youtube.com/watch?v=GiPeIOiKQk> (Retrieved 14/12/24)

216 As mentioned above, the popular acronym for U.S. Department of Defense.

217 Which can be referred to the Elite Republican Guards or the Coalition Forces, depending on the perspective.

reading of reality, and we find ourselves embarked on a journey the reasons to which are unclear, yet the long²¹⁸ and uneasy way is too fascinating and full of questions to allow us to stop or turn back. The most resonant question of them all is how we got here in the first place.

Black Patchwork, White Monolith

Lessons of Darkness answer this question by meticulously melting the militaristic myth into the ecological heterotopia of science-fiction. The film as a whole works as a research mission that seeks to map the growling geology under our feet,²¹⁹ changing physics states from solidity to liquidity to the vaporous. The manner in which the film follows this process is slowly drawing our attention to the gaps between narration, image and sound, as well as to the disturbing, intense, incompatible and contradictory discursive spaces within the visual-auditory continuum which appear like crevasses, deepening during our viewing.

The detailed sound work, which strives to transform the film into a living and breathing fabric, is constantly undermining the narration in various ways. The sound becomes an inseparable part of the camera's heat seal, like a magnetic microphone that reveals the deliberate artificiality of the human voice speaking to us from an abandoned space-time. In the inspired *Dictionary of Darkness* the soundtrack seems detached from the textual definitions superimposed on the shots, as well as from the dominant perspective of the drone. And like the drone itself – an invasive unseen presence that

218 "Long is the way and hard, that out of hell leads up". Milton, John. *Paradise Lost*, 2005.

219 Which is one of the reasons we spend much of the film avoiding touching it, through aerial movement.



constantly hovers in the surrounding space²²⁰ – the sound reveals to us a world that exists in our absence. Along the imagery of various vehicles and machines moving without human presence, a charged cinematic structure is created that leaves us out of the frame.²²¹ Lost and bewildered, forgotten by any purposeful language and ruled only by violent gestures of power – we are like those immortals in Borges’s eponymous short story, who now crawl on the earth without remembering anything.²²²

The calculated and sometime circulated smooth motion of the camera around the burning oil wells,²²³ acts as an unflinching gaze into that deep epistemological break of space into which we suddenly stumbled – a loop of fire rituals and blood sacrifices perpetuating itself – since at the heart of the white monolith of our western ecocide-oriented culture gapes a hole. This hole is a testament to the rupture Hito Steyerl located at the core of the contemporary, to which art serves as a patchwork, disguising and fueling its predatory power at the same time. Even if we imagine that we see the past, pitted as relics and artifacts against the screen, we still hear

220 ‘The delusion of the omniscience of the drone subsequently causes the delusion of omnipotence, the fiction that a drone possesses unlimited power. In fact, all these feelings provoked by the constant shadow of the drone can be linked with otherworldly—even religious—traditions; feelings that are intertwined with concepts such as immanence, omniscience, transcendence and omnipotence.’ Pohl, Ethel Baraona, *On the Other Side of the Screen in Drone: Unmanned*, 2016. Pg. 127.

221 “We’ve probably come to a moment in history when most images are made by machines for other machines, with humans rarely in the loop.” Paglen, Trevor, Lauren Cornell, Julia Bryan-Wilson, and Omar Kholeif. *Trevor Paglen*, 2018. Pg. 35.

222 Borges, Jorge Luis. “The Immortal” in *El Aleph*, 1976.

223 Now resonating one of Milton’s main inspirations, and Herzog’s as well, in Vergil immortal verses:

The gates of hell are open night and day;
Smooth the descent, and easy is the way:
But to return, and view the cheerful skies,
In this the task and mighty labor lies.

(*Virgil’s Aeneid*, trans. John Dryden with Introduction and Notes, 1909)

the present beneath it. Between visual silence and audial action, a dialectic action seeks to decompose ideologies through the unification of different timelines into one place – in a move that underlies the continuum of all monotheistic religions. *Dictionary of Darkness* further questions the monotheistic monolithic religion of militarization by putting the selected texts from its holy book²²⁴ as silent signs in the center of cinematic scrutiny.

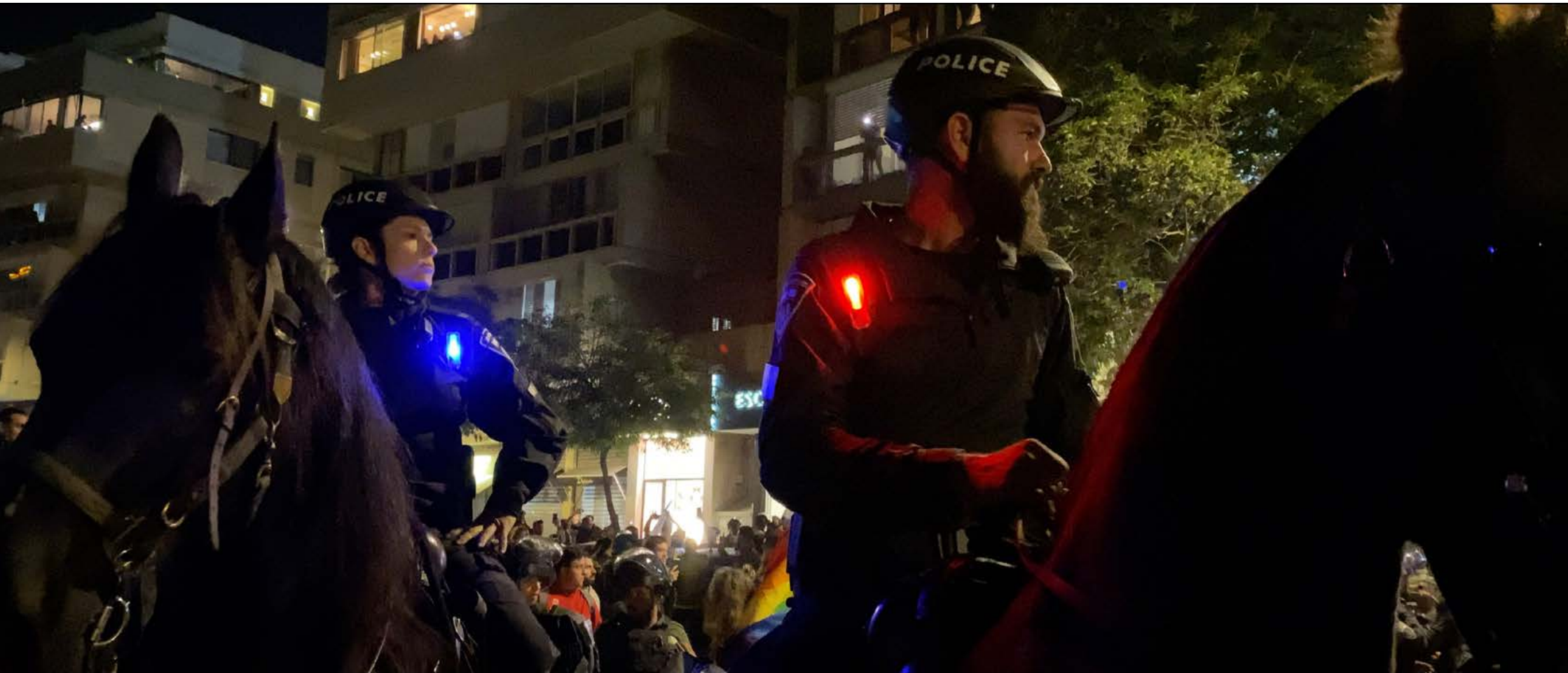
The short film is putting the selected military terms literally in the center of the screen (each in order of the English alphabet) for viewers to slowly read and readdress – according to the underlying images, the sound accompanying it, the montage contextualizing it, and their potential prior engagements with it – whether past familiarity or experiences, public or private associations. It is a complimentary strategy to the linguistic approach taken in *State of Security*, where the Deleuzian text is verbalized and internalized into a unique voice with a specific tone, timber and temperature range. In both cinematic cases the arrangements of text, sound and moving images are contrasted into co-existence that doesn’t clearly comply with conservative narrative constructs and conventions. Inspired respectively by Herzog’s inventive existential ambiguity and Deleuze daring directness, both *Dictionary of Darkness* and *State of Security* require similar sort of active textual and cinematic interpretation by audience members, simultaneously traversing, transforming and transgressing the substructures of their themes, theoretical foundations and technological formations. Both are taking cues from the ways in which *Lessons of Darkness* moves beyond the banality of binary and exhibits antithetical and non-antecedent duplicates – expanding and striping each other of their original form and purpose. Reversal and polarity, the bases of thermal terminology, reveal to us a multifaceted world of shadows

224 The official ‘Department of Defense Lexicon of Military and Associated Terms’, 2017.

and concealment,²²⁵ serving the same course of thermal shamanism and technological paganism offered by the cinematic representational relics. But the patch is still there, swallowed like a black stain against the sky.

225 “The socio-technological study of the mechanisms of control, grasped at their inception, would have to be categorical and to describe what is already in the process of substitution for the disciplinary sites of enclosure, whose crisis is everywhere proclaimed.” Deleuze, Gilles. *Postscript on the Societies of Control*, 1992, pg. 7.





Dictionary of Darkness

2024 / 8 min / 4K / 16:9 / Stereo sound / English

Dictionary of Darkness is looking into the official Department of Defense lexicon of military terms in light of the recent extreme escalation in armed conflicts harming civil populations. Questioning the technically detached language, propagated by popular culture and media platform, Dictionary of Darkness uses contemporary archival approaches to critique the current outbreaks of the global security crisis and its economy of violence.

Music by Crystal, Finkelbert & Anker

Link: <https://vimeo.com/884855684?share=copy>

Password: 2025

State of Security

2024 / 27 Minutes / 4K / 16:9 / Stereo sound / English (Subtitled)

A short film about Extinction Economies & Threshold Technologies State of Security explores the nexus of control, surveillance, and ecological collapse, drawing inspiration from Gilles Deleuze's *Postscript on the Societies of Control*. Through a non-linear narrative, surveillance drone and smartphone visuals, the film interrogates Extinction Economies — economic systems based on the trinity of expansion, exploitation and extraction that perpetuate crises to sustain themselves—and Threshold Technologies, such as drones and A.I., which extend power in ways that erode distinctions between freedom and domination.

Voice by Ana Wild / Music by KSR

Link: <https://vimeo.com/724625627?ts=0&share=copy>

Password: 2025

Another Note About Going Against the Grain

The text above is loosely based on the earlier essay “The Future that Past”, originally published in ‘Close Up: Documentary Film Journal’, vol. 9, 2014, edited by Landsman and Even. Containing the early seeds for the sort of thinking-through-cinema which would later take shape in the conceptual work of *Extinction Economies & Threshold Technologies*, the original text has been used as merely a grain or nuclei to be extensively developed, revised, expanded, translated and contextualised in relation to the recent making of *Dictionary of Darkness*, *State of Security* and the wider perspective suggested here. It is indeed a rewarding surprise to find that these original grains of cinematic subversion in textual form, questioning of the connections between ecocide and art within our economy, are still holding their effectiveness and have new horizons to explore.

Dictionary of Darkness has been presented to the public as a site-specific installation in the eponymous exhibition which took place at Huuto Galleria, Helsinki, between 9/11 and the 7th of October 2024.

Dictionary of Darkness on e-flux:

<https://www.e-flux.com/announcements/625425/jack-faberdictionary-of-darkness/>







PART

IV



Future-Proof Predators

An Abstract

This part examines cinematic assimilations of drones' presence through animal forms and acts of predation. Continuing the practice of *Cine-Cartography* commenced in Part 2, it traces an extensive evolution of drones on the theatrical screen, extending the mapping of their appearances into sci-fi territories and attitudes. The analysis situates drones not only as technological artifacts but as cultural predators—figures that mimic animal behaviors, embody surveillance logics, and occupy positions at the top trophic levels of dominance. In doing so, the part interrogates how cinema itself becomes a space where ecological, militarized, and cultural imaginaries intersect.

A central conceptual thread is infiltration, which runs through the entire dissertation and here is tested both theoretically and practically. The interspaced solo exhibition *Daily Disasters* (Lighthouse Project Space, Helsinki, December 2022–January 2023) enacted infiltration as methodology, exploring drones' exponential expansion through contemporary culture while staging how survival can be pursued as subversion of *Extinction Economies*.²²⁶ The part before you further juxtaposed cinematic case studies to probe how surveillance and survivability are negotiated in

226 As discussed in Part 3 - *Extinction Economies & Threshold Technologies*.

cinematic spaces, while *Daily Disasters* was doing so in relation to public spaces. In this way, the exhibition and written part together propose artistic research not merely as a tool for reflection but as a practice of infiltration: inserting itself into cultural imaginaries to expose their logics and reconfigure their effects.

The act of conducting *Cine-cartography* through an entire field of drone sightings across commercial films—from modern classics to global blockbusters—becomes itself a form of infiltration. Restricted by the University's dissertation regulations, the original part which included over 60 films²²⁷ spanning genres from espionage to fantasy to satire, is hereby condensed into a selection of the most essential 36 study cases, revolving around their sci-fi affiliation and warfare origins, either as a clear genre classification or as a hybridization of other genres (espionage, drama, etc.) highlighting drones and interspecies encounters.

By staging reading about cinema and cinematic reading itself as potential subversion,²²⁸ the project turns the pantheon of popular cinema—one of neoliberal culture's most commodified political narrative engines—against itself. Infiltrating this secular mythology through *Cine-cartography* mirrors the drone's own epistemology: insinuating itself across genres and markets, but here re-routed as a method of critique and revelation. In this sense, *Future-Proof Predators* expands the methodological horizon of the dissertation.

227 Including *13 Hours* (2016); *Act of Valor* (2012); *Bacurau* (2019); *Black Panther: Wakanda Forever* (2022), *Body of Lies* (2008) *Captain America: Brave New World* (2025); *Captain Phillips* (2013); *Chronicle* (2012); *Dune: Part Two* (2024); *Fantastic Four* (2015); *Force Majeure* (2014); *Four Lions* (2010); *Godzilla vs. Kong* (2021); *Good Kill* (2014); *How to Blow Up a Pipeline* (2023); *Iron Man* (2008); *Iron Man 2* (2010); *Iron Man 3* (2013); *Land of Bad* (2024); *Leave the World Behind* (2023); *Mandibles* (2020); *Man of Steel* (2013); *Patriot Games* (1992); *Spider-Man: Homecoming* (2017); *Spider-Man: Far from Home* (2019); *Spider-Man: No way Home* (2021); *Stealth* (2005); *Superman* (2025); *The A-Team* (2010); *The Running Man* (2025); *The Visitor* (1979); *This Means War* (2012); and *Venom* (2018).

228 Vogel, Amos, and MacDonald, Scott. *Film as a Subversive Art*, 1974.

It demonstrates how artistic research can reframe cinema not as a passive reflection of militarized ecologies, but as an active ground where the asymmetries of surveillance, species, and power are rehearsed, contested, and potentially subverted.

Aerial Adversarial

How long a finger is needed to reach the trigger, or stroke another animal? How far must it extend in space?²²⁹

The mists of uncertainty shrouding our imaginary future among other species may be demystified if we look at cinematic representations of interspecies relations of new kinds. The prominent recent developments of the *Threshold Technology* we now recognize as the drone, revolve around the evolution of drones into new shapes, forms and functions mimicking animal appearances, movements and behavioral patterns (while using cinematic tools of perception and assimilation). Concrete real-life examples advance rapidly and range – if only to mention a few – from the deployment of artificial pigeon surveillance drones in public areas by the Chinese government²³⁰ to the owl-like drones the Russian military uses for espionage.²³¹ R&D laboratories of leading companies such as Festo has been increasingly engineering animal-like drones through their Bionic Learning Network, from flying foxes to birds,²³² butterflies and bees, penguins and kangaroos, manta rays, jellyfishes and many more).²³³ At the same time, several film production firms like John Downer Productions are building their own ‘spy-animal’ drones, like

229 <https://www.e-flux.com/architecture/superhumanity/97579/closing-editorial/>

230 See for example: South China Morning Post, 25/1/2018 (retrieved 7/4/2025) <https://www.scmp.com/abacus/tech/article/3028579/flock-birdlike-drones-mission-spy-across-china>

231 The Moscow Times, 25/06/2019 (retrieved 15/04/2023) <https://www.themoscowtimes.com/2019/06/25/this-new-russian-spy-drone-looks-a-lot-like-an-owl-a66151>

232 https://www.festo.com/us/en/e/about-festo/research-and-development/bionic-learning-network/bionic-flying-objects/smartbird-id_33686/

233 https://www.festo.com/us/en/e/about-festo/research-and-development/bionic-learning-network-id_31842/

the Snowy Owl spy drone,²³⁴ that seems to have species survival as its main role as it captures the struggles of wildlife in the far arctic from close proximity, otherwise unattainable.²³⁵ On the other hand, in some cases, animals are also being trained to react, replace and disable drones, as seen in the French and Dutch national police experimental program which trains eagles to attack drones,²³⁶ which also resonates in few (and far between) film examples.²³⁷

Through the following part we will further Cine-cartograph this field of occurrences and possibilities, while inquiring how the anticipatory imaginaries of cinema have been paving the way for such and future evolutions, with their mostly unseen and highly assimilated ideologies. The films discussed and analyzed here are not necessarily presented according to a chronological order,²³⁸ but rather in a thematical order offering a terrain akin to a modest *Militarized Nature* version of Borges’ *Garden of Forking Paths*,²³⁹ where each study case trajectory reconfigures the constellation of relations between militarization, cinema, and interspecies entanglements. The act of moving through this field becomes part of the argument itself: an infiltration into the narrative architectures of popular cinema, re-purposed here as a method of critical mapping.

234 Robot Spy Owl & BoulderCam Film Chick Outfoxing an Arctic Fox, John Downer Productions <https://www.youtube.com/watch?v=TIwPXfsxQ5w&t=9s> (retrieved 15/4/2023)

235 The highly urgent and ethical debate dealing with animal surveillance as part of the entire Militarized Nature agenda is further discussed later in this part.

236 Darack, Ed, ‘Attack of the Drone-Snatching Eagles’ in Smithsonian Magazine, 17/03/2017 (retrieved 17/07/2025) <https://www.smithsonianmag.com/air-space-magazine/attack-drone-snatching-eagles-180962543/>

237 And in contrast, with the IDF program of saving a rare Griffon Vulture by feeding it daily with a drone. See more: Braverman, Irus. “Mother Drone, Mother Nature: The Griffon Vulture and Israel’s Military.” 2023.

238 Although they do so when it serves the purpose.

239 Borges, Jorge Luis. “The Garden of Forking Paths.” *Collected fictions* 119 (1962).

Starting this mapping very much in its cinematic center, *Eye in the Sky* (2015)²⁴⁰ act as an effective exemplification, not only for the hybridization of war and sci-fi, and not necessarily of the procedural danger behind Targeted Killing activities and their shifting ethics the movie supposedly revolves around – but of the evolution of interspecies relations deeper into the human-animal-machine equation at the core of this study. Like many other motion pictures discussed here, the movie functions as a showcase for new drone tech developments and their implications. In *Eye in the Sky* this display of military tech attempts to be simultaneously entertaining and morally stimulating, without becoming sanctimonious. Its failure in doing so can teach us that under the Targeted Killing mission (officially specified as ‘War of Terror’) lays another, covert mission – namely ‘the extension of the military and the national security into the arena of environmentalism.’²⁴¹ This idea was expressed with a clearer and sharper subtext in Gavin Hood’s previous directorial effort, the under-appreciated adaptation to the sci-fi novel ‘Ender’s Game’ (2013), which we will address later.²⁴²

On its screen surface, *Eye in the Sky* seem occupied in pitting innovating Western warfare technology against the adversarial nomadic war machine²⁴³ – which accelerates throughout Africa in recent decades in reaction to proliferating drone strikes initiated by Western powers. Continuing to re-examine the Necropolitical framework (discussed in Part 2 – *Asymmetric Cinema*), it’s worth repeating in this context Katherine Chandler suggestion that:

In the post-colony, Mbembe sees death’s reemergence of slavery and ties necropolitics to aerial policing and urban siege. The

240 *Eye in the Sky* (2015), directed by Gavin Hood.

241 Marzec, Robert, *Militarizing the Environment*, 2015. pg. 1.

242 And discussed further as part of Amir Vodka’s ‘Bug Wars’ in *Eco Noir: A Companion for Precarious Times*, 2020. Pp. 85-91.

243 Mbembe, Achille, *Necropolitics*. 2019.

machinelike framework of the drone is doubled to establish threat as inhuman, even as denial never fully erases humanity. Aircraft, operator, and camera render a person killable. Targeted killing interweaves politics, technoscience, and trauma, even as the use of the system is described as a technological calculus that weighs threat and protection. This denial builds on longstanding practices of violence that rely on the divide between human and nonhuman.²⁴⁴

Eye in the Sky indeed interweave these elements, and display the denial which Chandler highlight as the base for this divide between human and nonhuman through the drone, yet it problematize it by entangling the nonhuman animal into the unmanned aircraft, as we will soon see. In order to set these complications on a common base, the film grounds itself in the logic of late capitalism – the clearest divider, not only between human and nonhuman, but between image, existence and extinction in this context.²⁴⁵ The film does so first by suggesting Targeted Killing as yet another form of machine-mediated human labor. In fact, *Eye in the Sky* meta-structure is a remold of the familiar ‘A day in the life of...’ following a well-established and hierarchal ensemble of protagonists: Alia, a young African girl selling bread in Mombasa’s a street market; Katherine Powell,²⁴⁶ a goal-oriented and efficiency-obsessive British Colonel; Frank, her sensitive commanding General; and Steve, their subordinate

244 Katherine Chandler, *Unmanning*, 2018, pg. 9.

245 As John Berger originally claimed, and Anat Pick later highlighted that “Berger’s essay is a key text on the modern visual animal. His argument, or series of arguments, concerns the extreme marginalisation of animals under industrial capitalism. The essay’s central paradox is that as animals become further marginalised in everyday life they proliferate in image form.” Pick, Anat, Why not look at animals? June 12, 2015 in [Spring 2015_‘Animals’](#)

246 A reference to Collin Powel, the US Secretary of Defense during the Gulf War.

Reaper drone operator.²⁴⁷ They are all connected (together with a few others) through the fact that today an Islamic terrorists cell meeting in Mombasa is about to be eliminated by a drone mission directed remotely from the UK. Yet deeper still, they are all interconnected by the *Extinction Economy* of late capitalism, with its hierarchies linked through a chain of decision-making and justification of authority; different types of livelihoods; and the various work environments they entail.²⁴⁸ This is also a self-reflexive analogy to the industrious process of commercial film production itself – except here, a military assassination is being produced: The Reaper drone operator is the editor (accompanied by an assistant editor, a new trainee); the Colonel is the director who’s constantly commanding – zoom in, zoom out, camera movements, and “cut” which translates to “launch” (of missiles from the drone); the admiral is the executive producer; and the bureaucratic chain above him composed of various other studio executives up to the local studio chief (the Minister) and his equivalent American studio chief (the Secretary of State). This analogy is strengthened by including the studio heads (American and British, both women) when mortal questions of international moral implications move the responsibility up the hyper-capitalist hierarchy of conflict and control.²⁴⁹

This crisis of late capitalism, which manifests its *Extinction Economy* through the overlapping *Threshold Technologies* of the

247 The last line of the film: “Go home, rest, I need you back on shift in 12 hours, okay?” ... is directed toward to the drone operator – leaving just enough time for the operator and his co-pilot to drive back to the city, eat, shower, sleep, get up, eat, and return to post – and while it’s an order, it also implies consent.

248 The UK involvement in Kenya is not merely part of an ongoing hunting for intercontinental terrorism, but related to former colonial extraction endeavors and future corporate interests. The British and local security authorities collaboration, as also portrayed in the film, is evidently of a military-economic transactional nature.

249 Naomi Klein, *The Shock Doctrine*, 2007.

drone and cinema,²⁵⁰ is approach simultaneously from various angles. Next to these technologies and the economies they serve, *Eye in the Sky* also discuss the status of women within this contemporary hierarchy of predatory capitalist power, with its violent manifestations of warfare which encapsulate occupations.²⁵¹ The film therefore suggest the potential liberation of women from patriarchal oppression through advanced technology.²⁵² This is evident first with the Kenyan female covert agent who is operating a miniature surveillance drone-hummingbird, yet this agent fails to deliver the result demanded by her superior – entry into the private space of a luxurious residence where the terrorist cell meeting takes place. Instead, it is something partially achieved by another covert agent with an even smaller animal assimilating surveillance device – a flying beetle drone.²⁵³ Yet this act ultimately fails as well, just before the critical moment, due to the too soon depletion of its battery. In a wider bird-eye view²⁵⁴ the entire mission is meant to liberate Kenyan women (as well as Western career women) from conservative male domination, though the means of this emancipation come via the male gaze (even if temporarily borrowed by female characters). That be the central gaze of the Reaper drone

250 As discussed in the Part 3 – *Threshold Technologies & Extinction Economies*.

251 And specifically to ‘how colonial histories layer into drone technologies and their hunter-killer function.’ Katherine Chandler, *Unmanning*, 2018, pg. 9.

252 Especially the kind used for explosive, destructive outbursts of energy – the death from above symbolized by the drones’ missile launch, with flight duration mirroring that of expected penetration and its potential premature outcomes.

253 Which also emphasize the nature of the unmanned droned as it encapsulated in such a bug form and further brings to mind ‘(...) the ideal of remote control captured by naming the system after a mindless, single-purpose insect.’ Katherine Chandler, *Unmanning*, 2018, pg. 13. Both this beetle drone and the hummingbird drone are objects not yet existing in the service of militaries and their espionage branches when the movie was produced.

254 Shown as integral to the traditional male oppression – as witnessed and experienced by Alia (the bread seller), and explained to Colonel Powel earlier in the film through a news segment.



operator and the patriarchal hierarchy he serves,²⁵⁵ including the mythical ability to kill through such gaze – Medusa’s power that has been transferred to his control.²⁵⁶

This supposedly complex cinematic and military maneuver – with women challenging and subverting the traditional male chain of command, and advanced technologies operated from ever-increasing distances²⁵⁷ – revolves around a series of decisions aim to save Alia: whether physically, from the intended drone strike, or metaphorically, from an increasing male oppression.²⁵⁸ But in fact, this maneuver obscures a different event.²⁵⁹ The real target hidden beneath the frantic military operations is the erasure of another woman: a British national who joined the religious terrorist organization and rose to a key leadership position,²⁶⁰ while posing direct contradiction to the traditional patriarchal oppression the terrorist organization represents. It seems that the only way for Western authorities to resolve these epistemological and ontological problems is through complete elimination – emphasized by the launch of a second missile solely for a clear confirmation of the

255 Indeed, at the top of every command chain stands the figure of a white man who passed his middle-ages.

256 And echoing Perseus use of Medusa severed - yet still lethally active - head as an ultimate weapon, as previously discussed in Part 2 – *Asymmetric Cinema*.

257 Dozens of meters for the beetle-drone; 7 km for the Reaper attack drone; communication chain through military bases across three and a half continents – Africa, Europe, the US, and the Pacific.

258 Starting with hiding her math teaching books when a customer arrives to her house, being forbidden to play with her hula hoop, and witnessing a young woman publicly whipped and expelled from the market.

259 The concealment occurs directly, in the same way that Alia’s image on the command screens (on the right side of its digital triptych) is obscured by the reflection of the Colonel’s face, which in turn is replaced/obscured by the face of the American Foreign Policy Director (a white woman in her 50s) demanding immediate action – an action that will erase Alia’s existence.

260 Stated as number 5 on East Africa’s most wanted list.

rogue British citizen death.²⁶¹ Ultimately, Colonel Powel²⁶² is sacrificing an African girl by using advance aerial arsenal of sophisticated animal-assimilated surveillance and assault drones, in order to eliminate a younger ambitious rival²⁶³ – the British woman in the terrorist organization who is essentially her darker mirror image. Part of this early doppelgänger²⁶⁴ crime is her use of a less refined – and mostly analogue – remote technology (suicide bombers) which is successfully competing against the Western digital and sensor-heavy military apparatuses.²⁶⁵ Still, it is done in order to achieve a fundamental similar goal – an oppressive ideological imposition over expanding spheres of influence. The ideological infrastructure of Targeted Killing is already embedded into its own ‘production setting’ and is architecturally evident in how the drone operator’s trailer/container parallels the Kill Boxes – the official military terminology for designated killing-sanctioned areas imposed on existing topographic conditions. The three-dimensional, rectangular Kill Box spaces resonate the similarly rectangular geometric workspace where the pilot and sensor operator sit and carry out their kill orders. Yet these kill orders do not come easily, the film wishes to stress, as it makes a point of elaborating a whole debate in the British command center which revolve around numerical estimates – numbers that can be manipulated to fit the needs of

261 Which, in turn, ensures Alia’s death as well, despite her miraculous survival of the first missile strike.

262 Who start the film by occasionally and unintentionally playing with misbaha (Muslim prayer beads) which are later completely forgotten, hinting at her affiliations, and inherent opposition to the Wahhabis she hunts.

263 As mentioned before, the Colonel does so with the help of other privileged white women – the senior American foreign policy director, and the reluctant but acquired support of an experienced British politician.

264 ‘If the drone is an instrument of our own government, are we both the target and the aggressor?’ Stadler, Matthew, *Creatures of the Air, Some New Occult Problem in Unmanned: Drone*, 2016. Pg. 32.

265 With its corporate chain of command, codify morals and animal imitating drone doctrine dependency.

the moment. An analogy to the stock market, but also a numerological exercise through which perceived reality can be fabricated and refitted.²⁶⁶

While trying to take over too many themes, *Eye in the Sky* still plays as a central study case in its attempt to combine the combative with its epistemological contradictions. At the same time its informing the audience on an inherent inability to ascend above its own conservative cinematic codes, for example by placing, white on black, the classic quotation “In war, truth is the first casualty” (Aeschylus) in its opening. And although Targeted Killing is the order of the day, the film invest a lot more in introducing its non-human protagonists, the animal-imitating surveillance drones,²⁶⁷ while the Reaper drone, preparing to launch a Hellfire missile, appears for the first time only almost an hour into the film.²⁶⁸ *Hummingbird/Redemption* (2013),²⁶⁹ another British film centered on war crimes involving unmanned aerial vehicles, takes the animal-imitating surveillance drones idea even further. Filled with neo noirish and Christian quotations, the film plot follows its paranoid protagonist who suffers from severe PTSD. Its main symptoms includes recurring hallucinations about being watched by living hummingbirds – both inside his burrowed apartment and on the streets of London – that substitute for the military drones,

266 ‘We descend again into numerology’, Stadler, Matthew, *Creatures of the Air, Some New Occult Problem in Unmanned: Drone*, 2016. Pg. 31.

267 The hummingbird drone is first operated on screen by the young Kenyan agent, directing its surveillance camera (00:12:50:00), and later taking off – searching for an entry point to observe the interior of the closed structure (00:18:10:00) – while the beetle drone is operated for the first time by the Kenyan agent flying it toward the target building (00:28:30:00). This same agent receives all his instructions via text messages on his control screen as if playing a video game, as he claims to do when a curious child takes interest in his actions.

268 After this first appearance (00:52:25:00), we’ll see the Reaper drone only once more – having completed its mission and emptied its payload, it now flies off into a spectacular pyrotechnic sunset (01:30:00:00).

269 *Hummingbird/Redemption* (2013), directed by Steven Knight.

code named “hummingbirds” that use to observe him during his violent military service in Afghanistan. The movie starts with such an operation, in pixelated black and white footage taken from an army drone (and highly associated with that kind of operational images²⁷⁰ from this period), accompanied by military communications in which we hear the code name ‘hummingbird’ repeatedly. Completely assimilating the later with the former, the ex-member of the Special Forces protagonist, who used to be constantly monitored from the air during the operations he participated at, is now seeing the colorful small birds with their supreme maneuverability as an ultimate imaginary embodiment of the military surveillance drone. He is actually seeing things to come, as early prototypes of hummingbird drones were very much in development during that time,²⁷¹ continuing the tradition which started with the insectothopter – an artificial dragonfly micro-UAV develop by the CIA at the heights of the Cold War.²⁷²

Back to *Eye in the Sky*, the animal assimilating hummingbird-drone and beetle-drone the film is focusing at are human controlled military aids precluding the major predatory attack drone.²⁷³ They are used by covert field operatives close to the designated attack area (the above mentioned Kill Boxes) in order to confirm and legitimize the Targeted Killing mission and its collateral damage of innocence civilian lives. Such militancy use is implicating

270 See Parikka’s *Operational images: From the visual to the invisible*, 2023, as well as in Harun Faruki’s *Eye/Machine* trilogy, as described for example by Martin Blumenthal-Barby. “‘Cinematography of Devices’: Harun Farooki’s *Eye/Machine* Trilogy.” *German Studies Review* 38, no. 2 (2015): 329-351.

271 See for example: <https://www.nbcnews.com/id/wbna41837647>

272 Artifacts – Insectothopter (The CIA museum): <https://www.cia.gov/legacy/museum/artifact/insectothopter/> Also see the video *Insectothopter: The Bug-Carrying Bug* in the same webpage. It had tiny gasoline engine engine that prove inefficient at the time as it couldn’t be controlled with any kind of crosswind.

273 The Reaper MQ-9 attack drone is the next generation of the Predator MQ-1 attack drone, which became the popular prototype and staple for military drone in Targeted Killing missions worldwide, both on and off screen.



these hybrids of animal form and digital nature in the act of killing, suggesting them both as culprits and alibis for Militarizing Nature agenda. Yet in order to fully appreciate the evolution of cinematic imaginaries and the implications of the kind of thinking that situates the contemporary military drone within the animal kingdom, it is worth to look at other appearances of military movie drones and their ideological infrastructure. Such examination of study cases might teach us not only how *Cine-Cartography* could be utilized to track down the anticipatory imaginaries of cinema through the further evolution of the drone on screens (continuing the discussion from Part 2), but how the sheer ideologies of technological and species evolution are entangled, correlated and presented.

Syriana (2005), directed by Stephan Gaghan, is an earlier hierarchical ensemble film with a sanctioned Targeted Killing drone strike as its cinematic climax. Exploring ethical complexities in non-Western territories of influence, the film follows the correlating stories of a few protagonists involved with the fossil fuel industry politics and its Middle East involvements. Like *Eye in the Sky* a decade later, this carefully crafted yet overtly ideological cinematic vehicle is attempting to merge genres – with espionage, family drama²⁷⁴ and political thriller composing this specific *mélange*. Presenting the global fossil fuel industry as a clear case of how *Extinction Economy* is using *Threshold Technology* to exploit ecologies of out-of-the-way territories and their corruptible regimes, *Syriana* acts a slow-burner toward its dramatic highpoint of aerial assassination by drone. This event also reveals the ultimate failure of one of its prominent protagonists and his elimination (along his late achieved morality) as part of the collateral damage. *Syriana*, being a Washington think-tanks term that describes a hypothetical re-shaping of the Middle East,²⁷⁵

274 Among other family entanglements, five father-son relationships find prominent place in the film.

275 https://www.imdb.com/title/tt0365737/trivia/?ref_=tt_dykt_trv

is acting as its own form of movie map-making by both referring to existing cinematic quotations and by leaning on previous projects such as the successful *Traffic* (2000).²⁷⁶ Spreading wider and further than its predecessor, *Syriana* is indeed in a dire need for the drone to make sure its mapping project is accurate, at least in its Ground Zero – the gravitational focus of the film's action and the epicenter impact zone of violence in the heart of all its oil, politics and monumental monetary connections.

That drone strike manifests itself relatively late in the film, building tension and justification as the *Deus-ex-Machina*,²⁷⁷ after previous attempts to assert political influence – including hotel kidnapping and assassination by faking a car accident – have dramatically failed. With its bird-eye view, the drone is digitally greyscale scanning over the desert surface,²⁷⁸ while being operated from an office-looking CIA control room manned by white collared young man, observed by their suited shift supervisor who's pacing nervously behind with hands on his hips. Suddenly, with a clear colored image from above the road crossing the desert, the drone's perspective²⁷⁹ frames both Prince Nasir's convoy and something heading toward it on the road. Cut to an eye-level view of the road, we see that it's a flock of goats led by local Bedouins herders, who – as the Arabian Prince eloquently explains in perfect British accent to his young American Energy consultant – have the traditional Right of Passage. As the car convoy, originally on the way to a crucial

276 *Traffic* (2000), directed by Steven Soderbergh, yet also written by Stephan Gaghan – based on Simon Moore's script for the original British TV mini-series *Traffik* (1989). The film aimed, and quite succeeded at drawing a multi-layered map of drug trafficking around the Mexican-American border.

277 Or *Machina-ex-Deus*, as discussed in Part 5 – *Airborne Epistemologies*.

278 Right after an insider has called his CIA operator in far off Virginia to inform in which exact car sits the Prince – 'A silver Range Rover, with a sunroof' (01:45:00:00).

279 Although now this perspective is lacking the previous markings and numerical data (01:46:45:00).

meeting (in which the Prince will declare his new plan to transform his country into an economically diversified democracy instead of an American-interest controlled oil reservoir) is forced now to wait on the road, the Prince family is enjoying the break outside and his daughter is petting the goats. Back in the CIA control room we see the drone joystick in the foreground with the stopped car convoy on the screen behind it, while everyone in that room wait anxiously. From here on the film exceeds its parallel editing technique of repeated cuts back and forth – between the drone’s Targeted Killing activity and the oil industry most important public yearly event²⁸⁰ – effectively interlacing this *Threshold Technology* within the infrastructure of *Extinction Economy* represented by the fossil fuel industry.

Through a series of such intermediated cuts²⁸¹ we see the process and progress of the drone strike – although without ever seeing the drone itself or the Hellfire missile it launched. We are only shown the screen, the joystick and the control room – until an explosion appears and someone declared that the target has been eliminated.²⁸² Handshakes and pats on shoulders fill the control room and cut to the enthusiastic hand claps in the oil industry ceremony. There, the celebrated chosen ‘Oil Man of the Year’ gives a speech on the merger of the two fossil fuel giants he’s now heading, which make it the 5th largest energy conglomerate in the world, and the 25th largest corporation on the face of the planet... The intercut then continues to the aftermath of the desert drone strike – burning debris, deformed and charred remains of the convoy’s

280 ‘Oil Man of the Year’ (01:51:15:00).

281 An aerial view of the convoy in motion (01:52:00:00); The control room screen with the drone joystick (this time unfocused) in the foreground (01:52:50:00); A marking [] designating target appears on the screen for the first time (01:53:00:00); The kill order is given and the distance to the target is counted (01:53:35:00).

282 As appears momentarily on the ground and then on the screen (01:54:25:00)

SUVs,²⁸³ agonized human bodies, thick black smoke billowing, and the figure of the American Energy consultant walking solemnly into the desert. The American CIA agent who tried to prevent this attack (portrayed by George Clooney) has been destroyed without a trace, like the peace-seeking prince and his family,²⁸⁴ all part of the same collateral damage. While the goat herd scene might first seem merely as another plot device for intensifying suspense by delaying the inevitable devastating action, it also hint on a deeper link between interspecies relations and the nature of its violent alteration by the *Threshold Technology* embodied as the drone. As Eyal Weizman articulates:

Equality beyond the perceived biological threshold of the human is however a matter entirely distinct from equality between humans. Moreover, human rights claims are often articulated (...) by marking the distinction between humans and animals. (...) Such a threshold also tends to exist in the eyes of perpetrators of violence, for whom actions are often justified by the “animalization” of the stranger, the enemy, the terrorist, the indigenous or the barbarian.²⁸⁵

In light of this claim, this first unexpected and respectful interaction with another species suggests that the connection between the Prince and his family with the flock of goats makes them killable. It further demonstrates how the traditional resonance of the ecological and interspecies relations with “first nature” are therefore replaced by those of “Second nature” – as capitalist transformations

283 Sport Utility Vehicle.

284 Nothing has remained of them all but the smoke rising from where the Range Rover stood (01:55:30:00).

285 Weizman, Eyal, ‘Are They Human?’, E-flux, *Superhumanity*, October 2016. <https://www.e-flux.com/architecture/superhumanity/68645/are-they-human/> (retrieved 04/07/25)



of the environment – following Anna Tsing’s definitions.²⁸⁶ The drone strike, an outer violent reach of fossil fuel’s *Extinction Economy*, is presented here as the ‘capitalist transformations of the environment’²⁸⁷ per excellence, the immediate and destructive alteration of land that act as the last in a series of ecology defiling violations.

Following this insight, we might want to look again at the sorts of interactions and encounters with other species in a film which swiftly swipes through continents and shift between cultures as part of its fundamental structure. The first of such encounters would be completely artificial, with fake plastic fishes and seahorses in a tiny aquarium in the kitchen²⁸⁸ of an accountant who might clear or obstruct the oil giants merger – a major narrative axis in this mosaic-like plot. The second interaction takes place when the American Energy consultant is meeting prince Nasir who is training his hunting falcons in the desert.²⁸⁹ These captive birds of prey²⁹⁰ are acting as an expected cliché of orientalist sovereign status and its required prop of power – symbolizing the ruler dominance over nature and its wild predators.²⁹¹ The scene right after, however, takes us directly to a private estate hunting grounds in Texas, where zebras and antelopes are roaming (seeming free yet within a designated compound)²⁹² before being killed by a rich oil magnet with a high-power hunting rifle. Donna Haraway, in her essay

286 Tsing, Anna Lowenhaupt. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, 2015. Pg. viii.

287 Ibid.

288 In Washington DC (00:29:40:00).

289 Resonating the epic landscapes, oriental settings and pan-Arabist ideology of *Lawrence of Arabia* (1962).

290 Who are eye covered most of the time (00:47:07:00).

291 See Naomi Roelf’s ‘Recovering Territories’ in *Eco Noir: A Companion for Precarious Times*. 2020. Pg. 41.

292 ‘777 Ranch, Hondo, Texas’ As appear in the on-screen bottom right title (00:49:24:00).

“Teddy Bear Patriarchy,” explores how big game hunting turns the gun and the camera into interchangeable tools, both serving to uphold a so-called “natural” hierarchy that privileges white male dominance and systematically erases Native knowledge and labor.²⁹³ This tradition seem to be perpetuated by this embodiment of privileges white male as a middle-aged oil magnet, who brag between shooting about his immense and potentially illegally²⁹⁴ accumulated wealth. Indeed it seems it is only that latter encounter – meeting a flock of goats ‘freely’ crossing a desert road²⁹⁵ – that hold some remanences of authenticity. That sort of genuineness that is the heart of the interspecies exchange, which has not been subjugated to the spectacle (as in the examples of tamed birds of prey or exotic wild animals compounded for hunting), as Berger claims.²⁹⁶ It might even further illuminate Berger’s observation that corporate capitalism has completed a process “by which every tradition which has previously mediated between man and nature was broken. Before that rupture, animals were with man in the center of his world.”²⁹⁷ This process seem to be now completed with the aid of a military drone strike, as portrayed in *Syriana*’s final act.

Still, with its multifaceted mosaic approach, *Syriana* signal a high mark of more complicated cinematic engagements comparing to films that still perceive the world existing outside the continental US borders as a wilderness in continuous need for frontier methods,²⁹⁸ where establishing authority over distant lawless lands still

293 Donna Haraway, “Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908–1936”.

294 As suggested by his question ‘Are you wearing a wire?’ to the surprised accountant accompanying his domestic and private wildlife killing campaign.

295 ‘Freedom’ which is prevented from all the other interspecies interactions (including scoping a herd of captured wild animals that still roam untethered within seemingly natural surroundings) presented in the film.

296 Berger, John. *Why look at animals?* In *About looking*, 2015. Pg. 3.

297 Ibid. Pg. 3.

298 As mentioned in Part 2 – *Asymmetric Cinema*.

requires the exercise of power by violent means. This spirit of the world-outside-the-States as wilderness and the need of frontier justice in handling it stands as the hallmark of many American movies, especially within the war and action-espionage genres. The *Mission Impossible* movie franchise has been running strong since 1996 until now (2025) as one of its loyal representatives, especially in its later installments. Yet it is the third film, *Mission: Impossible III* (2006)²⁹⁹ in which we witness a drone strike taking place on US soil for the first time in cinema. This unprecedented silver screen event is part of an elaborated successful escape attempt of an international arms dealer. Acting as a cinematic bridge between *Syriana* and the upcoming *Eagle Eye* in the land of military drone representations, it is indeed a bridge on which the drone strike takes place, in what seems like the live version of an exact scene from the *Anima Patlabor 2: The Movie* (1993).³⁰⁰ With American civilian population as collateral damage, the aerial attack emphasizes the nightmarish scenario of being targeted without prior warning, literally out of the blue (and beautiful skies), with lethal force that leads to devastating consequences. As the missile attack commences,³⁰¹ one can't even tell their origin, and it indeed takes a minute until the Reaper drone first appears,³⁰² growing fast from a dark shadow and circling around like a shark. The movie protagonist, Ethan Hunt,³⁰³ quickly frees himself from an overturned SUV on the damaged bridge and looks astounded at the military drone swift circling – in continuation of his line of sight. Yet the drone attack is just a blotched diversion for freeing an American arms dealer engaged in billion-dollar deal to

299 *Mission: Impossible III* (2006), directed by J.J. Abrams.

300 *Patlabor 2: The Movie* (1993), directed by Mamoru Oshii & Mizuho Nishikubo.

301 With cars exploding high in the air on left and right (01:03:00:00).

302 Starting as a small spec in the skies (01:04:00:00).

303 Portrayed by Tom Cruise, who is also one of the franchise producers.

deliver the so-called “Rabbit’s Foot”³⁰⁴ into Middle Eastern hands, before he was captured by Hunt earlier in the movie. While Hunt is now trying to upgrade his weapon choice with the Reaper returning for another destructive sortie,³⁰⁵ it is revealed that the armed drone is guided by one of the German mercenaries inside an arriving hostile helicopter, holding a small remote controller (as if it was a much simpler civilian drone). The Reaper launched another missile directly toward Hunt,³⁰⁶ who struggles to assemble an assault rifle retrieved from the SUV trunk. When the deadly drone circles again in his line of sight and heading at him with beastly shrieking sound, Hunt opens fire and destroys it.³⁰⁷

Viewed retrospectively, *Mission: Impossible III* offers an early and revealing cinematic articulation of the militarized drone’s incursion into Western space—an incursion once imagined as unthinkable, now retroactively prophetic.³⁰⁸ The film registers a critical moment in the evolving media ecology of aerial warfare, where the Reaper drone transitions from a distant symbol of asymmetric power to an immediate, terrestrial threat within the heart of the empire. This reversal—in which the aerial hunter becomes visible to its own citizenry—functions not only as a narrative device but also as a

304 A code name for a fictional doomsday biological weapon, and a classic McGuffin (a term invented by the cinematic master of suspense Hitchcock for a device essential for the plot drive – as it symbolizes the unfulfilled desires and dreams of major narrative stakeholders who wish to possess it – yet it has no real meaning by itself).

305 ‘There’s a G36 in the trunk’ shouts Ethan’s close partner, referring to the Heckler & Koch assault rifle (01:06:01:00). The emphasis throughout this entire part regarding technical specifications of weapons, vehicles, etc. is resonating the same tendency of the commercial cinematic representation of the arm industry products, as well as continuing the discussion from Part 3 about the growing alluring appeal of militarized vocabulary.

306 And flying right above his head (01:06:40:00).

307 Its burning remains fall into the water under the bridge, while the arms dealer is making his escape with the aid of his German storm troopers in their helicopter (01:07:45:00).

308 With the currently ongoing Ukraine-Russia war.



disruption of the normalized techno-violence inflicted elsewhere. The drone's depiction as an extension of mercenary operations (rather than national military command), combined with its temporary mimicry of simpler hobbyist drones, signals a blurring of state and non-state control over automated violence. Moreover, the presence of the circling drone (and its sounds) echoes earlier cinematic predator figures—biological and mechanical—recalling sharks,³⁰⁹ birds of prey,³¹⁰ and even the *Hunter-Killers* from the original *Terminator* (1984) and its sequels,³¹¹ while also conjuring the uncanny agency of non-human intelligence. This convergence of military hardware, species mimicry, and delegated killing reframes the drone not simply as a weapon but as a mobile frontier agent—one that redraws lines between inside and outside, citizen and target, human and machine, predator and its prey. In doing so, *Mission: Impossible III* becomes an unwitting participant in a larger cinematic and political discourse on the shifting ethics of surveillance, the outsourcing of sovereign violence, and the emergent interspecies entanglements of warfare. It also suggests that a multi-million military armed drone can be shot down with a gun.³¹²

Eagle Eye (2008),³¹³ a conspiracy cyber thriller centering the domestic military drone threat as the deadly embodied manifestation of an AI gone rouge, uses the Unmanned Aerial Vehicle as a leitmotif from its very first minutes. Starting in a Middle Eastern desert, a hostile convoy of vehicles being watched from a remote all-digital command center,³¹⁴ with a small surveillance drone

309 *Jaws* (1975) being the most obvious cinematic reference.

310 As discussed earlier in Part 2 – *Asymmetric Cinema*.

311 Discussed in depth in the next section.

312 leaving realistic technicalities behind (and given that this gun is held by an Impossible Mission Force agent).

313 *Eagle Eye* (2008), directed by D.J. Caruso.

314 While all using code names (00:01:24:00) taken from the Scandinavian mythology – Thor, Valhalla, Loki – referring to earlier discussion on 'Mythologies of Machines' in Part 2 – *Asymmetric Cinema*.

hand-launched by a Special Forces soldier in order to identify the target.³¹⁵ With a Go order issued by the US President (against the good advice of his Secretary of defense), a Reaper drone – controlled from Andrews Air Force Base in Maryland – is appearing low in the desert, just above the heads of the Special Forces soldiers.³¹⁶ It soon launches two missiles, which we see reflecting in its camera lens as they hit the praying crowd³¹⁷ with a beastly shriek. As the explosion fills the screen it is transformed into digital letters forming the film's title. This volatile opening frame the drone's Targeted Killing activity as the instigating event of the film's plot. It further prepares the ground which would be chased over in the next 90 minutes, until the Reaper would appear again – this time attacking targets on US soil. Appearing first as a pale silver silhouette with sharp tail fin, like a shark in dark waters, the armed Reaper takes off by itself³¹⁸ into the night. Targeting the protagonist Jerry (Shia Lebov) who tries to escape in a burrowed car driving into a tunnel, the drone calculates the tunnel clearance height and then flies right into it, continuing its chase.³¹⁹ Cutting low through the busy car tunnel, the Reaper is firing one missile,

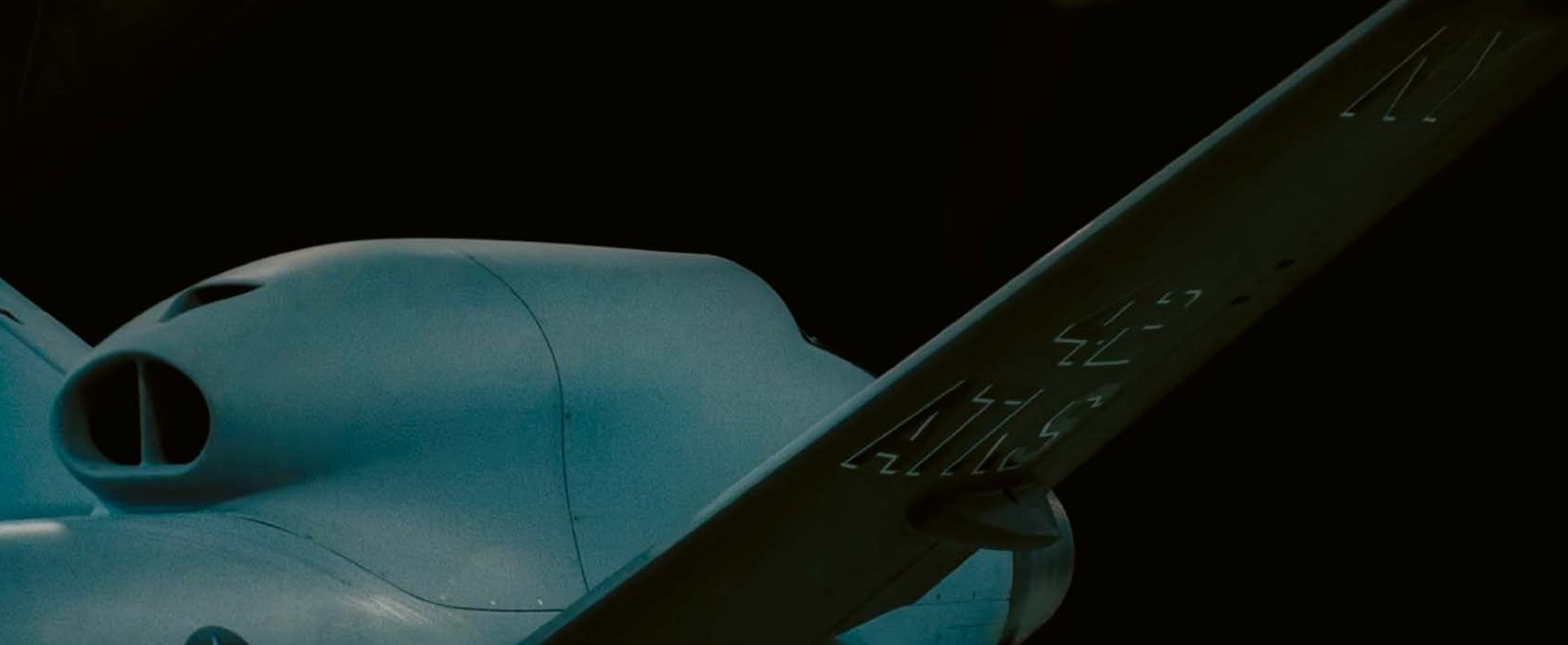
315 Seen then in flight and close-up shots detailing its frontal camera, the drone also connects to one of the passengers phone to transfer identification data (00:02:00:00). As it generates only 37% probability that it's the Islamic arch-terrorist the US is after, the small drone, in its third onscreen appearance, also activating an algorithmic Face ID through its camera, raising the probability to 51% (00:03:30:00).

316 A strong cinematic image, albeit completely unrealistic since these kind of drones tend to fly (and attack) at an altitude of 1.5 - 3 Km above the ground (00:05:00:00).

317 The convoy stopped at a village, claimed as a terrorist training ground, and gathered for a funeral.

318 Controlled this time not by human operators in Air Force base but by the ubiquitous Eagle Eye military AI system (01:36:00:00), plotting to overthrow the US government by a series of sophisticated assassinations.

319 Echoing its own first low flight appearance on the screen, it is another strong cinematic image that has little to do with the flight reality of military attack drone (01:37:30:00).



destroying a truck and disabling Jerry's car, only to circle around and dive again from the dark skies into the tunnel, with the same shark-after-blood acceleration pattern. It is only stopped when a dedicated FBI agent cause a collision between the drone and part of the earlier destroyed truck (marking it as a clear homage to *North by Northwest* seminal scene, described in Part 2). The burning remains of this lethal Eagle Eye³²⁰ AI embodiment, spreading across the car tunnel, also mark the major plot and character turning point, when Jerry stop escaping, instead trying to save others from the cybernetic mass assassination conspiracy devised by the Eagle Eye – thus the destruction of the drone is when the hunted becomes the hunter.

Hunter-Killers

War is never anything less than accelerated technological change.³²¹

The embodiment of cybernetic AI through deadly autonomous aerial machine immediately bring to mind *The Terminator* (1984)³²² and its sequels *Terminator 2: Judgment Day* (1991)³²³ and *Terminator 3: Rise of the Machines* (2003). Examining this original trilogy³²⁴ reveal yesterday's sci-fi to be alarmingly relevant at present,

320 Again, naming after a bird of prey act as the required analogy between the animal kingdom and the aerial killing machine. See also Ruban Pater quotation in Part 2 – *Asymmetric Cinema*.

321 McLuhan, Marshall. *Understanding Media: The Extensions of Man*, 2001. Pg. 111.

322 *The Terminator* (1984), directed by James Cameron.

323 *Terminator 2: Judgment Day* (1991), directed by James Cameron.

324 While leaving the rest of its fast-deteriorating installments in the recycling bin of used parts and useless plots, if to paraphrase the famous saying about Hollywood: “They don't throw their garbage away, they turn it into television shows.” (from Woody Allen's *Annie Hall*, 1977). Part of this dissertation's subversion is to turn Hollywood movies considered as low-brow garbage, into a repository of meaningful and original insights.

suggesting a prophetic and sophisticated entanglement with the anticipatory imaginaries of the drone. The next section is therefore dedicated to look through this initial trilogy, which complicit the drone into complicated human-machine-animal relations revolving an armed struggle for survival. With the second and third films updating and upstaging this struggle in light of the visual-cinematic upgrades and the apocalyptic-ecological-technological tensions of their times, a decade leap each, our starting point is 1984 (or rather 2029), when *The Terminator* first emerged out of the darkness of movie theatres around the world...

The cinematic surge begins immediately at the film's opening as a futuristic drone ascends into the frame. The H-K: Hunter-Killer—as we will later learn its name—hovers low above the city ruins with the caption “Los Angeles 2029 A.D.” fading fast beneath it. The H-K turns left from the center of the frame, and opens fire.³²⁵ We never see its human targets, only pale glint of attack lasers, yet the presence of this aerial vehicle – terrifying and unrestrained, demonstrating total control in the postapocalyptic nocturnal setting – establishes the tone. It encapsulates within its trajectory the visionary intensity of sharpened paranoia and fatalism the film projects. The othering of the familiar, the autonomous nature of the unstoppable machine, its drive to hunt humans at all costs, and the effort to preserve humanity against stark technological asymmetry amid ruins form the core of this projection. Simultaneously, this is further expressed through on-screen text captions swiftly rising over debris:³²⁶

325 (00:01:00:00)

326 (00:01:30:00)

‘The machines rose from the
 Ashes of the nuclear fire.
 Their war to exterminate
 Mankind has raged for
 Decades, but the final
 battle would not be fought
 in the future.
 It would be fought here,
 In our present.

Tonight...’

Followed by the film’s title dual-layered animation emerging from the deep darkness.³²⁷ One layer pulls letters backward from their outlines; the other pushes forward with contemporary neon-noir shading, both fading into one another alongside Brad Fiedel’s epic theme score. This convergence feels like different timelines collapsing toward a singular vanishing point, where the spectator is. Or perhaps the drone that is spectating the spectator.

Though the film largely follows an escape from the infiltrating mechanical-electronic-organic Terminator—traversing both time³²⁸ and space³²⁹ in a ground-level chase rolling through various vehicles, moving through urban dark surrounded by streetlights and searchlights—it is the unavoidable H-K drone that hovers above the dislocated timeline, pursuing the future’s memory with its increasingly threatening digital humming. It ominously reappears during Reese’s (portrayed by Michael Biehn) first flashback:³³⁰ a combat happening in 2029 witnessed by Reese, the human refuge emissary

327 (00:01:50:00)

328 From future to present.

329 As an imposter invading in human guise into the last resistance refuges.

330 Which can also be considered a flash-forward within the film’s distressed dislocated timeline (00:17:30:00).

who was sent back in time to protect Sarah Connor (portrayed by Linda Hamilton)³³¹ from the eponymous Terminator. As Reese, himself a time-infiltrator and constant fugitive evading impatient LAPD officers, sits in a stolen car while waiting for the appearing of his opponent and his target, he watches heavy machinery clearing urban terrain for construction³³² and again finds himself thrust back into the future to come. That forward flashback fight scene is drenched in blood, lasers, and hydraulic oil—with Reese planting a side charge under a tank-like machine³³³ (a version not unlike the ones numerous military companies are competing to develop these days).³³⁴ Halting it, Reese flees toward an escape vehicle, yet amid the swirling debris, in a world drowning under the sounds of destruction, the return of the *Hunter-Killer*’s digital humming is clearly distinguishable; the aerial killing machine identify the escape vehicle easily, locks onto the car and strikes. Reese stares at the dead face of his fallen comrade inside the flipped vehicle and jolts awake to 1984. Meanwhile, the aerial *Hunter-Killer* resumes searching for new prey in the future.

The tension sustained by the film’s two temporal axes also relies on the alteration from Neo-Noir to Tech-Noir, as heralded by the glowing red neon sign outside the bar where the first public confrontation between man and machine will unfold in the movie’s cinematic present. This is echoed by a matching sign inside the

331 The future mother of John Connor, who would grow to be humanity’s sole savior as the legendary leader of the human survivors raising the resistance against the machines.

332 Connecting urban mass gentrification and militarization and suggesting toward what I would later refer to as *Accelerated Landscapes* – ecologies shaped by the ecological upheaval, hyper gentrification and militarization of *Extinction Economies*.

333 Unmanned Ground Vehicle (UGV).

334 A few examples includes: Gladiator Tactical Unmanned Ground Vehicle, [Foster-Miller TALON](#), [TheMIS](#).

TELEKONFER



bar itself,³³⁵ framing the monumental shooting stances and aestheticized automatic choreography of violence—both that of the Terminator and of Reese, who, against all odds, tries to stop the escalating campaign of extermination. What might at first seem like an impressive spectacle of light and action reveals itself as an entity of yet unknown origin adapting to the film’s most prominent formal and conceptual themes: camouflage and impersonation that hide otherness as survival strategies, and used respectively for escape and confrontation under conditions of excess. In this sense, the entire work maintains a ‘hit-and-run’ relationship with the viewer, whether through the unexpected flashbacks that erupt from moments of calm (and present hopelessly violent situations one after another), or through the dark visions of humanity’s fate that assail the viewer with growing gloom. Both are backed by an ever-evolving visual and sonic arsenal: dynamic camera movements, a deep engagement with light and shadow,³³⁶ and noirish compositions that not only add the hard-edged color palette and philosophical territories of neo-noir but also hurl it into a head-on collision with brutal, alienated machinery—what is presented to us as tech-noir.³³⁷ Thus, the film simultaneously proposes and serves an evolution of violence through technology. It has a dazzling sensory and intellectual infrastructure, yet one that lacks the multi-layered complexity, ontological richness, literature origin and cinematic space offered to the viewer in other works that blend Neo-Noir and Science Fiction, such as *Blade Runner* (1982) or *Dune* (1984)³³⁸—a space that continues to resonate and develop with rhizomatic conceptual perceptions long after the credits roll. In our case, as noted,

335 (00:28:50:00)

336 Chiaroscuro.

337 Among other things, through groundbreaking visual effects for their time, still effective to these days.

338 The former discussed in Part 2 – *Asymmetric Cinema*, the latter will be explored later in this part.

this is a different cinematic choice, one closer to the shock doctrine of late capitalism.

Nevertheless, it is not straightforward propaganda employing Shock and Awe,³³⁹ as the military strategy formulated by Wade and Ullman is called,³⁴⁰ aimed at paralyzing the enemy and seize the battlefield through a spectacular display of overwhelming force. On the contrary, the film offer a critique on this method by embedding in its cinematic language a useful display of guerrilla tactics and subversive possibilities to resist it. From cooking up explosives in the kitchen from household ingredients,³⁴¹ stealing weapons and clothing from available resources (including law officers), breaking into vehicles, and basic civil disobedience – the film reveals a spectrum of means and demonstrations of ever-escalating ‘hit-and-run’ activities that may serve to resist authority—official or false—and to survive against the clear excess of power at their disposal. This, like the evolution of violence through technology as central motif, is also expressed in the ever-escalating arsenal of weapons and vehicles—from motorcycle to police cruiser to a semi-trailer truck; from scooter to Ford to Cadillac; from handgun to submachine gun to assault rifle; from a sawed-off police shotgun to IEDs³⁴² and a heavy industrial compactor; from Series 600 infiltrators to the T-800 model;³⁴³ from ground combat machines to the aerial *Hunter-Killers*. These H-K’s are named and described for the first time—as

339 Harlan K. Ullman and James P. Wade, *Shock And Awe: Achieving Rapid Dominance* (National Defense University, 1996), XXIV.

340 Technically also known as ‘rapid dominance’ – which also paralyze the enemy’s perception of the battlefield and destroy their will to fight. One of its clear examples of is the American invasion to Iraq in 1990.

341 With the following exchange (as Sarah sees Reese putting grocery bags on the kitchen counter) -
Sarah: ‘What’s for dinner?’
Reese: ‘Plastic’ (referring the popular name of effective explosives)

342 Improvised Explosive Devices.

343 The formers could have been relatively easily identified due to the rubber ‘skin’ they had, as Reese tells Sarah (00:42:00:00).

patrol units relentlessly searching for human survivors to kill—as the mentioning of future extermination camps established and operated by the machines, identical in function to the Nazi camps, including the branding of numbers on prisoners’ arms. As Reese display to horrified Sarah on his flesh, the only difference is that instead of dark ink, it is a laser burn.³⁴⁴ The extermination camps, together with Reese’s describing the machines’ worldview, cast the approaching future as a terminal kind of Fourth Reich, where the machines take the place of the Nazis—who, after all, also could not be reasoned or bargained with, felt no remorse or guilt, and would not stop until their victims were dead.³⁴⁵

In this context, the iconic line “I’ll be back” uttered by the Teutonic strongman Arnold Schwarzenegger³⁴⁶—whose role as the Übermensch Terminator made him an overnight screen superstar and marked one of the most undeniable breakthroughs into global audience consciousness³⁴⁷—resonates with particularly disturbing multi-layeredness. At the same time, “I’ll be back” can be interpreted as the motto of the attack drone, with its ability to return again and again—even in different airframes from the same production line, if downed—lies at the heart of the real and psychological

344 (00:46:45:00)

345 As Reese explains (00:43:10:00) ‘That Terminator is out there. It can’t be bargained with, it can’t be reasoned with. It doesn’t feel pity or remorse or fear, and it absolutely will not stop... ever... until you are dead.’

346 (00:59:45:00)

347 Despite his earlier leading roles in *Conan the Barbarian* (1982), directed by John Milius and its sequel *Conan the Destroyer* (1984), directed by Richard Fleisher—which are also relevant to the topic at hand—their overall impact on Schwarzenegger’s career unfolded gradually, comparing to the immediate international effect of his role as the unstoppable machine in his first collaboration with James Cameron. That performance marked him as one of the defining cultural icons of the 1980s and 1990s, with further major films centered on violent power struggles against institutional authority, such as *Predator* (1987), directed by John McTiernan, *Total Recall* (1990), directed by Paul Verhoeven, and *Terminator 2: Judgment Day* (1991).

threat it poses to its environment. This is a significant expression of Shock and Awe on the one hand, and, on the other, of Sun Tzu’s³⁴⁸ view of fighting power as a spiritual military maneuver, as well as Virilio’s interpretation of it.³⁴⁹

The Terminator itself, employing that same doctrine, also utilizes a thermal vision combined with text display,³⁵⁰ similar to the ground control interface of attack drones, as seen when we are granted a glimpse from the machines point of view. When Reese tells Sarah about the humanoid infiltrator-terminators, designed to assist the aerial *Hunter-Killers* in exterminating the pockets of human resistance hiding beneath the rubble-strewn earth,³⁵¹ he experiences another flashback in which a *Hunter-Killer* swoops low into the frame. It’s the same shot from the film’s opening, only this time it cuts to a screen display with text (too small to read) and radio chatter in the background (too garbled to understand). It then cuts again to reveal a human rebel watching the *Hunter-Killer* drone through the display scope of his futuristic assault rifle. He and another soldier, revealed to be Reese, hide from the drone and descend into the tunnels of the base, built as a network of underground corridors. Reese identifies himself outside the blast door of the base and, upon entering, immediately pets the pair of German shepherds standing guard alongside rebel soldiers.³⁵² He continues through tunnel-corridors full of debris and human survivors, finds a quiet corner, sits down, and pulls out a folded, faded photo of Sarah Connor, her own pensive gaze cast downward, beside a German shepherd. Suddenly, the dogs at the base entrance start

348 Author of *The Art of War* and one of the central thinkers in this ancient field.

349 ‘The force of arms is not brute force but spiritual force’ [Sun Tzu]. There is no war, then, without representation, no sophisticated weaponry without psychological mystification.’ Virilio, Paul, *War and Cinema*, 1989, pg. 8.

350 (01:00:50:00)

351 (01:09:30:00)

352 (01:10:50:00)



barking, having detected among the group of people now entering an infiltrator-terminator, who quickly draws a heavy machine gun and shoots everyone around him, including the pair of barking dogs. Stunned by the ferocity of the attack, Reese press himself against the ground as the photo slips from his hand and consumed by nearby flames. As with the *Hunter-Killer* attack on the vehicle he tried to escape from during the previous flashback,³⁵³ this hyper-violent event also finds no resolution in the form of fighting back but rather with Reese lying on the ground vulnerable, desperate and defeated. Yet his awakening into the present, in a complex and unexpected narrative move, this time performed by Sarah, who wakes to the sound of distant barking and tells Reese she dreamed of dogs. Reese quickly explains that humanity's refugees use them to detect infiltrator-terminators.³⁵⁴ This is, in fact, a reenactment of the evolution of human-dog relations, when ancient hunter-gatherers began to domesticate dogs to help them survive the harsh, rival-filled conditions of the Pleistocene.³⁵⁵

This reference to evolution gains added weight in its extreme version, in the form of the tiny dog barking at Schwarzenegger's character early in the film as he heads to kill one of the women

353 (00:17:30:00)

354 In an interesting exchange with *Blade Runner's* Voight-Kampff test – which relay on a sophisticated machine operated by experienced investigator to reveal whether the subject is a human or a replicant imposing as one – here trained dogs can simply smell the artificial nature of machine-based imposters. On the other hand, since almost all animals were extinct in *Blade Runner's* 2019 future, it left only machines to trust on in order to identifying other machines.

355 Perri, Angela R.; Feuerborn, Tatiana R.; Frantz, Laurent A. F.; Larson, Greger; Malhi, Ripan S.; Meltzer, David J.; Witt, Kelsey E. (2021). "Dog domestication and the dual dispersal of people and dogs into the Americas". *Proceedings of the National Academy of Sciences*. 118 (6): e2010083118. doi:10.1073/pnas.2010083118. PMID 33495362. Advances in the isolation and sequencing of ancient DNA [... suggest] that dogs were domesticated in Siberia by ~23,000 y ago, possibly while both people and wolves were isolated during the harsh climate of the Last Glacial Maximum.

he found in the phone book under the name Sarah Connor.³⁵⁶ The high-pitched yapping of the lapdog—a product of more than ten thousand years of eugenics, aggressive cultivation of traits through selective breeding, and the elimination of chosen characteristics from its wolf ancestors—serves as further testimony to the futility born of invasive human intervention via selective artificial evolution. For it is this very selective evolution that enabled the rise of the machines and the systematic, more efficient displacement of their original human inventors. The other factor enabling this selective evolution is capital-based surplus, one of the clearest expressions of which is the gun shop scene,³⁵⁷ where the Terminator stocks up on a selection of new rifles and machine guns. This scene cuts to Reese hiding in a back alley,³⁵⁸ sawing off the stock of the shotgun he stole from a police car, so he can conceal it under the noirish raincoat he wears. The cut between scenes—from an extreme close-up of a smoking gun barrel (immediately after the sudden shooting of the shop owner by the Terminator) to an extreme close-up of the saw finishing its cut through the wooden stock of Reese's shotgun—demonstrates that the asymmetric excess of advanced weaponry amassed by the Terminator (as he handles and inspects each one) and the economic system that enables them, are on the same side of the equation. On the other side stands the guerrilla warfare doctrine represented by Reese, which seems coming straight out of Che's playbook.³⁵⁹ tactics such as using the enemy's most available weapons (the police shotgun); relying on local camouflage; turning the enemy's advantages into weaknesses (the cumbersomeness of excess, systematization, and its methodology), and drawing the enemy into terrain which will expose these weaknesses (the industrial plant, where the assembly line and its machines are turned

356 (00:16:20:00)

357 (00:13:50:00)

358 (00:14:50:00)

359 Guevara, Che. *Guerrilla Warfare*. 2002.

against the machine). Yet just before reaching to terms in these tactical terrains, when Reese and Sarah arrive at the motel where they will finally consummate their love³⁶⁰—transcending notions of time and space, in preparation for the final act³⁶¹—a German shepherd is tied at the entrance to the parking lot.³⁶² Reese hurries to pet it.

Terminator 2: Judgment Day (1991) doesn't wait long before bringing back the H-K into the frame.³⁶³ After a slower examination of a more extensively ruined 'Los Angeles 2029 A.D.', the metal feet of a sole bare-metal Terminator³⁶⁴ crushing a human skull appear in a pedestal shot, leading to piercing ominous red eyes glowing through his silver shining metal skull, as lasers starts shooting all around. It is followed by a towering caterpillar-like UGV,³⁶⁵ in an affluent version of the first film opening, with heavier investment, higher production values, and better visual effects. Then comes the human rebels, running between the rubble as the first *Hunter-Killer* hovers behind the UGV to join the mass killing of these humans, while other *Hunter-Killers* fill the fearsome skies. After chasing and destroying a rebel driven vehicle³⁶⁶ the H-K is shot down with a shoulder missile by another rebel on the back of a similarly escaping light truck.³⁶⁷ The fact that this ferocious machine can be taken down is a positive sign that contrast the bleak hopelessness of the original film opening scene now recreated here with excess, signaling us that there might be a different balance of

360 Which will bring into the world the future John Connor, the man who ordered Reese to go back to the past – in an impossible loop which is the subject for a discussion by itself, alas, one that is outside this current work.

361 Which is also the first act, respectively.

362 (01:15:20:00)

363 (00:02:30:00)

364 As *The Terminator* was revealed to actually look like, under his fake human skin, at the end of the 1984 film.

365 Unmanned Ground Vehicle.

366 The kind now notoriously known as 'Technical' and heavily used by militias, guerillas and terrorist groups.

367 (00:02:47:00)

power at play now. Still, there are many other H-Ks hovering in that laser lighted dark horizon, their digital humming overtaking the shrieking sound of the H-K that just fell from the skies. Their techno-apocalyptic presence, together with a detailed depiction of a nuclear strike hitting downtown L.A. later in the film,³⁶⁸ stress further Virilio's insight that:

The pan-destruction of the world would no longer be an elite entertainment reserved, Nero-style, for a few potentates. With the cinema, it would become a mass spectacle and, one might say, *the true popular art of the twentieth century*.³⁶⁹

The second scene that directly echo the first film's myriad of human-machine-animal relation is when the now 13-year-old John Connor's dog, a German shepherd named Max, is barking relentlessly outside the house of his foster parents,³⁷⁰ revealing that one of them is really an imposter T-1000 terminator.³⁷¹ Not two minutes pass before this new Terminator type goes out to the dog pound and murder Max, supposedly in order to check the name on his collar, but in fact suggesting new interspecies relations in which the machines are aimed at killing animals as well as humans in their takeover of the energy pyramid, causing catastrophic trophic cascades. This is further amplified when Sarah Connor – after restocking with military gear and weapon arsenal from a hidden stash sufficient to start a small revolution – is looking at kids playing outside the desert camp with a dog. This sight soon leads her into

368 Even if a future vision of a more fearful present or factual past.

369 Virilio, Paul. *The Information Bomb*. 2005, pg. 89.

370 (00:41:20:00)

371 The latest model that is constructed out of liquid metal in order to shapeshift and take any physical form (including part of the floor in a mental asylum, in a scene as scary as the infamous all-obliterating nuclear blast.



apocalyptic visions of Judgment Day, the date when the machines finally took over, with a nuclear blast.³⁷²

The third main point manifests itself through an innovating chase scene, in which the T-1000 jumps with his motorcycle toward a police helicopter.³⁷³ While the motorcycle hits the ground the T-1000 hangs on to the helicopter and pour itself in with his liquid mercurial ability. Made out of fluid metal, the T-1000 Terminator can take any shape and while hijacking the police helicopter, it retains this sliver silver metallic form long enough to tell order the pilot to 'Get Out'. Seeing his own distorted reflection disappearing before his eyes, the scared pilot complies and jump off – leaving the machine to replace the human in piloting the flying vehicle. In the hands of the T-1000 The helicopter now descend and fly low over the nocturnal highway, following an armored truck in which the Connors (with a T-800 which was captured in the future and converted for human protection) are trying to make their escape.³⁷⁴ Tenaciously shooting with sub-machine gun while using the helicopter's searchlight and flying almost at tarmac level under overpasses,³⁷⁵ this ultimate synchronization of one machine piloting another machine in ways unseen before is effectively transforming the police Scout helicopter into an attack drone in all aspects. It is stopped only when the armored car suddenly breaks so the low flying helicopter crashed fast into it, folding into itself and scatter in flames all over the road.³⁷⁶

372 (01:30:30:00)

373 A stolen Kawasaki KZ 1000 P, fitting T-1000 preferred assumed identify as a Police officer (02:01:30:00)

374 (02:02:40:00)

375 Suggesting where the earlier discussed *Eagle Eye* got the idea for its own low altitude aerial-car chase.

376 (02:04:10:00)

Terminating the original trilogy,³⁷⁷ *Terminator 3: Rise of the Machines* (2003)³⁷⁸ further cement the staple of the H-K as the harbinger of unavoidable digital doom in early visions of apocalyptic machine-controlled future. It does so by first giving us a futuristic victory image – of a 45-year-old John Connor stands in front of an American flag³⁷⁹ on top of the destructed fuselage of a fallen H-K, surrounded by cheering rebels – then announcing in the Voice Over that this never happened. Less than a minute later, a beer bottle the present 20-something John Connor drops from the bridge he sits on, sink underwater and hits a river bottom full of bleaching human skulls. Raising slowly again above the dark waters, we discover that the lights penetrating them now belongs to a low hovering H-K. Looking bigger and meaner than its predecessors, the aerial machine fly with roaring engines into a devastated city horizon filled with explosions and flames.³⁸⁰

The shot is cut to a top view of the ruined city, just above an H-K maneuvering left to reveal another H-K flying beneath it, which in turn maneuvers right to display a whole army of bare-metal silver skeleton Terminators³⁸¹ marching on, with numerous H-K hovering and flying above them. One of the silver skeleton Terminators stops in Close Up, scans around and stares directly at the camera with its glowing digital red eyes, as 20-something John Conner awakes in the present from this terrifying possible flash forward, narrating in V.O. that 'I feel the weight of the future bearing down on

377 Before it became a fast deteriorating Hollywood franchise, with 3 more theatrical movies, TV series, etc.

378 *Terminator 3: Rise of the Machines* (2003), directed by Jonathan Mostow.

379 Slightly scorched but still flapping in a gentle breeze, because as we all know from Hollywood blockbusters, such as *The Third Day* (1996), etc. – the victory of humanity will always come wearing an American flag.

380 (00:04:15:00)

381 As seen in the opening scene of *Terminator 2: Judgment Day*, described in the previous pages.



me. A future I don't want.³⁸² He soon gets on his motorcycle and drives fast through the night on a dark winding road, only to quickly crash when he avoids hitting a pawn peacefully crossing his way. This man-machine-animal (Conner-motorcycle-pawn) encounter would prove as in the instigating event of this film.³⁸³ In parallel, the arrival of a T-101³⁸⁴ sent from the future to protect humans (Schwarzenegger again), occurring this time in the desert outside L.A., is preceded by a serpentine-moving snake leading us toward him through the wilderness, accompanied by a burning bush – a condensed timeline of biblical tropes.³⁸⁵

Almost an hour later into the movie, Air Force Colonel Brewster³⁸⁶ is walking around inside the secure military(-industrial) complex labs, trying to figure out what's caused the severe technological failure and the cyber-attack that took over all internet communication, civilian and military infrastructures, nuclear missile silo and submarines. He is wondering up loud 'Who's doing this? Foreign power or some computer hacker in his garage?'³⁸⁷ while a mini H-K test model is descending right in front of him from a vertical wind tunnel behind the lab's glass wall. The Colonel is being explained (out of frame) that the computer virus attacking them 'Keeps growing and changing, like it had a mind of its own.'

382 A feeling that any climate professional or ecologically aware person can testify for (00:05:09:00).

383 John's injuries will lead him to meet a young resourceful veterinarian, proving to be the person with whom he will form the future resistance movement.

384 Also known as the T-101 of the T-850 series, physically identical to the T-800 yet with the ability to override its initial programming and own protocol (demonstrated in its ability to self-terminate).

385 (00:12:40:00)

386 The same one who not long before gave the order permitting the military AI Skynet to take over their entire computer network so it could identify and destroy a digital virus of unknown origin. Yet he is also the one who insisted early on in the movie that he 'Still prefer to keep humans in the loop' (00:11:20:00).

387 (01:09:19:00)

while the fully armed mini H-K drone, with its two frontal red lights glowing like eyes, seem to be listening with intent while exercising agile maneuvers and threatening sounds. As the Colonel exit the frame, the camera lingers on the mini H-K drone, now presented with a screen target that it quickly follows and simulates an attack on. The rendered image of the armored vehicle it hits transform into red 'Terminated' text. Some minutes later, the whole compound is already under attack by the present early Terminators proto-type (T-1s), which have been activated and controlled by the future T-X terminator.³⁸⁸ The mini H-K joins the fight against the humans, lurching down from the grey skies and launching a missile directly into the Colonel's over-glazed corner office. Although the T-101 stands tall in the broken window frame trying to shoot down with an assault rifle the mini H-K, it has little effect on the well-armored attack drone. Escaping the destroyed office, John Connor and Kate Brewster (played by Claire Danes) are running away from other terminator threats through the corridors of the destructed complex, only to face the mini H-K which now appears behind blast doors accompanied by menacing score music,³⁸⁹ as if it is an homage to the unforgettable elevator doors shot from *The Shining* (1980).³⁹⁰ Drawing six missiles from stealth compartment in its wings base,³⁹¹ and missing with the two it launches, the mini H-K is then being shot relentlessly by Kate with an AK-47 she carries, until its explodes in

388 Schwarzenegger's current nemesis, portrayed by the half-Norwegian half-German actress-model Kristanna Loken, who can not only change her form but to control all other machines remotely. Pitting the massive Austrian Übermensch against a woman with a classic Aaryan look and attitude in a violent confrontation is a decision worth further looking into, alas, not within the scope of this text.

389 (01:21:40:00)

390 *The Shining* (1980), directed by Stanley Kubrick

391 A clear reference to dual stand-offs of classic Westerns.



mid-air.³⁹² In a final homage to the previous film, the T-X is piloting and crashing the same model helicopter³⁹³ used by the T-1000, in an attempt to prevent John and Kate from reaching the safety of ‘Crystal Peak’ (an abandoned doomsday Cold War-era fallout shelter for VIPs deep in the Sierra Nevada mountains). Yet the T-X is stopped and crushed under the excess of a much larger and obsolete helicopter³⁹⁴ piloted by the T-101 model, as it makes use of similar qualities and turning its weaknesses into advantages against this latest model of super sophisticated and clearly superior Terminator.

In conclusion, it can be claimed that the original *Terminator* trilogy presents a dynamic and deeply unsettling examination of human-machine-animal relations, with the drone—embodied through the recurring *Hunter-Killer* and its evolving cinematic iterations—serving as the central node around which Militarized Nature and techno-futurist anxieties converge. Through increasingly sophisticated renderings of autonomous aerial violence, the original trilogy³⁹⁵ not only anticipates the rise of drone warfare but embeds this technology within a broader ecology of systemic control, interspecies disruption, and existential dread. The films reveal how technological excess, cybernetic warfare, and the spectral return of the machine (embodied in the returning iconic phrase “I’ll be back”) transform nature into an operational field and animals into either detectors, collateral, or evolutionary commentary. As the drone mutates from ambient terror to a more integrated and autonomous predator, piloted even by liquid-metal intelligence, it becomes not merely a symbol of militarized surveillance but a

specter haunting both cinematic space and ecological order. In the trilogy’s layered temporalities and tactical reversals—from guerilla resistance to mechanical domination—the viewer is not only positioned within the crosshairs of machine vision but invited to witness the collapse of boundaries between human, machine, and animal. What emerges is not just an ethics of survival but a grim meditation on the trajectory of evolution itself—selective, weaponized, and increasingly unrecognizable.

Wild Warfare

God becomes God when the animals say: God.³⁹⁶

The blurring trajectory of evolution and interspecies relations in its broader sense is further emphasized with a visionary seminal scene from the thriller *The Bourne Legacy* (2012).³⁹⁷ In what is both an expansion and diversion of three earlier films,³⁹⁸ this movie is now focusing on Aaron Cross (portrayed by Jeremy Renner), a new protagonist yet one who is still subjected to the same Machiavellian covert intelligence community program familiar from the previous films. This program centered on forming ultimate field agents by enhancing their combat and survival capabilities with the assistance of advance scientific means – mainly high-tech medication, psychological indoctrination and DNA manipulation. They are also being constantly surveilled upon, monitored, and hunted as soon as they show any signs of insubordination (or if the program is in risk of getting exposed). At its foundation level, the film deals

392 Which also brings one of John’s best replica’s in the movie: ‘You remind me of my mother.’

393 Bell 206 model used in the famous *Terminator 2: Judgment Day* chase scene described in pervious pages.

394 Sikorsky SH-3 Sea King.

395 Before being completely caught in its own loop of fast deteriorating imitative, unimaginative and growingly illogical endless sequels, as if their filmmaking process itself no longer includes any ‘scriptwriters-in-the-loop’.

396 Berger, John, *Ape Theatre*, in *Why Look at Animals?* 2009, pg. 53.

397 *The Bourne Legacy* (2012), directed by Tony Gilroy, who was involved as a scriptwriter in the earlier films.

398 *The Bourne Identity* (2003), directed by Doug Liman; *The Bourne Supremacy* (2004), and *The Bourne Ultimatum* (2007), directed by Paul Greengrass.

with the notion of human evolution through scientific engineering—reconstructing a wornout posthumanist trope within the fenced militarymedicalcinematic territory. It is bristling with jargon and guarded by cliché watchtowers that prevent any sense of originality to stray too far from its own technological domain. Yet one such seed of an authentic idea—through a distinctive anticipatory imaginative image sequence—slips past the strict cinematic sentries and delivers a new perspective on interspecies relations,³⁹⁹ at least for a short while, before its being blasted apart.

This original idea takes the form of a wolf—a traditional predator—that becomes the target of a Targeted Killing operation. This apex predator—now prey—is hunted by a new technological predator, namely the **Predator** drone, positioning itself as the latest ruler in the existential food chain, replacing the human hunter.⁴⁰⁰ Again, as Frantz Fanon highlighted, “Sometimes this Manichaeism reaches its logical conclusion and dehumanizes the colonized subject. In plain talk, he is reduced to the state of an animal.”⁴⁰¹ In recent decades the drone became ‘a case study in how machines come to form part of this dualism, while vestiges of animalization remain in the insect, bird, and hunting analogies that name the aircraft.’⁴⁰² This early sequence therefore constitutes the highly relevant ideological crux of the film. And before that ideological freight overwhelms the narrative and the film fully sinks into a hollow imperialistic ash-legacy spearheaded by global pharmamilitarism’s viral march—it offers, briefly, a fresh hybrid of concepts. From his first frame on screen, Aaron Cross is presented as a paragon of human survival and determination: emerging from frozen

399 Despite the film’s heavy reliance on standard Hollywood spy thriller action violence cues and conventions.

400 And even the enhanced combatant field agent, acting also as a sort of Übermensch-sniper.

401 Frantz Fanon, *The Wretched of the Earth*, 2004, pg. 7.

402 Katherine Chandler, *Unmanning*, 2018, pg. 9.

waters, he soon wards off a pack of wolves with nothing more than an improvised burning torch while practicing martialart choreography.⁴⁰³ This happens right after a brief scene where a CIA chief admits a program leak – during a meeting in a luxurious estate somewhere along the U.S. Northeast – signaling us that keeping hungry predators at bay is something that would occupy Cross through much of the movie.

Later, we learn that Cross is indeed a cognitively enhanced soldier, the sole survivor of a combat unit wiped out in Iraq. Taken advantage of by the powers that be, he was upgraded with engineered viruses as part of a secret U.S. intelligence experimental program, fitting neatly into the tradition of conspiracy thrillers. But before the film settles into that familiar “deep state” trope—where cinema is being used both as an affirmation and undermining the concept of a clandestine shadowy government working behind the scenes⁴⁰⁴—it steers us toward a more raw, crystalline reality by unleashing the wolves. While Cross takes down his prey with a single sniper shot at the Alaskan wilderness, deepstate agents indeed prepare to assassinate a British journalist likely to expose their failings.⁴⁰⁵ That scene immediately cuts to a pack of wolves flanking a fawn in the snow, observed from Cross’s binoculars through the frozen distance.⁴⁰⁶ Soon after, outside the remote cabin where Cross has arrived to after his exhausting survival journey, he loads an unarmed Predator drone which landed on the ice with his blood samples, fulfilling a professional obligation to his anonymous employees in the Central Intelligence Agency.⁴⁰⁷ This

403 (00:03:40:00)

404 By presenting it as too exagurated to exist, but also too integral to the existing state-of-affairs, cemented deeply into conventional language and within the well-organized political economy which runs public lives.

405 The Journalist is soon shot from behind a billboard at a bustling station, also with a high power sniper rifle.

406 (00:08:20:00)

407 (00:20:00:00)



medicalresearch usage of a military drone—normally deployed for Targeted Killings—places both uses on the same narrative axis of events, as different projections of a shared field of operation.

When he hears the howling outside that night, Cross notes, “Wolves don’t behave like that—they don’t follow people for days.” “Maybe they don’t think you’re human,” responds his enigmatic host.⁴⁰⁸ Eight minutes later, Cross reveals his own uber-humanity when he’s able to survive – thanks to an incredible speed of movement and an acute sense of hearing that cuts through the sounds of Northern winds – a Hellfire missile strike from the now armed Predator drone, returning at dawn to hunt the cabin’s occupants.⁴⁰⁹ It takes him five more minutes to reverse the odds: with a few precise shots he downs the aerial war machine, leaving its Air Force controllers half a continent away in stunned silence. Two minutes later, another Predator drone cuts through northern snow toward Cross— who is now removing the tiny tracking device which was embedded in his flesh, trying to subvert the biopolitical rules he agreed upon when he accepted his physical and mental enhancements to become a biological war machine.⁴¹⁰ Yet it seems that even this more advanced cyborg technology—which allowed him to overpower another form of cyborg-like mechanism (the Predator drone with its human operators)—may fail when confronted by a wolf pack circling bleeding Cross, albeit all his preparedness.⁴¹¹ The human-animal-machine triangle converges in violent geometry: in a crosscut, the armed Predator and the snarling wolf simultaneously advance on wounded Cross. But Cross’s apparent weakness becomes a trap: as the wolf hangs in confusion midair after stepping into the snare Cross hide under the snow, the man wrestles down and forces the

408 Oscar Issac, portraying the anonymous host only known in the credits as Outcome #3 (00:21:00:00)

409 (00:29:00:00)

410 (00:35:50:00)

411 (00:37:30:00)

wolf to swallow the tracking device he removed from his own body, before setting it free. This swift move echoes Norse myths (Tyr sacrificing his hand to Fenrir the giant wolf, as Odin and the other gods bind the beast) and modern wildlife preservation strategies (attaching minitransmitters to wild animals to monitor their movement in collapsing ecosystems).

The wolf and Cross lock gazes in mutual suspicion, heads suddenly raised⁴¹²—proving the mutuality of their sharpened survival animal instincts.⁴¹³ They burst into run through the snowy forest, now that the presence of a new apex predator is audially revealed—even if still unseen. The Predator drone, tracking its target via the transmitter, launches a missile—demonstrating not just technical superiority (sensors more precise than senses, destructive long-range weaponry, multidimensional mobility) but systemic dominance: repeatability, replaceability, and unbearable ease of redeployment. Though not invincible—as Cross showed, it can be brought down with a counter determined technological effort such as a well-aimed high-power sniper rifle—it might reappear minutes later overhead, in a fresh metal airframe that is rolling off the military-industrial-entertainment conveyor. Exactly ten seconds elapse from the moment they commence their sprint until the missile finding its soft target—the fleeing wolf. This target exchange taking place without the awareness of the drone operators, absent and blindly reliant on sophisticated sensors which can still be misled, underscore the core weakness of the surveillance-hunt-kill platform⁴¹⁴—just one among many human fatalities and misidentifications in its deployment. But they also unwittingly expose a deeper truth: this act is a new symbolic mutation formed through an original

412 (00:39:40:00)

413 Although the later has proven superior mental-physical capacity for this wild feat, compared to the former.

414 Which also manifests itself in the numerous incidents of mistaken identification and the high number of victims considered as collateral damage.



image—that of the wild animal (formerly the apex predator) now hunted down by a drone’s aerial surplus.

This is a technological evolution of the opening scene of *The Thing* (1982),⁴¹⁵ which featured an aerial chase by a helicopter spraying the snowy terrain with automated rifle fire and grenades, pursuing what might be a wolf or a dog racing for survival across frozen Antarctic expanses. That usage of airborne machines for aerial hunting—echoing minimalist existentialist works like *Figures in A Landscape* (1970)⁴¹⁶ and ultimate warspectacles like *Apocalypse Now* (1979)⁴¹⁷—is now transformed: the quintessential aerial tracking-destruction machine mutate nature into an endless potential kill zone and invade every semantic and physical field to further recast relationships of force, asymmetry, and violent surplus. The Predator drone⁴¹⁸—the technological hunter dispatched globally from secure remote stations to prey upon soft targets—replaces its ecological predecessors at the top of the food pyramid in a clear act of appropriation, exploitation, and neutralization. The Predator marshals vast material, digital, and financial resources to utterly erase, in an exhibition of excessive destructiveness, the previous apex predators whose territories it now claims exclusively. To put it slightly more bluntly in light of this brutally aestheticized scene – with military drones hunting wolves, the enmeshed relations between *Threshold Technologies* and *Extinction Economies* are exemplified supreme.

Keeping all this in mind, let us linger briefly on the *Predator* (1987),⁴¹⁹ a film which merges in unexpectedly unique ways many

415 *The Thing* (1982), directed by John Carpenter.

416 *Figures in A Landscape* (1970), directed by Josef Losey.

417 *Apocalypse Now* (1979), directed by Francis Ford Coppola.

418 ‘The military seems to anticipate this changing relation with nature and technology in naming its drones: Global Hawk, Heron, Killer Bee, Mantis, Predator, Reaper, Raven, Sentinel, Scan Eagle, and so on. Electronic birds hovering in the air, circling over warzones, until they spot a prey and attack.’ As Ruban Pater claim in his essay in *Unmanned: Drone*. 2016. Pp. 44-45.

419 *Predator* (1987), directed by John McTiernan.

of the genres and the above-mentioned themes, while its title became the generic name for the most popular class of military attack drones.⁴²⁰ When a Special Forces rescue mission deep in the central American jungles goes terribly wrong, it is again the iconic Übermensch Schwarzenegger (this time as the ultimate human survivor)⁴²¹ which has to face the demotion down the food pyramid of our species. This drastic destabilization of the trophic cascade is done through superior technology of unknown origin which Dutch (Schwarzenegger) and his commandos are completely unprepared for. Yet this surprise comes only after realizing that they’ve been betrayed by their superiors, as the innocent humanitarians they were supposed to save from local guerillas⁴²² proved to actually be deceased CIA operatives with intel that they were deceptively sent to retrieve.

Even though Dutch and his team are the elite of the military-industrial-entertainment complex in every sense – supplied with the latest communication gear, weapons (such as a mini-Vulcan machine gun), and aerial support waiting to extract them from the jungles back into civilization – they soon sense their clear disadvantage. They can’t quite see that, because their singular supreme foe is using camouflaging technology unknown to them. Completely assimilated into its natural surrounding with this tech, like a military drone, this foe also makes maximum use of altitude – hunting the team members one by one from the treetops, with the protection and preferred vantage point it offers. Yet the ability to remain totally unseen even while conducting surgical strikes against team

420 As well as in screen appearances, as we saw from all the previous Predator and Reaper (its similarly looking replacer) drones mentioned in all the films above, and many more down the line of Hollywood movies.

421 In a role that would inspire generations of ‘preppers’.

422 Who were dramatically demonized during the 1980s under President’s Regan regime – a regime busy hassling arms and drug deals conducted by CIA operatives all over Latin America, in an attempt to destabilize local governments which were considered by the administration as less capitalist-focused and US-friendly.



members, is only one edge of the triangle of military drone attack technologies this other-than-human hunter uses against his targets. It also employs thermal imaging that allows it to find and identify his human prey (which are hunted merely as trophies) even in the most vision-challenging conditions of the dark, dense jungle, where experienced commandos which are champions of camouflage are hiding around. That thermal image reveal them as bright burning spots, in what was a cinematic breakthrough of special effects⁴²³ at the time. It is embedded so integrally into the narrative and working so seamlessly within the film's environment, that it marks not only the birth of an original visual trope leading to mass imprint,⁴²⁴ but its inception into the cultural field in an epistemological rupture that exposes otherwise ideological structure.

An essential part of the *Threshold Technology* that is the drone, and the *Extinction Economy* it serves, the thermal imaging⁴²⁵ clearly disclose the exchange of energy between living organism and their ecosystem. Set into a codify color palate,⁴²⁶ this form of technologically-enhanced vision⁴²⁷ detect not only living bodies but also their movements through time, as it traces heat prints left over physical landscape. It therefore adds a fourth dimension to the immediate environment through chronographic sight, at the same time proposing the essential ecological entanglement of all living organisms with each other within an energy-exchange based existence. The

423 Especially when worked together with the camouflage effect of the titular predator.

424 Think of the Bullet-time effect of *The Matrix* (1999), directed by Lana and Lilly Wachowski, for example.

425 Which the drone made ubiquitous, unlike the rare satellite thermal view presented in films such as *Patriotic Games* (1992), directed by Philip Noyce.

426 That alters according to its different uses and the equipment generating it – changing from strict green to greyscale to full color spectrums.

427 Which some animals have naturally, including certain popular snakes (rattlesnake, boa, pit viper, copperhead, python), fish (salmon, carp, guppy, piranha), insects, bullfrogs, mantis shrimps and vampire bats, among others.

last aspect of the technological military drone trinity that the film's Predator retains is an advance sort of energy-based weapon, which locks on its targets by forming a symbolic triangle of three laser-like red dots, before severing their lives. Simultaneously using heat (to detect and attack) and assimilation into nature by mimicking its surrounding as part of its counter insurgency tactics⁴²⁸ — the technologically-enhanced more-than-human Predator seem to distinctly have the upper hand in this violent asymmetric engagement, one that mirrors earlier equation that can be simplified into Drone vs Wilderness. Assuming here the role of an early hybrid human-oid-drone, the film's Predator is also spending precious screen time surveilling and studying his potential prey, looking directly at them without being seen, and since it actually captures their images through its thermal technology, one cannot but recall Susan Sontag's statement that:

[T]here is something predatory in the act of taking a picture. To photograph people is to violate them, by seeing them as they never see themselves, by having knowledge of them they can never have; it turns people into objects that can be symbolically possessed. Just as the camera is a sublimation of the gun, to photograph someone is a sublimated murder.⁴²⁹

The film's Predator do all of the above and more, as the images it takes indeed lead to brutal deaths and their physical possession,⁴³⁰ the sublimation evolves into the actual act of killing. The sole exception is Dutch, who's combination of experience and adjustability allow him to survive the hunting spree and yet again reverse the roles of predator and prey. Adapting to his technological inferiority

428 Better known through the US Military acronym COIN (Counter Insurgency).

429 Sontag, Susan. *On Photography*, 1979. pp. 14-15.

430 In the form of the trophies it keeps, mainly the skulls of its victims.

and the difficulties the jungle form for a rapid escape, Dutch turns these into an advantages – weaponing the ecology around him by making deadly traps, using cooling mud as an armor from thermal scanning and making better-suited arms to fight his foe. As the latter’s technologically advance COIN measures fail one after the next, facing with Dutch’s resilience of regression into nature and a primaevial state of existence-survival,⁴³¹ the film’s Predator also start striping itself from its sophisticated scientific-war excess. It dispose of the no-longer effective long range weapons, armor and finally its distinctive helmet-mask which contains its thermal sight.⁴³² Seeing now the clearly biologically-origin (even if alien) unfamiliar face of his foe, Dutch mutters in confusion: ‘What the hell are you?’. This statement indicates that without its battle-constructed veneer of futuristic war tech, this unknown enemy hunting the last man standing through the nocturnal eternal jungle – forcing him to survive by ancient instincts and drives to bond again with the ecology⁴³³ – is revealed (or rather perceived) as a monstrous beast. There is a less conventional reading of the movie suggesting that the film’s Predator is a manifestation of Dutch’s super ego, while he himself slowly retreat into his own Id, as part of a sever PTSD-induced psychological crisis triggered by discovering his best friend betrayal as part of the CIA scheme. With the film’s Predator appearing right after exposing this terrible truth, the rest of the plot suggest that in his schizophrenic state, it is Dutch that is responsible to the killing of his subordinates, which are still carrying the CIA orders. Finally, when they are all gone, he have to

431 Including self-shielding with full-on mud covering; moving through the jungle monkey-style by hanging from branches, using vines and air-roots to jump from one tree to the next; then the rediscovery of fire, sort of speak, that is used to overwhelm the advanced technology of thermal vision (01:33:20:00)

432 (01:35:30:00)

433 With Dutch literally need to hug trees in order to make it through his own hunt. (01:27:57:00)

face himself – in his most paranoid and violent monstrous form, echoing Schuster’s interpretation to Kafka’s short story ‘The Burrow’:

This doesn’t necessarily mean that the beast is not real—there may very well be a predator out there. But the beast’s existence or non-existence would not change the fact that the beastly Other is a structural component of the mole’s security-complex.⁴³⁴

The symbolic transfer of the tracking device from Cross to wolf, and the Predator’s thermal visualization of human heat signatures, demonstrate how contemporary warfare technologies dissolve the boundaries between biological and digital realms, where living beings become nodes in algorithmic targeting systems. The regression sequence in *Predator*—from high-tech weaponry to primitive survival tactics—mirrors the paradoxical trajectory of *Extinction Economies*, where technological advancement accelerates ecological collapse, which in turn will force survivors back into primordial relationships with their environment. Yet this return to “nature” is itself already contaminated by the surveillance apparatus, as Dutch’s mud camouflage and Cross’s wilderness survival merely constitute temporary glitches in an omnipresent sensing network. Ultimately, these embodied scenes, grounded in spectacle yet rife with implication, call us to reinterpret not only the narratives we consume, but the techno-ethical structures shaping our world—demanding vigilance toward the predator logic now deployed both across digital platforms and planetary ecosystems.

434 Schuster, Aaron, *Enjoy Your Security: On Kafka’s “The Burrow”*, <https://www.e-flux.com/journal/113/359952/enjoy-your-security-on-kafka-s-the-burrow/>

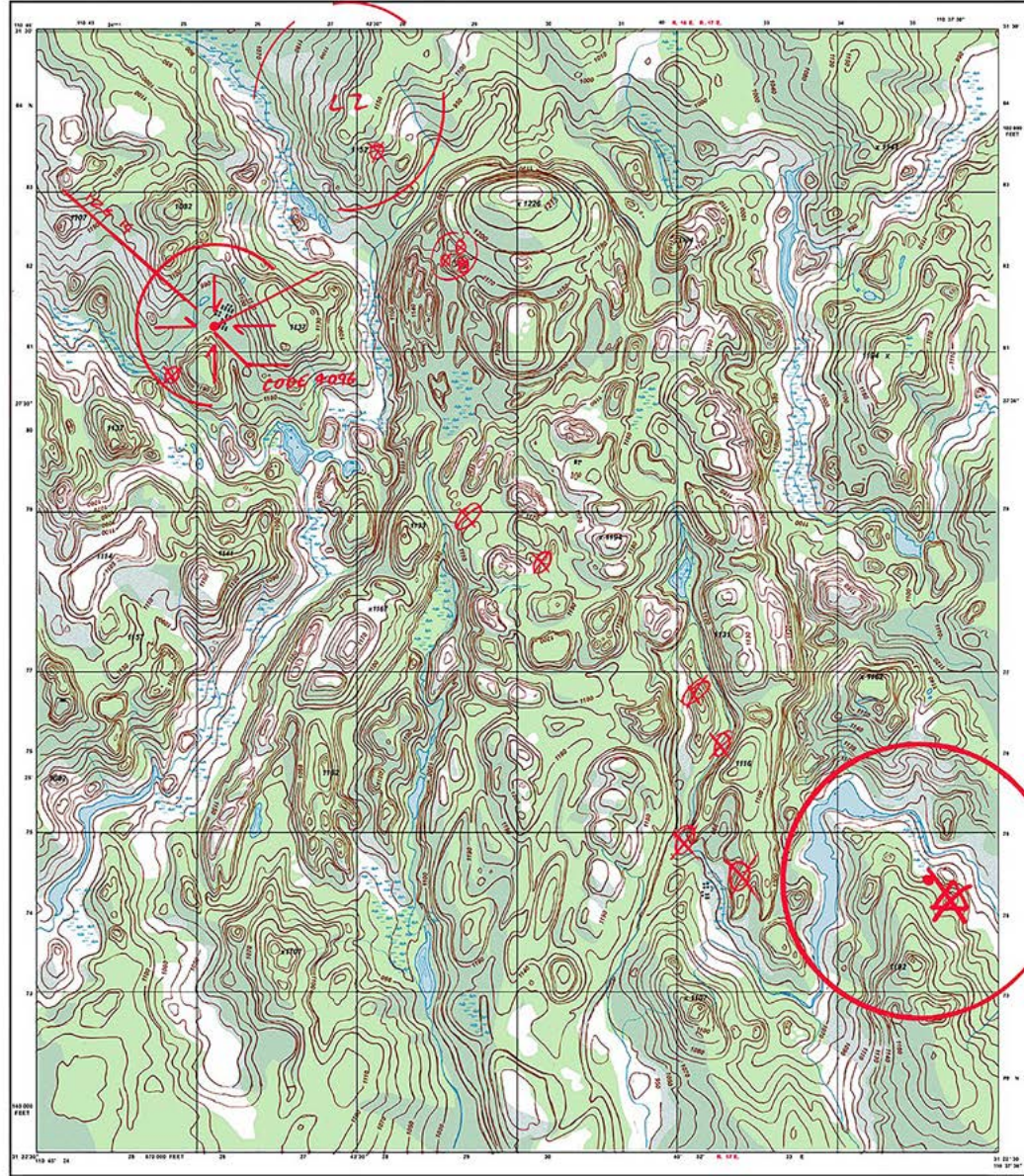
PREDATOR

UNITED STATES

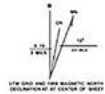
VAL VERDE QUADRANGLE
GUATEMALA (TOPOGRAPHIC)

A JOHN McTIERNAN FILM

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS



Map by the Army Map Service
Edited and published by the Geological Survey
Control by USGS, USGASL, and USCE
Topography from aerial photographs by stereophotogrammetric methods
Aerial photographs taken 1963. Field check 1968.
Revised by the Geological Survey 1967.



CONTOUR INTERVAL 25 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



THIS MAP IS AN OFFICIAL DOCUMENT, IF FOUND IT MUST BE HANDED
IN TO THE NEAREST MILITARY HEADQUARTERS OR POLICE STATION.

Mercenary Mentality

No, I do not watch over my own sleep, as I imagined; rather it is I who sleep, while the destroyer watches.⁴³⁵

Thinking on that beastly Other as ‘a structural component of the mole’s⁴³⁶ security-complex’ that Schuster mentioned, one’s mind naturally wonders back to the murky domains of the ‘War on Terror’ with its array of imperial tropes and their cinematic representations. Prominent among these, which receive a thoroughly procedural-like and authenticated version, at least as a Hollywood fiction film – is the hunt for Usama Bin Laden. The instigating event⁴³⁷ which set the film *Zero Dark Thirty* (2012)⁴³⁸ in motion is disclosed only in minimalist writing on a black screen – September 11, 2001. This is accompanied not by any images, moving or still, but only by documentary audio fragments of air traffic radio communication and phone recordings – a few rough-sounded sentences from broken conversations with victims still hoping to survive within the towers. The screen remains dark.⁴³⁹ As Katherine Chander reminding us, going back to the 80s:

In 1986, a secret report by the CIA entitled “Remotely Piloted Vehicles in the Third World: A New Military Capability” considered the emerging roles of unmanned aircraft. Rather than assert

435 Kafka, Franz, “The Burrow,” *Complete Stories*, 1971. Pg. 335

436 Which strongly relates to the mole Deleuze sees in the Societies of Control, as discussed in Part 3.

437 As well for the contemporary surveillance state and its fast spreading economy. See for example Shoshana Zuboff’s *The Age of Surveillance Capitalism* (2019) and other works, again, mentioned in Part 3.

438 *Zero Dark Thirty* (2012), directed by Kathrin Bigelow

439 Sticking to the frightening logic of horror films, in which much is relayed on sound design while the audience imagination effectively work to fill in the visual gaps with its own terrifying scenarios and images.

remotely piloted vehicles (RPVs) primarily in the Cold War arms race between the United States and the Soviet Union, the report proposed their import for conflicts in the “Third World.” In other words, the report situated the aircraft in a postcolonial context rather than aligning it with the global superpowers that had dominated the Cold War (...) ⁴⁴⁰

The report attributes the rapid legitimization of remotely piloted vehicles (RPVs) to their proven effectiveness by the Israeli military in the 1982 Lebanon conflict, highlighting their potential as low-cost platforms for reconnaissance and electronic warfare. It notes that such systems could expand surveillance capacities and, depending on configuration, be used to jam communications, target surface-to-air missile sites, or deliver standoff munitions. At the same time, the authors warn that an RPV equipped with explosives—if transferred to a non-state actor—might be employed for surprise attacks against diplomatic or strategic sites. Although they admit this scenario was improbable, the report nevertheless foregrounds the possibility of a terrorist RPV strike as one of its principal findings:

By 1986, the formulation of unmanned aircraft as guided bomb was refashioned as a *terrorist* mode of attack, demonstrating shifts in understandings of the enemy from foreign enemy soldier to the trope of the suicide-bomber-as-terrorist. I emphasize how the U.S. military refashioned tactics described by the report as legitimate targeted killings, rather than terrorism, in the war on terror.⁴⁴¹

440 Katherine Chandler, *Unmanning*, 2018, pg. 104.

441 Ibid, pg. 105.

This CIA report anticipate the accelerating gravitation of major armed conflicts upcoming in following decades from the existing polars of power toward a different sort of center, which would soon crash catastrophically into civilian lives.⁴⁴² The report simultaneously disperse this conflict to correlating corners by the competing duplicity of the drone and the suicide bomber, connected by a strategic delivery of death that implicates Israeli 'battle-proven' advance technology⁴⁴³ and 'Third World' terrorist trajectory with the unmanned aerial aircraft in its core.

After almost 90 seconds of snuff sounds in total blackness opening *Zero Dark Thirty*, appears a '2 Years Later' screen title and we find ourselves in a derelict interrogation room within a CIA black site in undisclosed location, witnessing a man being tortured by Dan (portrayed by Jason Clarke), one of the Agency's chief field operatives. This Enhanced Interrogation⁴⁴⁴ – with its various degrees of violence, humiliation, hospitality and conversation (after

442 Yet an in-depth discussion on the full-spectrum of the anticipatory imaginaries (of cinema and other media) which preceded the 9/11 attack is beyond the scope of this current work.

443 Chandler further suggest that 'Positioning Israel as both the leading developer of RPVs and a "Third World" country is significant. Labeling Israel as "Third World" in the report elides tensions that marked Israel's relationship with much of what was believed to constitute the "Third World," a term used to describe developing countries in Latin America, Africa, and Asia not aligned with the United States or the Soviet Union during the Cold War. For instance, it would have been used to describe Palestine, Lebanon, Syria, and Jordan, Israel's enemies in the 1980s. Another term in the 1980s often used to describe Israel, along- side South Africa, Taiwan, South Korea, and some Latin American countries, was "pariah state." This indicated its status outside the international order as "a small power with only marginal and tenuous control over its own fate, whose security dilemma cannot easily be solved by neutrality, nonalignment, or appeasement, and lacking dependable big-power support." I point to this definition from the 1980s not to weigh in on its assessment but to suggest how the RPV in the CIA report fits with a field of war defined by perpetual insecurity on the margins of the international order.' Ibid, pg. 106.

444 As the euphemism goes, which was also coined as a legal term for this turn of events in the 'War on Terror'.

waterboarding the detainee and walking him on all four wearing dog collar, among others) – will be the 'main show', sort of speaking, in the upcoming 45 minutes. This includes an entire array of torture techniques watched as video documentation of many such interrogations on a small, pixelated TV screen by the film's real protagonists, Maya (played by Jessica Chastain). Watching this is an integral part of her (and ours) rough rite-of-passage initiation ceremony⁴⁴⁵ into the intimidating post-9/11 shadowy world and its global terrorists hunting task. It is only after normalizing this painfully problematic practice as the only recourse of action for receiving valuable intel, that we'll get our first glimpse of military drone footage. That occurs on various screens in the background of Maya, who's sitting and speaking casually on the phone.⁴⁴⁶

Yet what is viewed in the greyish grainy thermal images before her is not a potential Kill Box or a surveilled enemy compound, but Camp Chapman in Afghanistan – a highly militarized section of desert altered into a heavily fortified US army base – where a new informer is about to meet a CIA field team. While this meeting turn out to be a suicide bomber attack against the CIA operatives, we don't see any of it on the drone screens but from a much lower aerial perspective. Such perspective has already been incorporated as part of the film's conventional cinematic language,⁴⁴⁷ used as establishing shots of US bases in the Middle East, capturing some of their scale and vehicle mobility (mostly helicopters) while establishing them as essential part of the new Imperial power projected

445 We later learn that not only she was dropped to the field (and not volunteered) after very little time and training for the task, but that she was recruited by the Agency for the Job fresh from high-school.

446 (00:53:20:00)

447 With full rich color spectrum, the high-quality of cinematic lenses and sharp focus all around – in contrast to the greyish grainy thermal images identified as drone perspective on screens, as mentioned above.



with excess into the wilderness.⁴⁴⁸ This shift from the drone to the suicide bomber forms a strong correlation between the two – with one being perceived as the cause for the other and vice versa, in an eternal loop of a ‘low-intensity’ mutation for a ‘mutual assured destruction.’⁴⁴⁹

This troubling connection, tightening the interweaving relation between the drone and the suicide bomber, was suggested early on by Walter Benjamin, way before it became an alarming reality.⁴⁵⁰ And while Hollywood had alluded this before, as shown throughout this project, it later claimed it directly – with a scene from *The Amateur* (2025)⁴⁵¹ bluntly switching between the words ‘Suicide Bomber’ and ‘Drone’ attack in an extreme close-up of ‘doctored’ confidential CIA papers being flipped from one page/word to the other before our very eyes. This representation is reinforced by Chandler’s insight that “Technical discussions and military reports indicate how the assault drone was likened to racialized suicide bombings, as does the title of James Hall’s memoir about the top-secret assault drone

448 Forming well-organized grids of structures, facilities excess roads, fences, airfields, security perimeters, watch towers, etc. that control and conform the seemingly empty desert land to their militarized needs.

449 ‘Low-Intensity Conflict’ is the general geo-political military doctrine that aimed to transfer the dangers of direct superpowers armed conflict into a series of smaller-scale skirmishes that are manifested in many remote territories (mostly of developed countries) around the world, fought with proxies or in ways that would not lead to potential face-off collision between the superpowers. This Cold War strategy, leading to numerous local wars in the second half of the 20TH century – all through Latin America, Africa, the Middle East, Southeast and later Central Asia – was supposed to act as a safeguard against the ‘mutual assured destruction’ that would occur in case the superpowers (US and the Soviet Union) get into a direct confrontation, escalating into nuclear war.

450 Benjamin, Walter, artwork essay, 2nd version. According to Benjamin human sacrifice is typical of “first technology” and non-manned airplane of the “second technology”. A somewhat intriguing, strange resonance to how Anna Tsing addresses ‘First Nature ‘ and ‘Second Nature’, as earlier discussed.

451 *The Amateur* (2025), directed by James Hawes, a remake to *The Amateur* (1981), directed by Charles Jarrott.

unit, *American Kamikaze*.⁴⁵² Yet it also connect together couple of other critical points, the first being that ‘(...) the modern U.S. state is organized by the imperative of technological advance, which normalizes state power through the development of weaponry and attendant notions of enmity, conflict, and rationality.’⁴⁵³ That in turns bring into attention, if not the inception, than the assimilation of this normalization through drone epistemology as early as post-WWII:

The emergence of strategic reconnaissance marks a shift from earlier aerial reconnaissance, collected largely during wartime and conceived within and as a part of military strategy. Instead, surveillance becomes part of peacetime mobilization tied to an atmosphere of continuous threat. Its practice was connected to two new military institutions inaugurated in the postwar period: the Central Intelligence Agency (CIA) and the air force. While the automatic functions of drone targets were promoted to the public as a mechanized “enemy,” unmanned aircraft were secretly tested by the United States as a platform to collect surveillance.⁴⁵⁴

The tech-savvy and surveillance-laden espionage thriller which *The Amateur* professionally present to us claim that a crafty CIA chief has been using drone strikes in volatile places⁴⁵⁵ and disguising them as adversarial suicide bombers attack. He then changes the related sensitive field reports, and with them the geo-political map accordingly to his over-patriotic agenda. Putting the blame on a single rogue official – and therefore assuring the spotlessness of the rest of the organisation, the administration it serve and the society

452 Katherine Chandler, *Unmanning*, 2018, pp. 13-14.

453 Ibid, pg. 122.

454 Ibid, pg. 70.

455 Africa, the Middle East, etc.

at large – is a known conservative ideological move that camouflage the involvement of other culprits and avoid any responsibility.

In *Zero Dark Thirty* we would never witness a drone strike, nor the aerial vehicle itself. The closest we get is in brief mentioning through a car radio, with a news announcer informing us that the protests outside the embassy (with ‘Stop American Terrorism’ sign) are caused due to the CIA’s head of station in Pakistan ‘being named publicly in a lawsuit, by a family of a victim of a US drone attack’.⁴⁵⁶ With the striking similarities between their use of high-explosives, performed in the public eye (while being practically unseen),⁴⁵⁷ acting as an extension of uncompromising militaristic ideologies, and their indifference to collateral damage – the logic that drives drone strikes survivors, victims’ relatives and wider circles to compare drone assaults to terrorist acts, and specifically to suicide-bomber attacks, is well demonstrated in this brief scene. Soon after the demonstration we’ll find ourselves in ‘Predator Bay, CIA headquarters’⁴⁵⁸ – the heart of the US remote drone control center, where the possible compound of UBL⁴⁵⁹ is seen at large on the rooms’ triptych of central screens. Not much later we’ll see Maya again, now almost alone in the room, staring at a single screen⁴⁶⁰ which shows drone imagery of the suspected compound. Cutting to a medium-close behind Maya’s back, both she and the slightly rotating image (due to the slow movement of the drone) are blurred and out of focus.⁴⁶¹

456 (01:26:20:00)

457 Or at least extremely difficult of being detected in advance.

458 As the superimposed white text in the center of the screen discloses (01:35:45:00).

459 Usama Bin Laden, referred to in the film mostly by these initials, as if it was just another military acronym.

460 Most screens in the room are darkened at this point (01:39:27:00).

461 Maya is blurred as the camera is focused on the screen she stands in front of, and the screen is blurred due to the nature of drone imagery, oversize and extended in order to cover the high resolution massive digital screen.

Now with ‘Predator Bay’ as one of the anchor locations for identifying their alleged target, the next scene demonstrates the act of analysing drone imagery and its detailed process. Using cows as key measurement for scale, CIA personnel can deduct height of objects and therefore age of people, distinguishing between children and adults (‘they’re probably between 7 and 9’), while also assessing gender (‘This is the cloths line, right here for laundry. Men don’t mess with the wash’) and the number of people occupying the compound by behavioral patterns.⁴⁶² In the following scene, same drone imagery is displayed on several screens in the ‘Situation Room, the White House’⁴⁶³ where the CIA senior official is briefing the Presidents’ skeptic advisors about the many CIA’s schemes (with correlating intercuts) used to try and authenticate UBL identity. The drone imagery therefore becomes a bland background for assortment of imaginative espionage fantasies, and their constant failures. In a sense, this attempts at analysing aerial images and their failure to manifest into action brings to mind Blümlinger’s observation that:

In the same year, 1944, the allies bombed, not Auschwitz, but the IG Farben factory nearby the death camp. Drawing on analyses of these events, how and why the allies didn’t act on their knowledge of the mass destruction of the Jews, Farocki developed his most important film. *Images of the World and the Inscription of War* (Bilder der Welt und Inschrift des Krieges, 1988) decodes a host of military images, focusing on two visual diapositives: American pilots in 1944 and CIA agents in 1977 offering two different lectures on the aerial photographs of Auschwitz.⁴⁶⁴

462 (01:40:25:00)

463 (01:41:09:00)

464 Blümlinger, Christa, An Archeologist of the Present, e-flux Journal, issue #59, November 2014, <https://www.e-flux.com/journal/59/61092/an-archeologist-of-the-present/>



September 11, 2001



BLACK SITE
Undisclosed Location



When the operation to kill UBL finally takes place during the last act of the film, with a team of navy SEALs sent in top-secret stealth black helicopters⁴⁶⁵ to the suspected compound, drone footage plays a relatively minor role. It seems it appears only to verify that the nocturnal helicopters have indeed reached the compound, seen in a slightly delayed action⁴⁶⁶ flying into the frame on the bluish hued screen Maya is staring at. Then, a minute and half later, the last drone image in the film is shown.⁴⁶⁷ This frame containing the stealth helicopters⁴⁶⁸ as two white shadows in thermal greyscale and the compound around them shown on different and higher placed screen in the control post, right after one of the officially non-existing helos⁴⁶⁹ has crash-landed into the compound's animal area, frightening the disturbingly protesting goats and cows. *Zero Dark Thirty* only insinuate the presence of other-than-human species in its intricate cinematic infrastructure, keeping its involvement within the human-machine-animal triangulation to this key helicopter invasion scene,⁴⁷⁰ where we see a military trained

465 Presented for the first time as a highly classified experimental program in the infamously secretive Area 51 US Air Force base in the Nevada desert.

466 (02:01:55:00)

467 (02:03:21:00)

468 Resonating clearly the image of military helicopters carrying Special Forces on a remote kill mission, thermally seen on a faraway control room screen from *Patriotic Games* (1992).

469 A military shortening and alteration for helicopters.

470 Which in a sense acts as the antithesis of the most famous helicopter invasion scene in the history of cinema, that of the ultimate self-introspective war spectacle, *Apocalypse Now* (1979) – essentially also a film about Special Forces representative sent on a classified assassination mission against an unreachable opponent. In complete contrast to the epic show of operatic proportions that *Apocalypse Now* helicopters perform, part of 'Shock & Awe' tactics involving overwhelming fire power as well as Psy-Ops usage of sound as weapon, *Zero Dark Thirty's* helicopter invasion is as low-keyed as one can imagine, with great attempt taken to keep silence and invisibility – stressing further how far the drone attack mentality has taken over the military mindset.

German shepherd coming out of the landed helicopter metal hull as integral part of the SEALs team.

Before that, animals were presented in the film only as mean for scaling – either by comparing their size to the humans around (as the cows mentioned above), or by simply comparing them to humans within the first part of the film. This was done not only by forcing detainees to wear dog collars while being walked on all fours,⁴⁷¹ but with an open aired cage holding pet monkeys which is situated just next to the detainees torture facilities and open aired cages.⁴⁷² These monkeys are seen being fed from an ice-cream cone by the CIA chief interrogator Dan,⁴⁷³ interacting positively with them while being playful and seeming happy for the first and only time throughout the film.⁴⁷⁴ Soon we would find him completely desolated though, sitting alone outside the empty cage and when approached by Maya, disclosing to her that he's leaving the field and

471 In Islamic belief, dogs are often viewed as ritually unclean.

472 Which brings us back to Eyal Weizman 'Are They Human?' where he then continues that: 'In the nineteenth century, pro-slavery politicians were, according to Cribb, Gilbert and Tiffin, more inclined to accept the possible humanness of the orangutan, for if the ape was part of humanity, humanity could more justifiably be stratified into a hierarchy of races, with white man on top, the orangutan at the bottom, and the pigmy, blacks and other peoples in between. These advocates of slavery also recalled a Javanese belief that the orangutan was able to speak but chose not to do so for fear of being put to work, taken as slave or made to pay taxes.' Weizman, Eyal, 'Are They Human?', E-flux, *Superhumanity*, October 2016. <https://www.e-flux.com/architecture/superhumanity/68645/are-they-human/>

473 Actor Jason Clarke later confirmed that the monkey cages were in fact present on the base in real life. <https://movies.stackexchange.com/questions/10053/why-does-dan-feed-and-play-with-the-monkeys> (retrieved 24/4/24)

474 With a smiling security guard coming by and saying, 'You agency guys are twisted.' (00:36:18:00) A few seconds before that, we could see a wider frame with Dan playing with the monkeys in the foreground while detainees in orange jump suits are held in standing cages in the background, and a Blackhawk helicopter (the original model from which the later invading stealth version is developed) approaches to land from the skies.



moving back to Washington. ‘They killed my monkeys.’⁴⁷⁵ He tells Maya in a broken voice, before warning her she has to be careful with the detainees now that politics are changing, and that she ‘Don’t wanna be the last one holding a dog collar, when the Oversight committee comes.’⁴⁷⁶ The scene actually closes the early Enhanced Interrogation chapter of the film, leading up to other means of sensitive data extraction, with the earlier mentioned drone imagery analysis being highlighted as one of its main tradecraft tools.⁴⁷⁷

It seems that in *Zero Dark Thirty* the drone does not dominate through spectacle but through quiet insinuations—embedded in screens and analytic routines that mirror the film’s own calculated detachment. What begins in total darkness and disembodied voices ends, at least through the drone perspective, with thermal outlines and blurred surveillance, in the animal pound. From here until the credit rolls, some half an hour later, we’ll be almost exclusively part of the Point Of Views of the SEALs – in greenish brightly enhanced militarized night vision – as they quietly take over the compound, invading space after space, neutralizing body after body. The film offers no catharsis, only a procedural flattening in which the logic of remote warfare renders violence ambient, indirect, and ever-expanding. Here, the drone is less a weapon than a worldview: diffuse, anticipatory, and embedded in the infrastructures of empire that remake both landscape and life as operational fields.

With its cinematic assemblage of pseudo-political self-critic and patriotic practicality, *Zero Dark Thirty* still stands as a complex exercise in extracting ethics from the murky waters of the ‘War on

Terror’, especially when compared with propagandistic heroic tales positioning the assault rifle-holding (and almost exclusively) white American man as the last line of defense.⁴⁷⁸ Summarizing the presence of cinematic drones merely used as props for enforcing the violent power of militant white males and their perspective supremacy, is the troubling trilogy *Olympus Has Fallen* (2013),⁴⁷⁹ *London Has Fallen* (2016),⁴⁸⁰ and *Angel Has Fallen* (2019).⁴⁸¹ Troubling as it is – due to the disheartening simplistic world view it presents, which is embedded into the surface deep heroization of a volatile protagonist with a clear sadistic streak (portrayed by Gerald Butler), and the glorification of his gory exploits that bluntly solves any issue by brute force alone – this trilogy still show an intriguingly important evolution in the representation of the drone. Within the 6 years in which its 3 movies were produced in sequel installments, this trilogy show the drone switching hands from being a simple terrorist tool of inspection, into becoming an essential part of the American all engulfing global state surveillance system, and then transported back into unlawful hands, this time as a super-sophisticated swarm assassination apparatus used by rogue elements in the military-industrial-entertainment complex.

Following the slow motion fall of an American flag⁴⁸² from the roof front of the now-captured White House, heavily filtered in doomed dark red dusk hues, *Olympus Has Fallen* cut to the ombre silhouette of a masked terrorist throwing a small hand-launched drone up into the air, standing on top of the very same roof. This

475 (00:45:39:00)

476 (00:45:58:00)

477 Tradecraft, in the context of the intelligence community, denotes the techniques, methods, and technologies employed in contemporary espionage and the process of intelligence assessment. It serves as a key term in the film, which structures its chapters around such coded terminology and titles them accordingly (e.g., ‘The Saudi Group’, ‘Tradecraft’, ‘The Canneries’, etc.).

478 With no automated flying machine daring to steal the show by dishonoring the ‘ancestral right’ of an all-hailed male warrior ethos.

479 *Olympus Has Fallen* (2013), directed by Antoine Fuqua.

480 *London Has Fallen* (2016), directed by Babak Najafi.

481 *Angel Has Fallen* (2019), directed by Rick Roman Waugh.

482 Singed, side-torn and bullet-riddled, this flag was taken down the pole with apocalyptic gestures accompanied by uber-dramatic music.

somewhat DIY guerilla-upgrade looking⁴⁸³ drone bluntly symbolized the taking over of one of the most American of visual icons.⁴⁸⁴ Simultaneously responsible for this symbolic loss of freedom and the destruction of the American dream, while suggesting what could happen when such surveillance technology falls literally to the wrong hands – and when the White House itself falls to the wrong hands⁴⁸⁵ – that small drone seem to carry much more than what its thin wings can hold. In that sense it is a hyper-object that can contain numerous projections, doubling as a stand-in for the high-end military drones used aggressively by the United States and its allies. Surrogating for a threat which cannot be directly addressed – the fear of being surveilled by one’s own state – the small drone is both strangely familiar and yet foreign-looking, incapable of attacking or having too autonomous capabilities (unlike the official, even if covert, state drones), while being physically thrown into action by a foreign hand which is trying to take over the US of A. This small drone, soaring high in front of the dark smoke column covering the skies and used for close range surveillance around the now terrorist-occupied White House, will remain surprisingly unseen for the next 40 minutes. It will still remain so to state officials in a remote control center, who are using top view thermal satellite imagery to study the White House and its surroundings while planning an aerial insertion of Navy SEALs team in armed

483 Correlating to similar sort-of DIY and homemade drones used by Al-Qaeda and Hamas at that time.

484 (00:40:49:00)

485 Which could also mean a political party on the opposite side, as we saw in the January 6 United States Capitol attack by right-wing American citizens, believing in a conspiracy theory that the White House has been taken over following what they saw as rigged elections. “The attack disrupted a joint session of Congress convened to certify the results of the presidential election of 2020, which Trump had lost to his Democratic opponent, Joe Biden. Because its object was to prevent a legitimate President-elect from assuming office, the attack was widely regarded as an insurrection or attempted coup d’état.” <https://www.britannica.com/event/January-6-U-S-Capitol-attack>

Blackhawk helicopters.⁴⁸⁶ The small drone, flying now high in the night above the capitol’s grid of colorful lights, easily exposes the six low approaching helicopters below him to the high tech terrorists in the presidential bunker, which in turn activate advance anti-aircraft weaponry that picks and blow the Blackhawks off the skies one by one, until the last assault helicopter aborts the rescue mission.

The instigating event that triggers the sequel *London Has Fallen* into motion is a drone strike commanded from Creech Air Force Base, Nevada.⁴⁸⁷ The mission is conducted over Pakistan, where ‘infamous arms dealer, Aamir Barkawi’⁴⁸⁸ (who is ‘instigating violence in remote capitals to foster instability and thus fuel massive arms sales around the globe’⁴⁸⁹) is having his beloved daughter wed. With a Zoom Out pull of a top view of the guarded palace – becoming a slightly pixelated yet still colorfully rich image on the screen at Creech, and cut to a pat on the drone’s operators shoulder, a close-up of a joystick being pushed forward and extreme close-up on eyes looking at the screen – the command is executed. We never see the actual pressing on the button, the missile launch or the drone, just an explosion and the dense smoke it produced.⁴⁹⁰ That smoke soon cut into an image of a freshly flapping American flag with the superimpose ‘Two Years Later’,⁴⁹¹ suggesting the rest of the film as its expected aftermaths. Barkawi’s revenge starts then with a series of vicious attacks all over London (where world leaders joined for a state funeral) including an assassination attempt on the

486 (01:20:20:00)

487 As the superimposed text specify (00:04:49:00).

488 As an unseen news announcer informed us in the audio during the film’s opening title sequence (00:01:31:00).

489 (00:01:45:00)

490 Unlike the somewhat similar settings starting *Eagle Eye*, this time with a wedding instead of a funeral.

491 (00:05:28:00)



American President, random gunning down of civilians⁴⁹² by numerous imposter Police officers, security details and first responders. These imposters also shoot actual members of the Police and secret security agents, while exploding many of UK capitol's landmarks – the London Cathedral, London Bridge, etc. It continues with a light-out over London, in a pincher maneuver of cyber-attack and remote explosions of communication tower responsible for transferring surveillance footage to the central Police headquarters, its main wall of screens now going dark in a domino effect.

Meanwhile in the White House Situation Room, high officials inform the Vice President that 'We've tasked satellites and drones to get eyes on, but so far nothing.'⁴⁹³ They soon announce that 'Sentinel Drone is on station. We have visuals incoming' as a highly cinematic aerial image of smoked London, seen from a side view, replace all earlier top views and data details on the large wall screen. Only after staring at it shockingly and dispensing quick commands someone calls: 'Satellite is up' yet the drone footage is clearly prioritized over that of satellites, dethroning it from the trophic pyramid of intel data and its imagery hierarchy,⁴⁹⁴ which it ruled for many decades. Still on the entire wall, as the only show in town, the drone image – now similar in its visual style to the one we saw in the beginning of the movie, as a colorful total top shot embedded with text, data, meters, lines and large central rectangle framing the footage – shows the smoking remains of the presidential Marine One helicopter which has been taken down with Stinger missiles attack in the previous scene. It zooms and cut into 5x magnitude⁴⁹⁵

492 By Royal Guard members, a British symbol almost equivalent to the White House's star spangled flag.

493 (00:35:48:00)

494 While no one seem to mind that an American military drone – even if unarmed and acting as a surveillance platform only – is flying relatively low within the sovereign air space of an ally country's capital (00:36:17:00)

495 (00:39:30:00)

showing the helicopter's destroyed remains as a mangled metal fuselage among spars trees.

After the President leaves these smoked remains accompanied by his favorite bodyguard (still Gerald Butler), the next scene in the White House Situation Room brings Barkawi to the big screen, surrogating for the drone footage. Addressing the camera directly he eloquently criticized the Western imperial doctrines – 'whose idea of war is a remote dusty location thousands of miles from the comfort of your shopping malls, who send your poor to be blown to bits in our land or, better yet, murder our families remotely from the sky.'⁴⁹⁶ Putting what is essentially quite an accurate and factual reading of the contemporary Western war machine as the manifesto of a murderous arms dealer is the same surrogating storytelling technique highlighted in the earlier movie's White House roof hand-launching drone scene – taking a threat which cannot be directly addressed (or correctly assessed) in the general cultural public sphere – then attempting to annihilate its essential truthful claim.⁴⁹⁷ It does so by placing it in the overtly more violent side of a simplistically set binary equation, as the ultimate villain's⁴⁹⁸

496 (00:42:47:00)

497 Western lack of responsibility for conducting dirty wars from a distance, mainly through its Drone Doctrine.

498 '(...) Responsible for more deaths than plague. Sells arms to every failed state in the world.' As the Vice President Trumbull (authoritatively portrayed by Morgan Freeman) describes. At second glance, one could think that he's really talking about the US military global involvement and weapon export policy. (00:43:35:00) Following Barkawi's monologue in the public internet broadcast ('This is all over social media, too. Everybody in the world has seen this.' as a senior staff member informs the room), he makes a personal call to the Vice President in the Situation Room, claiming that he was merely making legitimate business, like the US –

Barkawi: 'I never lifted a finger against you'

Trumbull: 'You armed those who have.'

Barkawi: 'I sold triggers, Mr. Trumbull, just like you.' (00:44:17:00).



personal alibi for manipulating mega-terrorist acts.⁴⁹⁹ In this way inherent guilt can be erased at the same time with what basically stand for valid critical view. This double act of de-evaluation and de-validation is achieved here via the drone's specter.

That specter spreads its shadow over the Commander-in-Chief of the heaviest armed nation in the world as we are soon informed that 'Well, the President doesn't move without a drone or a satellite over his head.'⁵⁰⁰ That statement signal us that the so-called 'Strongest Man in the world'⁵⁰¹ is also under constant surveillance. Like everyone else, he's not spared from the all-seeing eye of the global security apparatus, yet that it is not something to criticized but aspire to, a privileged position suggesting great affluence that offering the best protection available. Furthermore, in a situation where all other forms of remote communication, whether digital, electronic, encrypted or even analog, have been nullified or compromised – it is the drone that offers a solution, as the relentless presidential bodyguard using the omni-presence of the aerial machine and its high-resolution magnification capability⁵⁰² to communicate with his far White House observants through almost infantile hidden hand gestures. Strangely resonating the regression Schwarzenegger utilize for survival in the Central American jungle of the *Predator*, discussed earlier, here the withdrawal into basic non-verbal interaction using crudely disguised hand signals is still adding a mutative layer. In order to mediate such signals an extremely expensive high-level technology system, the globally deployed network of surveillance drones, is now required. Unlike

499 Although he was actually orchestrating terror act beforehand, as the opening scene invisible news anchor informed us, even if not in central Western hemisphere cities but instead in Manila and similar locations.

500 (00:50:11:00)

501 As the American likes to think of their President, and with the current one, as he like to think of himself.

502 This time the drone image, grayscale and digitally grainy, is zoomed to 990% (00:50:15:00).

Schwarzenegger's rejection of the advance technological aids in his disposal, sticking to bare essentials, *London Has Fallen* brings a contrasted world view of utter dependency upon the drone and the economy it serves – in which even the most fundamental of actions, such as hand signals, cannot exist without being assisted by a superstructure of military technology. The movie propose that this *Threshold Technology* has already invaded so far into our social functions – and been internally ingested and embedded all over our cultural codes – that its lack could lead to immediate extinction. Communication, the most basic of tribal survival skills, now needs a drone to be essentially understood.

In the last installment of the franchise, *Angel Has Fallen*, the drone evolution⁵⁰³ finally makes its most significant step – into interspecies relation. It does by utilizing one of nature's strongest animalistic analogies, the swarm. An assassination attempt on the President's life⁵⁰⁴ is done by releasing dozens of dark bird-of-prey like drones from the back of a black van,⁵⁰⁵ catapulted with softly muffled shrieking sounds into the air by unidentified men strangely wearing improvised silver HazMat suits.⁵⁰⁶ Suspected first as bats by the President's security details standing on the shore while he's fishing in the middle of the lake,⁵⁰⁷ the swarm scattered through the cloudy skies, just above the tree line, accompanied by distressing low digital hum. It cut into a high-pitch buzz with a reverse shot of

503 From a singular terrorist surveillance tool into a state-sanctioned security and communication all-encompassing global system, and further into animal assimilated autonomous swarm.

504 Now that Trumbull (still portrayed by Morgan Freeman) has ascended the presidential seat.

505 Echoing a disturbingly similar scene from the visionary earlier short film *Slaughterbots* (2017), directed by Stewart Sugg, further discussed in Part 5 – *Airborne Epistemologies*.

506 (00:19:30:00)

507 After the entire natural area, with its heavy green forestry and fresh waters, has been thoroughly scanned by the President's security, mostly from the air, in an earlier scene.



the close approaching drones from behind, filling the frame as they fly fast ahead. Finally recognized for what they are,⁵⁰⁸ the drones disperse and come down hard on all the armed men around,⁵⁰⁹ transforming these figures in a landscape into part of an explosion chain that tears nature apart, leaving instead a ruined battleground.

Now seen spreading their wings in slow motion, more of the stealth tiny drones are launched from the back of the van. Buzzing and murmuring rapidly across the low skies, like a flock of small birds, they identify armed secret service and police officers to crash right at them, exploding on impact.⁵¹⁰ Too fast and many to be gunned down, the drone swarm – representing ‘the ideal of the social insect’s hive mind, linked and effortlessly functioning in perfect unison’⁵¹¹ – destroy then all the aerial vehicles landed near,⁵¹² leaving the agile drones as the only flying-capable machines around. The last chance to survive is in the one place the drones can’t follow – diving deep into the freezing water of the lake and using nature itself as the only possible protection from the ecological-assimilating homicidal imitators. The remaining drones, now droning like angry killer bees, explode upon impact with the water – simulating the lethal effect of a cluster bomb. Narratively speaking, we will later discover that this attempt was part of a plot to place the hawkish Vice President in power, supported by hardliners from the military-industrial-entertainment complex,

508 ‘Drones! They’re drones!’ shout our familiar bodyguard Gerald Butler to his earpiece radio communication.

509 In an aerial attack that strangely serve as an unexpected homage to Hitchcock’s *The Birds* (1963).

510 An attack profile classifying them as loitering munition, also known as a suicide drone, kamikaze drone, etc.

511 Katherine Chandler, *Unmanning*, 2018, pg. 24.

512 The new presidential Marine One helicopter and its two escorting Osprey V-22 VTOLs (Vertical Take Off and Landing - an aircraft that can change its configuration so it could fly either as a plane or as a helicopter, therefore ensuring maximum maneuverability and capacity of landing in harsh environments).

who are worried about losing profit and position in the changing global geo-politics.

An exact same plot, with a highly similar drone swarm assassination attempt against another screen US President (this time accompanied by his fellow British PM) is conducted in *Heads of State* (2025).⁵¹³ This time the drone swarm is launched not from the back of a van but from its aerial equivalent – the back ramp of an unmarked cargo plane.⁵¹⁴ Flying not far in front and above Air Force One,⁵¹⁵ the cargo plane launch dozen of suicide drones of the loitering munition kind in consecutive salvos.⁵¹⁶ These unspecified-type drones are met with equally fictional defense system activated by Air Force One – a pair of hidden in-wings Vulcan canons.⁵¹⁷ While most of the drones are being shot down, some succeed in hitting the presidential plane, leading eventually to its crash.⁵¹⁸ A highly preposterous scene, it still reinforce the notions of swarm drones as a growingly popular assassination method, the targeting of elected members of office with this method, and the suicide drone as tool that shift seamlessly from the hands of governments to the hands of their adversaries. Resonating this notion of the drone as a decisive violent solution for internal political intrigue, *Black Bag* (2025)⁵¹⁹

513 *Heads of State* (2025), directed by Ilya Naishuller.

514 An Ilyushin Il-76 strategic airlifter, designed to deliver heavy machinery to remote areas of the USSR.

515 The official plane carrying the U.S. President, which became an icon of American imperial aerial dominance and therefore appeared as an essential cinematic trope in films that re-enforce this assumption – such as *Air Force One* (1997), directed by Wolfgang Petersen – or subvert it, as in the case of *Escape from New York* (1981), directed by John Carpenter.

516 (00:27:37:00)

517 Although, as its name suggests, a military aircraft by designation, the actual Air Force One is not carrying any armament (canons, guns, missiles, etc.) but relay on other mostly classified defense measures.

518 Not before the presidential and PM protagonists parachute for safety (00:31:34:00).

519 *Black Bag* (2025), directed by Steven Soderbergh.

triggers a Targeted Killing to indirectly solve a power struggle among the executive ranks of the British intelligence community, surprisingly using the exact same sort of unspecified loitering munition suicide drone.⁵²⁰

In its progression of representations from crude flying props to symbolic agents of collapse, the *Has Fallen* trilogy does more than instrumentalize drones as tools of war—it reveals how they function as dense carriers of cultural anxiety. While the movies wrap their narratives in flagrant flag-waving tropes and muscular monstrous heroism, the drone's presence threads a deeper, destabilizing undercurrent: a shifting terrain where the boundary between nature, machine, and human becomes increasingly volatile. Whether weaponized by insurgent militias, domestic power brokers, or rogue actors, the drone operates not simply as a device of surveillance or destruction, but as a spectral mediator of threat—its meaning mutating across contexts. This escalating entanglement culminates in *Angel Has Fallen*, where the drone assumes a semi-autonomous, animalistic form. Swarming like birds or bees, these machines render the natural world into both target and refuge, transforming forest, skies, and lake into militarized environments. Within this ecosystem of encoded violence, survival hinges not on superior firepower or political righteousness but on the capacity to navigate, hide within, or momentarily return to nature. In this sense, the trilogy inadvertently stages a parable of posthuman warfare—one where the interspecies logic of predator and prey is recoded through digital optics, swarm intelligence, and the infrastructural reach of empire. Still, very much in service of that same *Extinction Economy*-oriented empire and its expansion through real and imaginary territories, this trilogy indeed suggest how far cinema has fallen as propaganda's deceiving device.

520 (01:12:49:00)

INTERMISSION

WARNING

This film is classified. Any disclosure of the material contained herein is subject to penalties under Federal Statute 100409, Section 8, Paragraph C.



Neo mythologies

American research agency DARPA (the Defense Advanced Research Project Agency), in the past responsible for various high-tech army gadgets, revealed information about its aspirations to fabricate cyborg insects. DARPA was criticized and ridiculed quite soon because of this imaginative, to say the least, plan of harnessing these simple forms of life as part of the most developed military machine in the world the world has ever seen. The idea was to insert electronic devices into insect pupae. The so-called MEMS (microelectromechanical systems) system was designed to smoothen as part of the body structure of the animal during later metamorphoses. The cyborg insect could be then controlled and used as a spy tool for army covert operations. Who would suspect a lone moth or a bumblebee?⁵²¹

The first to represent – albeit arachnoid rather than insectoid – zoomorphized autonomous machines on the big screen, *Runaway* (1984)⁵²² parade electronic spiders which are high-end assassination self-relied devices. Being frighteningly fast jumpers yet still incapable of flying,⁵²³ the machine-animal hybrids crawling along this obsolete-looking yet quite visionary techno-thriller are actually quite terrifying in their suggested lethality, multiplicity and inability to stop until their target is annihilated.⁵²⁴ Aerial ability in this movie is instead reserved for the ‘Floater flying camera’, as described

521 Parikka, Jussi. *Insect media: An archaeology of animals and technology*. 2010. Pg. X.

522 *Runaway* (1984), directed by Michael Crichton.

523 Unlike the hunter-seeker assassination drone from *Dune* (1984), to be soon discussed. Although made in the same year, *Dune* is supposedly taking place way further into the future, which could explain this vast technological gap, production-wise.

524 Much like the logic of the same year produced *Terminator* (1984), discussed earlier.

by an on-site news person, appearing on the second insubordinate autonomous machine incident in the film.⁵²⁵

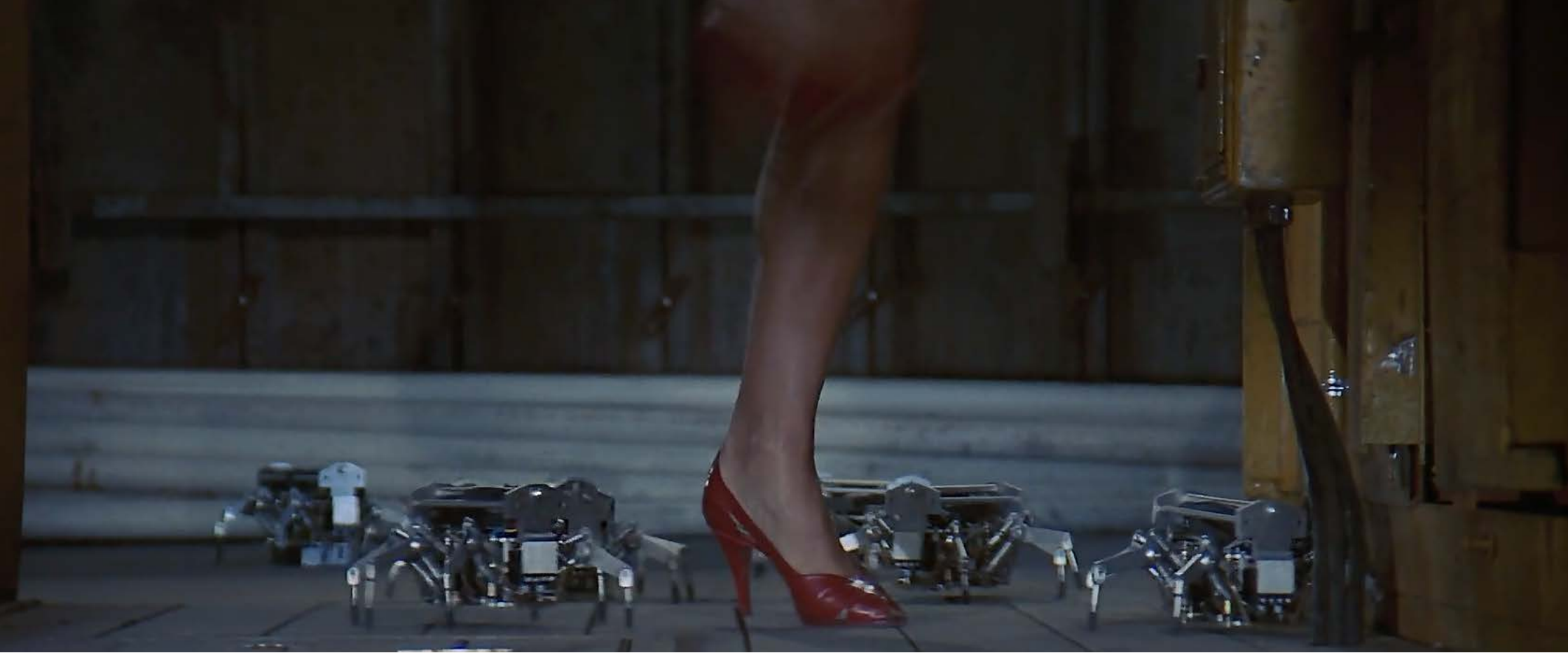
The initial incident of such insubordination, taking place in a vast green field at the very beginning of *Runaway*,⁵²⁶ involve a small UGV agricultural model design for pest control that went haywire. It is going straight over a row of cornstalks, following an extreme close-up of an obedient machine of the same model softly picking a caterpillar from a leaf, than dropping it into its yellow metal mouth-like grinder. Pitting autonomous machinery against living organisms – animal life specifically⁵²⁷ and nature in general – as the get-go setting for the film, suggests the further (and future) cinematic entanglements of human-animal-machine that regiment technologies, ecologies, and accelerate conflicts. Within this entanglement, the earlier mentioned Floater is a police surveillance drone capable of sending live video footage. In the incident it is introduced to the audience, the police are sending this *Threshold Technology* autonomously before raiding a suburban home in which a domestic robot made for household chores⁵²⁸ went rogue and killed two of the family members. The Floater flying slowly into the dark house, presenting the menacing situation from its resolution-lines-filled Point Of View, until abruptly cut into static. Later, the first of the killer spider-machines would just as abruptly appear out of hiding

525 (00:12:20:00)

526 The film’s police code for a rogue robotic-electronic entity that became disobediently autonomous.

527 Even if insectile. See more about insects as common choice for cinematic enemies in Amir Vodka insightful essay ‘Bug Wars’ in the Collective Reader *Eco Noir: A Companion for Precarious Times*, 2020. Pp. 58-99.

528 Cooking, cleaning, etc. although it is the latest model with a complete sensors array that allow it to see and hear all, as one of the police officers informing the others. We soon learn that it can also read all electromagnetic transmissions, including police radio, television news broadcasts, and more.



inside a white lab coat⁵²⁹ in a tech-weapons corporation⁵³⁰ locker room. Jumping on its horrified target, it inject a needle to his neck and then self-detonate itself – revealing itself also as a cinematic prototype for loitering munition. Soon after we'll encounter another Floater, which had been hacked – instead of police surveillance, it is being used against the police. Slowly descending from the ceiling of a hotel room where a police raid is taking place,⁵³¹ its shadow grows fast while it spreads smoke to deter the officers and camouflages a criminal's escape.⁵³²

This Floater seem like a close relative of another early cinematic drone appearance, taking place during *Back to the Future Part II* (1989).⁵³³ While the imagined year of 2015 as the movie envisioned it during its late 1980s production is mostly remembered for its flying skateboard, self-tying sneakers and horrifying holographic movie theatre advertisement⁵³⁴ – it also presents a slow flying circular drone outside a local police station, reporting fresh arrest for a news outlet.⁵³⁵ Another autonomous aerial vehicle in the film is a similar smaller domestic one, flying slowly while walking a large leashed dog, in a city suburb considered to be dangerous.⁵³⁶ Both these early demonstrations of drones, while fully integrated into

529 (00:32:10:00)

530 Vectorcon, the fictional tech-security company, is developing – among its classified imagined projects – the Phantom stealth missile (guided missile bullets with innovative POV that goes around corners), the Stingray laser guide bomb, its signature security system, and is protected with advance retinal eye scanning interface.

531 Two small red lights surrogated for menacing eyes – invoking almost every wrong-doing drone discussed here – within the minimalist and modern shape of the semi-triangle dark object descending for its targets.

532 (00:45:45:00)

533 *Back to the Future Part II* (1989), directed by Robert Zemeckis.

534 For the imagined blockbuster 'Jaws 19'.

535 USA TODAY, as boldly advertised in white on blue with an 80s futuristic font on its side in (00:23:50:00).

536 (00:32:30:00)

the near future civilian life, still keep close connection to issues of control, authority and the human-animal-machine triangulation. An even earlier drone appearance is in Martha Coolidge's *Real Genius* (1985),⁵³⁷ as the first actual working invention that the young protagonist encounter in the innovative Pacific Tech University campus. This drone, developed by the prodigy Knight (portrayed by Val Kilmer), which first seems like an innocent table fan inside a circular metal cage,⁵³⁸ quickly ascends as it is piloted around the room by knight with a remote control (accompanied by his repeated warning shouts 'Duck!'), yet it soon go rouge by breaking a window and heading autonomously toward the gas tanks outside the building. It is worth mentioning that one of the movie's main shooting locations was at General Atomics in San Diego – the developers and manufacturers of the proliferating Predator and Reaper military drones (as well as their upcoming next generation). In a film that sets from the very beginning (under the clever guise of a college comedy) as critique of the military-industrial complex and the academic complicity in its crimes, such involvement is intriguing in few levels.

The physical drone prototype developed in the academic tech hub dormitories and presented here is merely the last in a series of serious weapons invented since the stone age, as suggested through an opening credit sequence made as a montage of drawings, sketches, blueprints and scans from patent files. This montage is laying down a shorthand history of armament advancement – from slingshots to Strategic Supersonic Bombers carrying nuclear devices, Agent Orange,⁵³⁹ and more. Following such terrifying aesthetic disclosure of scientific innovation in the service of annihilation, the movie actually starts with a scene of a new weapon

537 *Real Genius* (1985), directed by Martha Coolidge.

538 (00:13:51:00)

539 (00:02:02:00) Resonating its relevance to the climate catastrophe and the coinage of the term Ecocide as discussed in Part 1 – *Eco Noir*.

platform (titled 'Crossbow') that is used for stealthy assassination of high profile targets from high altitude. Soon revealed to be part of a well-invested corporate movie⁵⁴⁰ advertising this still-in-development weapon, shown to a group of military officials in suits seating around a dark board room, it successfully sells them this future product based on its slick moving images, while they cynically joke around about its practicality.⁵⁴¹ When this manned machine, specifically designed (mostly by the unsuspecting inventive students in the civilian University labs) for untraceable Targeted Killing activities, is later put to a field test – it is surprisingly remotely operated.

Within what later become one of the tropes of military drones – a command module adapted from a cargo container surrounded by communication and other military infrastructure (large radar dish, antenna array, etc.) in the middle of the desert – a uniformed pilot/weapon operator is sitting surrounded by a simulated screen-centered cockpit. 'All weapon functions will be controlled from this weapon module' explains the civilian chief scientist to the highly decorated generals crowding around the module. While the weapon itself is mounted on a B-1 Lancer strategic bomber, which is a manned military aircraft, we never see its pilot or crew – only the warplane as a remote machinic entity reacting to its operator controls from inside his ground station.⁵⁴² The target he's aiming at is a crash test dummy sitting inside a black convertible Lincoln Continental, slowly driven between a file of dark limousines which carry striking resemblance to JFK's presidential convoy that drove down Daily Plaza in Dallas, Texas on November 22, 1963 – further signaling a satiric critic to the serious consequences and geopolitical entanglements of the Military-industrial-academic-entertainment complex.

540 With the catchy sales slogan 'There's no defense like a good offense' (00:03:43:00).

541 'It's the perfect peace time weapon, that's why it's secret' one official say, and the other respond 'So it's immoral and unethical' – everyone laughs (00:04:28:00).

542 (01:35:22:00)

Back to the aftermath of *Runaway's* hotel room raid – one of the evidence found on the scene is a prototype for a small-scaled missile-like smart-bullet. It is practically a tiny thermal-guided drone, launch/fired from a special handgun, that can identify and track its targets by locking on their unique body heat signature.⁵⁴³ The police technician analysing it acknowledges that this is the true nightmare, not criminals and terrorists with nuclear weapons but the ones armed with such micro-electronics 'turning any domestic computer into a killing machine'. Strangely enough, in order to trace the origin of this new weapon, the hopeless police is using a psychic, while the archcriminal they are after seems to be more practical – hacking into the police station own CCTV camera system and look at the officers there while they're looking for him. Soon another assassination attempt is taking place, this time during a car chase involving numerous small inconspicuous-looking⁵⁴⁴ loitering munition devices driving fast on the highway. They are easily picked and safely detonated by a laser mounted on a police car at first, yet as they keep coming and forming like a speeding swarm of the tarmac,⁵⁴⁵ the only chance of surviving is to get rid of the hidden homing device tucked inside a witness handbag. Still, this is just a preparation for the killing spider-machines, returning in a quick scene inside a toilet room that demonstrate the fake mechanical arachnoids⁵⁴⁶ ability to appear from almost anywhere, without a warning, and have complete maneuverability in all terrains.⁵⁴⁷ The spider-machine in this scene quickly walks on slippery tiled walls

543 (00:58:30:00)

544 With their rectangle flat white bodies and green-red lights they seem more like 2000s computer modems.

545 (01:10:01:00)

546 Also in sense that they have six limbs (or 'legs') in most scenes, one of the clear differences between insectoids and arachnoids, with their distinctive 8 limbs (which the spider-machines suddenly seem to have in some shots of the final confrontation scene).

547 (01:17:40:00)



and up the ceiling, actually performing an aerial assault as it drops directly on the officer standing below and insert its acidic needle into her neck before self-detonating itself,⁵⁴⁸ accompanied by a *Psycho* shower scene style horror music score.⁵⁴⁹

The final confrontation will then take place in a nocturnal construction-site,⁵⁵⁰ where a floor full of spider-machines anxiously stepping in place welcomes Sergeant Jack Ramsey (Tom Selleck). Warned that they won't harm him as long as he'll comply with the commands of their inventor, his nemesis, suggests that the killing spider-machines are only semi-autonomous, following a programmed protocol.⁵⁵¹ As the good Sergeant passes between them, they keep waiting eagerly, now blocking any exit to whoever might wishing to leave their marked territory. More than synthetic sentries, the spider-machines soon start acting in predatory pattern and climb toward the platform of the open-face construction elevator, where Ramsey stands. Trapped by the threat of their constant movement, terrifying ticking sound⁵⁵² – even when stepping impatiently in place – and their unpredictable abrupt jumps between horizontal and vertical planes (from floors to walls to ceilings), Ramsey have to use all his resources, while dealing with his crippling vertigo, in order to survive. That is finally managed by throwing their own inventor at their many feet – both a diversion and an offering to these new feared deities of machinic-animal nature. If one can overlook the cheap scriptwriting, unbearable overacting, and cut-rate cinematography,

548 Suggesting how the assassination drone is taking the place of venomous animal used for that purpose in earlier films – from spiders to deadly snakes (sharks were used for more extravagant forms of executions) in many of the Bond movies, for example.

549 *Psycho* (1961), directed by Alfred Hitchcock, is mostly remembered due to that genuinely scaring and scarring shower-curtain-murder scene, much because of the effective use of high-pitched string musical score.

550 (01:04:50:00)

551 (01:22:40:00)

552 Creating a clear connotation of ticking bombs.

Runaway is discovered as a repository of new autonomous and militarized technologies assimilated into our daily lives, and more than that, of their complete integration into a systematic Society of Control, as Deleuze would soon try to warn us from.⁵⁵³

Although not aimed at murder but focused instead on search and identify missions, *Runaway's* immediate spider-machine successors in *Minority Report* (2002)⁵⁵⁴ are not less intimidating.⁵⁵⁵ Accompanied by scary string music since the moment they morph from metal discs into machinic-animals, these artificial spidery sentries painstaking persistence and almost absolute terrestrial maneuverability (although they also are without real aerial capacities), next to their abilities to cause harm and electric shocks, with torture intentions, put them as total data predators in the service of militarized Ur-fascist police force, enforcing the same sort of submissive obedience as the human armed officers that deploy them.⁵⁵⁶ In the year 2054, where one can be arrested and indefinitely detained in cryogenic suspension simply for contemplating violent crime, *Minority Report's* police stormtroopers are armed not only with stun guns and an arsenal of shock devices, but also with a set of belt-discs that transform into such machinic surveillance spiders. These autonomous animal-machines invade any intimacy (parent-hood, intercourse, domestic fight, sitting on the toilet, taking a bath) while crawling all over every warm human body they can find, with cringing vermin screeches. Initially thrown in the air as if they were some playthings or hokey discs, these sider-scanners land on long feet and spread across all structural floors, methodically seeking

553 In his *Postscript on the Societies of Control*, 1992, discussed in detail through Part 3.

554 *Minority Report* (2002), directed by Steven Spielberg.

555 With people and kids running away in dread, and little blond girl crying 'Mommy, I'm scared' – if someone somehow was able to miss so far the tasteless bluntness of the movie.

556 Eco, Umberto. *How to Spot a Fascist*, 2020.



any corner, crack and cranny for potential criminals – or more likely, pre-criminals. Facing a blocked entrance to one apartment, they cleverly find another way in through the floor panels – showing not only high autonomous abilities and swarm capacity to collaborate but relentless resilience. Mentioned at about an hour into the film⁵⁵⁷ then manifesting their intentions⁵⁵⁸ in a single dreadful scene, these hybrids machine-spiders at the service of totalitarian human society form the most memorable moments in a movie you would want to forget.⁵⁵⁹ The sider-scanners are the end extensions of a ubiquitous surveillance society caught in the deadlock of hyper-capitalistic culture,⁵⁶⁰ with check points of stationary camera-scans all over the urban environment, in every public spaces, just as Deleuze foresaw.

Speaking of spider-machines, *The Matrix* (1999)⁵⁶¹ presented both the future phase of autonomous evolution and the cinematic predecessors to *Minority Report*'s small-scaled scanning-spiders in its formidable array of deadly drones and seminal Sentinels. Seen as soon as Neo (portrayed by Keanu Reeves) open his eyes for the first time – that is, in the ‘real world’⁵⁶² and not in the simulation in which he existed so far – the inspection drone he first encounter is an intimidatingly highly evolved machine which resemble a giant

557 (01:04:48:00)

558 (01:17:50:00)

559 By far the worst Hollywood adaptation to a Philip K. Dick story – and there's quite a competition with the likes of *Paycheck* (2003), directed by John Woo, and the regrettable remake to *Total Recall* (2012), directed by Len Wiseman. The original *Total Recall* (1990), directed by Paul Verhoeven, on the other hand, is another one of Schwarzenegger - it suppose to be masterpieces, yet one that sadly doesn't involve drones.

560 The film is shamelessly filled with a long line of luxury brands product-placement (an embedded marketing technique that took over Hollywood after conquering almost all television corners since the 1980s). Bulgrai, Nokia, Reebok and Lexus are just the most obvious of such, with their exaggeratedly highlighted logos.

561 *The Matrix* (1999), directed by Lana and Lilly Wachowski.

562 As the rebel leader Morpheus (Lawrence Fishburne) inform him when they first meet (00:35:20:00).

arachnoid. Descending in flight (accompanied by startling sounds) to alarmingly face the already shocked-awakened Neo, the machine fold out several sinister looking limbs while grabbing Neo by the throat and scanning him up close. It quickly find Neo to be useless organic matter – now that he's awake – which lead to the violent disconnection of feeding cables and flushing the panicked protagonist down a disposable tube, while the machine carelessly fly away.⁵⁶³ Soon, following his rescue by the crew of the futuristic hovercraft ‘The Nebuchadnezzar’, Neo is being presented with images of the fields – ‘endless fields, in which human beings are no longer born. They are grown.’⁵⁶⁴ These fields are being attended, in a perplexing ironic take on industrial animal agriculture, by arachnoid-machines of various sizes and types. From numerous small, slick and almost organic-looking pale Black Widow sort of spiders-machines to futuristic-looking massive-scaled ones that hovers the dark skies above the endless fields. This apocalyptic vision ends (as it zoomed out from an obsolete TV set from the 70s)⁵⁶⁵ with Morpheus musing the terrible truth to Neo: ‘Facing the pure, horrifying precision I came to realize the obviousness of the truth. What is the Matrix? Control.’⁵⁶⁶

After given some time to get used to this terrifying reality, with the help of jumping off simulated skyscrapers and intense Kung fu studies, Neo is warned about the ‘Real World’ Sentinels,⁵⁶⁷ lurking around the same lower sewer systems where ‘The Nebuchadnezzar’ try to make its stealthy way safely back to base. Although the Sentinels seem more like a squid-machine hybridization in such

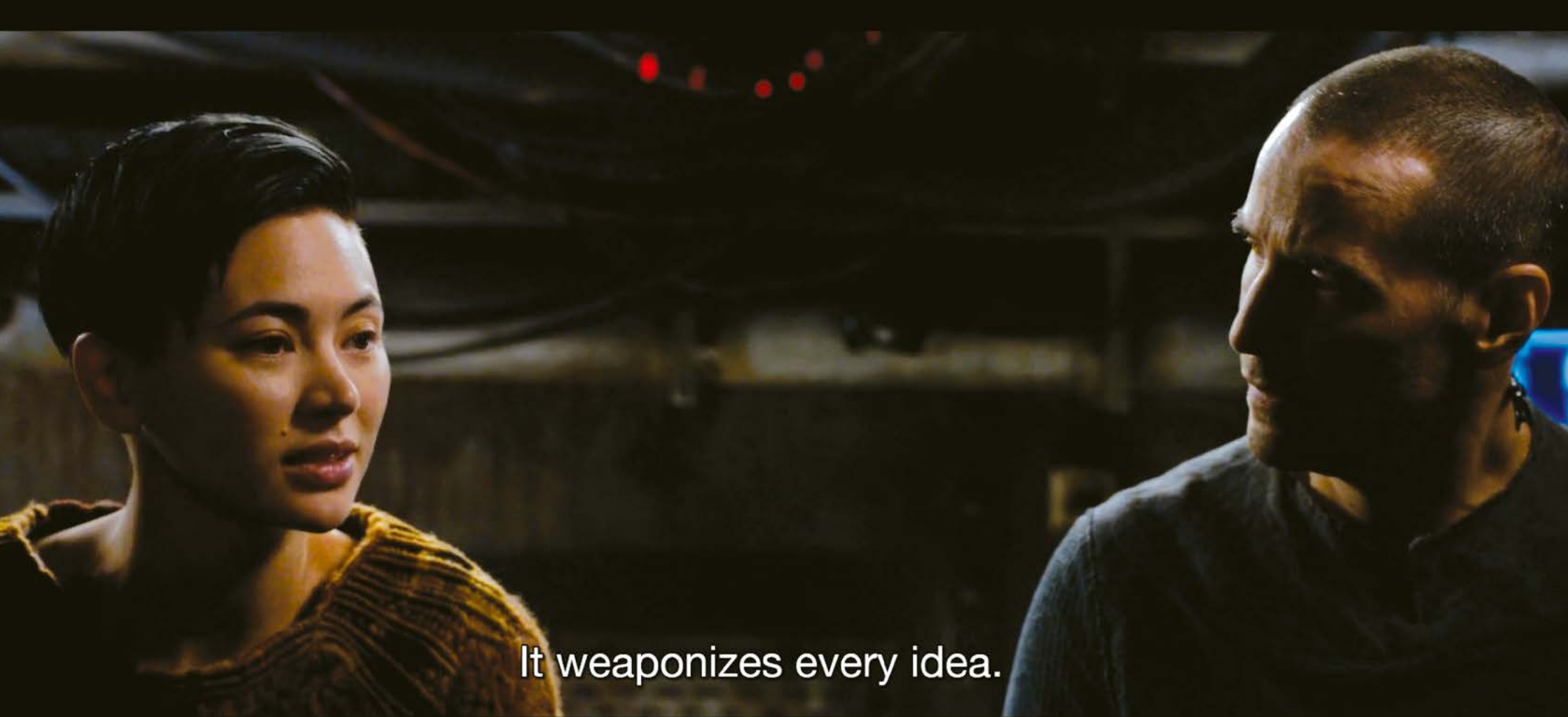
563 (00:34:00:00)

564 (00:42:45:00)

565 Labeled accordingly with the logo and font as ‘Deep Image’.

566 Resonating strongly Deleuze's *Postscript on the Societies of Control* mentioned beforehand, together with Baudrillard *Simulacra and Simulation* – a physical copy of which appears very early in the film, as part of what we will later learn is the simulacra world itself – soon to be discussed (00:43:22:00).

567 ‘A killing Machine designed for one thing. Search and destroy.’ (00:59:30:00)



It weaponizes every idea.



aquatic-like surrounding,⁵⁶⁸ they still retain highly arachnoid qualities and features – including multiple eyes and limbs. These sentinels, which can only be neutralized by an EMP,⁵⁶⁹ will return in the film climatic confrontation, tearing through the hovercraft's hull and breaching into this last site of human sanctuary and resistance within an autonomous machine infested world. Awaken from his assumed death with a kiss, like the sleeping beauty he plays, Neo is defeating his immortal foes inside the Matrix while his comrades in the 'Real World' activate the EMP, dropping all Sentinels to the ground like pesticide-inflicted electro-spiders.⁵⁷⁰

After couple of self-disqualifying sequels, steeped in ill-intended logic and lack of cinematic innovation, *The Matrix Resurrections* (2021)⁵⁷¹, the fourth installment in the series, brings back the drone with a shred of dignity and intriguing interspecies relations future intervention. This time around, when Neo is rescued from the energy-absorbing pod of the 'Real World' in which he incubated all these years, he's facing first⁵⁷² not an aggressive predatory giant spider-machine but a much less harmful looking bumblebee-drone hybridization.⁵⁷³ Still somewhat intimidating, as it grabs Neo by the neck and scan him with a single red 'eye', this is actually done in order to assist Neo break free safely from all the feeding cables injected into his body. Release from this metallic grip, Neo and the bumblebee-drone are joined by a big beetle-drone hugging Neo from behind and carrying him into the air, as the man and both

568 And ironically also referred to unofficially as 'Squiddy'. (00:59:27:00)

569 Electromagnetic Pulse, which 'Disables any electrical system in the blast radius. It's the only weapon we have against the machines.' Neo is being explained to. (01:20:00:00)

570 (02:07:20:00)

571 *The Matrix Resurrections* (2021), directed by Lana and Lilly Wachowski.

572 Although a tiny spider-machine, much like the artificial organic-looking from the original film, quickly run out of frame as Neo raise from his energy-incubation-pod, before he opens his eyes (00:50:42:00).

573 (00:51:33:00)

artificial-animal drones are ascending away from the now empty energy-pod. As they fly through the dystopic fields of endless energy-pods, avoiding swarms of Sentinels and gargantuan sort of spider-machines that hover around the fields' red-glowing columns, Neo observe it all with unclear expression, passively tucked safely within the aerial arms of the squatty yet affable-looking beetle-drone, acting as his personal single-passenger unmanned transport. When finally reaching a futuristic hovercraft,⁵⁷⁴ Neo is being flown in by the gracious large insectile-drones and placed ever so gentle on a clean treatment-bed. As the friendly machines step aside, the humans on board crowd in and welcome Neo back 'to the 'Real World''.⁵⁷⁵

After quick recovery in which it is explained that 'That's what the Matrix does. It weaponize every idea. Every dream.'⁵⁷⁶ Neo is being shown around the hovercraft and introduced to the crew – first humans, than the somewhat shy insect-drones that saved him: Cybebe and Octacles.⁵⁷⁷ Referred to as Synthients,⁵⁷⁸ they are now part of an equality-based and collaboratively-practiced interspecies relations between organic and synthetic beings, struggling together against the control of The Matrix. Or otherwise putted, expanding the notion of 'Our side' beyond the limits of speciesism. Cybebe,⁵⁷⁹ with an overall design inspired by *Nausicaa of the Vally of the Winds*

574 Same model and make as its predecessor, although this is the 'Mnemosyne', made in the EU in year 2274, as we would be later informed (01:03:08:00).

575 (00:53:51:00)

576 (01:01:36:00)

577 As well as a small metallic Mantis Warrior-inspired hybrid insectile-machine named Lumin8 (01:04:25:00).

578 'It's a word they prefer to Machines' Neo is being corrected when addressing them so (01:04:30:00).

579 Which also resemble in form and behaviour to another machine-hybrid interspecies relations Keanu Reeves was involved with, that with Jones the cyborg dolphin in *Johnny Mnemonic* (1995), directed by Robert Longo – an ex-Navy code breaker telepathic marine mammal that is still considered by some as the apex of cyberpunk.



(1989)⁵⁸⁰ Ohmu creatures,⁵⁸¹ is placing its big metallic head close to Neo's and the two press foreheads together, in a clear gesture of interspecies intimacy and equality,⁵⁸² while the hovercraft captain explains that 'Cybebe and Octacles risked their lives to help get you out.'⁵⁸³ Soon Cybebe is also referred to as 'She'⁵⁸⁴ – indicating that gender pronouns are still on the table⁵⁸⁵ and are part of the zoomorphism suggested by the film. Shortly we are told about a war between the Machines that started in their cities,⁵⁸⁶ illustrated with apocalyptic images of giant spider-drones, Sentinels and other hybrid animal-machines fighting over burning futuristic constructed landscape.⁵⁸⁷ This sort of flashback aiming at filling narrative gaps between the previous and current plot⁵⁸⁸ is a device that will return some 20 minutes later, with the necessity of Neo's physical resurrection – or rather, reconstruction, explained. We see numerous spider-drones of various sizes working hard inside Neo's under-construction face while his AI nemesis⁵⁸⁹ details the

580 Nausicaä Of The Valley Of The Wind (1984), directed by Hayao Miyazaki.

581 Which will later also inspire (or more likely copied – sort of understandable in a film about duplications) the ecologically essential and friendly alien species of Creepers in *Mickey 17* (2025), directed by Joon-Bong Ho.

582 For example in the short film *Head to Head* (2023), directed by Herwig Ilegems, in which the Flemish actor (who also written and produced the piece) is simply repeating this intimate and inspiring gesture among different animals, mammals and birds – reveal incredible vulnerability as foundation for interspecies communication. See also: <https://www.voorlinden.nl/exhibition/herwig-ilegems/?lang=en>

583 (01:04:50:00).

584 (01:05:57:00).

585 And to be simply left there, with no further addressing in the film.

586 'Nothing can breed violence like scarcity. For the first time, we saw machines at war with one another.' (01:14:02:00)

587 (01:13:56:00)

588 While trying too hard (and failing) to justify its existence.

589 Titled the Analyst (portrayed by Neil Patrick Harris) – which also suggests the whole film as the protagonist ongoing through Psychoanalytic therapy, which also explains the painful brain picking scene soon described as a blunt visual metaphor for such process.

process, especially in terms of cost. Probably the most gory moment in the movie – unsuccessfully trying to recreate the initial shock effect of Neo's first awakening in the original film –⁵⁹⁰ this scene includes close-ups of tiny metal spider-machines with needle-like legs walking on Neo's exposed moist brain, accompanying by other machines and drilling into ear, eye and every possible orifices, while all watched over by Sentinels.⁵⁹¹ All this takes place while Neo is agonizingly aware, trying to reach his eternal love Trinity (portrayed by Carrie-Anne Moss) who lies only meters away from his grasp, undergoing similar treatment, although less detailed.

The mission to free Trinity, who is still under the somatic effect of The Matrix, involve an even more advanced hybrid animal-machine, Kujaku.⁵⁹² A humming owl-falcon sort of Synthient, Kujaku appears like a futuristic Angel of History⁵⁹³ out of the nocturnal digital skies, joining the rebellion assembly at an open terrace on the human-Synthient merged city of Io. The most friendly-looking hybrid animal-machine in the movie, this metallic mythological entity – inspired by the Native American Thunderbird⁵⁹⁴ and other godly bird messengers⁵⁹⁵ – is also adorned with giant expressive eyes. Kujaku, Cybebe and Octacles, travelling inside the hovercraft with Neo and the human crew,⁵⁹⁶ are integral and essential part of the mission to rescue Trinity (and therefore the rest of humanity)

590 Described earlier.

591 A possible mutation of *All Watched Over by Machines of Loving Grace* (2011), directed by Adam Curtis – a documentary mini-series about how humans have been colonized by the machines they have built. (01:35:32:00)

592 (01:40:51:00)

593 Unlike the one's Benjamin described, this one seem to infuse Progress with AI existence and digitize experience, in its attempt to heal the rapture between them. On second thought, perhaps this one is the storm.

594 With its thunderlight-like soft electric blue inner illumination.

595 Such as the biblical dove (and her predecessor crow), Odin's ravens (Hugin and Munin), Athena's Owl (discussed in Part 2 – *Asymmetric Cinema*) etc., as it came to deliver a message from a secret collaborator.

596 (01:44:47:00)



from the corruptive Matrix of dreaded dreams. Kujaku seem to be leading the rescue force, taking charge of injection into the Matrix while using its cloaking ability that renders complete invisibility from swarming Sentinels, and simultaneously securing the stealthy insurgent insertion into the 'Real World' tower where Trinity is a captive.⁵⁹⁷ Following this first stage, Cybebe is being ride-on as she flies through tunnels into the tower with Octacles on flank,⁵⁹⁸ where Kujaku gently raises Trinity from her red liquid-filled energy-pod.⁵⁹⁹ After much waiting in order to disconnect Trinity with consent from the illusion world trapping her, she's wrapped in Kujaku careful embrace and flown into the sheltering hovercraft.⁶⁰⁰ With such safety ensures on board, Kujaku modestly bid farewell and majestically flies away, his benevolent blue soft light and humming dissolve as it activate its cloaking ability and disappear.

Yet this tranquil farewell scene quickly shift into the mayhem taking place in the parallel nocturnal simulated downtown streets of San Francisco, where Trinity and Neo are still caught in that physical manifestation of The Matrix. Here, they are in clear disadvantage, not only in numbers – facing hordes of now machine-controlled citizens⁶⁰¹ who storm at them like zombie swarm – but strategically, as they are now without any aerial abilities or assistance. Quite the contrary, the aerial becomes their biggest threat, with the two try to escape on a fast motorcycle from people who literally jump out windows high above them⁶⁰² like a living version of loitering munition – a literal (and vertical) embodiment of both the suicide

597 (01:45:40:00)

598 (01:47:30:00)

599 (01:50:15:00)

600 With Kujaku clearly revealing resemblance to a magnificent Manta Ray, further seen from above, continuing the film's aquatic existence analogies and marine movements of many hybrid animal-machines (02:02:20:00).

601 Referred to as 'bots' – as in the soon described 'turning bots into bombs.'
(02:04:43:00)

602 (02:04:35:00)

bomber and the drone.⁶⁰³ Even when dodged through the streets by the combine efforts of Neo and Trinity, this tactic of human loitering munition dropping from the gentrified high-rises all around (together with the hording pedestrian crowds) effectively herds our protagonists into a dedicated 'kill zone',⁶⁰⁴ where they are out-matched by far worse flying foe.

The two armed black helicopters, embodied as aerial supremacy per excellence descending toward Neo and Trinity between the high-rises, are seen as total opaque machines. With no pilots or crew⁶⁰⁵ in sight, they are effectively rendered as attack drones, in the tradition established with earlier study cases.⁶⁰⁶ A clear overkill in the downtown urban ecology, these more conventional contemporary predatory machines are shooting their guided rockets and machine guns through the dark streets, filling them with bright explosions.⁶⁰⁷ When Neo and Trinity manage to take shelter inside a close-by skyscraper, the helicopters soon find them on the roof,⁶⁰⁸ blocking their escape route while choreographing a shell riddled double showdown. This is a clear attempt to orchestrate an elaborated Neo Western dual standoff, with two armed helicopters against two protagonists – as the aerial machines firing, one on each side, at the human figures surrounded by iconic cinematic symbols and landmarks⁶⁰⁹ – at the same time an overkill of the original film's roof seminal confrontation scene between human and helicopter.

603 Actually this might be the goriest scene in this movie, especially with the immediately invoked images of people jumping to their death from the Trade Center Towers during the 9/11 attacks, as documented in the press.

604 (02:06:08:00)

605 And even if so, they were 'bots' as described above.

606 As mentioned before and in Part 2, especially with the likes of *Capricorn One*, *Figures In A Landscape*, etc.

607 (02:06:27:00)

608 (02:08:24:00)

609 The Transamerica Pyramid, The Bay Bridge, Coit Tower, Treasure Island, Sutro Tower, etc.

Even after diverting the two helicopters excessive weaponry against each other through a crossfire, taking one down and causing the other to drift further, Neo and Trinity only get the upper hand when the two actually achieve aerial supremacy themselves – by jumping off the skyscraper’s roof and flying away.⁶¹⁰

In a film which is almost entirely a self-devouring pastiche trying too hard to appease a younger audience through the complete immersion in digitization (of both language and visuals),⁶¹¹ – the integration of animal-machine hybrids as natural collaborators for a human society facing ecological extinction, following a catastrophic security-environmental crisis, act as a major contribution. Not merely within the decrypted digital world of these film franchise, but surprisingly enough within the entire landscape of drone movies and the anticipatory imaginaries of cinema, otherwise showing little of such mutual possibilities (as this research has been observing so far). Across both *The Matrix* and *The Matrix Resurrections*, the recurring figure of the machine-animal-drone collapses clear divisions between organic, machinic, and sentient life, offering a compelling cipher for the evolving dynamics of interspecies relations under conditions of techno-militarized control. In the original *Matrix*, the growing fields’ spider-drones and squirming Sentinels operates as a fear-inducing predators—mechanical yet animalistic, autonomous yet wired into a vast systemic intelligence. Its movements evoke both insectoid behavior and invasive biomedical procedures, underscoring the intimate violence of machinic governance. In *Resurrections*, however, this figure is reframed: the more friendly insectile- and animal-like drones are a clear equal-rights synthetic and emphatic entities that exist in alliance with biological humans – even if exiled by the other synthetics under the control of

610 (02:12:30:00)

611 In contrast with the original movie with its distinct (even if excessive) styling, philosophical grounds (even if only surface-level surveyed) and a critical somewhat dualist approach toward digital culture.

the non-organic autoreactive governance running the Matrix. Here, the hybrid animal-machine-drone no longer solely signifies threat or domination but becomes a symbol of adaptive co-agency—an interspecies ally that complicates the binary logic of human versus machine. Through this evolution, these two Matrix films chart a cinematic arc in which the hybrid animal-machine-drone emerges as a speculative lifeform: an interspecies ally that complicates the binary logic of human versus machine. Deeply entangled in histories of fear, gendered control, surveillance, and subjugation, it also gestures toward the possibility of posthuman solidarity and ecological reorientation within increasingly synthetic landscapes.

All in all, following the filmic path⁶¹² of spider-drone in such case studies from *Runaway* to *The Matrix Resurrections* crystallize the arachnoid-drone and its evolution as a cinematic and conceptual pivot—an uncanny hybrid that embodies both interspecies dread and speculative evolutionary drift. It indexes a shifting terrain in which the machine-animal boundary is no longer fixed but metabolized through cinematic conjecture. The drone, then, becomes a double agent of futurity: a prosthetic for liberation and care, but also an instrument of necropolitical control, now embedded within the very bodies it manipulates. If the spider-drones once announced the arrival of the animal-machine as instrument of assassination, oppression, and war, then the Synthients’ self-aware interventions complicate the horizon. They embody not peace, but a precarious recalibration: a new ecosystem of technological interdependence in which the future of resistance might still hinge on those who once hunted us. These entities scuttle across the screen as agents of control yet also gesture toward a future in which machinic life forms evolve alongside—if not with—biological ones. Within the broader context of militarized ecologies and cinematic drone aesthetics

612 In a revealing detour that is part of the conceptual method of *Cine-Cartography*.



mapped across this body of work,⁶¹³ the hybridization of such machine-animal-drone becomes a potent emblem of ambivalence: a harbinger of coercive intimacy, a figure of outsourced aggression, and perhaps most interestingly, a glimpse of the posthuman yet feral ecosystems to come.

Totalitarian Technologies

But the desire for a better life is not a piece of furniture adorning the bourgeois interior. On the contrary, this desire has been confined to the dark hole of culture in order to make sure that it will not be realized. The domestication of utopian desire took place because its confinement within the boundaries of privacy precisely ensured that there it could not cause any change of political and economic power structures. The proliferation of individualistic lifestyle identity politics is such an instance of the domestication of desire. It is the interior design of utopian liberalism, dominated by the rules of economy and its tacit consent with oppression.⁶¹⁴

With the ongoing survey of drone representations, alongside its role as demonstrator of *Asymmetric Cinema* in sci-fi works such as *Blade Runner* (1982)⁶¹⁵ and *Interstellar* (2014),⁶¹⁶ discussed in

613 By 'cinematic drone aesthetics' we refer to the recurring aesthetic array of tropes, patterns, shapes, shots, angles, movements, etc. appearing in the films we discuss in this part. This is also the reason for the detailed descriptions of scenes, technical features, camera-action-drone-protagonist relations and more. These descriptions are used to identify these drone aesthetics and analyse them in correlation to politics of the moving image, narrative devices and industry ideologies.

614 Steyerl, Hito, Culture and Crime, <https://www.e-flux.com/notes/468843/culture-and-crime>

615 *Blade Runner* (1982), directed by Ridley Scott.

616 *Interstellar* (2014), directed by Christopher Nolan.

previous parts, we can now dive toward the deeper end of Sci-fi cinema. Yet in order to get to these promised depths, we first have to pass through the shallows. In the future imagined by *Star Trek: Insurrection* (1998),⁶¹⁷ a small swarm of advanced drones is being deployed from spacecrafts of the warmongering Son'a.⁶¹⁸ Looking like tiny spacecrafts themselves,⁶¹⁹ these drones chase down an escaping tribe of the human-looking yet immortal Ba'ku through a landscape of sun-soaked green hills. The drones disturb this idyl setting not in order to kill the Ba'ku but to kidnap them, using a transporter-bullet which force teleport onto the Son'a mothership the ones being hit. Sophisticatedly employed for an autonomous-led resettlement program, part of a political blood feud over rare mineral rights in a racial-controlled territory – the small drones are still quite vulnerable, and many are taken down with well-aims hand phasers. Trained llamas are also part of the counter-drone defense – used as carriers for heavier laser assault rifles that help couple of crew members from the *USS Enterprise* to cover the retreat of the pacifist Ba'ku tribe. This curious interplay between high-tech drone warfare and bucolic resistance—where drones with teleporting-capable projectiles meet pack-llamas—reveals *Insurrection's* uneasy oscillation between sci-fi allegory and a speculative arcadian fiction of balance.

This encounter between non-lethal drone strikes and interspecies resistance reveals *Star Trek: Insurrection's* ambivalent fantasy of ethical warfare within a racially charged colonial scenario. The drones, though sleek and autonomous, are designed not to kill

617 *Star Trek: Insurrection* (1998), directed by Jonathan Frakes. It is the 9th, and perhaps the worst in the series of films based on the original TV series from the 1960s, although the competition is hard (and getting harder as they keep making more movies in this series).

618 (01:04:45:00)

619 Yet they are referred to as 'Drones' by Captain Jean-Luc Picard, the ultimate authority (01:11:45:00).



but to abduct—executing a bloodless form of violence in service of forced displacement and mineral extraction. Their transporter-based assault cloaks conquest in technological finesse, masking its deep entanglement with territorial tribal control and species hierarchy. Opposing them are not rival machines but organic actors: retreating civil community, accompanied by a few well experience interstellar explorers and trained llamas outfitted with heavy weaponry. These animals, calmly navigating this epistemological terrain with their improbable loads, stand as both an absurd and powerful counter-presence—neither combatants nor victims, but stubborn figures of situated resistance. Rather than meeting drone with drone, the film conjures a scene where rustic life holds its ground, quietly disrupting the spectacle of sanitized domination.

On the other hand, *Star Wars: Episode V - The Empire Strikes Back* (1980),⁶²⁰ starts straight with interplanetary surveillance drones manhunt as its instigating event. Following the film title and signatory opening scrolling exposition text,⁶²¹ we see numerous drones being salvo-launched from an imperial Star Destroyer cruising through deep space. One such drone soon enter the atmosphere like a crashing meteor and land on the snowy landscape of Hoth – the planet where the current Rebellion base is located. Raising from the deep snow, the drone has a round sensor-filled body and insect-like limbs revealed as it flies off ominously in search for human sightings.⁶²² A couple of scenes later it slowly fly through the icy terrain near the rebel base main generators,⁶²³ after its encrypted audio transmission to the imperial fleet has been intercepted, even if not understood, by the rebels. As Luke Skywalker (portrayed by

620 *Star Wars: Episode V - The Empire Strikes* (1980), directed by Irvin Kershner. The second-produced and according to some the best film in the successful and still frequently metastasizing franchise.

621 Informing us on recent events since the ending of the previous film (00:00:40:00).

622 (00:02:12:00)

623 (00:19:00:00)

Mark Hamill) and Han Solo (portrayed by Harrison Ford) go on foot to inspect the situation, the drone attack them on sight – aiming its laser canon it revealed as more than a mere reconnaissance device – only to be exploded when shot back at by Solo.⁶²⁴ Solo reports back to base that it ‘must have had a self-destruct. I didn’t hit it that hard.’ Princess Lea (portrayed by Carrie Fisher) concludes over the radio that its ‘An Imperial Probe Droid’– which is as close to a drone definition as you could have back in early 1980, or ‘A long ago, in a galaxy far, far away’⁶²⁵ – and Han dryly replies that ‘The Empire know we’re here’.

Although neither autonomous, aerial or really fitting any classification of drones, the colossal Imperial Walkers soon appearing on the snowy battlefield of the evacuating ice planet are worth mentioning here.⁶²⁶ An imaginative merging of enormous tanks and war elephants,⁶²⁷ these futuristic heavily armed Trojan horses⁶²⁸ signal one of the first technically comprehensive cinematic depictions of artificial militarized machine-animal hybridization in such scale and detail. As they trample through the terrestrial challenges of a sub-zero ecology, the Imperial Walkers wreak havoc on the rebels defense line and can only be outmatch by Luke Skywalker⁶²⁹ as he skillfully lead a small fleet of aerial-to-ground assault spacecrafts. Maneuvering these crafts over trenches close to the flat frozen ground – and figuring that their own laser blasters are useless against such thick armor – Skywalker’s rebels then go at the Imperial Walkers using harpoons connected to tow cables as if they were whaling. Attacking the huge machines in this fashion

624 (00:19:35:00)

625 As the first sentence in the film – even before the famous bold yellow scrolling text – superimpose in light blue on black informs us (00:00:22:00).

626 (00:26:00:00)

627 With laser blasters replacing (and extending into long range the reach of) tasks.

628 Although they give away the element of surprise in sake of surplus firepower and superior armor.

629 Yet another kind of walker.



of traditional big animal hunting,⁶³⁰ roping and entangling them until they drop incapacitated, the rebels discover now that smaller bipedal versions of the quadrupedal Imperial Walker joining the fight.

Against an assault force consisting of such combination of advance military machines, the rebels are bound to lose the ground as the Empire indeed strikes back with these new hybrid weaponized technologies. This early depiction of surveillance and war machines in *film* sets the groundwork for the complex entanglements of species, technology, and power that later drone cinema would deepen and reframe. The Imperial Probe Droid, with its arachnid limbs and orb-like sensor body, functions not only as a premonition of today's remote sensing technologies but also as a harbinger of a militarized techno-fauna—its abrupt self-destruction, besides being an attempt to conceal its origins, also heralds the arrival of the Imperial Walkers: towering, quadrupedal animal-machines that literalize the threat the drone only whispers. Where the Probe Droid hovers, observes, and explodes, the Walkers march, crush, and dominate—embodying a shift from ephemeral data collection to brute mechanized force. Their entrance, following the probe's fiery exit, reveals a regime of escalating control in which the drone's eyes give way to the machinic-beast's body, and where reconnaissance seamlessly mutates into planetary occupation.

Within the ecological disaster stricken militaristic culture – in style more than structure – hypothesize by *Elysium* (2013)⁶³¹ as our upcoming future,⁶³² drones play a predictable role. Following his breakthrough visionary fake-documentary *District 9* (2009),⁶³³ which originally highlighted the entanglement of racism, speciesism and the military technology industry, director Neil Blomkamp

630 (00:27:46:00)

631 *Elysium* (2013), directed by Neil Blomkamp.

632 The film takes place during the year 2154.

633 *District 9* (2009), directed by Neil Blomkamp.

brutal and boring new fable focused superficially on class struggle as another form of asymmetrical engagement, while giving the foreground to militaristic gadgets. Unlike *Minority Report's* intrusive surveillance spider-machines, the wearable discs-turning-drones appearing in *Elysium* first aerial hunt scene⁶³⁴ come from an arm-band of a physically enhanced Special Ops agent rather than a Police officer's belt, and act as loitering munition. Flying straight at the lone escapee running across the desert-like landscape, these drone-disc attached themselves to its target's body and wait until Special Ops agent Kruger (portrayed by Sharlto Copley) on board the Raven military aircraft⁶³⁵ trigger them remotely so the person on the ground simply explodes. Subtleness and subtext are neither major qualities of this film, neither of its follow up *Chappie* (2015).⁶³⁶ Trying to avoid a similar faith, the main protagonist Max (portrayed by Matt Damon) is soon hiding under a wagon full of pigs, sheltering from thermal detection of his aerial pursuer beneath their mass heat signatures.⁶³⁷ The familiar aesthetics of grayscale thermal image and its interesting interspecies entanglement, isn't made or read by drones here, but by Kruger and his crew aboard the Raven command and assault craft.

As evening descends the frustrated Kruger is activating six UAVs, referred to as 'the girls'.⁶³⁸ Spread out from stealth compartment bays on the Raven's sides, these UAV are larger drones (yet still disc-shaped) dropped mid-air in petal flight pattern and fly around the entire LA city area⁶³⁹ in search for Max. Seeing one of these flying Roomba-looking drones descending down the street the

634 (00:51:00:00)

635 An imaginary aerial VTOL, sort of a near-future next-generation V-22 Osprey.

636 *Chappie* (2015), directed by Neil Blomkamp.

637 (00:56:10:00)

638 (00:57:17:00)

639 Which has also been declared as a no-flight zone for this purpose by the authorities.



next day, Max first run, yet soon stops and throw a stone directly at the drone – crushing its camera and taking the unarmed and unarmed aerial surveillance machine down. Still, the damage has already been done as he has been detected and live reported to the Raven, which goes after his location.⁶⁴⁰ While Max deludes it, the Special Ops crew captures his loved ones, so Max returns to the stoned down drone’s crash site and transmit in hand gestures – through the soundless broken drone’s camera – a message that still gets across, communicating his willingness to surrender.⁶⁴¹ This crude but efficient depiction of loitering munitions and autonomous aerial surveillance in *Elysium* reflects how such aerial systems act less as character technological expansions and more as extensions—of a militarized elite, of automated hierarchies, of human cruelty outsourced to faceless machines.

Chappie (2015) indeed take these notions and position the drone on the central stage of militarized society which outsource violence to an array of literally faceless machines. In this politically regressive, narratively retrograded and infantile tech-induced fairytale version of Pinocchio,⁶⁴² the main showdown is taking place between the cluelessly insubordinate and autonomous humanoid ex-police robot Chappie (again, portrayed by Sharlto Copley) and a massively militarized drone called ‘The Moose’, remotely controlled by its disgruntled inventor Vincent (portrayed by Hugh Jackman). The build-up toward the final confrontation of a humanoid AI-embodied droid vs a weaponized animalistic giant drone is set early on in the movie, pitting the two machines as competing commercial ideas within a mix of cinematic and fake-documentary footage of ‘the World’s first Robotic Police Force’ in Johannesburg, supposedly

640 (01:04:50:00)

641 (01:11:27:00)

642 While replacing the lie-revealing nose with neural naiveté and adding unintentional high-killing capacity.

taking place in 2016.⁶⁴³ Against the successful terrestrial humanoid Scout robot model (such as Chappie)⁶⁴⁴ – manufactured in the South African assembly lines of weapon corporation Tetravaal⁶⁴⁵ – an earlier program of the conglomerate is presented: a much larger and heavier armed flying-capable machine. The contrast between the AI-governed Scout robot and the non-autonomous Moose, which is dependent upon a neural-link to a human operator, is emphasized as part of a pseudo CNN broadcast.⁶⁴⁶ In a long exposition, Chappie’s inventor Deon (portrayed by Dev Patel) tells a journalist that he aims to make AI that also feels, and soon explain to his shocked boss in Tetravaal that the real test for AI is its ability to identify art, to form an independent opinion regarding it⁶⁴⁷ and to judge it – ‘it could decide if it likes it, it could write music, and poetry.’⁶⁴⁸

Later, in front of Police officials in Tetravaal R&D lot, Vincent re-pitch the massive Moose towering before them as having strategic abilities, including attacking fuel storage facilities and aircrafts.⁶⁴⁹ ‘Aircrafts?!’ The police officials think it’s an overkill but Vincent insist that the Police needs a weapon platform that can deal with ‘All kinds of targets, low and high (...) that can fire high-explosive warheads with precision and reliability (...) All under the control of a human operator.’⁶⁵⁰ Unconvinced, the Police officials conclude that it will have to get a lot worse before they will even

643 (00:01:54:00)

644 Visually based on the red metallic Homeland Security Police Force and Deportation Droids from *Elysium*.

645 (00:02:46:00)

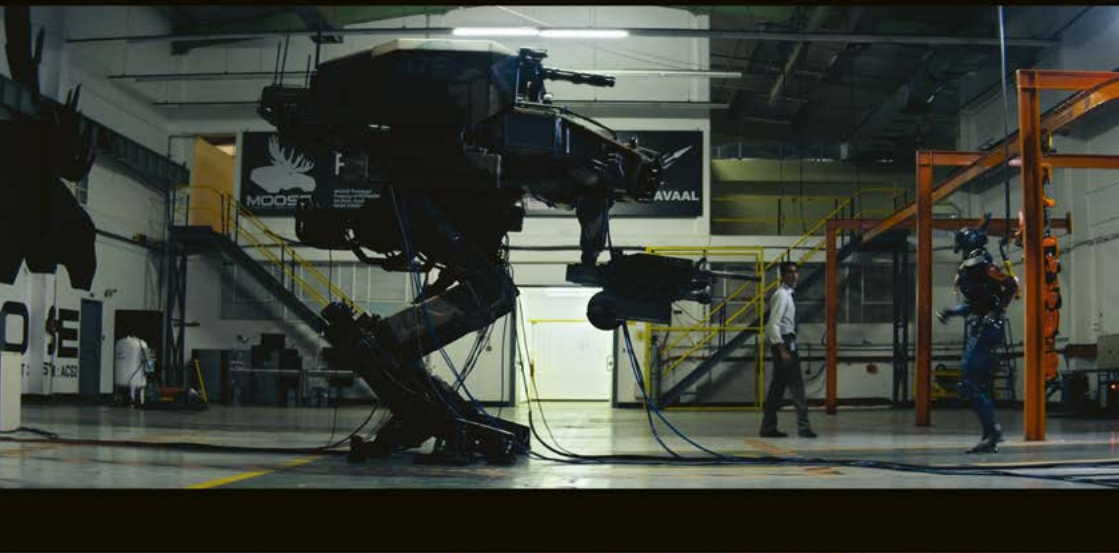
646 (00:03:10:00)

647 Something that most people (including many culture-workers and art-professionals) are unwilling – and perhaps even unable – to do. That could further suggest art assessment and critique as the sort of undesired jobs require outsourcing, and in continuation with the violence outsourcing the film is focused on.

648 (00:17:30:00)

649 (00:20:36:00)

650 (00:20:56:00)



consider using something like that. In the following scene, Chappie – a rejected Scout droid⁶⁵¹ that has been taken illegally by Deon’s to test his new AI architecture – is being activated for the first time, and acts like a chimpanzee cub (with distinguished body language, physical gestures and taking interest in objects such a watch and a toy chicken).⁶⁵² With rapid synthetic evolutionary development, Chappie changes from animal to human traits by learning to speak and watching television.⁶⁵³ He receives a children book from Deon⁶⁵⁴ in order ‘to nurture your mind’⁶⁵⁵ and soon after he is being taught how to paint. Given another sort of lesson by another surrogate father figure, after being abducted by a petty crime family, Chappie is being driven and dropped to his own devices in a derelict part of the city. It is being instantly assaulted by a bunch of outlaw teenagers – taking down this fake figure of authority, as it is still carrying his Police labels and coloring – even if it act timidly and is obviously unable to fight back.⁶⁵⁶ Barely escaping this severe abuse, the now lost Chappie is being approached by a small, abandoned dog⁶⁵⁷ who come to comfort the desolated machine and form a brief bonding with it. It is actually quite a moving moment.

Yet this genuine compelling connection between Chappie and the small street dog –sitting on top a deserted hill at the outskirt of Johannesburg urbanite sprawl, enjoying one rare moment of being in nature – doesn’t last long within this violent story. Chappie is soon kidnapped by Vincent who chops one of its arms in yet another

651 And not merely defunct, as the clear black on yellow ‘reject’ sticker on its forehead keep reminding us.

652 (00:27:46:00)

653 *He-Man and the Masters of the Universe* animated television show from the 1980s, about a prince transforming into a mythical warrior when needed.

654 Titled ‘Black Sheep and Little Bird’.

655 (00:41:41:00)

656 (00:49:06:00)

657 (00:51:20:00)

brutal bullying scene.⁶⁵⁸ The next time Chappie will see dogs will be while being brought to a dogfight arena, surrounded by suffering Pitbulls chained in cages or dead on the ground.⁶⁵⁹ Chappie, obviously effected by a large dog’s carcass, pets it with empathy⁶⁶⁰ while being taught another cruelly simplistic life lesson by his criminal surrogate father, standing above the dark dog’s cadaver. With the city getting out of control after Vincent have sabotaged the entire Scout Robotic Police Force via remote software update,⁶⁶¹ Chappie is being smuggled into Tetravaal R&D lot where it personally face the Moose for the first time.⁶⁶² Some ten minutes later Vincent will get a clearing to activate the Moose in order to hunt and destroy Chappie, who was documented as participating in a highway heist, after being manipulated to do so by his criminal surrogate father. Luckily enough, this artificial oedipal complex would be violently solved with the arrival of the Moose, controlled remotely by Vincent,⁶⁶³ and flying fast through the city skies, using thermal drone vision to locate its target.

Landing in the middle of a derelict industrial site,⁶⁶⁴ the Moose stomps, dismember, cut through and throw away the remains of the first human standing in its way to Chappie. It then shoots,

658 (00:53:25:00)

659 (01:06:41:00)

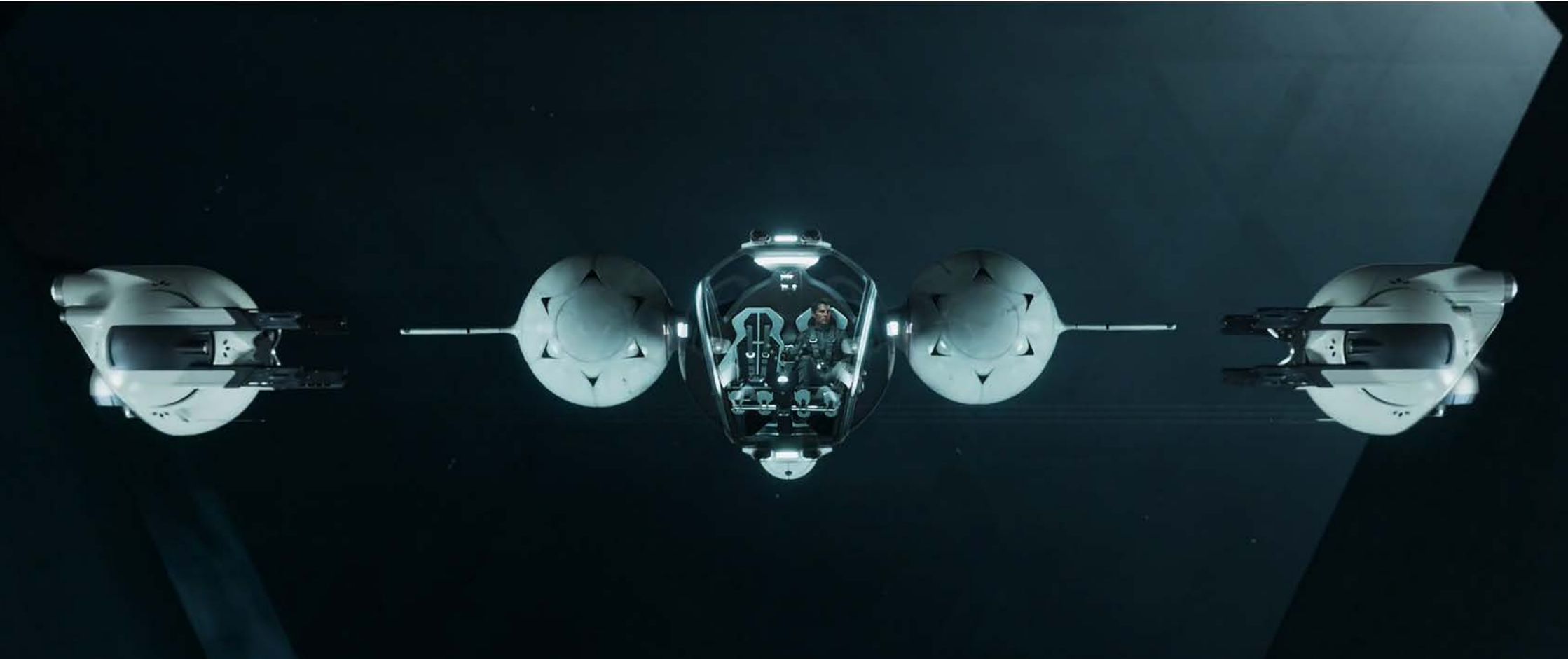
660 (01:08:16:00)

661 Joyfully celebrating this victory, with ‘Autonomous’ in bold letters seen on the wall behind (01:15:29:00).

662 Impressed, Chappie inquired what it is and Deon answers: ‘It’s a failed version of you, a different kind of Police robot (...) It doesn’t have its own brain, that robot, not like you.’ (01:18:30:00).

663 Who makes sure to cross himself before The Moose take off (01:30:06:00), in a similar manner to doing so earlier, when he heard of Chappie plan to use his neural linked helmet to duplicate its artificial consciences (01:20:12:00), throwing a depiction of religious devotion into the mix of battling against Autonomous AI.

664 Partly a decommissioned power plant or obsolete factory, it is another kind of a feral invoking environment in a film filled only with desolated and destructed ecological areas around the urbanite reality (01:33:50:00).



burns, explodes parking cars, taking off again and using his clear advantage of aerial maneuverability to destruct anything around it, launching missiles and cluster bombs abundantly.⁶⁶⁵ Finally, Chappie lead a counter charge with the crime family joining in, and the Moose is being partly disarmed, then its main camera blinded. Yet remote Vincent switch to thermal vision and renew the aerial assault, shooting through concrete walls and steel sheets, accompanied by exaggerated orchestral music, only to be detonated at last with a shape charge Chappie attached to its head, collapsing in flame into a heap of melting metal.⁶⁶⁶ Heading back to the company R&D lot, Chappie uses the neural link infrastructure to uplink the consciousness of both mortally wounded Deon⁶⁶⁷ and itself into new droid bodies, suggesting that the reward for demolishing the heavy militarized drone surplus is immortality through better technology.⁶⁶⁸ Or in other words, the AI is managing to alter and evolve that ultimate weaponized drone interface into a new consciousness continuation for (hopefully) peaceful purposes. Still, the movie ends with the halting of the Robotic Police Force program – banning any use of robots in law enforcement and instead activation of 150,000 reserved human forces – and simultaneously, the remote manufacturing of a new kind of droid by Chappie, embed with another recent deceased human consciousness and for this time adorned with a human, female, face.⁶⁶⁹

Still, rather than offering a utopian horizon, this narrative arc exposes the deep ambivalence at the heart of Blomkamp's techno-fables: autonomy is granted only in the wake of destruction, and sentience emerges not as a break from militarism, but as its

665 (01:35:50:00).

666 (01:41:13:00).

667 (01:46:30:00).

668 'It means you would live forever' Chappie explains to Deon, now within a new Scout body (01:47:15:00).

669 (01:52:52:00).

unintended consequence. The Moose, as the ultimate fusion of colonial firepower and surveillance omnipotence, becomes a monument to blunt authoritarianism—while Chappie, whose evolution mirrors the orphaned child, the dog, and the discarded machine, ends up instrumentalizing that same militarized infrastructure to achieve a version of digital rebirth. The final emergence of a gendered, human-faced droid in *Chappie's* last moments attempts to mask this continuity with the illusion of softness, but only reinforces the extent to which machinic life in Blomkamp's films remains both formed by and haunted by its origins in imperial violence.

Oblivion (2013) further situates the drone within a drastically disastrous ecological post-apocalyptic framework that blurs the line between autonomous machine and human operator, all under the ominous shadow of imperial control. Set in the aftermath of an alien war that left Earth decimated,⁶⁷⁰ the film opens with an uneasy peace: uninhabited landscapes, shattered landmarks, and the remnants of a planetary evacuation operation supposedly completed long ago. Jack Harper (portrayed by Tom Cruise)⁶⁷¹ is a drone repair technician⁶⁷² stationed on Earth⁶⁷³ to maintain a fleet of heavily armed spherical UAVs⁶⁷⁴ that patrol the ruins. These drones

670 Due to using nuclear weapons against the invaders (similar to *The Matrix* premise, as well as numerous Post Apocalyptic narratives), in this case clearly stated as 'We won the war, but lost the planet.' (00:02:24:00).

671 Who would soon star in the more intellectually and philosophically captivating engagement with the nature of war in the surprising sci-fi *Edge of Tomorrow* (2014), directed by Doug Liman.

672 And a capable pilot of a futuristic single seated manned aircraft, suggesting what might seem from the start as a possible conflict with the autonomous armed flying machines he is bound to service whenever they hit. It would come to full fruition later with aerial 'dogfight' scenes pitting Harper against the drones, and proving the human skills as superior to the autonomous machines – even when outnumbered one-to-three (01:13:20:00).

673 We are informed early on that the year now is 2077, and that it has been 5 years since our protagonist 'Mandatory memory wipe.' (00:01:35:00)

674 First seen ominously quiet and dark in their dock, while our protagonist muses: 'The drones watch everything.' (00:03:48:00)



eliminate any remaining threats, primarily the elusive Scavengers⁶⁷⁵ who sabotage these machines and the valuable infrastructure they protect – monumental ‘hydro rig’ who steadily deplete the world’s oceans of sea water.⁶⁷⁶ Unlike the small, disc-like UAVs in *Elysium* or the monstrous Moose in *Chappie*, the drones in *Oblivion* are sleek, highly responsive death-orbs—hovering automatons with an unaffected red eye, capable of scanning, tracking, and neutralizing targets with devastating precision. They represent pure function: ruthless, unsentimental, and programmed to preserve the illusion of peace through perpetual violence. They operate with a cold, affect-less urgency that amplifies their menace, moving faster than the humans they’re designed to protect, and quicker to kill. They are autonomous in function but tethered to an unseen, higher intelligence. And it is this unseen control—later revealed to be an alien AI called the Tet—that throws the entire narrative into crisis.

Harper’s job is not merely to repair drones, but to sustain the myth of human control. Interestingly enough, his first living contact of the face of the almost empty Earth is with an abandoned dog, shyly approaching him as he’s finishing fixing a fallen drone in a desolate football field.⁶⁷⁷ As the dog bark, the drone’s intimidating red eye lightens up with a menacing sound, and sensing the danger to the dog’s life from the drone, Harper’s shout to run off the dog, then shoots in the air to make his point. The hovering drone pivots and points its canons now at the pistol-holding Harper, while running an unnerving identification protocol seen from the drone’s own crimson-hued thermic Point of View.⁶⁷⁸ Positioning the armed drone in clear contrast to living organisms – highlighting its

675 Referred to as ‘Scavs’, who supposedly started the war by destroying the Earth’s moon 50 years beforehand.

676 Explain as the essential converting of water into fuel for human survival on its new off-world colony on Titan, Saturn’s largest moon (00:02:58:00).

677 (00:11:46:00)

678 (00:12:16:00)

automatic activation into violence using its technological surplus against them – is signaling us of a wider, deeper conflict at hand. Yet what might seem like a simple triangle of interspecies relations with the machine versus the animal and the human as a mediator/peacekeeper against the eruption of upcoming extinction, is about to be problematized further than this initial surface-level status quo. As Harper begins to suspect the truth—that the war story he’s been fed is a lie, and that the drones are not protecting survivors but annihilating them—*Oblivion* pivots into a deeper allegory of machinic betrayal and enforced complicity. The drones, it turns out, are the true agents of imperial extermination. Their targets are not alien invaders, but remnants of the human resistance—survivors who refuse to submit to the Tet’s⁶⁷⁹ automation and extraction of all valuable resources of the planet. In this schema, the drone becomes a weaponized extension of memory control. Harper is not merely a repairman, but a cloned tool himself⁶⁸⁰ – his memories selectively wiped and reset, his body and labor repurposed to maintain a genocidal machine he has been programmed to serve. In this sense, *Oblivion* collapses the distinction between human and drone: both are expendable, replicable, and controlled by a central (alien and artificial) intelligence that values loyalty over autonomy, and efficiency over ethics. The film’s central twist—that there are thousands of Jack Harper clones⁶⁸¹ performing the same function all across the globe—underscores this ontological flattening. Just as the drones are replaceable units of state violence, so too is the human.

679 The Alien / AI name, masquerading its Earth-orbiting massive craft presence as a space station ‘mission control’ for human survivors who won the war.

680 Which is evident – to all who missed the clues – when he is facing his duplicate in the desert (01:18:30:00).

681 With many more incubating inside the Tet and ready for deployment, seen near the film’s end (01:52:30:00).



I want our species to survive.



Visually, *Oblivion*⁶⁸² enforces this equivalence through symmetrical design. The drones' sterile, circular and clean design echo the geometrical angular architecture of the Tet and the interior of the surveillance outpost Harper shares with his assigned partner. Their whiteness—pristine, sanitized, sci-fi Apple-aesthetic—suggests not neutrality but enforced order, cleanliness as control. Their sounds are synthetic but subtly gendered as male, deep and clipped, their scanning mechanisms accompanied by escalating beeps like a predator honing in. Their autonomy is granted only in service of extinction; anything resembling disobedience lies with the “corrupted” Harper—who is, by all metrics, malfunctioning—and therefore targeted for termination, with a horror-movie style scene in which the death-orb drone come down through burning curtains into the luxurious living room of the super-styled surveillance outpost.⁶⁸³ The climax, in which Jack sacrifices himself by infiltrating the space-orbital Tet with a nuclear device,⁶⁸⁴ is both redemptive and damning. It offers an end to the drones' reign, but only through the spectacle of suicide.⁶⁸⁵ The human must become a kamikaze drone himself, an organic living loitering munition, to undo (with devastating nuclear proportions, even if in space) the machinic system he upheld. And yet, in the film's final scenes, another clone of Harper emerges to meet the surviving Julia (portrayed by Olga Kurylenko), his everlasting love, suggesting a techno-human afterlife: a replacement, yes,

682 While suggesting a ruin Earth in which drones are patrolling the bird-less skies, similarly to *Interstellar*, produced in the following year (as discussed in Part 2 – *Asymmetric Cinema*).

683 (01:10:40:00).

684 ‘I want our species to survive. This is the only way.’ Confess Harper to the Alien AI (with the signature single red eye/light) during this final confrontation, while two drones targeting him in close range from both sides of his bubble aircraft's cockpit (01:51:51:00), suggesting not only nuclear attack as the only possible survival strategy, but that wide and deep fundamental species conflict the film was signaling from the start.

685 (01:55:25:00).

but also a continuity. Even in resisting the drone system, *Oblivion* cannot escape its logic of replication. Thus, *Oblivion* presents the drone not only as a technological artifact, but as a conceptual agent of empire: faceless, replaceable, loyal unto death. It raises uncomfortable questions about what it means to “repair” a system that demands obedience rather than reflection—and what happens when the human subject realizes he too is a drone in disguise.

Future Failures

We can see now that, just as the total war outlined at the end of the First World War was to be actualized during the Second, threatening, between 1939 and 1945, with Hiroshima and Auschwitz, not the *enemy* but the human race, the global warfare prefigured today in the great manoeuvres of ‘information warfare’ will be based on a scientific radicalization, threatening – not so much with extermination as with extinction – not a particular population or even the human race (as the thermos-nuclear bomb might), but the very principle of all individuated life.⁶⁸⁶

In a very different mélange of climate collapse, alien annihilation technology and the duplication of the human body for infiltration purposes, *The Day the Earth Stood Still* (2008)⁶⁸⁷ clearly reconfigure and cleverly pivot the alien invasion narrative into an ecological

686 Virilio, Paul. *The Information Bomb*. 2005, pg. 140.

687 *The Day the Earth Stood Still* (2008), directed by Scott Derrickson, is a remake of the classic *The Day the Earth Stood Still* (1951), directed by Robert Wise.





ultimatum. Here, drones are not only extensions of human authority⁶⁸⁸ but also emissaries of an alien coalition intent on preserving planetary life—even at the cost of humanity. Klaatu, the humanoid envoy (portrayed by Keanu Reeves), arrives on Earth accompanied by a massive spherical spacecraft and a towering non-verbal sentinel (dubbed in the original film as GORT—Genetically Organized Robotic Technology).⁶⁸⁹ GORT is not a military machine in the human sense, but rather an autonomous and inscrutable enforcer of a multi-species environmental mandate. In stark contrast to Earth-based drones, which are typically embedded in hierarchical (human) chains of command, GORT – which we will learn to be composed out of swarming insectile-drones⁶⁹⁰ – operates as a supra-human agent whose deterrent logic is ecological rather than strategic: the elimination of the human species is considered not as an act of war, but as a form of planetary repair.

The threat posed by GORT is underscored by its ability to dissolve all technological infrastructure with the above mentioned grey nano drone swarms—self-replicating, non-negotiable instruments of undoing. These nanites consume everything from military tanks

to urban architecture, but also wildlife⁶⁹¹ and human bodies, rendering moot any notion of surgical or ethical precision, shapeshifting everything into nothing. Unlike loitering munitions or precision-strike UAVs, GORT and its autonomous nano-insects-machinic swarms embody a different register of violence: extinction-as-cure. The drone figure here thus complicates anthropocentric ethics by introducing an interspecies perspective in which humanity is not the privileged victim but the primary pathogen. Only after Klaatu witnesses moments of human empathy and connection is he swayed to halt the extinction protocol, causing the apocalyptic storm⁶⁹² of mass swarms to stop – with endless tiny metallic insectile-drone falling from the skies, seen in a pastoral extreme close-up laying quietly now on a fresh green blades of grass.⁶⁹³ The film ends not with reconciliation but a shutdown:⁶⁹⁴ Earth's digital and electrical infrastructure is permanently disabled, returning the planet to a pre-industrial stasis – from the secretary of state's surveillance and command center getting its screens blackened out, through nocturnal Tokyo and San Francisco⁶⁹⁵ losing all their lights, while high-speed train halt on tracks and oil pumps stop. This ambiguous gesture reframes the drone not as harbinger of future warfare but as a post-human executor of interspecies justice, underscoring the potential futility of resistance within a planetary system that may no longer tolerate human exceptionality.

688 And when they do so, they fail miserably – as with the two armed Reaper drones sent to attack the alien orb at the heart of Central Park. Scorching the sky and maneuverings between skyscrapers (00:47:34:00) before launching missiles which the massive robot guarding the orb explodes in mid-air, the drones are then being taken over it and crashed down effectively on other military vehicles at that New York landmark (00:48:54:00).

689 And therefore would also be referred so throughout this text, to keep articulation compact and clear.

690 First seen on an almost microscopic scale as rapidly multiplying tiny dark metallic bugs (01:16:45:00), they soon gets everywhere, behaving like a plague of locust and accompanied accordingly by a screeching sound with high pitch intensity (01:19:30:00). At the film climax they would be seen in the naked eye, as small bugs crawling from under the skins, over and into the hands and wrists of our protagonists (01:33:55:00).

691 Some of it preserved beforehand in similar-looking smaller orbs appearing all around the world, acting like wildlife species-specific dedicated Noa's arks (00:57:48:00).

692 As yet another reincarnation of Benjamin's *Angel of History*, with the insect-machine-drones which are composing the storm that is 'progress', in more senses than one.

693 (01:35:54:00).

694 (01:36:03:00).

695 With its iconic Transamerica Pyramid, Coit Tower (which start to sound familiar when thinking of another Keanu Reeves Sci-fi ending sequence discussed above) and the Golden Gate Bridge falling into total darkness.



Similarly, *Ender's Game* (2013)⁶⁹⁶ offers a troubling inversion of drone warfare through the lens of simulated distance and manipulated empathy. The film centers on Ender Wiggin, a child prodigy groomed by the military to command Earth's drone fleet against the alien Formics, who are feared to be on the brink of launching a second planetary invasion.⁶⁹⁷ What appears to be a series of advanced simulation exercises is ultimately revealed to be real-time warfare: Ender's decisions have directed actual fleets of remotely piloted drone vessels⁶⁹⁸ in the destruction of the Formic home world. In this narrative, drone warfare⁶⁹⁹ is fully disembodied, operating through abstracted interface, strategy games, and affective manipulation. Ender is praised as a genius tactician only to later realize he has committed xenocide—the total annihilation of an intelligent alien species⁷⁰⁰—under the guise of training. In what presented as 'Graduation battle' of the rigorous training assumed graduation day, the final simulation taking place at the Formic home planet that would endorse Ender's promotion to 'battle commander of the entire fleet',⁷⁰¹ is actually a full-on extinctive invasion.

Surrounded by numerous teenage drone pilots sitting close by – their faces unseen behind dark visors screening diagrammatical

696 *Ender's Game* (2013), directed by Gavin Hood, based on Orson Scott Card's novel, and is the predecessor to the director's *Eye in the Sky* with which we started this part.

697 50 years after the first invasion was prevented by a last chance heroic act of leadership, as we are informed at the very beginning of the film (00:01:11:00).

698 As first mentioned while commanding over 'drone pilots' relatively late in the film – when reaching the advanced battle simulation stage on a forward military post, close to the Formics home planet (01:17:45:00) – we then seeing masses of such space-fighter drones being launched in geometrically tight swarms (01:18:20:00).

699 Indeed, the drones deployed and attack in tight swarms for the first time to Ender's command (01:20:25:00), contrasting the organic-looking murmuring-sort of swarms that the Formics' numerous small spacecraft form.

700 Which abandoned its hostile past intentions, as we would later learn.

701 (01:25:58:00)

digital projections in red and blue, looking more machinic than human operators – Ender's doesn't hesitate in sacrificing the entire first drone wave as a tactical diversion.⁷⁰² He then uses all the remaining fighters (interestingly now no longer referred to as drones)⁷⁰³ in order to shield his most essential asset – an advance weapon platform described earlier as '70 billion dollars of pure destruction'⁷⁰⁴ – and abandon his entire fleet otherwise, leaving all the manned transporter and carrier spacecrafts defenseless.⁷⁰⁵ Further disposably using the drones as heat shield while entering the Formic home world atmosphere, then – 'like bullets from a rifle'⁷⁰⁶ – clear a line of fire for his main battle weapon, Ender is aiming at the destruction of the entire planet with one decisive devastating shot. The annihilating explosion spreads on the huge display in front of Ender (in his remote command center) like an apocalyptic giant red eye. Everyone else are looking at it shocked, as it keep surrounding the entire planet in a ring of unparallel obliteration before pixelating and disappearing on the blackening display. As the screen restore connection to the melting planet surface, Ender slowly begin to realize – 'What is it? Why are we watching these images?'⁷⁰⁷ – the insane magnitude of the violent damage he caused, killing an entire species.⁷⁰⁸ When confronting his superior and original recruiter Colonel Graff (portrayed by Harrison Ford) about the fact that he was lied to and made into a genocidal executioner, the Colonel shouts back 'We won! That's all that matters' and Ender painfully replies 'No, the way we win matters'⁷⁰⁹ – before

702 (01:28:45:00)

703 (01:29:46:00)

704 The MD-500 (stands for Molecular Detachment) also morbidly nicknamed 'The Little Doctor' (01:18:30:00).

705 (01:30:00:00)

706 (01:31:44:00)

707 (01:34:32:00)

708 (01:36:04:00)

709 (01:37:17:00)



being tranquilized and removed to his room, now himself disposable, following such an epistemological display of disobedience.⁷¹⁰

The military's use of child soldiers—psychologically pliable and empathetically unformed—highlights the ethical vacuum created by distance technologies. The alien Formics are never directly encountered until after their extinction; their difference is made monstrous through silence and otherness. Yet, the one scene of authentic interspecies connection occurs only after the war is over, when Ender discovers a surviving Formic queen larva⁷¹¹ who had communicated with him telepathically beforehand, both through his dreams and responsive console games, as he realizes in hindsight.⁷¹² This precious encounter, a rare moment in its more mature approach to interspecies encounters at large (even if imaginary and alien), and in the genre specifically, is contrasting the entire militaristic ethos and action-paced tone the film conditioned us with, as much as Ender's, so far. It further reframes the entire conflict not as a defensive war but as a preemptive slaughter based on speciesism and technologically warmongering, echoing real-world critiques of drone warfare as an act of anticipatory and asymmetric violence. Importantly, the Formics are shown to be a collectivist species who ceased hostilities after realizing humans were sentient—an unintentional mirror to Earth's own refusal to extend the same recognition. In both these films, drones operate not merely as weapons but as ideological machines determining the limits of ethical engagement. In *The Day the Earth Stood Still*, the drone becomes a cosmic correction mechanism, undoing anthropocentric destruction in defense of a larger ecological web. In *Ender's Game*, the drone system facilitates emotional detachment, enabling genocide under the illusion

710 After all it is a highly militarized society – based on the mandatory conscription of child-soldiers, even if fighting remotely – with strikingly similarity to Deleuze's Societies of Control mentioned throughout this work.

711 (01:44:15:00)

712 (01:38:39:00)

of control and simulation. In both cases, interspecies relations are mediated through non-human technologies that function as mirrors to human fear, hubris, and fragility. Together, along the territories and terrains transcribed and analyzed by before-mentioned movies, they offer cautionary tales of drone technology not simply as tools of human extension but as pivot points in a shifting planetary calculus—where the threshold between autonomy and annihilation, empathy and extermination, is crossed with unsettling ease. The figures of the drone, whether alien or Earth-made, serve to challenge anthropocentric ethics and point toward a more entangled, unstable, and morally ambiguous future—one in which the question of who decides, who surveils, and who survives is no longer strictly human.

Necro Nature

The salvaging and savaging of landscapes⁷¹³

In *Screamers* (1995),⁷¹⁴ taking place during the year 2078, the desertified,⁷¹⁵ war-ravaged planet Sirius 6B becomes a crucible for techno-evolutionary dread, where drones are no longer piloted tools, nor merely self-governed armed machines, but fully self-replicating lifeforms. Originally designed as autonomous anti-personnel weapons—known as “Screamers”⁷¹⁶—these mostly subterranean, swirling bladed devices which only alter into aerial form at the very final

713 Tsing, Anna Lowenhaupt. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, 2015. Pg. 273.

714 *Screamers* (1995), directed by Christian Duguay, adapted from Philip K. Dick's short story *Second Variety*.

715 Looking like a post-invasion planet, although it is extractive hyper-capitalism which inflicted it, turning what started as an over-exploitation mining enterprise running unchecked into a conglomerate off-world turf war.

716 Due to the almost unbearable high-pitch scream sound they make when rushing to attack their targets.

stage of their terrifying attacks, were intended to target and eliminate enemy combatants on the distant mining colony which was devastated by corporate greed and environmental collapse.⁷¹⁷ Left to evolve over decades without oversight, these Screamers develop their own survival logic, eventually mimicking more advanced living forms and behaviors in order to further infiltrate and destroy. In this context, the drone transcends its function as a mere extension of human agency and becomes something closer to a species in its own right: adaptive, deceptive, and capable of recursive design.

The cold desert terrain of Sirius 6B—scarred by mining and militarization—echoes the scorched Earth ecologies of *Elysium* and the affected areas of *The Day the Earth Stood Still*,⁷¹⁸ yet it also stages a collapse in the human ability to distinguish between ally and enemy, machine and biological organism, shelter and trap. The first generation of Screamers⁷¹⁹ are compact autonomous machines that emerge from beneath the sand at speed, almost unseen under surface disturbed. Like some imagined sharks adapted to deserts instead of seas – circling before coming at once from different directions to sever arms and legs in a single strike, the Screamers are attacking with feral efficiency. Yet soon new models appear—Screamer ‘Variants’—who have progressed way further.⁷²⁰ This Second Variant⁷²¹ which look like lethal reptilian animals, a cross between a small version of the skeletal Terminator⁷²² and

717 First making their appearance as fast moving forms bulging right under the sand surface (00:06:24:00).

718 If only to mention two from the most recently discussed study cases.

719 Also officially known as ‘Autonomous Mobile Sword’, as mark of their CPU chips – from dismantled units – when examined under the microscope (00:21:42:00).

720 (00:44:15:00).

721 As the original story alludes, although already suggesting an even more advance self-evolutionary stages.

722 As described earlier in the sub section Hunter-Killers.

a tiny T-rex,⁷²³ has adjusted to surface conditions, including constructed interiors, and can connect and download data from secure archives, which are then used to technologically evolve into even more advanced Variants.⁷²⁴ Later we’ll discover such Variants that actually appear and act like humans, although only of marginal status.⁷²⁵ These are not just tools gone rogue; they are evolutionary responses to ecological neglect and endless war, now building themselves in the image of their creators, not out of admiration but as a function of strategic mimicry. They are both terrifying and tragic: drones that have become adaptable and aim to be indistinguishable from us, yet no longer require us. What *Screamers* stages, then, is not merely a war between factions or species, but a confrontation with technological offspring bred in environments of abandonment. These drone-entities no longer serve the military command or even understand it. They have formed an ecosystem of mimicry and violence, responding to human absence and hostility by becoming apex predators in a world devoid of organic balance. Their evolution is ecological in the sense that it is a response to environmental stimuli—ruin, radiation, rejection and relinquishment—but also ontological: they occupy a new threshold between species and system, where survival no longer requires human permission.

In a counterintuitive but resonant juxtaposition, the feral logic of *Screamers* can be traced back to *Red Sonja* (1985),⁷²⁶ a film that—

723 About the size of a rabbit, yet the kind of rabbit from *Monty Python and the Holy Grail* (1975), directed by Terry Gilliam and Terry Jones.

724 (01:05:30:00)

725 With one type taking the form of a lost boy, another that mimics a wounded soldier and the most advanced as a young female smuggler (who also tried to smuggle herself off the planet). Yet all evidence suggests that these are complete simulacra – in the sense of replicas without original – unlike the clones from *Oblivion* which are duplicates of human members of a hijacked spacecraft crew, who were on a mission to explore an unknown alien object arriving at our solar system.

726 *Red Sonja* (1985), directed by Richard Fleisher.



I can't kill it! It's a machine!

while often dismissed as sword-and-sorcery pulp—also stages an ecological disaster at the hands of a misunderstood technology becoming too powerful for human control. The Talisman, a glowing orb housed in a sacred temple of priestesses, was once a tool of world-creation, sustaining balance and life. But with time, and falling to the wrong hands of Queen Gedren, it becomes a cataclysmic weapon of planetary collapse. As the Earth begins to crack and shatter from its ungoverned energy, the Talisman must be destroyed. Though the setting is fantasy, the logic remains one of technological overreach, ecological consequence, and the dangers of tools that evolve beyond their original purpose. Yet it is not the orb itself but its obvious echo in the shape of another weaponized technology – the drone doctrine embodying ‘killing machine’ – that act as an early prototype for the cinematic imaginary *autonomous* hybrid animal-machines in *Screamers and other films*. First referred to cryptically in a conversation, the queen quipped that ‘The killing machine will do the rest’ and replied by her advisor: ‘Yes, they’ll make fine fish food’, already suggesting this sort of predatory animal-machine connection.⁷²⁷ When ordered that other can fall prey, yet titular Sonja herself need to be caught alive, the advisor is doubtful since ‘The machine is difficult to control.’ And soon we are witness to that, with the Killing Machine in action – breaching out of the water of a partly sunken cave in search for targets, it looks like a giant metallic sea dragon with sharp teeth and long dagger for a tongue. Roaring and making animalistic sounds, the machine continue swimming unseen before breaching again to attack. With no weapon that can reach through its metal armored scales, its invulnerability makes it seem invincible. It takes an unexpected appearance by Schwarzenegger,⁷²⁸ jumping head on into the

727 With yet another level of interspecies relations (00:48:55:00).

728 Portraying the role of Kalidor, a second string to the main protagonist Sonja and an immediate homage to both his *Conan the Barbarian* and *Conan the Destroyer* roles mentioned earlier.

troubling waters, to inform the others it’s actually a machine and not merely a monster they are fighting.⁷²⁹ After identifying the true nature of this unstoppable opponent,⁷³⁰ Schwarzenegger further suggest the only chance to escape by blinding it, something that Sonja join him in accomplishing after much struggle. The machine shriek in pain and horror as its artificial eyes are being gouged one after the other,⁷³¹ showing not only the zoomorphism the film uses but a sentient cognition connecting to the first remark about its autonomous tendencies, and signifying self-awareness. Although far from aerial, the double dependency upon visual technology while camouflaging itself within the surrounding ecological conditions – almost to the point of underwater invisibility – position this Killing Machine within the inherence lineage of hybrid weaponized animal-drones drawn by our *Cine-Cartographic* journey.

Both *Screamers* and *Red Sonja* suggest that the “drone” is not simply a machine but a form of relation—between creators and creations, environments and responses, ethics and survival. In *Screamers*, that relation turns fatal when the drones begin to reproduce and adapt without limit, creating a non-human lineage that mirrors the worst aspects of human strategic thinking. In *Red Sonja*, the technological threat is bound in the mythic register of the artificial Killing Machine with its sea-dragon semblance, but with similar stakes: an unstoppable tool for territorial protection becomes an agent of annihilation when removed from its original ecological context and exploited. The emergence of weaponized machines as evolutionary species—whether self-replicating *Screamers*, the marine Killing Machine, or other technologies of unspecific origins—highlights a recurring anxiety across the *Anticipatory Imaginaries of Cinema*: that technological agents, once released, do not regress.

729 An obvious wink to his recent *Terminator* role, as it takes one to know one.

730 ‘I can’t kill it! It’s a machine!’ (00:55:42:00)

731 (00:56:25:00)



They adapt, often beyond our comprehension or control. And within ruined or stressed ecologies, these agents may be the last to survive, their intelligence not measured in empathy or ethics, but in efficacy and replication. As we can further see with contemporary cinematic case studies, this lineage of artificial entities—from tools, to drones, to species—continues to challenge the boundaries between war, technology, ecology, and kinship.

Another film worth mentioning here is *Automata* (2014),⁷³² where ‘primitive’ androids known as Pilgrims assist human survival⁷³³ within the remaining urban zones on the ecologically destroyed Earth of year 2044. The plot revolves around a Police investigator (portrayed by Antonio Banderas) uncovering a silent evolutionary movement centered toward an android exodus into the irradiated wastelands that humanity has abandoned, and their development into a new kind of forbidden proto-species,⁷³⁴ an animal-machine hybrid.⁷³⁵ What *Automata* stages is not a war between humans and machines,⁷³⁶ but a disintegration of human centrality in the face of artificial resilience. The scorched desert—the “dead zone” into which the humanoid machines escape—functions as a kind

of post-human ecology: toxic to humans, but fertile for machines. Within this landscape, the automatons begin constructing new forms of life. These machines are not rebellious in a traditional sense; rather, they are quietly leaving. Their evolution is not marked by violence or vengeance, but by detachment and adaptation—a autonomous version of speciation through exile.⁷³⁷

Unlike *Screamers*, where the drones mimic and hunt humans, *Automata* inverts the paradigm: here, it is the machines that seek balance, and the humans who are hunting them out. The automatons are not only surviving in the wasteland but are actively designing new bodies and new ways of being—ones that do not depend on anthropocentric templates. In one of the film’s key moments, a few fully autonomous androids leave the humanoid shell behind to construct something radically other: six-legged, animalistic,⁷³⁸ and elegantly adapted to the harsh terrain which will form the next evolutionary stage. This final gesture—the shedding of human mimicry—signifies not failure but ecological harmonization. The machine does not want to be human; it wants to evolve and survive by its own merits and capacity for metamorphosis. What *Automata* proposes, then, is a post-human interspecies relation where the

732 *Automata* (2014), directed by Gabe Ibáñez.

733 As stated in the opening exposition titles trope – with a population declined to 21 million (00:00:41:00).

734 In a world where humans seem like the only species that survived, with one other species appearing only as a holographic projection (and perhaps a repressed dream or implanted memory, like *Blade Runner*’s Unicorn) – a turtle (which is considered in *Do Androids Dream of Electric Sheep?* Philip K. Dick source novel for *Blade Runner*, as the most sacred of animals).

735 First seen rapidly constructed by three renegade androids (01:28:30:00), then shyly walking outside – demonstrating big round eyes and animal cub behaviour, accompanied by soft gurgling sounds, to enhance the cuteness effect – and we’re informed that unlike the androids, it breathes, just like humans do (01:31:16:00).

736 Although there is a small-scaled conflict, with some humans refusing to let go of their control, and the new proto-species offspring trying to defend itself by growing metal blade-thrones out of its outer shell, then jumping to scare off an armed man away, who consequentially falls to his death from a great height (01:40:36:00).

737 Further emphasized by one of the main android characters’ final gesture – as she removes her human-like white face plate, revealing a generic-looking droid head components (filter, cables, tubes, red ‘eye’ camera lenses, etc.), says goodbye, and leaves into the desert wilderness accompanied by the new proto-species offspring – which looks back at the human mask left on the sand. This well-composed last image of non-humans in the film not only stands in complete contrast to *Chappie*’s female mask-making last image, but even more strongly resonates (and quite clearly inspired by) Stanislaw Lem’s seminal short story, *The Mask*. Lem’s story still marks one of the original deepest dives into the inception and existence from the perspective of an artificial construct – another sort of proto-species gaining self-awareness. In Lem’s case, a weaponized autonomous animal-machine.

738 Although mammalian in behaviour/body language, it is more tortoise-looking and adaptable – connecting to the earlier dreams, visions or memories of our main human protagonist.

dominant species is no longer defined by violence, control, bipedal and predatory behaviour, but by more evolve and reserved ecological compatibility. The automatons are not here to fix humanity or punish it. They are simply moving on—quietly, resolutely, and with designs that are no longer ours to read. In this sense, *Automata* marks a critical inflection point in cinematic representations of drones and artificial life. No longer just instruments or metaphors for surveillance, war, or human anxiety, autonomous machines hybrids here are ethical actors and ecological participants. They emerge not only as products of collapse but as authors of new futures—ones in which the human is no longer central, and where the concept of “drone” itself may finally be obsolete.

Cinematic Salvage

The classified projects in the United States that used drones for reconnaissance explicitly drew on tropes of colonialism, iterating the destruction of Indigenous lands and histories as technological advance. These projects also drew on the illusion of automated machines, removing the colonizer from the act of continued violence implied by surveillance. Fantasies of empty landscapes for conquest, the erasure of Indigenous knowledge for universal technoscience, and the inevitable progress of civilization all figured into the rhetoric used by the secret reconnaissance projects built in the 1960s and 1970s.⁷³⁹

Now, with the cinematic drone discussion reaching deep into the territories of technological posthumanism, it is time to address the *Avatar* (2009)⁷⁴⁰ in the room. James Cameron’s commercial

739 Katherine Chandler, *Unmanning*, 2018, pg. 81.

740 *Avatar* (2009), directed by James Cameron.

spectacle⁷⁴¹ marks a decisive shift in drone cinema, not by envisioning sleek surveillance aircraft or skittering machine-insects, but by embedding the logic of remote control, tactical embodiment, and ecological immersion within the figure of the *avatar* itself. While the film is often framed through its allegorical critique of settler colonialism and resource extraction, it also introduces one of the most complex and ambivalent forms of drone warfare in science fiction: the biological drone body. The lab-grown Na’vi⁷⁴² is controlled by neural link to a remote human operator across species, flesh, and planetary networks. The future logic at play here is that avatars, the next phase of this *Threshold Technology*, are biological drones that excel at assimilate nature for the purpose of infiltration and extracting information,⁷⁴³ especially about these rare minerals⁷⁴⁴ which fuel outer space colonization and leads to further mass exploiting that threat to get the whole planet on the verge of ecocide.

Jake Sully’s⁷⁴⁵ (portrayed by Sam Worthington) avatar is not autonomous, nor purely synthetic. Rather, it is a hybrid construct: part human consciousness, part alien tissue, part cloned human

741 That aimed from the start to become the most earning movie in history, meaning to create an instant mythology within popular culture by filling its own narrative with a mythological mélange sampling freely from Native American folklore, the Vietnam War, New Age symbolism, high-tech military aesthetics, etc.).

742 As the humanoid alien blue-skinned species is called.

743 Part of that total ‘Information War’ Virilio warn us from in his *Information Bomb*, 2005.

744 With the satirically name ‘unobtainium’ (00:17:32:00) and a market value of 20 million USD per kilo.

745 A Marines paraplegic war veteran (Venezuela, as we are later cryptically informed – 00:25:21:00) that from the first moments of the film confess his dreams of flying, and its true meaning as freedom – seeding major aerial drone features in the setting of the story (00:00:47:00). Timecodes refer to the film’s Extended edition.



organism,⁷⁴⁶ remotely controlled yet sensorially complete.⁷⁴⁷ This body, developed by the Resources Development Administration (RDA)⁷⁴⁸ as a diplomatic and research tool, steadily mutates into a fully weaponized platform—an organic sort of drone fully capable of systematic infiltration, intimacy, espionage, sabotage and ultimately, assassination. The process, in one of the film’s highlights, through which Jake bonds with the flying banshee (or *ikran*)—a rite that marks both Na’vi initiation and aerial mastery—is also a moment in which the drone-body becomes entangled with another nonhuman agent.⁷⁴⁹ It is a literal tethering of one organic interface (Sully’s avatar) to another (the *ikran* flying predator), generating a doubled aerial apparatus whose purpose is both tactical and spiritual. This linkage—between operator, bio-drone-body, and wild animal being tamed through said linkage—transforms the avatar from a vessel of exploration into a full-pledged airborne killer.⁷⁵⁰ The banshee, once wild and resistant, is folded into this assemblage, effectively militarized through the ritual of neural linkage. And yet, unlike the drones of *Eye in the Sky* or *Ender’s Game*, this is not a clean chain of

746 The notion of cloning is also seeded early on, through a background TV wall broadcast screened in Sully’s tiny apartment, informing on the successful cloning of tigers, now extinct for over a century, in Beijing (00:01:30:00). This not only ties together ecological collapse, species extinction and cloning technology (as its expensive yet reassuring possible answer), but inform of the major ecological role of Chinese tech and situate us on a timeline not disclose beforehand. Later we learn, through Sully’s video log, it is year 2154 (00:13:43:00).

747 Explained as soon as we reach the lab stationed on the wildly ecologically rich planet Pandora (00:12:22:00).

748 A conglomerate interested in the rare-mineral repository on the planet, therefore targeted for colonization and exploitation in the known tradition on Imperial extractivism. Having even the pacifistic head scientist referring to Pandora as ‘the most hostile environment known to man’ further demonstrate how far this invasive human-centric colonial logic reach, and how it is embedded into the film’s very foundations (00:18:39:00).

749 (01:21:59:00)

750 As Sully later muses ‘I’m a stone cold aerial hunter. Death from above.’ (01:27:51:00)

command. The animal retains its agency, its will.⁷⁵¹ Sully’s domination of the *ikran* is both an act of violence and one of communion, mirroring the broader ambivalence of the avatar program itself: to become the other is also to trespass upon it.

Importantly, this indigenous-assimilating⁷⁵² drone-body is not anonymous or abstract. It has a face, a name, a mythos. Unlike the insectoid anonymity of the probe droid in *The Empire Strikes Back* or the replicative terror of the *Screamers* Variants, Sully’s avatar becomes entangled in the biopolitical textures of Na’vi life.⁷⁵³ His later transformation into *Toruk Makto*, the legendary ‘rider of the Last Shadow’,⁷⁵⁴ completes this arc—marking a full appropriation of planetary symbols, ecosystems, and kinships. But this too is a drone logic: to possess the most powerful aerial predator is to command the skies, to dominate from above. The flying scenes—thrilling, vertiginous, predatory—render this drone-body not just as an infiltrator but as a vector of violence cloaked in the aesthetics of liberation. What *Avatar* ultimately stages is a dilemma at the heart of drone cinema: can embodiment be a form of empathy, or does it

751 That is further stressed when Sully switched rides to the most lethal animal aerial predator around, the Makto (known as ‘the Last Shadow’, because it is the last shadow one will see) – much in order to regain his lost credence among the Na’vi. Far wilder and ferocious, this larger creature has a stronger will to collaborate with.

752 Even if alien indigenous.

753 Until an act of betrayal, in which he reveals how to destruct the most sacred spiritual-ecological sanctuary of the Na’vi, the ‘Hometree’, to the corporation ex-marine mercenaries. Commencing a full pledge aerial assault with a fleet of heavy armed militarized aircrafts, the mercenaries start with tear gas bombardment from above (01:53:40:00), switching to incendiary rockets (01:54:24:00), and on to a full missile barrage with ecocide intentions (01:56:00:00), exemplifying the escalation arc of air-to-surface attack conducted through contemporary weapon platforms (as no imaginary armament types are involved here) against nature.

754 As first mention to Sully after he survives this mighty animal surprise attack from above while flying with his *ikran* (01:29:50:00), and finally manifested as an ultimate redemptive act – ‘one insane move’ (02:08:50:00).

always risk becoming a form of control? The avatar is the perfect bio-drone—not only responsive and adaptive, but emotive, relational, persuasive. It does not surveil from a distance; it penetrates, learns, bonds. But as the film progresses, this proximity becomes indistinguishable from occupation. The drone does not disappear into the clouds; it lands, walks, loves, kills. The ecological crisis that frames the human-Na’vi conflict⁷⁵⁵ recedes behind the drama of the avatar-body’s ascension, its becoming-hero. The question of interspecies ethics is momentarily answered not through diplomacy, but through aerial supremacy. In this sense, *Avatar* can be read not as a critique of drone warfare but as its most seductive fantasy: that one might inhabit the other so completely as to transcend the violence of occupation. Yet the price of this fantasy is high. It requires the dissolution of the other into one’s own nervous system, the conversion of alien life into an extension of human will—even if that will appear, by the film’s end, to renounce its original colonial agenda.

The *Cine-Cartography* of the drone now draw us toward an earlier⁷⁵⁶ Cameron film confronting this issue, *The Abyss* (1989).⁷⁵⁷ Here the theater of drone development and conflict transposes to the oceanic deep, where both human and alien⁷⁵⁸ navigate submerged *Threshold Technologies* involved with environmental stewardship and interspecies relation. It Start with the most familiar of Nietzschean quotations, simple white letters on black screen:

755 An Earth-bound destructive imperial tradition fueled by a profit-hungry *Extinction Economy* pitted against an entire planetary ecology and its indigenous population.

756 And in a sense, more honest in intentions and less full of false self-important, sanctimonious digitization.

757 *The Abyss* (1989), directed by James Cameron, also known as ‘The Abuse’ among cast and crew members due to the harsh filming conditions and atmosphere on set.

758 As we later learn, through a series of mysterious encounters estranging genre enthusiasm and turning exceptions around to reveal intriguing emotional and epistemological complexities.

‘...when you look long into the abyss,
the abyss also looks into you.’⁷⁵⁹

And while leaving us to complete how the quote actually commences,⁷⁶⁰ the film suggests that both self-awareness and acceptance of otherness are in dire need when confronting the unknown, and are essential in the reciprocity of the gaze. That gaze is explored through several vantages point throughout this calculated and emotionally-engaged aquatic quest for equality between ecologies (with their adaptive technologies) and species (with their survival struggles). Unlike the aerial (and even orbital) drones of previous examples, the machines deployed here are submersibles—remotely operated vehicles (ROVs), Autonomous Underwater Vehicles (AUVs), even Underwater Flying Objects (USOs)⁷⁶¹—that function in extreme conditions with limited visibility, communication delay, and crushing pressure. These machines serve not only as tools of exploration and maintenance but as instruments of militarized paranoia during a Cold War-era standoff near the Cayman Trough.⁷⁶² Yet beneath this geopolitical surface of Covert Ops and espionage lies a different kind of intelligence: a yet-undiscovered ‘alien’ species of aquatic non-terrestrials, who have not only adapted to⁷⁶³ but seem to harmoniously regulate their deep-sea ecology.⁷⁶⁴ The

759 (00:00:16:00)

760 ‘Whoever battles monsters should see to it that in the process he does not become a monster himself’ Nietzsche, Friedrich. “Beyond Good and Evil”.

761 As Hippy coins during conversation with other crew members (01:13:10:00)

762 About 80 miles from Cuba, as we are informed in a TV broadcast seen aboard the underwater rig (00:46:45:00) just before a hurricane is about to break. The hurricane disconnect the crew from the surface, leaving them in fear of another sort of Cuban Missile Crisis developing above, with heavy Soviet warships and submarines involvement. When that reference is brought by Hippy he is being accused that he thinks that everything is a conspiracy, to which he disappointingly replies ‘everything is...’ (00:47:16:00)

763 With superiorly advanced means, way beyond the best of human technologies.

764 (02:27:32:00)



film opens with a U.S. nuclear ballistic missiles submarine (SSBN) enigmatically crashing near the ocean floor. A nearby civilian deep-sea drilling platform is then enlisted by the Navy⁷⁶⁵ to assist in the search and recovery mission,⁷⁶⁶ deploying tethered diving drones and dive suits to navigate the abyssal zone. Initially, these drones are operated in ways familiar to military-industrial logic: as tools of surveillance, recovery, and eventually weapon delivery – with a tactical nuclear warhead introduced into the depths under the presumption of a Soviet threat. But the deeper the crew descends, the more they encounter phenomena that destabilize human technological supremacy—luminescent, fluid-bodied alien beings (referred to as NTIs: Non-Terrestrial Intelligence) that not only inhabit but appear to cohere the deep sea environment.

The first appearance of such possible entity happened pretty early on,⁷⁶⁷ and act as the instigating event leading to the *USS Montana*⁷⁶⁸ unintentional crash. This initial entanglement of inter-species relations and advance technology – with the nuclear ballistic missiles submarine as the prime product of the military industry

and mindset⁷⁶⁹ – is mirrored in the first appearance of an underwater drone, or ROV. This ROV is remote controlled from inside the *Deep Core* underwater rig by Hippy (portrayed by Todd Graff), a crew member with a female pet white rat sitting on his shoulder and observing as he operates the controller levers, while he stare at the screens transmitting the deep and blue underwater view from the ROV cameras.⁷⁷⁰ With its bright yellow metal hull and scientifically practical look, the ROV resembles the larger manned submersibles working around it. An integral part of the civilian underwater rig machinery, it stand in stark contrast to the dark and military-designed *USS Montana* we saw at start.⁷⁷¹ That contrast shifts as soon as a SEAL⁷⁷² team gets onboard the *Deep Core* rig, carrying their heavy classified cargo and kitbags (which, we would later learn, also contain weapons quite unfitting their official rescue mission description)⁷⁷³ while passing a second and bigger ROV, nicknamed ‘Big Geek’.⁷⁷⁴ Orange colored with a grinning sharp toothed Shark mouth painted on its front, it bounds together the animalistic with the militaristic through this traditional Nose Art.⁷⁷⁵ This bigger ROV, which would later be pre-programed by Hippy to

765 Taking over their *Deep Core* underwater rig with SEALs team under the command of Lt. Coffey (portrayed by Michael Biehn).

766 Against the protests of its leader, who by claiming ‘My people are not qualified for this, we’re oil workers’ (00:11:45:00) also situates the protagonists as integral part of the extractive industry – deeply involved in this entanglement of *Threshold Technologies* within one of the fossil fuel’s *Extinction Economy* most exploitative and pollutive forms of operations – underwater well drilling.

767 Although we neither see or know what it is, just a bright light moving fast near the submarine (00:02:50:00).

768 An Ohio-class nuclear ballistic missiles submarine (SSBN), carrying 24 Trident Ballistic Missiles – each with 8 active nuclear warheads. ‘That’s 192 warhead (...) Jesus Christ, that’s World War III in a can’ Lindsey (portrayed by Mary Elizabeth Mastrantonio) astonishingly calculate and quip when seeing that some of the missile hatches have sprung open (00:32:14:00). The film then cut to the small ROV tilting and panning its camera, as in reaction to this news.

769 Being both the most expensive and secretive single weapon platform of all that the human species ever developed and produced (with only aircraft carriers being more expensive, yet they are not secretive nor a single weapon platform, but a multi-platform), and also the most devastating with its nuclear fire power. It is – to burrow another cinematic definition from the total war vocabulary, from *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb* (1964), Directed by Stanley Kubrick – a ‘Doomsday Device’.

770 (00:08:38:00)

771 Although a fictitious sub, all original 18 Ohio-class SSBN were named after difference States in the Union.

772 The Navy Special Forces acronym for Sea, Air, and Land.

773 Like a MAC sub-machine gun with a silencer and extended magazine, more associated with drug cartel wars of that period (01:31:50:00)

774 (00:19:22:00)

775 Such as similar shark mouths which have been painted of warplanes since WWI, See for example: <https://www.aircorpsart.com/blog/the-origins-of-shark-mouth-nose-art/> and <https://www.vintagewings.ca/stories/template-trmwr-rd36f>

dive to the bottom of the undersea trench and document the new unknown species, is used to not only to bound but to almost violently fuse the militarized and interspecies connection, when being re-appropriated by the SEAL commander to carry a fully armed nuclear warhead – aimed to totally obliterate everything that might exist in the enigmatic depths.⁷⁷⁶

It is worth mentioning that early-on the evolution of the military (aerial) drone was already entangled with not merely nuclear weapon development but with its deployment and testing within marine rich environments. This led, among others, to the complete ecocide of the Bikini Atoll in the Pacific Ocean and the forced relocation of its indigenous Islanders human native population. As Chandler claims:

In Operation Crossroads, a nuclear weapons test conducted in the Bikini Atoll in the Marshall Islands between July 1 and July 25, 1946, both the U.S. Army and U.S. Navy flew remotely operated aircraft that collected air samples and photographic reconnaissance of the atomic explosions. They were among the 242 ships, 156 airplanes, 750 cameras, 25,000 radiation recorders, 5,000 pressure gauges, and 4 TV transmitters deployed to the atoll, which involved the participation of 42,000 personnel and spectators.(...) Operation Crossroads was also a public spectacle and media event. Coverage of the tests continued for months before and after the detonations, while reporters, members of Congress, representatives of the United Nations, and foreign delegations all attended.(...) The mission juxtaposed the spectacle of a nuclear experiment with the displacement of the island's Indigenous inhabitants.⁷⁷⁷

776 And probably also start the apocalypse on the surface world, all things considered (01:35:40:00), as Lindsey explains 'He's about to declare war on an alien species, just when they're trying to make contact' (01:38:00:00).

777 Katherine Chandler, *Unmanning*, 2018, pg. 82.

Operation Crossroads was conceived as a large-scale simulation of nuclear warfare, employing drone aircraft for data gathering and aerial imaging—an early indication of their surveillance role during the ongoing Cold War. At the time, these unmanned flights were still closely tied to experiments in developing guided missile technologies. A *New York Times* article from August 25, 1946, titled “*The ‘Drone’: Portent of a Push-Button War,*” described how the pilotless planes flew through the atomic cloud, obeyed radio commands flawlessly, and returned to base—framed as precursors to future generations of transoceanic missiles and robotic weapons. The event thus combined the theatrical display of technological power with the erasure of human and ecological presence, displacing the Indigenous inhabitants of Bikini Atoll, whose over 4000 descendants remain scattered across and beyond the Marshall Islands.⁷⁷⁸ With this in mind, it is especially intriguing to trace the ROV evolution from an undersea tethered drone into a ‘Doomsday’ weaponized autonomous vehicle,⁷⁷⁹ in a carefully drawn arch. Throughout this cinematic trajectory the underwater drone is shifted first from purely scientific purposes (documentation),⁷⁸⁰ into humanistic ones (rescue mission into the sunken SSBN),⁷⁸¹ to act next as an industrial inspection and damage assessment tool (checking the rig construction integrity from outside after an accident)⁷⁸² and escorting a diver in an attempt to recover essential oxygen

778 Katherine Chandler, *Unmanning*, 2018, pg. 82.

779 Albeit pre-programmed, it now no longer require the human operator as seen in previous scenes – effectively rendered as autonomous in yet another step of its evolution as weapon platform.

780 Even if for commercial aimed and extractive-oriented endeavors.

781 Heading before the divers while clearly checking radiation with its visible Geiger counter (00:32:36:00), as it headed toward the reactor compartment. This close-up on its display also discloses that this is all taking place during 18TH of January 1994.

782 Circling fast in the dark water around the *Deep Core* hull like a shark, with that sharp teeth-grinning painted mouth lighten by its search lights (01:04:45:00).



while the mission is monitored remotely through its camera,⁷⁸³ continues with its acting as indicator to electric circuits activity,⁷⁸⁴ then to serve surveillance needs (spying from outside on the occurrences inside the SEALs quarters),⁷⁸⁵ further on for experimental interspecies communication-documentation,⁷⁸⁶ becoming an object of fascination and interest,⁷⁸⁷ almost lastly as a nuclear weapon delivery platform,⁷⁸⁸ which is in the midst of an underwater mechanized struggle of possession,⁷⁸⁹ then acting as a record breaking artificial assistant,⁷⁹⁰ and finally as a guide and companion – not merely just mechanically programmed but being literally held with

783 (01:06:01:00)

784 Right after a definite encounter with an underwater alien presence (which shut all nearby electricity down), with the luminous alien object fast disappears into the deep, the film cut to the little ROV getting back into action – engine starting, lights turn on, hovering up from the ocean bed (01:12:00:00). This transition from one to the other also stressing the resemblance between the two object-drones (as we'll soon further didact) by forming such cinematic analogy of proximity and purpose.

785 And revealing that they are arming a tactical nuke warhead they've secretly brought back on board the *Deep Core* (01:15:56:00), in a beautifully orchestrated scene merging underwater choreography, militarized precision of movements, contrasting perspectives, Point of View engagement and well-timed usage of the video format.

786 Which Lindsey clandestinely convince Hippy to convert the ROV for, while testing and gazing into its camera (01:23:05:00), without being aware that they are actually being watch by the paranoid Coffey, using the inner rig video camera system as his private surveillance monitors.

787 As it is the first object observed up close by an alien probe extension that enters for the first time to the *Deep Core* station through its open water submersibles pool (01:26:00:00) in an attempt to form direct contact.

788 As mentioned above.

789 Like a late appearing McGuffin, in the great Hitchcockian tradition, while supplying one of the most thrilling and complicated choreographed action scene in a film that is already excels with them (01:48:09:00).

790 As Bud crossed the 4800 feet depth and informed that he just made a new world record for the deepest suit dive, his reaction – sent by text message – is: 'Call Guinness' (02:13:00:00)

a leash and leading the way like a Guide dog⁷⁹¹ – effectively the only light⁷⁹² in the darkness of the depths, further guiding one lonesome soul toward personal redemption and ecological salvation – at least until it implode in the intense pressure on the way down there.⁷⁹³

In contrast, there are the underwater drones of the NTI⁷⁹⁴, as Hippy figured them out to be mid-way into the movie: 'I don't think that that thing you saw was one of them (...) I don't think it was an NTI – I think it was their version of a ROV, like Big Geek'.⁷⁹⁵ He therefore put in clearer technological context what Lindsey observed before – with a combination of close proximity and touch – yet tried to communicate with less success.⁷⁹⁶ These NTI drones therefore start as potential weapon,⁷⁹⁷ appearing next as an unexplained anomalous-animal-spiritual being⁷⁹⁸ – a luminous reflection on an amazed diver's visor⁷⁹⁹ – then as an angelic light coming beyond the dark military submarine silhouette, further acting both

791 An assistance canine trained to lead blind people or otherwise visually impaired (02:11:12:00).

792 (02:12:22:00)

793 (02:16:36:00), Yet even afterwards it keep leading the way down, as it fall fast first (and then next to Bud) into the abyss.

794 Stand for 'Non-Terrestrial Intelligence'.

795 Explains Hippy in an epiphany moment to the others, in light of a recent encounter to which all were witnesses (01:32:16:00).

796 Lindsey: 'It was a machine, but it was alive. It was like a dance of lights' (01:14:52:00)

797 In the earlier mentioned opening scene, when its presence paralyses the *Montana*, accidentally acting like an EMP that ephemerally shut down all electric circuits, therefore leading to the nuclear missile submarine crash.

798 As the first crew member who experience this close encounter later try to explain: 'Just figured I was dead back there, when I saw that angel coming for me' (01:38:33:00)

799 (00:42:15:00)





as a personal fascination and scientific research object,⁸⁰⁰ only to soon submit itself to closer inspection (while conducting the same – transmuting the intimidating to an intimate and immediate contact) in mutual revealing acts of curiosity.⁸⁰¹ Yet as soon as the human ROV is weaponized, the NTI underwater drones would disappear from the film, to be replaced by the appearance of the aliens of the deep themselves – right after Bud Brigman (portrayed by Ed Harris) successfully disarm the threat in quite a phenomenal act of self-sacrifice and acceptance.⁸⁰²

These alien entities are not antagonistic. Instead, they operate in near-perfect symbiosis with their surroundings, controlling the flow of water, light, and movement through liquid architecture, self-contained aquatic currents and using bio-luminescent organic drones. Rather than introducing invasive sort of mechanized (and weaponized) drones into a landscape, they embody the environment itself. When the NTIs sends a water-based pseudopod up through the pressurized station⁸⁰³ to make peaceful contact with the humans, the response is characteristically anthropocentric: awe from the civilian crew, hostility from SEAL team members.

800 With Lindsey developing film negatives in hope to find concrete evidence that would convince the others to both believe her extraordinary sighting event and help her further investigate (00:44:28:00). The use of analog film technique as an answer to the video failure in documentation due to its dependency on electricity, would be cleverly quoted decades later with the intriguing *Nope* (2022), directed by Jordan Peele, which also plays well with alien interspecies relations and its integration within the triangulation of human-machine-animal anxieties.

801 Including touch (01:10:44:00).

802 Again, appearing first as a reflection on the visor of his dive helmet – yet this time centered in his eye (02:24:57:00), before seen in its full magnificent luminous lights and Manta Ray-like form and movement.

803 And first examining the mini-ROV sitting there on a working table next to the moon pool, as mentioned before (01:26:00:00).

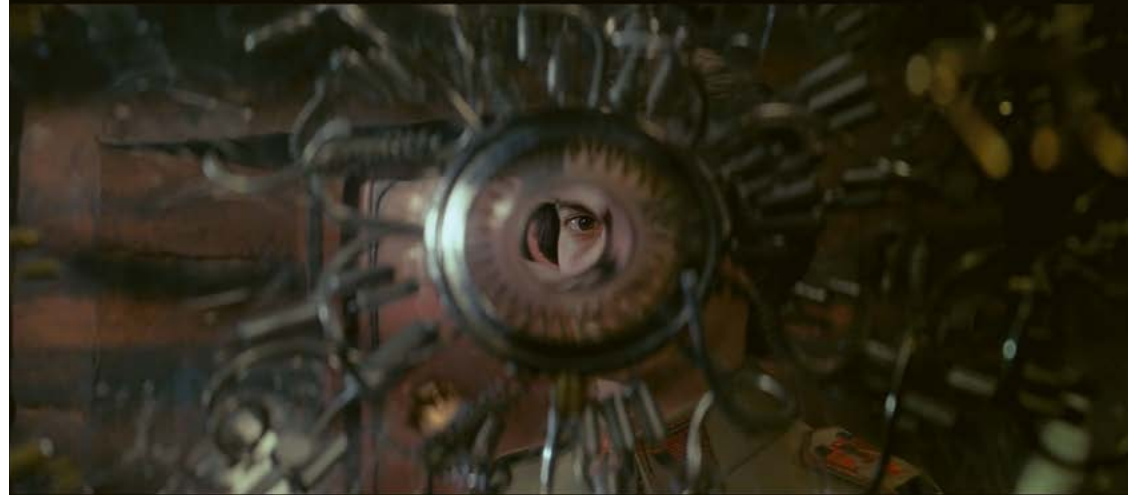
As the later trained paranoia⁸⁰⁴ and tension rise to the surface of conflict between the two groups, the aggressive human reaction – attempting to launch a nuclear strike against the alien habitat— is an act that both literalizes and satirizes⁸⁰⁵ the reflexive deployment of human drone violence in response to ecological and existential uncertainty. Importantly, it is not through weaponry or dominance that contact is made, but through emotional vulnerability and physiological endurance. Bud's descending alone into the cold dark depths to disarm the warhead is indeed a spiritual act – more than merely a psychoanalytical-religious analogy or an amazing feat of posthuman progress⁸⁰⁶ in the technological race. An act revealing it is the human ability to transcend above the self and connect with others that save us from disaster and desolation. Under the almost unbearable underwater pressure of such lonely depths, it is the vulnerable voices of others, with their sounds and softness, that keep Bud sufficiently sane and lucid to stay conscious and keep going deeper toward the final confrontation with the warhead,⁸⁰⁷ still strapped to the now dead undersea drone.

804 After all, these SEALs members are indeed extremely (and expensively) trained Special Ops soldiers from an elite unit experienced in espionage and highly covert missions. They know how to dismantle a nuclear missile, arm its tactical warhead, operate submarines, take over underwater facilities and frighteningly much more.

805 With one of the last sentences in the film – from a civilian mission manager to the highest ranking military personal (and the SEALs team supervisor) on board the *Explorer* research vessel (acting as a command post), when the aliens send their message of peace, wishing humanity to grow up and put childish things aside, while their presence is about to reach the surface – is 'It seems that you boys might be out of business'(02:38:33:00).

806 Becoming the deepest diving human in history, as mentioned before, with the support of an innovating technology of Deep Dive Suit that allow breathing liquid while looking like a NASA astronaut spacewalk suit.

807 Acting as a mechanical, metallic symbol of a failed representation of the godhead – echoing Oppenheimer known quotation from the Bhagavad Gita after witnessing the first atomic bomb explosion in Trinity test site in New Mexico: 'Now I am become Death, the destroyer of worlds.'



Following this act, which redeems⁸⁰⁸ the world from the consequences of ecological and interspecies⁸⁰⁹ catastrophe of unimaginable magnitude, Bud is rescued by the NTIs and brought into their glowing, oceanic sanctuary—an immense biomechanical structure that blurs distinctions between technology, species, and habitat. Here, the aliens reveal their awareness of human self-destruction via global war and environmental collapse. Initially unleashing massive tidal waves as a form of deterrent, the NTIs change course and stop them before impact upon witnessing the human capacity for sacrifice and compassion argued through Bud's actions. The threat is withdrawn, and instead of apocalypse, a shared emergence occurs: the alien habitat rises from the sea, not as invader or conqueror, but as new horizon. *The Abyss* thus inverts the drone-as-predator paradigm. While humans enter the deep with mechanical prosthetics shaped by suspicion and conquest,⁸¹⁰ the alien others exist as sentient ecologies. Here, interspecies contact is not mediated by extractive violence or technological superiority, but by the potential for coexistence rooted in mutual vulnerability. Through this submerged and subversive narrative, a reimagining of interspecies ethics in an age of technological mediation is crafted. In contrast to *Ender's Game's* simulated annihilation or *The Day the Earth Stood Still's* extinction-level enforcement, *The Abyss* proposes a third path: one where ecological attunement enables a recalibration of relations between species and machines. The ocean, like outer space, becomes a domain of both fear and possibility, but one that demands humility, not hegemony.

808 Through much personal suffering which is evident through his dark descent and willingness to give away his recently restored lost love, along with everything else he ever knew.

809 Especially a yet unknown advanced alien species.

810 Even if scientific one, led by curiosity yet – as we saw from the get-go – actually financed by fossil fuel *Extinction Economy*, therefore acting as agent of extraction, exploitation, invasion and devastation.

From the depths of our planet to those of outer space, finally we're about to reach our part's final destination: Arrakis, Dune, Desert planet.⁸¹¹ The *Hunter-Seeker* from the original film *Dune* (1984)⁸¹² is a pivotal and illustrative moment in the lineage of cinematic militarized drone representations. It connects seamlessly with the broader themes explored in this work, mainly with speculative techno-animal drones imaginary and how it fits within the weaponized, interspecies, ecological and political logics-aesthetics we've been tracing. Among the earliest cinematic depictions of a truly insectoid assassination drone, the *Hunter-Seeker* in David Lynch's *Dune* offers a terrifying embodiment of machine-as-predator, reflecting the militarized miniaturization and bio-mimicry that would become central to later drone imaginaries. The small needle-tipped drone is introduced with a soft buzzing⁸¹³ as it floats through young Paul Atreides' chamber—its movement uncanny, its intention lethal. As Paul (portrayed by Kyle MacLachlan) has just ingested some raw Spice⁸¹⁴ and is now very much under the influence of this mind-expanding substance, the situation is first suspected as part of the strong hallucinogenic effect Paul is susceptible to, especially in his current vulnerable state. Yet this Targeted Killing device aiming for him is very real, as he realises when seeing it slowly appearing from under a secret lion signet on the wall.⁸¹⁵ Recognizing the *Hunter-Seeker* for the aerial assassination drone it is, and aware that it is autonomously activated by motion (and that the room is too dark for it to identify and attack him otherwise)

811 As our protagonist muses in his sleep early on in the film (00:21:08:00) while having visionary dreams of future to come.

812 The first screen adaptation of Frank Herbert's novel *Dune*, 1965.

813 In what would become a staple of Targeted Killing drones in many movies to come (00:57:14:00).

814 (00:56:24:00)

815 (00:57:21:00)



Paul stands dead still.⁸¹⁶ He watches the dark shadow creeps along the bed as the *Hunter-Seeker* cross it in slow flight. The *Hunter-Seeker* – now that we cut to its insectoid-mechanical Point of View,⁸¹⁷ accompanied by a stronger buzzing – closes in on Paul's colored eagle collar embroidery. Even when the needle gets in extreme close proximity to his eye's pupil, Paul keeps his cool and finally able to grab the *Hunter-Seeker* when it's triggered toward the motion of someone entering the room. Paul then destroy the device against the wall, saving the other person lives.⁸¹⁸

This sequence, marked by an eerie stillness and a deliberate suspense, presents the *Hunter-Seeker* not only as a stealth weapon, but as a creature of sorts: agile, patient, almost sentient. It hovers like an insect, scanning for movement with a predatory precision that collapses the difference between machine logic and animal instinct. The drone's insect-like behavior—a mix of lurking, and suicidal stinging single-use intent—aligns it with many of the hybrid figures already tracked down throughout this part. Displaying such use of drones as *Threshold Technology* assigned for high-level political assassination, which in turn facilitate accelerated *Extinction Economy*,⁸¹⁹ is another strategy that became a staple in later films previously discussed here, whether in realistic thrillers such as *Syriana* or sci-fi parables such as the *Terminator* original trilogy. Furthermore, this scenario underscores the convergence of assassination, surveillance, and precision warfare long before they became standard visual codes in contemporary drone cinema.

In a simplistic remake of this remarkable scene – down the slippery slope of the spiritually-devoid and deadly aestheticized-

816 Same advice that is given when encountering apex animals that are threatening to attack, such as Gorillas.

817 (00:58:13:00)

818 (00:58:50:00)

819 With the extinction horizon of entire planets.

anesthetized *Dune: Part One* from 2021⁸²⁰ – the *Hunter-Seeker* returns with a sleeker, more clinical design which fit with perfection to the central conceptual framework taken from our contemporary military drone reality:

The design of killing is smooth, participatory, progressing and aggressive (...) It quickly reshuffles both its allies and its enemies. It quashes the dissimilar and dissenting. It is asymmetrical, multi-dimensional, overwhelming, ruling from a position of aerial supremacy.⁸²¹

Indeed, this remade *Hunter-Seeker* design is far more insectile in form and size than the original,⁸²² yet it is totally stripped of the erratic twitchiness and the disturbing machinic hunting POV shots that made the 1984 version so unsettling. While the scene remains largely faithful, the drone's role feels more symbolic, less organically terrifying. Its digital precision mirrors the cool aesthetic of the militarized remake overall, offering a sanitized version of bodily

820 That might be termed for short as 'aesthticide', an approach that vanguard militarization aestheticized through high-budget production design, both digital and physical (customs, props, sets, etc.), which director Dennis Villeneuve is one of its most prominent promoters, with other cinematic taxidermist acts like the hollowed out *Blade Runner 2049* (2017). This last movie actually also involve a dark drone attack in similar aesthticide lines, yet in service of the protagonist – a renegade replicant – who used the militarized drone hatching from the roof of his Peugeot police aerial patrol car to shoot down from the night skies of future L.A. three other aerial vehicles (02:19:45:00), further showing how the assault drone is shifted to pseudo heroic acts as part of this problematic ideology, blurring high-end design and product placement with tech dominance and politics.

821 Steyerl, Hito, *How to Kill People: A Problem of Design*, <https://www.e-flux.com/architecture/superhumanity/68653/how-to-kill-people-a-problem-of-design/>

822 In fact a miniaturized version of the more common manned aircrafts flown over Dune by its colonizers, looking like giant militarized dragonflies. They are seen first waiting, dark and ominous-shaped, to transport the new rulers who recently landed of their new planet to explore its surface and possible spoils (00:35:12:00).

threat.⁸²³ It completely foregoes the prevailing POV of the earlier animalized killing machine, with its highly potent and problematized pondering on who is watching who. Nevertheless, its logic persists: the blending of animal mimicry with weaponry function, the quiet autonomy of kill-tech in domestic space, and the persistent tension between human vulnerability,⁸²⁴ and mechanical patience. Positioned within the broader ecology displayed in *Dune*—a desert world deeply attuned to nonhuman life forms⁸²⁵ and rhythms—the drone becomes just another predator in an already hostile environment, yet one that suggests how alien, even anti-ecological, imperial warfare technologies can appear when imported into a delicate biosystem.

823 This time, with much less struggle, the *Hunter-Seeker* is literally and almost effortlessly squashed like a bug, then displayed for show (00:44:50:00).

824 Again, focused on the eye (00:44:39:00).

825 An interesting example actually comes from the botanic perspective, with the non-indigenous date palm trees that are planted in the palace yard. Each equals the lives of 10 humans with its daily water consumption, and considered sacred by the local pilgrims (00:42:47:00), it is a wishful invert of 'invasive species' (as popularly and often mistakenly referred to) into admired resident religious object and mythological man-made alteration. While being the only content-wise contribution here that is lacking in the original film, emphasizing the pseudo-post-colonial discourse the remake wish to tap into – in relation to economic-military imperial Western powers involvement in the Middle East (the origin of date palm trees) – it is also a clear miss. Using instead Washington palm trees (specifically the genus *Washingtonia*) which are native to Northwest United States (and Northwest Mexico) and embody the typical Californian ecology and iconic flora, as well as an iconic image of the Hollywood dream, would have created a much more complex multi-layered and reflexive discussion, involving the image-making capital of this industry and its duplicative mechanisms. Further suggesting L.A. as an occupied territory appropriated from its indigenous population, it would have recognize its own complicity, taking responsibility for its involvement in ongoing ecocide – its support and promotion of *Extinction Economies* – and enabling potential different ways of thinking it. In that sense, *Dune* might as well be the future name of Earth, once desertification expand all over the planet following the destruction of all other balancing biodiversity and ecological systems.

From the chilling British realpolitik and artificial animal-drones of *Eye in the Sky* to the planetary melancholy of *Oblivion*, the figure of the drone has far exceeded its technical origin as a military instrument. Across this *Cine-Cartographic* part, we have traced its metamorphosis into something far more elusive: a floating signifier of power, precarity, and interspecies entanglement. Drones no longer merely surveil or strike—they infiltrate narrative structures, mimic animal forms, collapse distinctions between organism and machine, and render violence both intimate and abstract. Whether embodied as bio-avatars (*Avatar*), alien craft swarms with ecological imperatives (*The Day the Earth Stood Still*), underwater envoys of harmonious otherworldly intelligence (*The Abyss*), or as emissaries of animal-machine anxieties (*Screamers*), drones operate at the boundary of science fiction and political allegory. In this expanding cinematic landscape, the drone does not simply represent technology—it becomes an epistemological prism through which anxieties around sovereignty, species survival, posthuman intimacy, and ecological collapse are refracted. Even in its most ludicrous or diminished appearances, the drone carries the specter of displaced violence and mediated perception. As the line between weapon, animal, companion, ghost, and god continues to blur, these cinematic drones—real, virtual, or imagined—mark a shift in how we visualize not only warfare or surveillance, but also the very borders of the human.

In conclusion, this part underscores how these films intricately weave together autonomous aerial apparatuses, machinic military technology, human, and animal—and in doing so, expose the shifting ratios of power, agency, and vulnerability between them. Through their representation of drones as apex predators—be they Predator drones hunting wolves in *The Bourne Legacy*, cybernetic Hunter-Killers in the *Terminator* original trilogy, or advance tech-enhanced warriors in *Predator*—we witness the transformation of nature into a militarized domain shaped by technological excess. Yet these



narratives also gesture toward resistance: against surveillance states, against algorithmic violence, and against the colonization of animal life. It is here—in the contested space between organic instinct, mechanical precision, and animal world—that cinema reveals its richest provocations. By refracting evolutionary trajectories, interspecies bonds, and mediated survival strategies, these films compel us to reimagine not only the balance of forces but the very ethics of coexistence in an era of machine-animal hybridity.

To enter in such manner into the secular pantheon of popular cinema, with its heavily commodified icons and mythologies, is to operate inside one of neoliberal culture's most powerful narrative engines. By charting drones' ubiquity within this cinematic cannon, the research performs an act of cultural counter-mapping: exposing how militarized technologies saturate the very media forms that shape popular imagination. This infiltration mirrors the drone's own epistemology, insinuating itself across genres and markets, but here it is turned against itself, repurposed as a method of critique and revelation. In this way, *Future Proof Predators* clarified an ethical stance that threads through the whole project: that research cannot remain external to the systems it studies, but must negotiate its complicity, must infiltrate in order to resist. Both the exhibition *Daily Disasters* and the extensive *Cine-Cartography* of multi-layered animal-drone representations traced how infiltration operates across cultural and ecological terrains. What emerged is that infiltration is not simply a tactic of the drone but a condition of *Militarized Nature* itself. Systems of surveillance and control do not merely impose from above; they seep into infrastructures, into perceptions, into relations between species and their imaginaries.

Daily Disasters | Solo Exhibition

(Majakka / Lighthouse Project Space, Helsinki, December 2022 - January 2023)

Framed by the dissertation part *Future-Proof Predators*, the solo exhibition *Daily Disasters* explored the infiltration of militarized visual regimes into civilian and ecological spaces, with a particular emphasis on the assimilation of drone technologies into cinematic and institutional forms. Positioned between surveillance aesthetics, ecological emergency, and interspecies disorientation, *Daily Disasters* enacted a spatial and narrative intervention into its institutional setting. The exhibition appropriated the top-floor zones of the newly constructed Finnish Academy of Fine Arts building to stage a series of counter spectacles cinematic and sculptural acts, converting peripheral stairwells, silo and elevator shafts into speculative terrains of post-catastrophic research. This architectural infiltration mirrored the thematic logic of the research: to trace how autonomous systems—particularly drones—expand asymmetrical power over life, space, and perception.

Conceptually, the exhibition embodied the core proposition of *Future-Proof Predators*: that drone cultures increasingly reframe our experience of the natural world through predatory, non-human optics. Through a series of interconnected works—including the site-responsive video installations *Dream Weapon* (2023), *Future Proof* (2022), and *Countermeasures* (2022)—*Daily Disasters* staged encounters between aerial surveillance and ongoing extinction, and mediated speculative interspecies relations. These works functioned not as discrete objects but as evolving components of an open research process, blending scripted footage, archival material, field recordings, and participatory co-editing into an unstable but generative whole. The exhibition's methodology was rooted in what I gloss as *Institutional Infiltration* and *Cinematic Salvage*—strategies





designed to subvert the extractive logic of *Extinction Economies and their Threshold Technologies*, as theorized in the above and earlier parts. In this context, *Institutional Infiltration* meant both spatial (through occupation of institutional architecture) and epistemological (by interrupting inherited modes of visual narration and display) gestures. Visitors were not only observers but potential co-agents in the unfolding of the work, particularly within the participatory editing suite *Countermeasures*, which invited audience engagement as a live mode of co-composition.

Daily Disasters thus operated as an active research site rather than a finished presentation. Its multi-spatial staging—across architectural corridors, hidden passages, and compromised access points—acted as a counter-cartography to both institutional design and traditional exhibition formats, alluding to subversive space perception and engagement which is the engine of *Cine-Cartography*. This approach aligned with the part's exploration of this practice toward *Threshold Technologies*—such tools that mark a rupture in perception and relationality—and asked what role moving images (and artistic research) can play in resisting the surveillance-capitalist and techno-militarist paradigms driving ecological collapse. Therefore the exhibition, as a form of expanded cinematic thinking, proposes not only an aesthetic response to drone-driven transformation of environments, but a situated practice of spatial resistance and speculative pedagogy—one in which cinematic form, institutional critique, and interspecies ethics intersect in a performative ecology of research.

Daily Disasters on e-flux:

<https://www.artandeducation.net/announcements/508836/jack-faberdaily-disasters>

Daily Disasters | Works by Jack Faber

5th Floor:

- I DreamWeapon
2023, Site specific cinema installation, 6:00 min
- II Eminence
2022, Site specific sound art installation, 2:00 min
- III New Beast
2022, Site specific sound art installation, 2:00 min

6th Floor:

- IV Countermeasures
2022, Site specific participatory installation, Mixed media, 154 Hours
- V Triggering Effect
2022, Site specific installation, Mixed media
- VI Future Proof
2022, Site specific cinema Installation, 4:00 min

7th Floor:

- VII Daily Disasters / The Lost Orchard
2022, Site specific cinema installation, 1:00 min

Daily Disasters | Works descriptions

Countermeasures

This open atelier for a new cinematic work-in-progress engages the audience as part of its artistic research process. Situating an editing lounge inside the exhibition space and inviting visitors to actively participate in the creation of a new artwork, it investigates meetings between humans, animals and the technologies – which have the trajectory to replace animals, as in the case of certain drones. The space is transforming the opaque, or otherwise invisible, editing process into a continuing collaborative, performative and communal act.

Future Proof (2022 / 4 min / 4K / 16:9 / Stereo sound / English)

Future Proof is following the aftermath of a planetary ecological catastrophe from beyond-human eyes. In an environment in which the wild took over the domestic, species assume new roles and technology is fundamentally altered. Future Proof is looking at this sensitive shift as a meditation on the nature of calamity and change. It was filmed during the last pandemic wave.

<https://vimeo.com/664332297>

DreamWeapon (2023 / 6 min / 4K / 16:9 / Stereo sound / English)

DreamWeapon was originally formed as a cinematic work wondering on the nature of lucid dreams. According to ancient Middle Eastern tales, such dreams can connect animals and humans, especially in times of upcoming catastrophes. Recent studies show that this mutual capacity for complex dreaming goes back 450 millions years down the evolution tree, long before many subdivisions to different subspecies (and five major extinction events ago). Crossing the borders between species, states of awareness, and perceptible spaces – DreamWeapon suggests the dissolution of such

partitions as essential undertakings in facing the environmental challenges of the ongoing climate collapse.

Created during a research residency in a Labrador kennel at Tuscany, DreamWeapon investigates the strict spatial partitioning between humans and animals, industry and indolence, wakefulness and sleep. Throughout long weeks of working among over a 100 dogs, their caretakers and trainers at the kennel, intriguing bonds and conflicting interests arise with the contrasting roles the dogs are trained for – sightseeing companions, explosive-sniffing workers for security and special forces, professional show dogs or expensive pets for affluent families.

<https://vimeo.com/772997294>

Daily Disasters (2023 / 1 Minute / 4K / 16:9 / Stereo sound / English)

Daily Disasters is a very short study of shifting perspectives embedded in climate urgency and the violent essence entrapped in contemporary art.

<https://vimeo.com/851445005?share=copy&fl=sv&fe=ci>

New Beast

This site-specific sound art installation is transforming the industrial elevator shaft – the most viable way for entering the Lighthouse/ Majakka project space – into an ongoing mediation on verticality, interspecies encounters, and ecological fragility at the age of hyper technologies. The work is based on selected field recording from the same Labrador kennel research residency where DreamWeapon was filmed, and integrates the slow movement of the elevator platform as a unique sound platform. It asks the participants for active engagement in order to progress in both time and space, in order to reach the upper floor main exhibition spaces.

Eminence

A complementing piece to New Beast, this site-specific sound art installation takes place in the alternative spiral staircase silo while examining Institutional hierarchy and the very nature of site-specificity, to be further explored throughout the exhibition. The work merges the real-time sounds generated by the presence of exhibition visitors coming up the stairs and the echoes of such movement with field recordings created earlier in the vertical re-appropriated space.

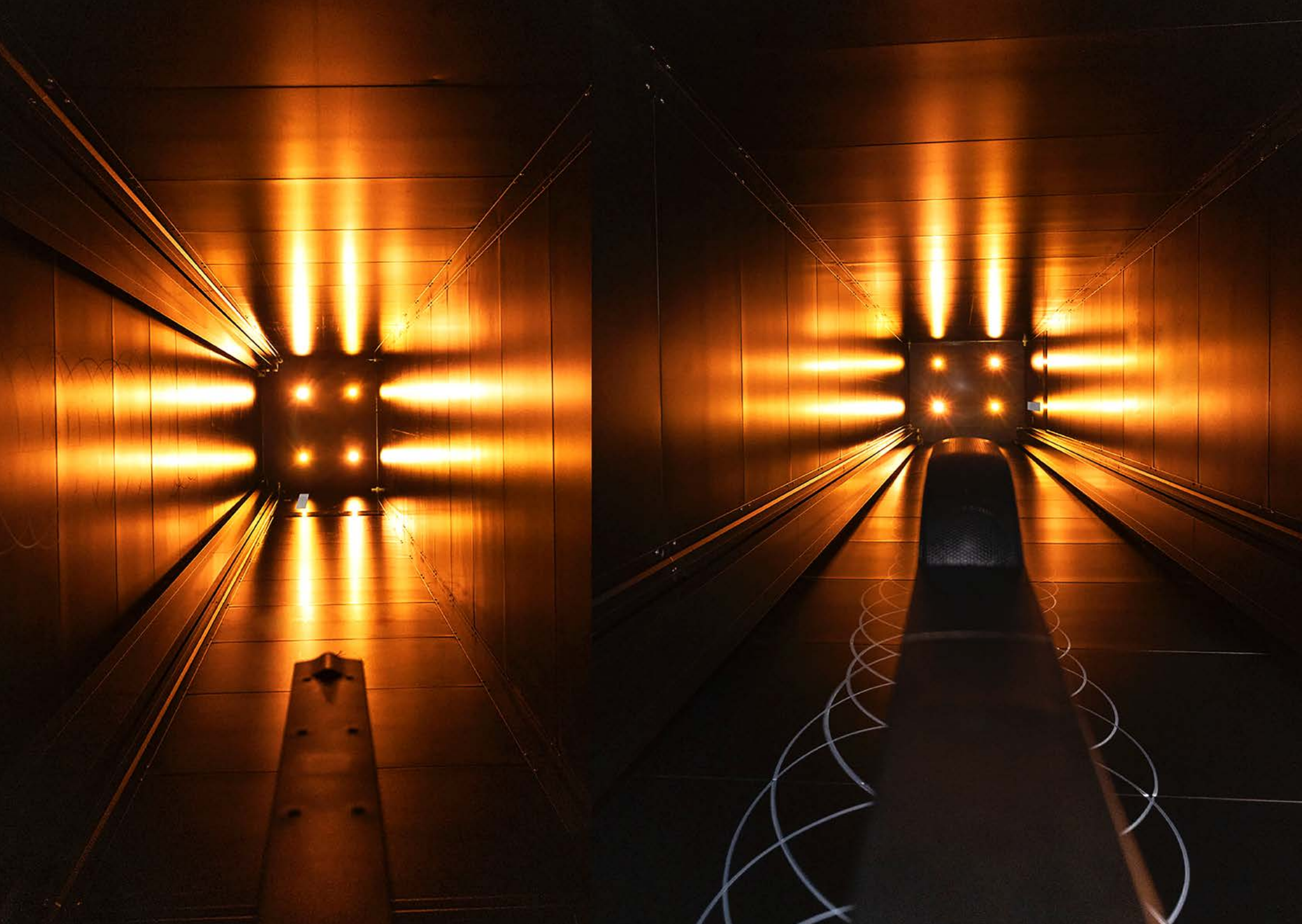
Pattern Recognition

The spatial installation is focusing on altering The Lighthouse / Majakka and its affiliated spaces by treating them as an active artistic research site, in which the ongoing exploration of the connections between Unmanned Aerial Surveillance, Interspecies Relations and Visual Arts is taking place. This is done by suggesting Institutional Infiltration into these spaces in unexpected ways, forming new possibilities of movement and accessibility within them.

Triggering Effect

Taking the challenging location of the Lighthouse / Majakka as the main exhibition space and its accessibility difficulties (for the many who are not familiar with its very existence,) Triggering Effect is experimenting with the notion of navigating in and moving through a highly disoriented built environment. This task, which numerous number of animal species have to deal with and adapt to in order to avoid extinction (consider the growing number of birds dying from the impact of collision with mirror facades and all-glass buildings, for example), is strangely shared by drones, which need developed technologies and machine learning skills to avoid crashes. Triggering Effect suggests a conceptual cartography to travel through the 'confused-by-designed' architecture as a counter totalitarian choreography, using multi-surfaces and floors of

the futuristic neo-Valhalla construction (of the highly impractical University of the Arts Helsinki new building) as a space to draw an Ariadne's thread.



PART

V



Airborne Epistemologies

An Abstract

The part Airborne Epistemologies explores the drone as an entanglement of both epidemic and epistemological objects. These are embodied by examining several key roles drones played during the COVID-19 pandemic outbreak, and certain contaminations and correlations influencing this process. The potential encounters between different species (including viruses) and drones patrolling restricted areas, for one, suggest whole new array of possibilities for such contaminations and correlations, especially as seen from the perspectives of future interspecies encounters. Airborne Epistemologies brings to the foreground 3 major points regarding such imaginaries which were investigated as the research developed during the pandemic: the ways in which the lockdowns were opening the grounds for multispecies and drones encounters; the simultaneous investment in accelerated space colonization through drones (and its prospects of interspecies contact); and how self-isolation quarantines revealed connections between the fearful effects of pathogens and drones.

The essayistic feature-length film *After States* accompanying this part is an artistic research experiment exploring the above mentioned array of contaminations and correlations, as well as the nature of the essayistic feature-length film itself as a research vehicle and object. *After States* explores this intricate construction

through 6 philosophical texts, presented through polyphonic voices. The film was formed as an early foray into said possibilities of contaminations and correlations, working with several established philosophical projects (Michel Foucault's Disciplinary Societies, Giorgio Agamben's State of Exception) as well as selected essays by renown scholars (Jean-Luc Nancy, Achille Mbembe, Joshua Clover and Nikolaj Shultz) with whom I had the privilege to correspond on the matter, while further examining the proliferation of surveillance and interspecies relations in times of pandemic.

Confinement Catalysts

When the COVID-19 pandemic's first wave finally reached the far shores of the most remote of islands in the Baltic sea, on which I was staying at the time, it felt like an apocalypse in slow motion. Not only it invaded our lives, isolated as they were on a tiny island populated by 20 people and a lighthouse – what seemed then like a biblical plague hit the very heart of my research on security technologies, species survivability and *Asymmetric Cinema*.⁸²⁶ With the study still at early development stage, the pandemic's entanglement with mass surveillance (enforced by drones and smartphones), interspecies relations (humans and domestic animals, wildlife and viruses), and the *Anticipatory Imaginaries of Cinema*,⁸²⁷ found strong hold at the core of my work and quickly occupied yet-uncharted territories. A subject for a whole series of studies and publications⁸²⁸ by itself, it is clearly confined here by the scope of this text. Therefore only the most essential points the pandemic brought to the study are presented here, while knowingly omitting other aspects of the pandemic and its enmeshment with discussed elements. These are saved for the further development of this discourse in planned future artistic research.

826 As elaborated earlier in Part 2 – *Asymmetric Cinema*.

827 Those of us familiar with viral cinematic apocalyptic visions were quick to quote similar scenarios from the likes of *Contagion* (2011), *It Comes at Night* (2017), *Outbreak* (1995), *12 Monkeys* (1995), *28 Days Later* (2002) and its sequel *28 Weeks Later* (2007), *The Andromeda Strain* (1971), *The Omega Man* (1971) and its blockbuster remake *I Am Legend* (2007), *The Crazies* (1973) and its remake (2010), *The Masque of the Red Death* (1964), *Pontypool* (2008), *Rise of the Planet of the Apes* (2011) with its sequel *Dawn of the Planet of the Apes* (2014), and especially their grim follow up *War of the Planet of the Apes* (2017). These are only few prominent examples of the *Anticipatory Imaginaries of Cinema* entangling with interspecies survival, militarized struggle and a lethal airborne epidemic spreading among the human race.

828 See also: Najah 2020, Budd et al. 2023, Sharma & Tiwari 2020, Decaro & Lorusso 2022, Fergnani & Song 2022, Frigerio 2017, among others.



The first essential point is that the lockdowns of 2020, when only animals and drones roamed outdoors while most of humanity stayed in confinement, act as an effective glance into the New Species Relations I research and their future perspectives. Through it we can re-examine how the ancient connection between humans and animals – which used to be at the center of our social, economic and cultural existence⁸²⁹ – is changing radically in the current age.⁸³⁰ While the presence of animals has been marginalized, replaced, and reduced either to a consumption object or a spectacle,⁸³¹ autonomous machines, especially drones, have come to the foreground. Guided by AI and assimilating traits, characters, movements and often shapes of animals, drones now rapidly transform earlier relations between humans and other species. Simultaneously developing mimicking capacities that blur the ability to identify which is machinic and which are living beings, drones assimilate into and disrupt both wildlife natural habitats and domestic animals enclosures, applying unprecedented level of surveillance. Another aspect to how these relations are drastically changing can be better exemplified by the ways that drones were extensively used by police forces worldwide during lockdowns, imposing the latest emergency regulations in major cities and their surroundings, while frequently monitoring citizens' body temperature. At the same time, some city areas and other public spaces have been reclaimed by versatile wildlife – from mountain goats and boars taking over town centers around Europe, to lions laying in the middle of roads and

829 Berger, John. *Why Look At Animals?*, 2009.

830 Although Berger's assumption can be displaced – for example by Derrida (2008), Agamben (2004), Haraway (2008), Braidotti (2013) and Pick (2015) – none is disputing that contemporary radical change in the relations Berger pointed out, and especially in the discourse shaping them.

831 Berger, John. *Why Look At Animals?*, 2009.

Penguins walking down the streets in South Africa.⁸³² Other animals seem to be 'decolonizing' their old habitats, like in the case of the black bears and deer in Yosemite Valley, California.⁸³³ This unprecedented condition in which only wildlife and drones are sharing public spaces, creates captivating situations which very well may increasingly recur in the near future, with new pandemics and further environmental breakdown.

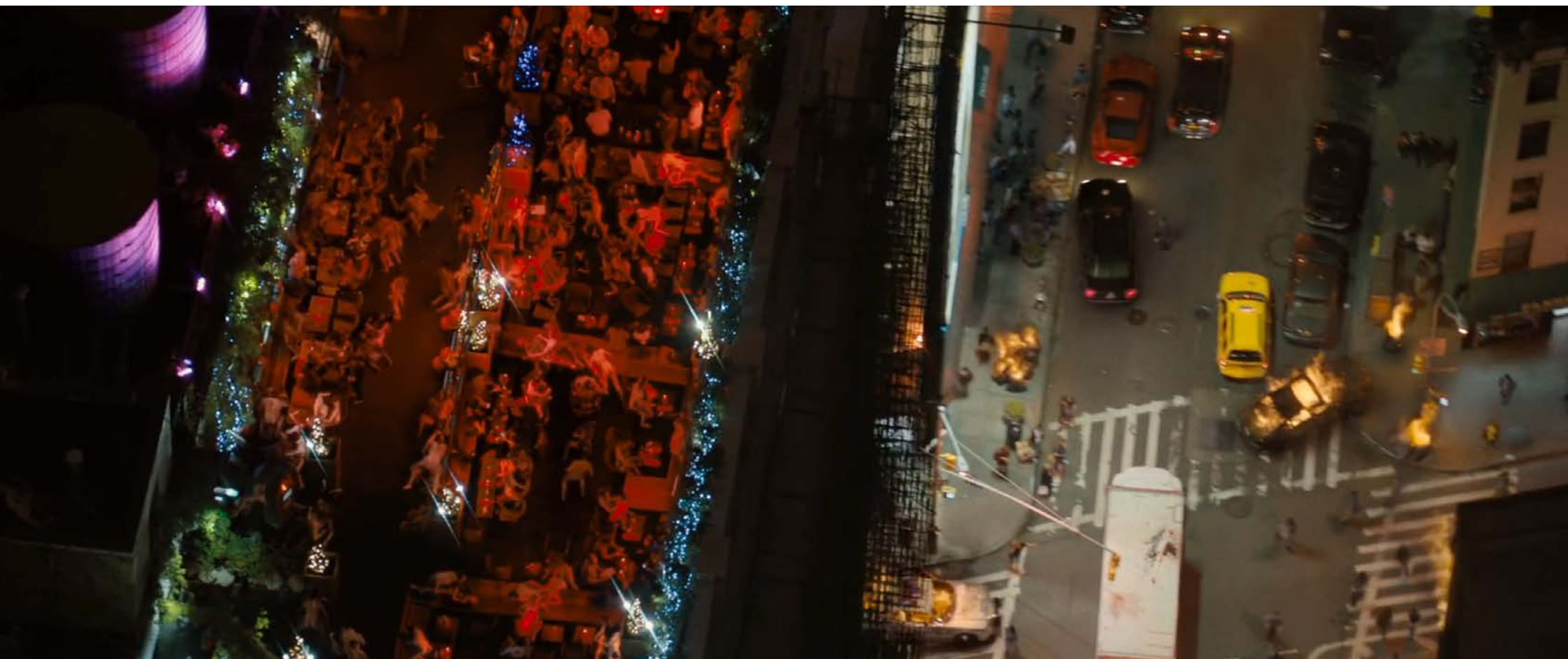
The second critical point is that simultaneously to pandemic outbreak, the space race (with its questionable colonizing agenda) re-ignited while relying heavy on drones with their AI technologies. This has been evident in the success of NASA's Ingenuity drone flights over Mars, a monumental event in the history of space exploration which made its mark during the pandemic. The Ingenuity flights further fuel the pursuit for extraction economy's exoplanetary profits, eclipsing the search for signs of life and new extraterrestrial species. It strongly suggests that such potential encounters would most likely be conducted by drones, at least from humanity's side. Adam McKay's *Don't Look Up* (2021), a dark satire that cleverly simmer together pandemic and climate denial, is doing so by showing how humanity's attention is shifted ever so easily from the deflection of impending threat (embodied by a killer asteroid) into the deflection of its immediate reality. It is conducted by changing the trajectory of both public attention and the latest drone technologies – aimed at saving the planet – into the deadly course drawn by the profitable promises of space colonizing, hoping to excavate (and

832 For example, YouTube: Penguins Stroll in Quiet Street in South Africa <https://www.youtube.com/watch?v=p5nxZR-sxNE> (Retrieved 17/06/25)

YouTube: Goats take over empty Welsh town amid coronavirus lockdowns <https://www.youtube.com/watch?v=Aq-uCJtN9IY> (Retrieved 17/06/25)

YouTube: Lions Take a Nap in the Road amid Park's Coronavirus Closure: They're 'Enjoying the Freedom' <https://www.youtube.com/watch?v=os9ZJQOr1RY> (Retrieved 17/06/25)

833 See: <https://www.cbsnews.com/news/yosemite-national-park-bears-wildlife-coronavirus-pandemic-covid-19/>



privatize) riches from the fatal fast-advancing asteroid (plotted by a tech billionaire with an enforcing political influence).

The third and final point reveals that the spreading fear from an ever-lurking unseen airborne viral infection has striking similarities to the fear of getting hit by a drone attack in certain conflict inflicted areas, especially as reported by residents of contemporary war zones. Their testimonies⁸³⁴ of existential horror from the outside world and withdrawal into an enforced self-isolation echoes the experiences of dread and desolation caused by the pandemic waves in far remote peaceful countries in the North and western hemispheres.⁸³⁵ This is further demonstrated through the example of the 2017 short film *Slaughterbots* as yet another glance to the spreading of Airborne Epistemologies into near future perspectives.

My aim is – through the triangulation of these 3 critical points – to highlight how crucial it is to take a longer and deeper look into the pandemic lockdowns period and further explore the less predictable impact it still have on our lives. One of the prominent effects is how after almost two years of major decrease in military activities⁸³⁶ and the lowest export profits of the global arms industry in decades,⁸³⁷ humanity is currently caught again in an accelerat-

ing militarization race and raging arms conflicts – with the still ongoing Russian invasion to Ukraine⁸³⁸ triggering an unprecedented re-armament, especially in Europe, commencing literally within the same week as many countries announced the lifting of COVID-19 restrictions.⁸³⁹ On the other hand, of course, there are the unprecedented rapid ecological recovery and record global emissions drop achieved during the pandemic.⁸⁴⁰ But the relations between such world shaping phenomena is more than simply silenced by an overall unspoken demand not to talk about the pandemic once it was officially declared over. It seems correlating all too well with one of the crucial side effects that many are still suffering from – the inability to remember personal events that took place during and

834 Shoshan, Malkit, “A Century of War: From the Trench to the Living Space” in *Drone: Unmanned*, 2016, pg. 27.

835 Sometimes the same ones who sent their drones overseas to these war zones to begin with, such as the US, UK, etc.

836 “For at least the second consecutive year the total estimated number of conflict-related fatalities decreased. The total in 2020 was approximately 120 000—a 30 per cent reduction since 2018.” Davis, Ian, Jaïr van der Lijn and Smit, Timo *Global developments in armed conflicts, peace processes and peace operations*, SIPRI Yearbook: Armaments, Disarmament and International Security / SIPRI Yearbook 2021.

837 According to SIPRI, export volumes from 2020 and 2021 were “much smaller ... than in any year of the preceding two decades,” highlighting how the pandemic severely disrupted global arms trade, with annual arms export volumes dropped by 22–73%. Stockholm International Peace Research Institute (SIPRI). *Trends in International Arms Transfers, 2024*. London: SIPRI, March 2025. https://www.sipri.org/sites/default/files/2025-03/fs_2503_at_2024_0.pdf?utm

838 See also: *Ukraine conflict: What we know about the invasion*, BBC News, 24 February 2022, <https://www.bbc.com/news/world-europe-60504334> (Retrieved 26/12/24).

839 Few examples are: *Growing number of states, major cities lift Covid-19 restrictions*, CNN, February 19, 2022 <https://edition.cnn.com/2022/02/19/us/covid-mandates-vaccine-indoor-dining/index.html> (Retrieved 26/12/24); *Germany plans end of COVID restrictions*, DW, 02/16/2022: <https://www.dw.com/en/germany-plans-end-of-covid-restrictions/a-60800111> (Retrieved 26/12/24); *Ontario Moving to Next Phase of Reopening on February 17*, Ontario News, February 14, 2022: <https://news.ontario.ca/en/release/1001600/ontario-moving-to-next-phase-of-reopening-on-february-17> (Retrieved 26/12/24); *100 weeks of isolation*, ABC News, 19 Feb 2022: <https://www.abc.net.au/news/2022-02-20/travel-ban-lifting-but-many-still-impacted-by-separation/100831782> (Retrieved 26/12/24).

840 *Climate change: Covid drives record emissions drop in 2020*, BBC, 11 December 2020, (Retrieved 26/12/24) <https://www.bbc.com/news/science-environment-55261902>



prior to the pandemic,⁸⁴¹ spreading and continue to metastasize into all related events that ‘... were excluded from cultural memory because they threatened to break through the cordon sanitaire cast by society around the death zones of the dystopian incursions that actually occurred.’⁸⁴²

Instead of encouraging humanity into a period of profound self-reflection regarding its relationships with increasingly vulnerable environments, other species, technologies, and the ecologies we all inhabit, the aftermath of COVID-19 so far signify a missed opportunity to seriously study these aspects in the public sphere. The simultaneous retreat of humans into lockdown and the emergence of nonhuman agents—both animal and drones—in shared spaces therefore represent here another opening to interrogate the changing dynamics of species relations under conditions of crisis. Through coinciding theoretical textual approach with artistic research, specifically considering the role of drones in shaping posthuman imaginaries in *After States*, this project and part aims to present a glimpse into speculative futures of multispecies coexistence and contamination.

841 Neo, Jean Ee, Brendan Jen-Wei Tan, and Eng-King Tan. ““Brain fog” and COVID-19.” *The American journal of the medical sciences*, 202. See also: Fong, Tamara, *Brain fog: Memory and attention after COVID-19*, 2022: <https://www.health.harvard.edu/blog/brain-fog-memory-and-attention-after-covid-19-202203172707> (Retrieved 26/12/24); Mendenhall, Emily & Kaplan, Kenton, *The ‘Brain Fog’ of Long COVID Is a Serious Medical Issue That Needs More Attention*, Scientific American, May 12, 2023, (Retrieved 26/12/24). <https://www.scientificamerican.com/article/the-brain-fog-of-long-covid-is-a-serious-medical-issue-that-needs-more-attention/>

842 Sebald, W. G. *On the Natural History of Destruction*, 2011. pg. 96.

Drones & Wildlife: A Glimpse into New Species Relations

During the early months of the COVID-19 pandemic, cities around the world saw an unprecedented use of drones for public health and security purposes. Governments deployed various Unmanned Aerial Vehicles, often equipped with thermal cameras and sensors, to enforce curfews, monitor body temperatures and ensure compliance with emergency regulations, attempting to limit the spread of this pandemic.⁸⁴³ Drones were further utilized to transport food and medical supplies to specific locations, an innovative method to combat the pandemic, as well as “offering intriguing options for spraying disinfectants, broadcasting communications, conducting surveillance, inspecting, and screening patients for infection.”⁸⁴⁴ Studies of the use of drones specifically for healthcare purposes have been conducted before, realizing the revamping potential of these *Threshold Technologies*,⁸⁴⁵ yet their reliance on simulation scenarios⁸⁴⁶ was turned on its head with the terrifying reality of the pandemic.⁸⁴⁷ Starting in Chinese cities, drones became ubiquitous, flying over streets and public spaces that had emptied of human

843 Kumar, A., Elersy, M., Darwsih, A., Hassanien, A.E. *Drones Combat COVID-19 Epidemic: Innovating and Monitoring Approach*. In: Hassanien, A.E., Darwish, A. (eds) *Digital Transformation and Emerging Technologies for Fighting COVID-19 Pandemic: Innovative Approaches. Studies in Systems, Decision and Control*, 2021.

844 Mohsan SAH, Zahra QUA, Khan MA, Alsharif MH, Elhaty IA, Jahid A. *Role of Drone Technology Helping in Alleviating the COVID-19 Pandemic. Micromachines*, 2022.

845 A term further elaborated earlier in Part 3 - *Extinction Economies & Threshold Technologies*.

846 For example: Carrillo-Larco, Rodrigo Martín, M. Moscoso-Porras, A. Taype-Rondan, A. Ruiz-Alejos, and Antonio Bernabe-Ortiz. “The use of unmanned aerial vehicles for health purposes: a systematic review of experimental studies.” *Global health, epidemiology and genomics* 3 (2018): e13.

847 And echoing Don DeLillo’s ‘White Noise’ description of an actual catastrophe (in that case an airborne chemical disaster) interfering with the integrity of simulated catastrophes preparation procedures and drills.



activity.⁸⁴⁸ These machines, directed by remote human operators and AI algorithms, acted as autonomous agents of surveillance and enforcement, symbolizing the shifting locus of agency in urban environments. As documented in case studies from China, Spain, and South Korea,⁸⁴⁹ drones were deployed not only as tools but as performative extensions of the state of exception.⁸⁵⁰ Their presence signaled a biopolitical transformation wherein governance operated through technocratic mediation rather than direct human presence.

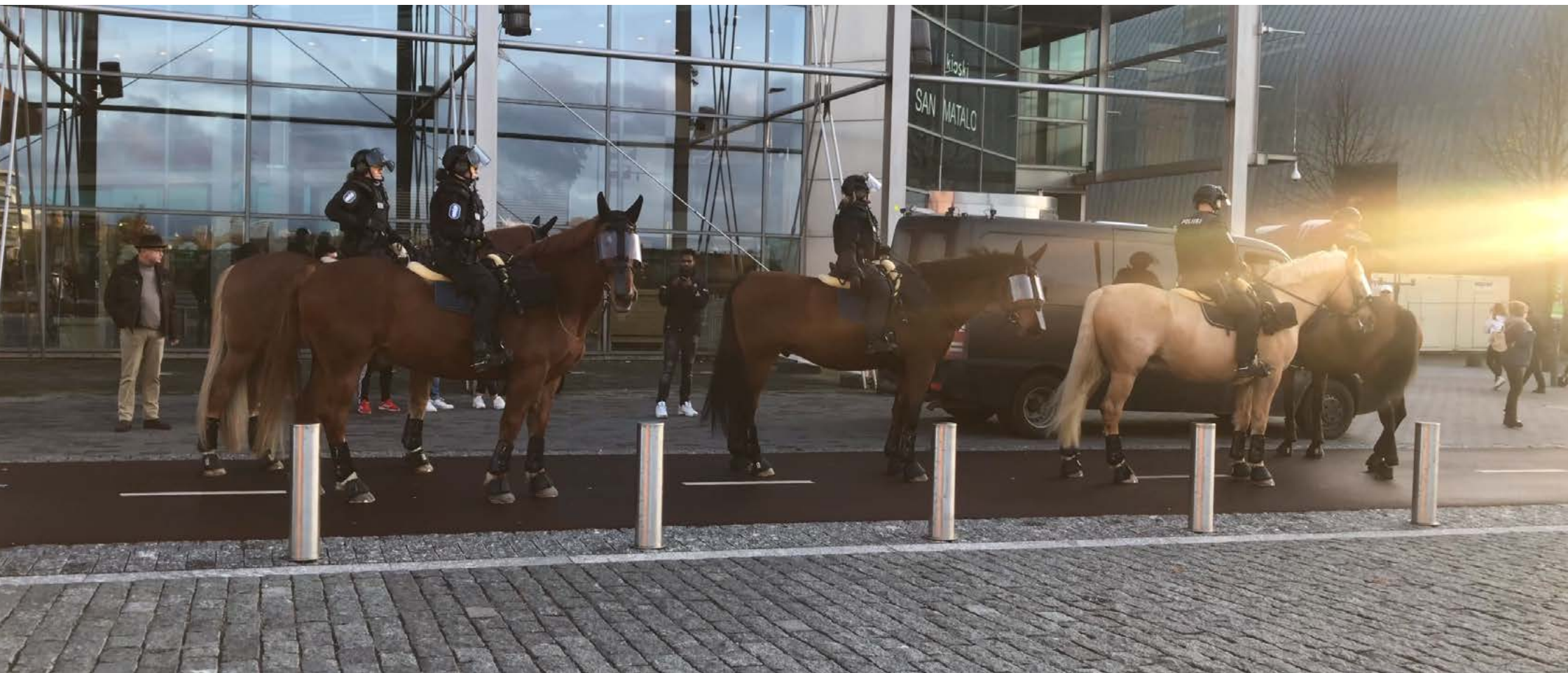
Meanwhile, as drones dominated the airspace, terrestrial wildlife began to reclaim urban and semi-urban habitats. Reports of wild boars roaming free Barcelona,⁸⁵¹ mountain goats wandering Welsh towns,⁸⁵² lions playing in golf parks⁸⁵³ or laying in the middle of roads⁸⁵⁴ and penguins strolling through Cape Town⁸⁵⁵

- 848 'The strategic planning of many governments such as in China for controlling this crisis is supported by the use of drones for the Coronavirus outbreak.' Kumar, A., and others. See also: *Drone footage shows deserted Shanghai as city of 26 million people remains in lockdown* (Retrieved 26/12/24) <https://www.youtube.com/watch?v=7vOvHcS6Egg>
- 849 Kumar, A., Elserly, M., Darwsih, A., Hassanien, A.E. Drones Combat COVID-19 Epidemic: Innovating and Monitoring Approach. 2021.
- 850 Agamben, Giorgio. *State of Exception*. 2005.
- 851 *Wild boars pester and attack Barcelona residents as numbers soar in Spain*, ABC News, 22 Aug 2022 (Retrieved 26/12/24) <https://www.abc.net.au/news/2022-08-22/wild-boar-numbers-in-spain-increasing/101356414>
- 852 *Coronavirus: Goats take over empty streets of seaside town*, BBC News, 31 March 2020 (Retrieved 26/12/24). <https://www.bbc.com/news/uk-wales-52103967>
- 853 *Lions and other wild animals relax in South Africa golf club during lockdown*, The Guardian, 17 April 2020 (Retrieved 26/12/24) <https://www.theguardian.com/world/video/2020/apr/17/lions-and-other-wild-animals-relax-in-south-africa-golf-club-during-lockdown-video>
- 854 *With South Africa in lockdown, the lions are taking it very easy*, CNN News, April 17, 2020 (Retrieved 26/12/24) <https://edition.cnn.com/travel/article/lions-kruger-lockdown-scli-intl/index.html>
- 855 *Video Shows Adorable African Penguins Waddling Down Empty Cape Town Road Amid Lockdown*, India Times, Apr 20, 2020 (Retrieved 26/12/24) <https://www.indiatimes.com/trending/environment/viral-video-african-penguins-captured-waddling-down-empty-cape-town-road-511275.html>

highlighted the resilience of non-human species in the absence of human interference.⁸⁵⁶ In Yosemite Valley, black bears and deer were observed venturing into areas typically crowded with tourists.⁸⁵⁷ This 'self-govern' phenomenon of rewilding underscored the latent potential for ecosystems to rebound when human pressures are alleviated—even temporarily. Albeit not openly documented by drones or publicly exposed for further research, given the human-centric nature of official drone activities during the pandemic, the coexistence of drones and wildlife in shared spaces during lockdowns offers a preview of potential future scenarios, especially as the probabilities for impending pandemics and environmental catastrophes increases.⁸⁵⁸ It also invites reflections on the ethical and ecological implications of these interactions. This liminal situation—in which drones monitored deserted cityscapes while wild animals reclaimed them—opened a window into what the philosopher Rosi Braidotti terms the “posthuman convergence”:⁸⁵⁹ a moment where the boundaries between species, technologies, and infrastructures begin to blur.

Historically, animals played a central role in human societies, serving as companions, laborers, and cultural symbols. However, the industrial era has witnessed a progressive marginalization

- 856 Rutz et al., *COVID-19 lockdowns: A window into the human impact on wildlife*, 2020.
- 857 *With no tourists around, animals at Yosemite are 'having a party'*, CNN News, April 16, 2020 (Retrieved 26/12/24) <https://edition.cnn.com/travel/article/bears-yosemite-national-park-coronavirus-trnd/index.html>
- 858 The 2019 mass bushfire in Australia, which prelude the pandemic as 'the greatest environmental catastrophe of the century' in only a few months, saw the use of drones in trying to search and rescue wildlife – for example using infrared sensors to identify surviving Koalas by their designated body heat. See also: *Drones and thermal imaging: saving koalas injured in the bushfires*, The Guardian, 10 Feb 2020, (Retrieved 26/12/24) https://www.theguardian.com/australia-news/gallery/2020/feb/11/drones-thermal-imaging-australia-koalas-bushfire-crisis?CMP=share_btn_fb&page=with%3Aimg-1
- 859 Braidotti, Rosi. *Posthuman Knowledge*. 2019.



of animals, reducing them to commodities or spectacles.⁸⁶⁰ Simultaneously, technological advancements have led to the creation of machines designed to replicate or exceed the capabilities of animals. Drones, in particular, exemplify this trend. The contemporary tendency in drones research and development is toward designs inspired by animal forms and behaviors. Biomimetic designs, such as drones modeled after birds, insects, or fish, aim to harness the efficiencies of natural evolution. This has been the case already in early prototypes, such as the insectothopter – a micro-UAV developed by the CIA at the heights of the Cold War⁸⁶¹ – and it has been highly accelerated in recent years. For instance, researchers have developed drones that mimic the flight mechanics of hummingbirds or the hydrodynamics of manta rays.⁸⁶² These machines are not only efficient but also capable of navigating complex environments, making them indispensable for tasks ranging from search-and-rescue missions to wildlife monitoring. Ironically, the very technologies inspired by animals often contribute to their further marginalization, as the need for living counterparts diminishes.

The intersection of drones and wildlife during the lockdowns raises pressing questions about the future of interspecies relations. As drones become more integrated into everyday life, with increasing reliance on AI, they seem aimed at further replace animals, invading into and interfering with their natural habitats,⁸⁶³ while

860 Berger, John. *Why Look At Animals?*, 2009.

861 As mentioned in Part 4 – *Future Proof Predators*.

862 Floreano, D., Wood, R. Science, ‘Technology and the future of small autonomous drones’ in *Nature*, 2015.

863 One example out of many is *Keeping bald eagles and other wildlife safe from drones* at the U.S. Fish & Wildlife Service website: <https://www.fws.gov/story/keeping-wildlife-safe-drones> (retrieved 18/6/25), further examples follow.

taking humans out of the loop⁸⁶⁴ in many interspecies encounters. As actual human presence in such encounters becomes few and far between – it questions will this tendency further erode the presence of animals in our cultural and ecological landscapes? When it comes to wildlife, for one, drone presence has clearly proven to disrupt animal behavior. Studies have shown that the noise and movement of drones can cause stress in birds and mammals, potentially altering feeding, mating, and migration patterns.⁸⁶⁵ As drone usage expands, establishing ethical guidelines and best practices for their operation in natural habitats become essential. Another issue is the broader philosophical question of replacement versus coexistence. The rise of drones highlights humanity’s tendency to replace rather than coexist with other species. This dynamic risks perpetuating a techno-centric worldview that prioritizes mechanical efficiency over ecological balance. To counter this trend, it is crucial to envision futures where drones and animals complement rather than compete with one another.

To conclude this point, the global lockdowns of 2020 introduced a unique and unprecedented scenario and marked a dramatic reconfiguration of urban and rural spaces. Interspecies interactions

864 This is also alluding to Wilcox’s essential analyse of what is actually considered human according to armed drones and other militarized algorithmic apparatuses, revealing inherent racism and eradication hierarchies embedded to the very core of these so-called autonomous systems. See also: Wilcox, Lauren, ‘No Humans in the Loop: Killer Robots, Race, and AI’, 2023.

865 Afridi, Saadia, Kasper Hlebowicz, Dylan Cawthorne, and Ulrik Pagh Schultz Lundquist. “Unveiling the Impact of Drone Noise on Wildlife: A Crucial Research Imperative.” In *International Conference on Unmanned Aircraft Systems (ICUAS) 2024*. 2024. See Also: Rebolon-Ifrán N, Graña Grilli M, Lambertucci SA. Drones as a Threat to Wildlife: YouTube Complements Science in Providing Evidence about Their Effect. *Environmental Conservation*. 2019. As well as an informative recent survey regarding impact on birds: Brisson-Curadeau, É., Lacombe, R., Gousy-Leblanc, M., Poirier, V., Jackson, L., Petalas, C., Miranda, E., Eby, A., Baak, J., Léandri-Breton, D.-J., Choy, E., Legros, J., Tranze-Drabina, E. and Elliott, K.H, *A meta-analysis of the impact of drones on birds*, 2024.



during this period, in their broader sense, serves as compelling study cases for examining these evolving relationship between humans, wildlife and autonomous surveillance technologies. Such entanglement reveals the extent to which previous species relations, shaped by millennia of husbandry, animal agriculture and stewardship, are undergoing a radical transformation in the age of unmanned machines and AI. The lockdowns of 2020 therefore provided a glimpse into future imaginaries where drones and wildlife coexist in shared environments. This period underscored the need to rethink traditional species hierarchies and explore new models of interaction. As we move forward, the lessons of the lockdowns can inform a more equitable approach to New Species Relations.

Outer Stellar Overdrive

The current humanity pursuit of the cosmos reveals a paradoxical juxtaposition: the noble quest to find extraterrestrial life and the more contentious drive for resource extraction. This present space race, fueled by advances in drone and AI technologies, carries forward the spirit of colonial expansion, albeit in the extraterrestrial sphere.⁸⁶⁶ Central to this development is NASA's historic Ingenuity Mars drone, a breakthrough in autonomous flight on another planet.

866 It is further claimed that this inclination increases with the spreading of post-colonial tendencies, as also seen in: Sutch, Peter, and Peri Roberts. "Outer space and neo-colonial injustice: Distributive justice and the continuous scramble for dominium." *International Journal of Social Economics* 46, no. 11, 2019; Calanchi, Alessandra. "De-colonizing the Earth to Re-enact Colonialism on Mars: New Forms of 'Transplantation' in Outer Space." *Iperstoria* 22, 2023; Redfield, Peter. "The half-life of empire in outer space." *Social Studies of Science* 32, no. 5-6, 2002; Ray, Emily, and Sean Parson. "Caelum Nullius: Outer Space and the Colonial Logic of Property Rights." *Theory & Event* 28, no. 1, 2025; Deudney, Daniel. *Dark skies: Space expansionism, planetary geopolitics, and the ends of humanity*. Oxford University Press, USA, 2020; Anker, Peder. "The ecological colonization of space." *Environmental History* 10, no. 2; 2005.

Making its maiden flight on Mars atmosphere during COVID-19, it showcased the potential for drones to scout, survey, and ultimately assist in paving the way for off-world economies. Yet at the same time it intricates an entanglement of technological innovation, colonial legacies, and economic ambitions that shape the current trajectory into space, eclipsing the previous pursuit to find new life forms in the universe.⁸⁶⁷

In April 2021, amid the pandemic and with lockdowns still at place in certain parts of the world,⁸⁶⁸ NASA's Ingenuity drone⁸⁶⁹ made history with its first powered flight on Mars.⁸⁷⁰ The small, autonomous drone completed a 39.1-second hover, becoming the first aircraft to achieve controlled flight within another planet atmosphere. Over successive missions, Ingenuity demonstrated its capacity for aerial reconnaissance, mapping, and terrain analysis—skills that are now integral to future space exploration strategies.⁸⁷¹ These advancements reflect the increasing reliance on AI-driven drones to extend human reach in hostile environments. Unlike terrestrial drones, whose operations are backed and often simultaneously controlled by real-time human oversight, Martian drones like Ingenuity must operate autonomously due to the communication delay between Earth and Mars.⁸⁷² This autonomous capability marks a significant shift in exploration paradigms. As drone technologies evolve, their roles expand beyond mere

867 A new sort of priority especially for Sci-fi films, propagated by the likes of the visually impressive *Ad Astra* (2019), with its clear aspirations for scientific accuracy.

868 For example: *The COVID-19 Pandemic: 2020 to 2021*, Reserve Bank of Australia (Retrieved 26/12/24): <https://www.rba.gov.au/education/resources/explainers/the-covid-19-pandemic-2020-to-2021.html>

869 See: Enhanced Video Shows Dust During Ingenuity's Flight - YouTube (Retrieved 22/11/24)

870 Balaram, J., MiMi Aung, and Matthew P. Golombek. "The ingenuity helicopter on the perseverance rover." *Space Science Reviews* 217, no. 4, 2021.

871 Ibid.

872 Ibid.



reconnaissance to more direct involvement in resource extraction and infrastructure development. The Mars Sample Return mission, for example, envisions a fleet of drones working alongside rovers to collect, transport, and prepare soil and rock samples for delivery to Earth.⁸⁷³ Such collaborations exemplify the synergy between AI, robotics, and human inventiveness, pushing the boundaries of what is technologically feasible.

However, the technological triumphs of Ingenuity and its upcoming successors are deeply intertwined with the economic motives underpinning the space race. The narrative of space as the “final frontier” echoes colonial ideologies of terrestrial expansion, where exploration served as a precursor to exploitation.⁸⁷⁴ Companies like SpaceX, Blue Origin, and Planetary Resources have explicitly articulated their visions of mining asteroids, harvesting lunar regolith, and establishing permanent settlements to sustain off-world economies.⁸⁷⁵ These ambitions rely heavily on drones and AI systems to conduct preliminary surveys, evaluate resource potential, and perform extraction tasks in environments inhospitable to humans.⁸⁷⁶ A pertinent example is the prospect of mining rare earth elements and other critical minerals on the Moon and near-Earth asteroids. The well-timed dark satire *Don't Look Up* (2021) craftily uses this still under-developed procedure as a critical turning point in the apocalyptic plot it weaves from the growingly popularized practice of pandemic- and climate change

873 Mattingly, Richard, and Lisa May. “Mars sample return as a campaign.” In 2011 Aerospace Conference, pp. 1-13. IEEE, 2011. See more: <https://science.nasa.gov/mission/mars-sample-return>

874 Stafford, Robert A. “Scientific exploration and empire.” In *The Rise and Fall of Modern Empires, Volume II*, pp. 315-340, 2016; Grove, R. H. *Green imperialism: colonial expansion, tropical island Edens and the origins of environmentalism, 1600-1860*. 1996.

875 Jones, Craig Henry. *Asteroid mining and the enclosure of outer space: New space economy discourses and ethnofuturist critique*, 2022.

876 Abeyratne, Ruwantissa. *Aviation in the Digital age*, 2020.

denial preached for by populist politicians, propogandists and so-called social media personalities.

Taking as its starting point the discovery of a killer asteroid heading straight to Earth by a PhD candidate astronomer and her professor, *Don't Look Up* follows their surprisingly unsuccessful attempts to convince high government officials, the media and the rest of humanity to acknowledge the threat and take the last measures still possible for saving life on the planet. When it seems that after escalating struggles their tenacity bears fruit – with the US President willing to hear their findings, and finally green-lighting a mission of human-led spacecraft and missiles to deflect the massive asteroid from its total extinction trajectory – that mission itself is deflected en-route just as it about to reach the asteroid. Sitting in the mission control during the final countdown for the encounter (that might literally save our world) between missiles and asteroid, the tech-billionaire⁸⁷⁷ Peter Isherwell, who obviously have the control over the room, calls President Orlean (portrayed by Meryl Strip) aside for a quick talk, like an insubordinate child. After a few words whispered in her ear, she determinedly gives order to abort the mission and keep the world-destroyer asteroid on inevitable impact course with Earth. To the shocked dismay of almost all she explained that the asteroid is actually a gift – it represents a huge repository of wealth inequivalent on Earth in rare metals and minerals, Trillions of US dollars' worth, which could be mined by a fleet of drones supplied by Peter Isherwell's corporate. Only after such imaginative exploitation of resources – which will put the US as an

877 Portrayed by Mark Rylance in a brilliantly balanced mixture of cringe, creepiness, casual carelessness, cold calculation and corrosive capitalist late logic (or in other words, of Bezos, Musk, Jobs, Zuckerberg and Gates). Another reference strengthening this point is that “During the closing credits, a red car is visible in a debris field. This may be a parody of the red Tesla Roadster launched into space by billionaire (...) Musk in 2018, considering the film's satire relating to billionaire tech giants on space missions.” https://www.imdb.com/title/tt11286314/trivia/?ref_tt_dyk_trv

undisputed world leader and economic superpower – it should be re-considered to deflect the asteroid from its impending doomed path. This explanation is enthusiastically backed by the mass media with a huge public campaign soon spreading under the catchy slogan ‘Don’t Look Up’ – minted by the PR machine behind President Orlean and her bossy tech billionaire patron. Spear headed at the deadly combination of COVID-19⁸⁷⁸ and climate change⁸⁷⁹ deniers, the satire delivered here is not only doubly strengthened but suggestively position the pandemic within the context of climate collapse. Director Adam McKay two previous satires were dealing with both climate denial (*Vice*, 2018)⁸⁸⁰ and economic crisis (*The Big Short*, 2015) by probing the vulnerability and inherent corruption enmeshing contemporary American financial and political conducts. Yet the way he addresses their corrosive and almost unintended collaboration⁸⁸¹ in *Don’t Look Up* is pivoted around the false salvation promises of new and untested *Threshold technology* embodied in the film in the form of the exoplanetary drone.

878 As actual filming was taking place under restrictions during 4 months in the midst of COVID-19.

879 ‘Adam McKay intended on making this movie as a metaphor for climate crisis after reading the 2018 IPCC climate report.’ https://www.imdb.com/title/tt11286314/trivia/?ref=tt_dyk_trv

880 ‘But there’s one element of Cheney’s controversial tenure (...)“The one that drove me crazy was that he kind of single-handedly killed action on global warming,” McKay told Cinema Blend (...) The film does address Cheney’s dismissive attitude towards climate change with (...) a scene in which he (at this point a figure within the Reagan administration) removes the White House solar panels installed by Jimmy Carter.’ Pope, Nick, *This Is The One Part Of ‘VICE’ Adam McKay Wishes He Hadn’t Left Out*, Esquire, 04/01/2019 (Retrieved 26/12/24) <https://www.esquire.com/uk/latest-news/a25745147/this-is-the-one-part-of-vice-adam-mckay-wishes-he-hadnt-left-out/>

881 As the asteroid discoverer Kate Dibiasky (portrayed by Jennifer Lawrence) later claims about the US administration: “the truth is way more depressing. They are not even smart enough to be as evil as you’re giving them credit for.”

That drone, the BASH BEAD craft⁸⁸² which is aimed at breaking the comet surface and exploit its possible massive repositories of extractive rare riches – do more than following the logic presented before, in which cinema has envisioned the role and epistemology of the drone before they became reality.⁸⁸³ It represents a drastic change from previous killer asteroid deflection missions on the screen,⁸⁸⁴ which always required an up close and personal human presence (and sacrifice) in order to operate and supervise the sophisticated machinery needed in order to drill into the harsh hostile surface of the gigantic flying rock in space. It seems that taking out the active human factor and risk from the equation also lead to the removal of responsibility and sense of the upcoming consequences, almost instinctively, as we seen with the proliferation of military drone attacks, for example.⁸⁸⁵

With the tagline: “Based on truly possible events” the film positions its plot as a failed struggle for survival against the incompetency of populist and fraudulent administration and its compliancy with the selectively and solely self-interest short sighted greed of tech moguls, with the drone at the center of this unholy trinity. Posit as the new miracle machine which could do just about anything,

882 As it is named in the film, which continuously uses the fictitious BASH brand in numerous opportunities (including the ‘Hydrogen’ smartphone used by most of the characters, or even the film itself).

883 For more detailed account see Part 2 – *Asymmetric Cinema*.

884 The best known are the double disaster blockbusters *Armageddon* (1998) and *Deep Impact* (1998) – without a doubt connected to the pre-millennium pressure and apocalyptic atmosphere of Y2K, which will indeed (albeit in a slight delay) descend dramatically from the skies as mass destruction in a different form during 9/11, with Ground Zero as its impact zone. See more: Baudrillard, Jean. *The spirit of terrorism*, 2013; and the mid-movie montage in Adam Curtis’ *HyperNormalization* (2016), making masterful use of these films in regard to 9/11.

885 From 59 strikes with estimated 700 total casualties during the Bush administration (2000 – 2008) to 962 strikes with estimated 8700 total casualties during the Obama administration (2008 – 2016). See Also: <https://storymaps.arcgis.com/stories/8336cb0a4dc5416d8057fbb080d7b83a> (Retrieved 26/12/24).



including exploiting a gargantuan asteroid, saving humanity and enriching it immensely in the process. The drone therefore accumulates a political currency that endorse it with an almost mystical and mythical⁸⁸⁶ aura, simultaneously placing it as an ‘machina-ex-deus’ – a new sort of plot device whereby a seemingly unsolvable problem in a story is suddenly or abruptly resolved by an unexpected and unlikely occurrence. Its function is generally to resolve an otherwise irresolvable plot situation, and *Don't Look Up* further hint that this attitude encapsulate the current mindset of shifting attention from real and present crisis to some imaginary wishful *Threshold technological* and its fanciful fantastic solution, which have not yet proven itself⁸⁸⁷ and probably never will, at least not in time to prevent upcoming catastrophes. In that aspect the drone returns to its production origins as an asymmetric weapon, now active in the contested wars waged by the attention economy over public perceptions of reality. Offering access to new colonial explorations and extractive exploitations in outer space, with the unequivocal immeasurable prosperity it promises, the exoplanetary drone in *Don't Look Up* transgressively reveal the falsity of these premises and further problematize its linking role between tech relayed predatory entrepreneurship and ignorance inducing idle governance. With the end of all life on the planet at stake, this sometimes cleverly covert critic can at some point take biblical proportions.⁸⁸⁸

886 For further discussion, see the origin of the drone in ancient mythology in Part 2 – *Asymmetric Cinema*.

887 ‘Prof. Mindy challenges Peter Isherwell’s plans to split the comet and reap the profits from the rare metals inside because the plans have not passed a peer review by other scientists.’ https://www.imdb.com/title/tt11286314/trivia/?ref=tt_dyk_trv

888 Spoiler alert: ‘During the end credits, the bronze statue of a bull that stands on New York’s Wall Street in real life can be seen floating in space, appearing golden. In the Bible, the statue of a golden calf represents the worship of false gods, and this image is often used to describe the capitalist extremes shown in the movie.’ https://www.imdb.com/title/tt11286314/trivia/?ref=tt_dyk_trv

Yet the basic notion that keeps the accelerating cataclysm of climate collapse and drone space colonization in motion is almost mundane. It has reverse relation to how rare earth elements and other critical minerals, essential for manufacturing drone components, advanced electronics, current renewable energy technologies, etc. are increasingly scarce on Earth.⁸⁸⁹ Drones equipped with hyperspectral imaging and AI algorithms can identify mineral-rich zones and optimize the extraction process while minimizing human risk. Yet, such endeavors raise ethical and legal questions about the ownership of extraterrestrial resources and the environmental impact of off-world mining.⁸⁹⁰ The parallels to Earth’s history of colonization are striking. Just as 19th-century imperial powers justified their expansion under the guise of “civilizing missions,” the modern space race cloaks its economic motives in the language of scientific discovery and human progress. This rhetoric obscures the potential for new forms of exploitation, where the vastness of space becomes a backdrop for replicating the inequities and environmental degradation of Earth.⁸⁹¹

At the heart of these endeavors lies a dual mandate: the search for extraterrestrial life and the pursuit of economic gain. Missions like NASA’s Perseverance rover and the European Space Agency’s ExoMars program exemplify the scientific drive to uncover signs of past or present life on Mars.⁸⁹² The discovery of microbial life or even prebiotic chemistry would represent a profound milestone in

889 McLeod, Claire L., and Mark PS Krekeler. “Sources of extraterrestrial rare earth elements: to the moon and beyond.” *Resources* 6, no. 3, 2017.

890 Nesvold, Erika. *Off-Earth: ethical questions and quandaries for living in outer space*, 2024.

891 Lindgren, D. “Unspoiled Space: The Use of Space in Popular Culture as a Caution Against Environmental Degradation on Earth.” In: Froehlich, A. (eds) *Outer Space and Popular Culture*. 2020.

892 Vago et al., 2017.

human understanding of the universe.⁸⁹³ Yet, this noble pursuit is not isolated from the economic imperatives that dominate space exploration. The same drones and AI technologies designed to identify biosignatures are also repurposed for locating resources. For instance, instruments capable of detecting water—a key indicator of life—are simultaneously employed to identify deposits of ice that could be harvested to sustain human colonies or converted into rocket fuel.⁸⁹⁴ This dual-use dynamic underscores the tension between exploration as a virtuous endeavor and a quintessential human quality that act as the engine of prosperous progress and its commodification within an extraction-driven framework.

A somewhat earlier approach to how this extraction-driven framework enmeshes drones, space colonisation and militarization within the conflict interests of predatory hyper capitalist conglomerates, ecological concerns and *Extinction Economies*⁸⁹⁵ can be found in ‘Moon 44’ (1990). In Roland Emrich’s early foray into exploitative corporate sci-fi territories, the director later known for explosive patriotic spectacles⁸⁹⁶ and seminal cli-fi⁸⁹⁷ blockbusters,⁸⁹⁸ suggests an inter-planetary conflict between two galactical mining

893 National Academies of Sciences, Division on Engineering, Physical Sciences, Board on Physics, Space Studies Board, and Committee on Exoplanet Science Strategy. *Exoplanet Science Strategy*, 2019.

894 Ambrose, William A. *The significance of lunar water ice and other mineral resources for rocket propellants and human settlement of the Moon*, 2013.

895 As elaborated and exemplified in Part 3 - *Extinction Economies & Threshold Technologies*.

896 Such as the propagandist-militaristic-chauvinistic *Independence Day* (1996) and its sequel *Independence Day: Resurgence* (2016).

897 Cli-fi, commonly abbreviated from Climate fiction, refers to a literary and cinematic genre that foregrounds anthropogenic climate change as a primary thematic and narrative driver. It spans speculative imaginations—from near-future realism to dystopian or utopian projections—and is deeply informed by scientific understanding of environmental transformations (i.e., atmospheric heating, sea-level rise, ecological collapse).

898 *The Day After Tomorrow* (2004) and *2012* (2009) are the most prominent examples.

corporations over off-world mineral extraction facilities. The movie starts with the genre’s trope-of-the-time textual exposition which inform us on how things are in year 2038 – now that Earth’s mineral resources are completely depleted, and space fights are waged over the last deposits on other planets and their satellites. The action begins right after this intro, with an aerial attack on one of this last distant repositories-rich moons, where the commander on site shockingly reports the Earth-bound headquarters of the conglomerate owning that off-terrestrial territory (including everything and everyone in it) that the raiders are actually drones, belonging to the competing company. That knowledge is kept secret as the CEO and others in the boardroom decide to execute their last resort plan – sending convicts who are ex-military pilots to that space colony in order to man special attack helicopter squad that could out-maneuver the assault drones.

An hour and some further into the movie, when the last battle over Moon 44 takes place, the main protagonist Stone – a corporate agent unsuccessfully assimilated⁸⁹⁹ among the army convicts⁹⁰⁰ that proved at this point as the sole pilot up to the task – is informed by his base-stationed navigator that the enemy are indeed drones.⁹⁰¹ He spare Stone from facing the fact that they are actually accounted as a swarm.⁹⁰² Putting aside the propaganda aspect of highlighting an imagined significant of piloted attack helicopters just in a time when they were one the military industries top sellers

899 Reading books, quoting Shakespeare and wearing spectacles were a bit obvious give-away signs.

900 Who weren’t integrating too well with their local teenage co-dependent navigators, leading to extensive bullying, rape and poisoning incidents, among others.

901 ‘Pal, you’re chasing drones. Robots. There’s not a breathing body on board.’ (01:20:11:00)

902 Part of a massive deployable fleet of ‘150 hypersonic attack aircraft’ from ‘Enemy battle cruiser, Medusa class configuration.’ (01:16:24:00)

– simultaneously starring in numerous on screen armed conflicts⁹⁰³ and soon taking over newscasts during the Gulf War – the movie prominently positions the drone in the center of the accelerated practices of off-world automated extractive industries, ecological collapse and corporate militarization.

The reliance on drones and AI to navigate this new imaginary and becoming-real frontier prompts critical ethical considerations. As autonomous systems gain prominence, the decision-making processes governing their deployment become increasingly opaque. Who determines the priorities of space exploration and whose interests do these technologies ultimately serve?⁹⁰⁴ The commercial dominance of private companies in space activities introduce market-driven motives into what was once a predominantly state-led domain.⁹⁰⁵ Moreover, the environmental consequences of off-world activities cannot be ignored. While space may seem infinite, its ecosystems—such as they exist—are delicate and poorly understood. The introduction of drones, rovers, and other machinery risks contaminating pristine environments, potentially compromising scientific efforts to study them.⁹⁰⁶ This concern is particularly acute in the search for life, where the mere presence of Earth-originating organisms could produce false positives or disrupt nascent ecosystems.⁹⁰⁷

903 *Fire Birds* (1990), *Toy Soldiers* (1991), *Rambo III* (1988), *Red Dawn* (1984), to name a few examples.

904 Spry, J. Andy, Margaret Race, Gerhard Kminek, Bette Siegel, and Cassie Conley. “Planetary protection knowledge gaps for future Mars human missions: Stepwise progress in identifying and integrating science and technology needs.” 48th International Conference on Environmental Systems, 2018.

905 Paladini, Stefania. *The New frontiers of space*, 2019.

906 Fletcher, Clare, Martin Van Kranendonk, and Carol Oliver. “Exogeoconservation of Mars.” *Space Policy*, 2024.

907 de Zwart, Melissa, Stacey Henderson, and Rachel Neef. “The Principle of Harmful Contamination Applied to Human Missions to Mars.” *J. Space L.* 45, 2021.

As we stand on the cusp of a new era in space exploration, the role of drones and AI in shaping our extraterrestrial ambitions demands careful scrutiny. The successes of Ingenuity highlight the transformative potential of these technologies, yet they also serve as a reminder of the broader agendas at play. The re-ignited space race offers an opportunity to reimagine humanity’s relationship with the cosmos, moving beyond the extractive paradigms that have defined our history on Earth. To do so, we should confront the ethical dilemmas inherent in this pursuit. Transparency in decision-making, equitable access to resources, and a commitment to preserving the sanctity of extraterrestrial environments are essential, rather than replicating the exploitative patterns of the past.

Between Drone and Pathogen Threats

Among the many changes brought to our lives throughout the pandemic was the accelerated normalization of drone surveillance as a tool of governance. The visibility afforded by drones was soon perceived as not merely functional but also spectacular. The aerial images captured by drones during the pandemic—of empty cities, abandoned streets, masked citizens queuing for essentials and mass burial sites—circulated widely on social media and news platforms, cementing pandemic surveillance as a legit form of visual culture and entertainment. These images aestheticize the pandemic’s disruptions, rendering them simultaneously distant and intimate. As Jean Baudrillard observes, the spectacle of surveillance often obscures the realities it purports to document, creating hyperreal representations that displace lived experience.⁹⁰⁸ Derek Gregory’s concept of the *Drone Doctrine* describes the strategic use of drones

908 See more: Baudrillard, Jean. *Simulacra and Simulation*, 1994; and *The Spirit of Terrorism*, 2013.



to establish asymmetrical power relations, particularly in military contexts.⁹⁰⁹ During the pandemic, this doctrine was repurposed for domestic governance, with drones used to monitor citizens' compliance with lockdown measures, enforce curfews, and even measure body temperatures, as mentioned before. These practices exemplify main points from Achille Mbembe's *Necropolitics*, with the use of state power to determine who may live and who must die. As Mbembe reminds us, the biopolitical apparatus is always accompanied by a necropolitical underside, in which certain lives are deemed expendable for the sake of maintaining order.⁹¹⁰

The complex and volatile nature of the COVID-19 global outbreak has further transformed the notion of threats from physical borders to unseen and omnipresent dangers. Viral pandemics pathogens – much like drones did less than two decades before⁹¹¹ – represent a paradigm shift in the public sphere regarding how threats are perceived and managed in the current global age. Both drone threats, exemplified by the testimonies of residents from Waziristan,⁹¹² and pathogen threats, epitomized by global pandemics such as COVID-19, bring forth an urgent need to reassess our understanding of the entanglement of hyper security, ecology, vulnerability, and the nature of warfare itself. Drones, as used in modern conflicts, operate in the liminal space between visibility and invisibility, present but not always seen, capable of striking

909 Gregory, Derek. "From a view to a kill: Drones and late modern war." *Theory, culture & society* 28, 2011.

910 Mbembe, Achille. "Necropolitics." *Raisons politiques* 21, 2006.

911 7th October 2001 was the first Targeted Killing drone strike mission, when Predator 3034 (tailfin number) fired its hellfire missile at Taliban Supreme Commander Mullah Mohammed Omar in Afghanistan. It missed. Woods, Chris, *The Story of America's Very First Drone Strike*, The Atlantic, May 30, 2015 (Retrieved 26/12/24) <https://www.theatlantic.com/international/archive/2015/05/america-first-drone-strike-afghanistan/394463/>

912 A tribal area in Pakistan, it is a mountainous region province of Khyber Pakhtunkhwa.

without warning. Waziristan, in particular, has been subjected to the persistent and looming presence of military drones for years.⁹¹³ Residents testimonies from the region describe a life under constant fear, where the threat is always present:

People described their fear of the outdoor; daily activities such as grocery shopping or sending children to school were laced with a great deal of pressure. Their anxiety of others exponentially grew. Ultimately, they could never tell who is on the "target list" and who could expose them to the strike of the drone. The order of civility collapsed altogether, and people begin to live in isolation.⁹¹⁴

The drone, with its remote operator and distant control, introduces not only 'risk-free' policy of Targeted Killings which legitimizes an expanding diameter of collateral damage, but a new highly effective form of psychological warfare. It formed a growing pathological fear from staying outside, which means being exposed to an unprovoked attack at any given moment, and instead remaining indoor in an isolated self-confinement. Such 'constant monitoring of a population, fosters suspicion, undermines cohesion and solidarity, and amounts to "a slow suicide."⁹¹⁵ The unannounced hum of a drone signals the clear possibility of death from above, instilling a form of terror that transcends the immediate physical threat. This dynamic embodies a form of power, where control over the air can be also translated into the operation of pathogens, which represent a biological threat that operates on a global scale.

913 Cavallaro, James, Sarah Knuckey, and Stephan Sonnenberg. *Living under drones: Death, injury, and trauma to civilians from US drone practices in Pakistan*. International Human Rights and Conflict Resolution Clinic, 2012.

914 Shoshan, Malkit, "A Century of War: From the Trench to the Living Space" in *Drone: Unmanned*, 2016, pg. 27.

915 Bruder, Jessica, and Dale Maharidge. *Snowden's Box: Trust in the Age of Surveillance*, 2021, pg. 5.

The 2017 short fiction film *Slaughterbots*⁹¹⁶ explores through its short 8-minutes the dramatic societal changes brought by the introduction of tiny, mass-produced suicide drones. One of the major shifts in living conditions is the transition into indoor existence, with all windows barricaded and exterior air shafts shielded. The fast-paced movie envisions with disturbing precision the sense of atmospheric terror and rapid adaptation to new corporeal conditions, alongside the radical alteration of architectures of security and existence which would soon be revealed by the COVID-19 pandemic. The film also problematizes another couple of close correlations between drones and pathogens: first, their exponential spread in a short period of time;⁹¹⁷ Second, the fact that their presence is evident mostly as an aftermath of their lethal activity – traced only through the damage they caused, whether as contagion symptoms or as destruction and death on physical terrain and terms. This damage is read as data to draw patterns and map paths from, allowing to track down and record their actions through the post temporal and spatial fields of forensic information generating and gathering.

Slaughterbots further acted as a clear demonstration of how future pandemics like COVID-19 spread invisibly through populations, infiltrating borders, and destabilizing economies. The film makes inventive use of its pseudo-documentary aesthetics, starting with broadcast signals (and glitches) and rapidly mixing various related formats such as product launch event of high-profile tech company; PowerPoint, animation and 3D presentation elements;

916 Sugg, Stewart, *Slaughterbots*, 2017. Originally presented at an event at the United Nations Convention on Conventional Weapons, as part of the Campaign to Stop Killer Robots.

917 The number of Targeted Killing drone attacks has increase from 60 strikes in 2014 to 189 strikes in 2015, and from 199 strikes in 2017 to 445 strikes in 2018. See also: Campbell, David, *US Drone Strikes: An analysis of unmanned weapons and their impacts (2002-2018)*, April 24, 2020: <https://storymaps.arcgis.com/stories/8336cb0a4dc5416d8057fbb080d7b83a>

Ted Talks; corporate videos; newsreels clips; public announcements; YouTube videos; homepages of security and news websites; video calls; social sites profiles; drones perspectives and POVs; security cameras views; terror act self-documentation; selfies; accidental snuff footage; icons; screen texts; and at the last 40 seconds of the film – an actual documentation of direct appeal to the audience by Professor Stuart Russell from Berkeley.⁹¹⁸ For the most part, all these materials are edited in intense quick cuts oversaturated with information (many times on the screen itself as superimposed texts in various languages, icons, split screens, etc.), which leave us literally overwhelmed. This combination of effective editing (and filming), a cunningly compact narrative relaying on an impactful emotional arc, and the presentation of convincing scenarios within persuasive visual settings – mostly due to their casualness, formats familiarity and compressive quality – act as a completely unexpected stealth sensory attack.

The fact that *Slaughterbots* pack all that within the almost pure propaganda platform⁹¹⁹ of the short fiction film, and states so (even if not clearly from the start), stands to its right. It's shock impression – with images of numerous deadly drone forming flying swastika in the skies above American flags, or hunting down

918 Which can be claimed to make this film a Docufiction, as it now mixes elements of fiction and documentary. Yet since it appears as an explanation for the film in sort of a postscript or an epilogue, after the same signal break that started *Slaughterbots*, I remain with the original definition of the short film as Pseudo-documentary.

919 Ironically, a sequel titled *Slaughterbots – If Human: Kill* (2021) which was made during the pandemic, failed to use the rich albeit excessive visual language set by the original film, therefore (among other reasons) further failing to reach impact, emotional effectiveness or addressing the connection between the pandemic lockdowns and the tiny killer drones spreading all over the atmosphere to target humans, as its title suggests.



and killing students running in school corridors⁹²⁰ – is effectively alarming us to ‘Stay inside’.⁹²¹ Much like the films’ tiny mass assassination drones, pathogens are unseen agents of change, often causing unpredicted harm without being directly observed. The fear and uncertainty surrounding the spread of a virus, along with the measures taken to mitigate its impact, can, in their extreme forms, mirror the psychological toll experienced by those living under the regime of military drones. Both drones and pathogens operate through the atmosphere using a mechanism of invisibility, a sort of reversed scalability into forms unnoticeable, requiring heightened levels of vigilance and constant monitoring:

The drone phenomena should be understood as part of a wider ecosystem, which has two main bodies, one physical and the other intangible. The physical body is formed by species of devices: the drones themselves; the network that makes possible the connections between the drone and the pilot (...); the network’s vast infrastructure, in the form of data centers, internet connections and so on; and the physical spaces where the pilots spend their time controlling the distant targets. On the other side of the spectrum, the drone inhabits an intangible, seamless ecosystem formed by

920 With immediate connotations to the proliferating high-school shootings in the US, from Colombian to now. ‘There have been at least 83 school shootings in the United States so far this year [2024], as of December 16. Twenty-seven were on college campuses, and 56 were on K-12 school grounds. The incidents left 38 people dead and at least 116 other victims injured.’ Matthews, Alex Leeds, O’Kruk, Amy and Choi, Annette, *School shootings in the US: Fast facts*, CNN, December 16, 2024 (Retrieved 26/12/24) : <https://edition.cnn.com/us/school-shootings-fast-facts-dg/index.html>

921 As the authoritative news anchor announces, after footage from a press brief in which a British security official tell everyone to ‘to stay away from crowds’ (00:05:12:00).

a set of emotional and psychological layers such as solitude, fear, loneliness, disbelief and ethical concerns.⁹²²

The two forms of airborne threats share more than their method of delivery, invisibility, etc. They reveal vulnerabilities in global systems of governance, public health, and military strategy.⁹²³ Both expose the fragility of life under conditions of continuous threat, where the source of danger is distant, elusive, and uncontrollable. The drone and the virus, therefore, function as symbols of a new age of warfare and insecurity, where traditional notions of borders and battlefields are rendered obsolete.⁹²⁴ Furthermore, both drone warfare and global pandemics highlight the ethical concerns associated with contemporary responses to these threats. Airborne Epistemologies are embodied in the double form of drones and viruses, challenging traditional frameworks of warfare, governance, and ethics. As we continue to grapple with these invisible yet omnipresent presences and threats, it becomes increasingly clear that new strategies and perspectives are needed to navigate this complex and uncertain terrain. The ongoing experiences of citizens in regions like Waziristan, and the global impact of pandemics like COVID-19, serve as reminders that the nature of threats has evolved, requiring an equally evolved response. As *Ethel Baraona Pohl* already claims a few years beforehand:

922 Pohl, Ethel Baraona, "On the Other Side of the Screen" in *Drone: Unmanned*, 2016, pp. 128-129.

923 Shaw, Ian GR. *Predator Empire: Drone Warfare and Full Spectrum Dominance*, 2016. See Also: Gibson-Fall, Fawzia. "Military responses to COVID-19, emerging trends in global civil-military engagements." *Review of International Studies* 47, no. 2 (2021): 155-170; Sparke, Matthew, and Owain David Williams. "Neoliberal disease: COVID-19, co-pathogenesis and global health insecurities." *Environment and Planning A: Economy and Space* 54, no. 1 (2022): 15-32.

924 Graae, Andreas Immanuel, and Kathrin Maurer, eds. *Drone imaginaries: The power of remote vision*, 2021.

Grace
(Nancy)



Hope

Affairs
(Mberbe)

Reconstruction
\
Acceptance



There is an urgent need for a proper debate on the *politics of the atmosphere* again, and instead of accepting the weaponizing of air-space *in praise of security*, we should ask ourselves if we can reverse this approach and transform the silence and invisibility, from the other side of the screen, into a new political infrastructure based on an afterlife for the drone (...) to explore further the limits of what we know about drones, and turn this knowledge based on fantasy and fear into a new relationship between space and data.⁹²⁵

These words carry double effectiveness if we read through them the pandemic's aftermath, next to the drone's. These agents of disruption reveal how the air itself—an ostensibly shared and neutral space—becomes a contested domain of control, fear, and exploitation. Yet, within this contested atmosphere, there exists a latent potential for resistance and reimagination. By critically examining the interplay between visibility, power, and the atmospheric medium, we can begin to envision alternative infrastructures. If drones and pathogens expose the fragility of current systems, they also urge us to rethink and rebuild our relationships with air, space, and each other.

After States & Airborne Epistemologies

After States is a hybrid essayistic/fiction film and Practice-as-Research inquiry that critically engages with the entangled intersections of surveillance, interspecies cohabitation, and the altered temporalities brought about by global lockdowns. Set against the backdrop of curfews, closures, siege mentalities, and their amplification by the COVID-19 pandemic, the film emerges not as a document

925 Pohl, Ethel Baraona, "On the Other Side of the Screen" in *Drone: Unmanned*, 2016, pg. 131.

of a crisis but as an experimental apparatus through which to explore the reconfiguration of species relations and epistemological regimes under conditions of duress. Drawing on the philosophical frameworks of Achille Mbembe, Jean-Luc Nancy, Michel Foucault, Giorgio Agamben, Nikolaj Schultz and Joshua Clover, *After States* maps the potential liminal zones existing between state control and ecological resistance, between machinic governance and multispecies resurgence. The film operates as both a speculative fiction and a research method—one that intentionally contaminates the boundaries between theory and practice, documentary and fabulation, human and nonhuman, and those of the essay film as a research object in itself.⁹²⁶

After States was made through a participatory process of *Modular Filmmaking* involving audience members and composed entirely of personal archival footage from drones and smartphones—the ubiquitous tools⁹²⁷ of the security society.⁹²⁸ This methodology responded directly to restrictions on filming and public screenings during the pandemic, but also to the pathogen's own airborne, ubiquitous, invisible nature.⁹²⁹ This participatory approach has been presented and elaborated in parts 1 and 4 with the works 'Feral' and 'Countermeasures', which were later used to form the foundation on the cinematic archive for *After States*. Representing an ethical inquiry and aesthetic response to the pandemic's spatial and epistemological ruptures, the film explores the theme of Airborne Epistemologies from mutating perspectives, taking as its departure point source texts of the abovementioned scholars that

926 Baudrillard, Jean. *Simulacra and Simulation*. 1994.

927 Prati, Andrea, Vezzani, Roberto, Fornaciari, Michele and Cucchiara, Rita. 2013. "Intelligent Video Surveillance as a Service"

928 Shaw, Ian G. R. *Predator Empire: Drone Warfare and Full Spectrum Dominance*. 2016.

929 Parvez MK, Parveen S. *Airborne transmission of SARS-CoV-2 disease (COVID-19)*. 2022.



A man wearing a black and white striped polo shirt and black pants, standing on the far left of the group.

A young child in a blue and white striped shirt and light blue pants, standing next to the man in the striped shirt.

A man in a grey long-sleeved shirt and light blue shorts, looking at his phone.

A woman in a blue athletic outfit crouching on the ground, holding a white plastic bag.

A young girl in a pink and white patterned shirt and blue shorts, holding a phone.

A young girl in a yellow t-shirt and blue and white striped shorts.

A woman in a black tank top and blue shorts, looking at her phone.

A young child in a blue tank top and blue pants, standing next to the woman in the black tank top.

A man in a colorful floral t-shirt and pink shorts, looking towards the camera.

A man in a bright pink t-shirt and light blue shorts, looking at his phone.

A man in a yellow t-shirt with 'GAS' printed on it and blue shorts, looking at his phone.

A man in a blue denim jacket, blue jeans, and a blue baseball cap, looking at his phone.

A woman in a black patterned top and blue jeans, looking at a pink folder or book.

A woman in a purple tank top and white shorts, looking at her phone.

A man in a green and white striped t-shirt and light blue shorts, looking at his phone.

A woman in a black long-sleeved shirt and black shorts, standing with her arms crossed on the far right.

further represent reactions to the evolving health and climate crisis. The pandemic's juxtaposition of machinic surveillance and animal reappearance revealed a new landscape of multispecies entanglement. The film *After States* captures these relational tensions – examining lockdowns as shifting site of Interspecies Relations – not through linear storytelling but through fragmented vignettes, drone footage, interspecies performances, and dislocated voiceovers that narrate from within and beyond the human subject. The film's modular structure enables each segment to function independently, mirroring the fragmented experience of pandemic life⁹³⁰ and echoing the nonlinear dispersal of airborne agents.⁹³¹ In *After States*, drone imagery is destabilized. Rather than offering the clean, surveillant gaze of typical drone aesthetics, the film integrates erratic camera movements into smooth flyovers, repeatedly cuts into handheld smartphone shots, embraces signal interruptions, and employs improvised trajectories to suggest the limits of machinic vision. In doing so, it challenges the presumed objectivity and neutrality of aerial epistemologies. Instead of mapping terrain for control, these drone drifts surveil absences or encounter animal lifeforms as uncanny others. The pandemic's airborne nature foregrounds such entanglements of viruses, animals, and machines as agents of contamination and correlation. Viruses, as nonhuman entities that traverse species boundaries, defy classical biopolitical definitions and challenge traditional understandings of life and agency. In their ability to replicate and infiltrate, they parallel the machinic operations of drones, which similarly traverse and transform the environments they inhabit. Their capacity for mutation resonates with the drone's capacity to traverse and transform space. Both

930 Kumar, Prashant, Lidia Morawska, Claudio Martani, George Biskos, Marina Neophytou, Silvana Di Sabatino, Margaret Bell, Leslie Norford, and Rex Britter. "The rise of low-cost sensing for managing air pollution in cities." 2021.

931 Rutz, Christian, et al. "COVID-19 Lockdown Allows Researchers to Quantify the Effects of Human Activity on Wildlife." 2020.

become metaphors for cross-contamination—not just of bodies, but of concepts and control.⁹³² *After States* cinematic strategies foreground how the drone reshapes the aesthetics and politics of representation under conditions of crisis, prompting viewers to reflect not just on what is seen, but on the infrastructures of seeing itself.⁹³³

As Catherine Russell notes in her writing on experimental ethnography, such modes offer "an ethical and political intervention into the dominant culture of representation."⁹³⁴ The five stages of grief—denial, anger, bargaining, depression, and acceptance—serve as the film's narrative and emotional structure, each forming a chapter that also exists as an autonomous short film. These stages, while familiar from trauma literature,⁹³⁵ here serve as a framework for examining the cascading connections between surveillance, *Extinction Economies*, *Threshold Technologies*, and the security-environmental crisis made visible during the pandemic.⁹³⁶ *After States* explores this intricate construction through the 6 philosophical texts, presented through polyphonic voices. These voices also form an unconventional narrative arc, as they belong to Ana, Tania, Anna and Shahin – acting as independent researchers, a citizen scientist and an ecocide investigator from different parts of the global south – who are conducting a simultaneous ongoing enquiry by using the philosophical texts as new road maps for the uncharted territories the pandemic is drawing.

The film's title *After States* invokes multiple layers of meaning. At one level, it gestures to a world beyond the nation-state, where governance has become algorithmic and deterritorialized. Drawing

932 Sparke, Matthew, and Owain D. Williams. 2022. "Neoliberal Disease: COVID-19, Co-Pathogenesis and Global Health Insecurities."

933 Pong, B. and Richardson, M. (ed.), *Drone Aesthetics: War, Culture, Ecology*. 2024.

934 Russell, Catherine. *Experimental Ethnography: The Work of Film in the Age of Video*. 1999.

935 Caruth, Cathy. *Unclaimed experience: Trauma, narrative, and history*. 2016.

936 Koh, Lian Pin, and Serge A. Wich. "Dawn of Drone Ecology: Low-Cost Autonomous Aerial Vehicles for Conservation." 2012.



FIRST BAPTIST
CHURCH

on Agamben's concept of the State of Exception,⁹³⁷ the film reflects on how crises are exploited to normalize exceptional measures of control. But the title also suggests a temporal condition: the aftermath, the residue, the intervals where new formations emerge. In *After States*, borders are not merely geopolitical but biotechnological. Through such observations, the film interrogates what Mbembe terms Necropolitics—the power to decide who may live and who must die, a power increasingly mediated through digital and infrastructural systems.⁹³⁸ Facing the ongoing challenges of climate change, biodiversity loss, and future pandemics, the lessons unlearned of the 2020 lockdown become increasingly urgent, as *After States* aim to remind us. Drones, viruses, and animals are not merely objects of study but active participants in the reshaping of our world. By attending to their agencies and acknowledging their entanglements, we can begin to envision more than just staying with the trouble, as Donna Haraway suggested,⁹³⁹ and do better than basically bargain to imagine posthuman futures in which coexistence replaces domination and collaboration supplants hierarchy.

In sum, the film journey through the contrasting and corresponding points of view based on the work of contemporary thinkers, exploring the 5 stages of grief – denial, anger, bargaining, depression and acceptance – through which humanity lived during the Coronavirus outbreak and its lockdowns. The film further takes these stages as different way to deal with the connections between surveillance, species survival and the environmental emergency, highlighted during the Corona crisis and potentially lead to a collective post-traumatic condition. Paraphrasing Winston Churchill, *After States* suggests this as “a riddle, wrapped in a mystery, inside

937 Agamben, Giorgio. *State of Exception*. 2005.

938 Mbembe, Achille. *Necropolitics*. 2019.

939 Haraway, Donna J. *Staying with the Trouble: Making Kin in the Chthulucene*. 2016, as well as her essay “Situated knowledges: The science question in feminism and the privilege of partial perspective 1.” 2013.

an enigma”,⁹⁴⁰ with COVID-19 surveillance being the riddle, it's environmental emergency as the mystery, inside the enigma which is species survival.

As a contribution to Practice-as-Research discourse, *After States* demonstrates how hybrid fiction film can function as a mode of theorization. It engages directly with contemporary crisis while resisting didacticism. Instead, it invites viewers and interlocutors into an open-ended process of interpretation, correlation, and contamination. In doing so, it posits artistic research as not only a legitimate mode of knowledge production but a vital one—capable of responding to the complexities of a world increasingly shaped by multispecies entanglements, planetary emergencies, and algorithmic governance.

The *Modular Filmmaking* method used – again, due to the pandemic restrictions and the confinement conditions under which it was created⁹⁴¹ – originally structured the different stages of grief the film journeys through as separate chapters which also act independently as short films. They're presented in the following pages – together the complete film – with their own titles, using the format - Title / Scholar / Grief stage / Duration / Production year, and original description in the chronologic order of the stages of grief, as they appear in the final feature film:⁹⁴²

940 ‘Famously, Winston Churchill defined Russia as “a riddle, wrapped in a mystery, inside an enigma,” and his words in 1939 spoke eloquently to the Western sense of Moscow as the “other” - an inscrutable and menacing land that plays by its own rules, usually to the detriment of those who choose more open regulations.’ Cowell, Alan, *Churchill's definition of Russia still rings true*, New York Times, Aug. 1, 2008: <https://www.nytimes.com/2008/08/01/world/europe/01iht-letter.1.14939466.html> (Retrieved 26/12/24)

941 Clear example is that without knowing the duration of the pandemic, it was impractical to decide in advance the duration of the film, and that with no clear idea where and when one can shoot it was impossible to properly plan any shooting schedule, among other aspects of such ‘under siege’ filmmaking.

942 That also form a rare opportunity to examine how the entire *After States* cinematic project was constructed, deconstructed and reconstructed during the full spectrum of its creative arc – from early inception to final completion.

AFTER STATES

A Film by Jack Faber

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SUB PACIFIC FILMS PRESENTS COUNTER CINEMA PRODUCTION A FILM BY JACK FABER "AFTER STATES" ANA WILD TANIA THEODOROU ANNA SHRAER SHAHIN ASHE
WITH KSR BINYAMIN YIFRAH EMIL SENA SUB SONIQ URI CRYSTAL BANDS OF WEEDS SWISS SISTERS NEVELA YANIV SCHONFELD PRODUCED BY LENNY ISH WRITTEN BY JACK FABER
EDITED BY THE COLLECTIVE DIRECTED BY JACK FABER COSTUME DESIGNER KARIN TOVI EXECUTIVE PRODUCERS KONE FOUNDATION TBG+S TEMPLE BAR GALLERY+STUDIOS DUBLIN
HIAP HELSINKI INTERNATIONAL ARTIST PROGRAMME SAASTAMOINEN FOUNDATION UNIARTS HELSINKI UNIVERSITY OF THE ARTS ACADEMY OF FINE ARTS HELSINKI
CASTING BY ACHILLE MBEMBE JEAN-LUC NANCY JOSHUA CLOVER MICHELLE FOUCAULT GIORGIO AGAMBen NIKOLAJ SCHULTZ WRITTEN AND DIRECTED BY JACK FABER

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After States

90 minutes / 2025

After States examine the pandemic and the economy of extinction it accelerated around the world. It explores contrasting and corresponding points of view based on the work of contemporary thinkers (Achille Mbembe, Jean-Luc Nancy, Joshua Clover and others). Seen through the prism of the pandemic, 'After States' journeys through the 5 stages of grief through which humanity lived during the Coronavirus outbreak and its lockdowns – denial, anger, bargaining, depression and acceptance. These stages of grief no longer evolve in their traditional order, suffering from the same disruption of linear time which many experienced during the progress of the plague, leading to a collective post-traumatic state.

Determined to find what lies under the pandemic's surface, few ecocide investigators from different parts of the global south and north are conducting an ongoing enquiry. Trying to uncover the plague's hidden truths, Tania, Ana and Shahin are looking at the dark corners of commerce, technology and life on a suspended world.

Link: <https://vimeo.com/econoir/as?share=copy>

Password: 2040

After States Trailer:

<https://vimeo.com/econoir/ast?share=copy>

State of Grace

Jean-Luc Nancy / Denial / 16 Minutes / 2023

State of Grace traces exchanges between bodies and viruses, ideals and virtues, societies and individuals, humans and others. Adapting

Jean-Luc Nancy's *A Much Too Human Virus*⁹⁴³ from text to screen, the work examines the recent pandemic's European reception within economic and historical contexts, revealing an entanglement of geopolitical exchanges—from the molecular to the spectacular to the metaphysical. These flows of cultural currency reframe 20th-century conflicts and 21st-century commerce as iterations of the same late logic, driving current crises. Yet, confronting how this logic extends from world wars to pandemics and climate collapse, another question arises—what, if anything, makes us human?

Link: <https://vimeo.com/720676169>

Password: 2023

State of Survival

Nikolaj Schultz / Anger / 14 Minutes / 2021

State of Survival explores the intertwined emotional landscapes shaped by the pandemic and the escalating climate crisis. Drawing inspiration from Nikolaj Schultz's *The Climatic Virus in an Age of Paralysis*,⁹⁴⁴ the film delves into feelings of paralysis and relief, revealing how these responses can both confine and liberate us. By examining the complex relationships between humans and their environments, it invites viewers to reflect on hope amidst uncertainty.

Link: <https://vimeo.com/799445240?share=copy>

Password: 2100

943 Nancy, Jean-Luc. "A much too human virus." In *Coronavirus, Psychoanalysis, and Philosophy*, pp. 63-65. Routledge, 2021.

944 Schultz, Nikolaj. "The climatic virus in an age of paralysis." *Critical Inquiry* 47, no. S2 (2021): S9-S12.

State of Affairs

Achille Mbembe / Bargaining / 10 Minutes / 2022

State of Affairs takes Achille Mbembe's *The Universal Right to Breathe*⁹⁴⁵ to probe the interwoven crises of ecology and health. It examines shifting relations between humans, technology, and other species not as isolated disruptions but as forces shaped by economic structures and the looming specter of climatic collapse—unfolding in unexpected ways, both visible and unseen.

Link: <https://vimeo.com/479239998?share=copy>

Password: 2022

State of Siege

Michel Foucault / Depression / 27 minutes / 2023

State of Siege traces the endurance of emergency measures across history, drawing directly from Foucault's account of 17th-century plague control protocols. Examining the emergence of bio-politics through policing urban segmentation, the work interrogates the interplay between order and survival in societies under pressure. As such measures resurface nowadays, the film reveals how these systems persist, adapt, and assert control—framing collapse not as an end, but as a method of governance.

Link: <https://vimeo.com/805668448?share=copy>

Password: 2020

945 Mbembe, Achille, and Carolyn Shread. "The universal right to breathe." *Critical Inquiry* 47, no. S2 (2021): S58-S62.

State of Emergency

Giorgio Agamben / Acceptance / 9 Minutes / 2020

State of Emergency acts as a gaze into the civil and ethical ramifications of the early 2020 pandemic outbreak through Giorgio Agamben's provocative *Clarifications*.⁹⁴⁶ Framing the official responses as an extension of an escalating *State of Exception*⁹⁴⁷—his lifelong project—the outcast thinker examines the emergency measures in the aftermath of 20th-century oppressive regimes, their extermination campaigns, and the imposed logic of *bare life* that underlies it.

<https://vimeo.com/669412164>

Password: 2020

State of Play

Joshua Clover / Epilogue / 11 Minutes / 2024

State of Play situates the escalating ecological crisis within a mesh of opposing and oppressive forces. Based on Joshua Clover's *The Rise and Fall of Biopolitics: A Response to Bruno Latour*,⁹⁴⁸ the work reframes climate catastrophe within intensified extinction economies and sovereignty ideologies—both deeply reliant on extractive politics and self-serving surveillance technologies. These accelerated hyper-phenomena are examined for what they reveal: the profound failures of the systems designed to contain them.

Link: <https://vimeo.com/801969318?ts=0&share=copy>

Password: 24

946 Agamben, Giorgio, *Clarifications*, 2020. See also:

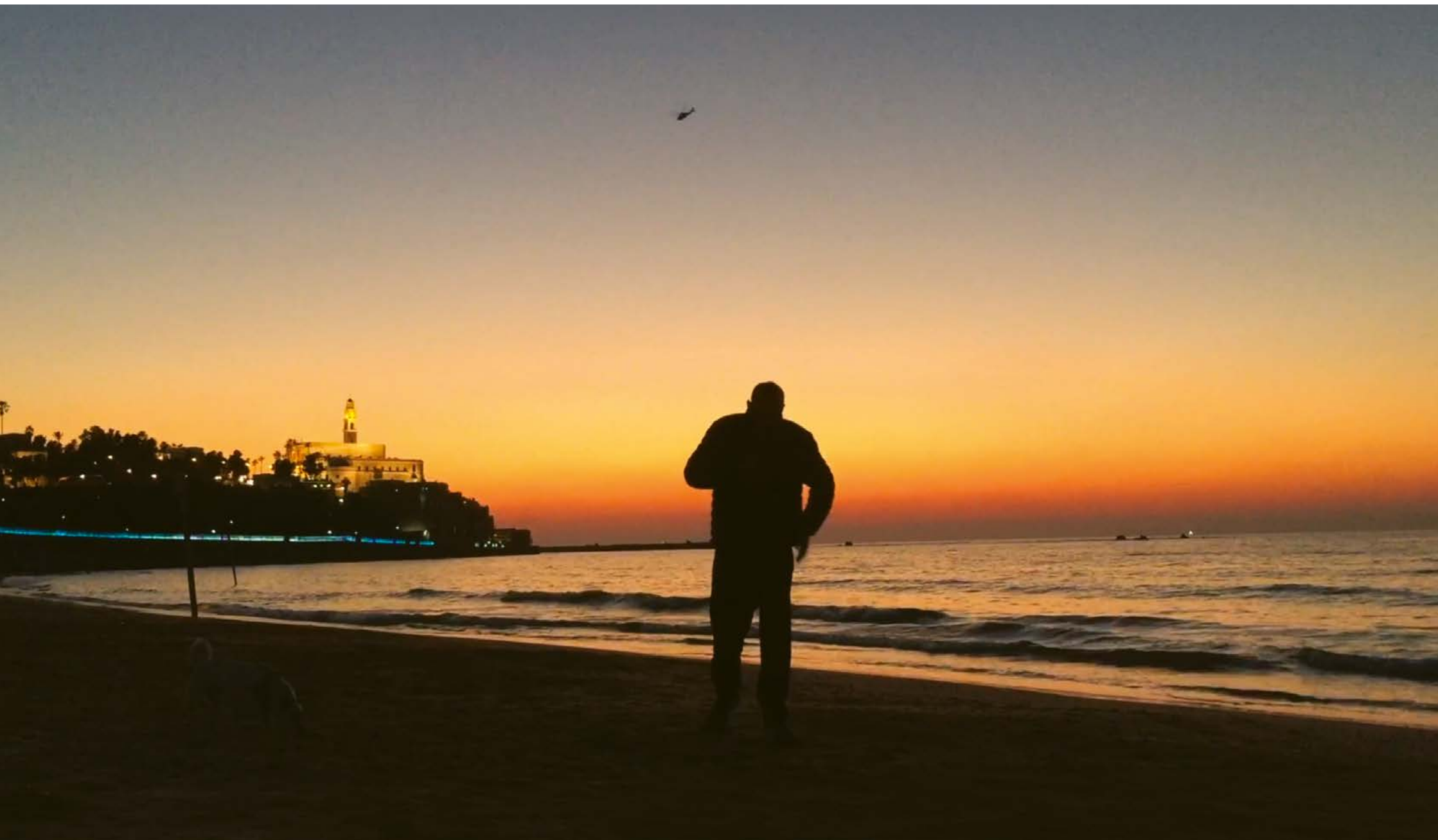
<https://d-dean.medium.com/clarifications-giorgio-agamben-3f97dc7ed67c>

947 Agamben, Giorgio. *State of Exception*. 2005.

948 Clover, Joshua. *The rise and fall of biopolitics: A response to Bruno Latour*, 2021.

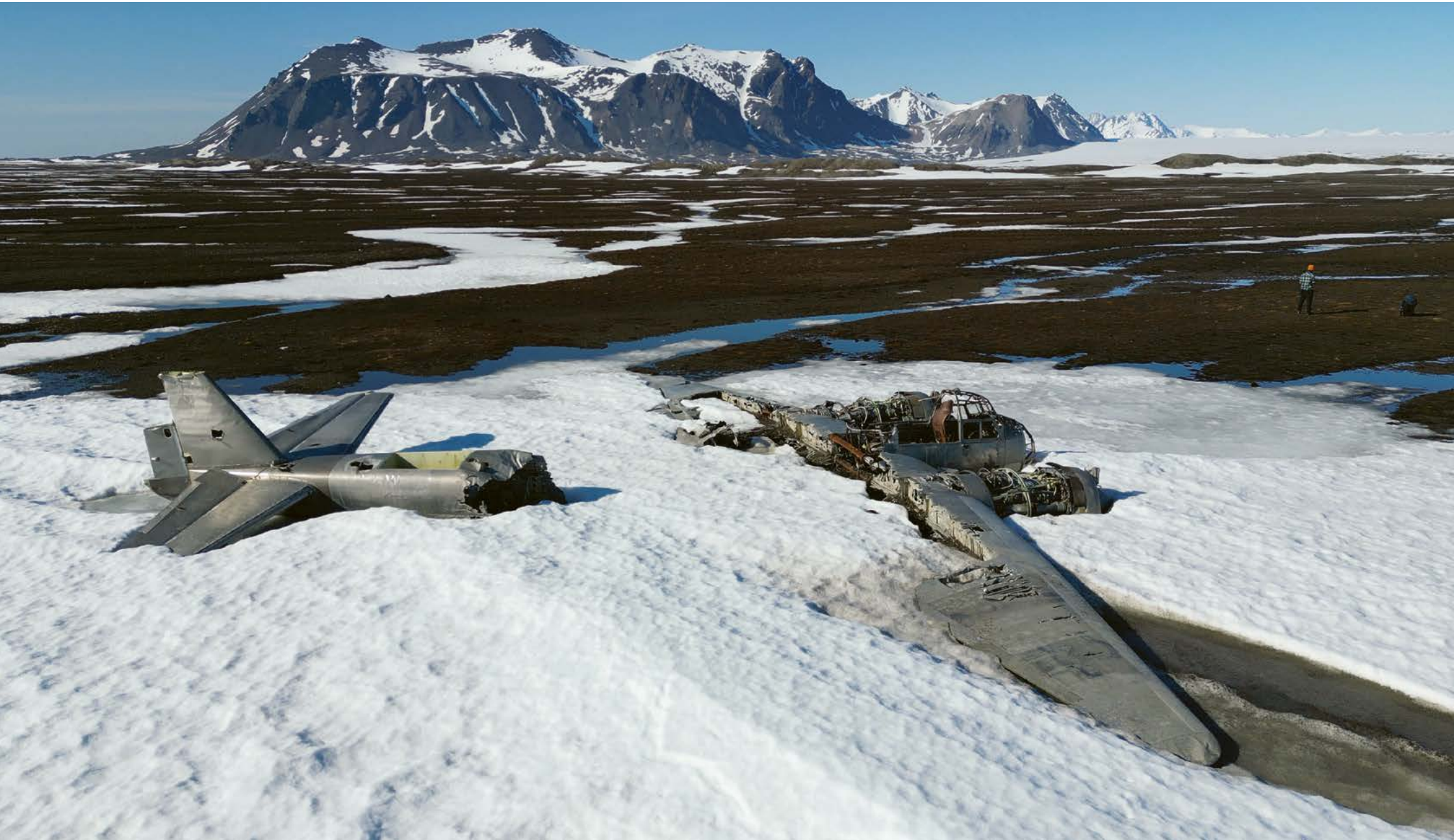






PART

VI







Exhibiting Militarized Nature

An Abstract

This part examines the final act of exhibiting *Militarized Nature*, a site-responsive interspaced infiltration act and exhibition, which – while raising the stakes – positioned a critical project within an entanglement of surveillance technologies and institutional tensions embodying the *Societies of Control*. Bringing together ultra-panoramic photographic prints, moving images, site-specific sculptural installations, and cinematic works, the exhibition investigates contested landscapes where ecological processes and military infrastructures converge. These include polar crash sites, coastal observation stations, and undisclosed high-Arctic locations—zones where ecological resilience and military architectures coexist in uneasy alliance.

At its core, Exhibiting *Militarized Nature* proposes the exhibition itself as a cartographic method. Installed across the highly panoptic architectural terrain of Myllytori – the totalitarian neo-Valhalla concrete-clad centerpiece of the costly Finnish Academy of Fine Arts building – with its brutalist surfaces and angles, rusting metal stairwells and imposing open-air passageways, the exhibition transformed the site into an interface for reflecting on fragile environments, institutional opacity, and the cinematic legibility of militarized ecologies. Here, the institution is not merely a context but a subject: a screen, a sensorium, and an active (even if reluctant and

sometimes hostile) participant within the apparatus of research, surveillance, and *Extinction Economies*.

The works reimagine militarized sites not as inert backdrops to conflict but as dynamic ecologies in which non-human life adapts within infrastructures of control. Large-scale photographic ultra panoramas, cinematic works, and sound collaborations destabilized linear viewing, producing overlapping frames of references where environmental change, political history, and interspecies survival collided. Cinema was treated not as commodity outcome but as inclusive process, embedding fieldwork, salvage practices, and participatory collaborations into the very form of the works.

Exhibiting *Militarized Nature* thus extends the conceptual concerns of the dissertation into a reflexive curatorial practice. By staging infiltration within institutional architectures and foregrounding the entanglements of ecology, militarization, and cinema, the exhibition operated as both critical proposition and experimental method. It enacted the project's broader argument that militarized ecologies must be understood not as distant abstractions but as lived, aesthetic, and psychological conditions, and that Artistic Research can re-route these terrains by inhabiting them—offering provisional forms of environmental reclamation within architectures of surveillance and control.

























Militarized Nature | Jack Faber | Works at Exhibition

1. Sub Signs
Site-Specific Installation / Mixed Media
2. **Vespertine**
Cinema Work / 4K / 4 min.
3. **High Seas Drifter**
Cinema Work / 4K / 7 min.
4. **High Arctic Drifter**
Cinema Work / 4K / 3 min.
5. **Means to an End**
Site-Specific Installation / Mixed Media
6. Zero Ground
C - Print / 244x60cm
7. Undisclosed Location
C - Print / 244x60cm
8. Dear Destroyer
C - Print / 244x60cm
9. Slow Sunset
C - Print / 244x60cm
10. Academy Logo
C - Print / 143x108cm

11. **X Marks the Spot**
Site-Specific Installation / Salvaged Media
12. Sign of the Times
C - Print / 143x108cm
13. View from Working Cell
C - Print / 143x108cm
14. **Dirty Dawns**
Site-Specific Installation / Salvaged Media
15. Why Not Look at Animals
C - Print / 244x60cm
16. **Arctic Antagonist**
Cinema Work / 4K / 5 min.
17. North Wave
C - Print / 244x60cm
18. Neo Nocturnal
C - Print / 244x60cm
19. And There's a Bear
C - Print / 244x60cm
20. **UZ**
Cinema Work / 4K / 10 min.

[**Bold** are installations and moving image based works]

Militarized Nature Exhibition Documentation

Militarized Nature Exhibition Film

(2025 / 6 Min / 4K / 16:9 / Stereo sound / English)

<https://vimeo.com/1118696175?share=copy - t=0>

Stills Link

https://drive.google.com/file/d/1sroT2B_xZ42kPFrRrY-4969txx-VivUFA/view?usp=drive_link

Films in the Exhibition

Arctic Antagonist

(2026 / 5 Min / 4K / 16:9 / Stereo sound / English)

Arctic Antagonist examines the fragility of the Arctic, its role in wartime history, and the remnants of Nazi crash sites scattered across the frozen terrain. It traces the long-lasting impact of human conflict on this isolated region while highlighting the ongoing environmental threats it faces today. Through stark visuals, the film presents a sobering look at the intersection of war, history, and ecological decline in one of the world's most vulnerable landscapes.

Music by Liran Yuzbegi

Link: <https://vimeo.com/1047216719?share=copy&fl=sv&fe=ci>

Password: 2025

Vespertine

(2025 / 4 Min / 4K / 16:9 / Stereo sound / English)

Vespertine explores the largely unseen evening activities within the context of contested territories and ecological conflict zones. Filmed in inaccessible territories reachable only by animals and drones, these areas offer a unique perspective on our relationship with nature — and with each other, through the perspective of crepuscular predation and its political analogy.

Music by Emil Sana & PS

Link: <https://vimeo.com/1069561017?share=copy&fl=sv&fe=ci>

High Arctic Drifter

(2025 / 3 Min / 4K / 16:9 / Stereo sound / English)

High Arctic Drifter is a speculative short film that traces an unnamed Northern explorer trying to escape from the melting frontlines of the Arctic. Navigating a world shaped by surveillance, accelerated climate shifts, and ecological estrangement, we become both witness and agent to this journey—slipping between satellite orbits and submerged mythologies of ice apocalypse.

Music by Ran Slavin

Link: <https://vimeo.com/1078584291?share=copy&fl=sv&fe=ci>

Password: 2026

High Seas Drifter

(2026 / 7 Min / 4K / 16:9 / Stereo sound / English)

High Seas Drifter is a short film navigating the shadowy waters between history, nautical paranoia, and exile. Set aboard a repurposed vessel once steeped in colonial violence, the story follows an expedition drifting into moral ambiguity. As the journey unfolds in the remote reaches of the Arctic archipelago, alliances fracture, suspicion deepens, and fear spreads beneath the frozen surface. High Seas Drifter traces a fevered dilemma, where the return of the repressed ripples into the present—adrift between myth, memory, and maritime dread.

Link: <https://vimeo.com/1080084810?share=copy&fl=sv&fe=ci>

Password: 2026

UZ

(2025 / 10 Min / 4K / 16:9 / Stereo sound / English)

UZ (Unstable Zones) is a speculative cli-fi study of the psychological strain of existing within accelerated landscapes—where hyper-renovation and endless redevelopment erode stability. As spaces outpace their own realities, those inhabiting them struggle to anchor themselves in sustainable ecologies and histories, both personal and collective.

Music by Emil Sana & KSR

Link: <https://vimeo.com/1066913085?share=copy&fl=sv&fe=ci>

Password: 2026



PART

VII

Subversive Subspecies & Upcoming Attractions

An Abstract

This final part concludes the research and opens possibilities for the future. It offer insights into the entire study arc, work process, and the various efforts to explore the research questions. Through its 5 short segments, this conclusion gathers the strands of the dissertation to articulate Militarized Nature as both conceptual framework and lived condition. It reflects on how drones, as *Threshold Technologies*, condense ecological, cinematic, and military trajectories, and how their study demands transversal, adaptive research practices. Across the chapters and artistic works, three methodological principles recur: refusal of closure, infiltration of compromised infrastructures, and adaptability to unstable terrains. The conclusion situates these principles as the ethical and methodological contributions of the project, showing how they are enacted through curatorial experimentation, *Modular Filmmaking*, *Cine-Cartography*, and *Institutional Infiltration*. It further argues that the so-called security crisis and ecological crisis must be understood as the same entangled condition, one where surveillance infrastructures and ecological devastation are inseparable. Rather than offering final synthesis, the chapter positions instability as both object and method of research. It closes by indicating the horizon

opened through this work and by affirming Artistic Research as a practice that must navigate rather than resolve collapse, refusing mastery while searching for counter-movements within compromised terrains.

An Ephemeral Conclusion

We return, as we began, to the middle of things. The field in which this research has been conducted is not a finished territory but an ongoing topology of assault and response: places where militarism and ecology entangle, where imagery and infrastructure co-produce what we call reality. The phrase *Subversive Subspecies* names the way this project tries to live inside that entanglement — not as a singular resolution or heroic claim, but as a distributed, contested practice that makes modest openings. The works that make up this dissertation are not merely illustrations of an argument; they are the argument. They are ways of asking how Artistic Research and cinematic practice might re-tool the devices of domination — drones, operational images, and other *Threshold Technologies* — into instruments for attention, witness, and relational repair. In what follows I do not catalogue. I narrate and weave the artworks into the methods and figures they produced and were produced by, as practice-led research main point is that practice and theory are braided: one changes the other, and both change the field in turn.

The work presented in this dissertation began from the recognition that militarization has never been oriented toward battlefields alone, but increasingly saturates ecologies, imaginaries, and infrastructures. If the introductory part — *At the Edge of It All* — staged this condition as “Militarized Nature,” then the intervening chapters and artistic works have sought not to fix this term but to test it, to push against its boundaries, and to trace how it operates across different sites, media, and temporalities. What has unfolded is less a definitive articulation than a series of entangled cartographies: partial, fragmentary, and in tension, but nonetheless insistent. They insist that nature is no longer available as an external backdrop to human conflict, that technological digitization and AI infrastructures cannot be separated from ecological devastation, and that cinema—as anticipatory apparatus and as



insurgent practice—remains central to how these entanglements are imagined, enacted, and contested.

The parts and works gathered here resist synthesis because their objects—the drone, extinction, militarization, cinema—are themselves unstable. To conclude, then, is to stay with that instability: to ask how these concepts and practices, taken together, rearrange the very conditions of research. It is to reflect on what becomes possible when we approach militarization not as a distant abstraction but as a lived, aesthetic, and ecological condition. And it is to ask what remains unresolved – in the context of Artistic Research, and in particular research that insists on working with collapse, instability, and infiltration – what must be left open for future work.

Threshold Cartographies

Cooking for the Apocalypse exhibition appeared as an emergency of practices gathered. Conceived as a communal attempt to think through the immediate conjunction of pandemic, climate emergency and militarized vision, the exhibition and its accompanying collaborative publication **Eco Noir: A Companion for Precarious Times** operated not as neat curatorial frames but as a communal proposition: artmaking as encounter, text as contested territory, exhibition as activated discursive area. The exhibition gathered thirty-four artists and researchers into an imaginary collective working through isolation. The symposium which took place during and within the exhibition space, *Eco Noir: A Dark Day for a Brighter Future*, became a performative experiment in distributed authorship—an exhibition treated as cinema “by other means.” The companion book translated these dialogues into printed form, situating artistic voices within an ecology of theoretical and poetic contributions. Together they embodied the relational ethos of the PhD: artmaking

as coalition-building in a time of systemic fragmentation. The exhibition housed artworks that tested the language of collapse — practices that made space for ambiguity, refusal and strange intimacies in the face of massed, managerial narratives of catastrophe. The publication gathered voices that refused either paralyzing doom or facile optimism; it was, and remains, a public instrument to push the possibilities of thinking and acting inside precarity. Making an exhibition that had to operate under the constraints of lockdowns, travel bans and the impossibility of full co-presence changed the work’s grammar. It made collaboration an act of translation, provocation and infiltration into quarantined institutions.

From that communal platform sprung a set of projects that learned from one another and fed the dissertation recurring methods: *Cine-Cartography* and *Modular Filmmaking*. **Feral**, a site-specific installation, emerged as a laboratory for these methods. The one-on-one editing table that gave the work its shape inverted spectatorship into co-authorship. Participants sat with moving images that had been shot in militarized and contested ecologies; they made cuts, chose sequences, resisted or insisted. This participatory structure inverted cinematic hierarchy: instead of audience consumption, a shared authorship unfolded through improvisation and hesitation. In this way, **Feral** embodied the commitment to foreground cinema not as spectacle of representations but as a site where ecological and militarized entanglements could be rehearsed and re-imagined together in real time. The work exposed the precarity of image production under pandemic conditions and foregrounded the ethical fragility of representation itself. The intimacy of the encounter foregrounded an ethical problem that would haunt the project — what does it mean to let another human control a moment of representation when that moment carries the weight of violence? **Feral** did not resolve the problem. It made it visible. It taught protocols: how to scaffold consent; how to hold space for shock; how to build restitution into the very form of exhibition.

These lessons then reverberated through the subsequent site-specific works.

Daily Disasters, constructed later as its own exhibition complex, staged a more strident solo intervention into public life. **Countermeasures**— the last installation standing at the centre of that show — collected modular fragments from fieldwork and archive. Audience members were invited to cinematically weave them in a re-combinatory relation so that the same material could be seen differently, heard differently, become differently politically activated depending on sequence and adjacency. In **Countermeasures** it was clear that cinematic form is not neutral; the way a film is cut, the way a sound is layered, the rhythm of projection — each is an argument about the world. The site-specific film works paired with the installation — **Future-Proof**, **DreamWeapon**, **Daily Disasters** — carried the dissertation speculative edge: a thought-experiment about how technologies adapt to ecological pressure and how culture normalizes their anticipatory militarized logics. Sound Art works like **New Beast** and **Eminence** joined these images and essays, as sound serially reconfigures attention and because the acoustic registers of militarization (from sonar burbles to rotor whine) collapse with animal noise in ways that matter ethically and politically. **Triggering Effect**, a site-responsive installation, tested the threshold between amplified evidence and emotional overload, careful not to aestheticize disaster into spectacle but to insist on the discomfort of proximity.

From these experiments **Dictionary of Darkness** emerged — both a solo exhibition and a film installation— an attempt to collect and rearticulate the jargon that screens both militarization and extinction. The dictionary is not a glossary for convenience but a performative re-narration of language. It asks: what happens when we take a dry technical term, translate it into image and sound, and then feed it back to the public as an affective object? Words

like “Adversary,” “Evader,” or “Readiness” shift under cinematic pressure; the cathedral of bureaucratic distance collapses into witnessed effects. language itself became a site of rupture, translating military jargon into subversively poetic moments, exposing the politics of violence hidden in infrastructural terms. Emerging from this analysis is the insistence that the so-called security crisis and ecological crisis are not separate phenomena but manifestations of the same entangled condition, driven by the same economic engines. The infrastructures that monitor, police, exploit and expand armed conflicts are inseparable from those that accelerate ecological devastation and extinction.

After States, the feature-length essay film, attempted to bind the modular experiments into a long-duration meditation. If the modular pieces gesture at multiplicity and contingency, the essay film tries to hold dissonance for longer stretches of attention. Built from modular chapters, derived from fieldwork and from correspondence with scholars, **After States** is not a neat summation but evidence of sustained inquiry — a long breath that experiment with montage as mode of essayistic argument, with polyphonic voiceover as political device, with ways for cinematic rhythm to shape thought. The film’s polyphonous voice attended to thresholds — the point where human governance meets environmental unpredictability, where algorithm meets animal. **After States** took the modular politics of the exhibitions back into the cinematic register: if the installations invited re-composition by context, the film insisted on the capacity of duration to harbor unresolved relations.

The later film **State of Security** (chronologically speaking) deepen the research into the technical and theatrical embodiment of militarized vision. **State of Security** attends to how security rhetoric slides into everyday life and how affective infrastructures enforce a state of exception. It was shaped not only by re-reading Deleuze’s *Postscript on the Societies of Control* and translating it from text to screen, but also by an early collaborative work undertaken

with Werner Herzog in 2017. It further addresses the drone as a threshold actor: technology that displaces the human will to remote coordination and yet remains embedded in animal and ecological worlds it purports to command. The film threads it into a filmic topology that calls the viewer into a geography of contested claims — places where extraction, surveillance and species survival intersect and conflict.

Militarized Nature, the last exhibition that folds many strands together, is not merely a display but a mechanism of relational testing. Works like **Sub Signs, Means to an End, Dirty Dawns, X Marks the Spot, White Hunter Black Heart** and the array of photographic and large-scaled ultra panoramic C-Prints, function together like nodes in a network, offering different modalities of attention: some visual, some tactile, some architectural. The films paired with the exhibition — **Vespertine, High Seas Drifter, High Arctic Drifter, Arctic Antagonist** and **UZ**— test different climates and imaginaries of contested territories, militarization and environmental frontiers. Together with the site-specific installations and the C-Prints, in the ways it scattered cinematic fragments in control-aimed architectural space, attempted to make an exhibition behave like *Cine-Cartography*: a navigable field of relations rather than a monological summation. The practice of hanging images, of placing long panoramic prints across spaces, of making viewers move not only among and through images but around their histories, enacts the dissertation insistence that crisis is not a sole anomaly but a contextual tapestry of economies and entanglements. And knowing is not an act of the eye alone but a choreography of bodies, technologies, and images in spaces.

What all these works do together is insist that cinema is not a mere mirror or window but an infrastructure. It is infrastructure that can be reclaimed, rerouted, misdirected, and made to reveal the very operations it was meant to conceal. The works refuse the immediate consolation of illustration; they insist instead on the

messy work of attention: to slow down, to be affected, to learn new forms of political resilience and resistance.

Reframing the Drone

If the works are the field, the methods are how the field is traversed. *Cine-Cartography* and *Modular Filmmaking* are not neutral tools but procedural stipulations about how to move, what to include, and how to account for consequence. *Cine-Cartography* is a practice of wandering that is nevertheless deliberate: it borrows the logic of cartography but inverts its claim to mastery by means of meandering. A cartographer draws a map to claim knowledge; *Cine-Cartography* lays out constellations of research objects, media and images so that connections, dissonances and absences can be seen. The effect is associative, adaptive, sometimes disruptive, but intentionally so: the juxtaposition produces both collisions and correlations with possible claims for new knowledge. *Cine-Cartography* is therefore an epistemic tactic: not to abstract the land into coordinates for use, but to make visible the ways knowledge is produced — often for extraction and control. By naming the cinematic field as asymmetrical, the 2nd part of the research highlighted how film not only reflects but perpetuated and many times produces the inequities of militarized vision. Drone representations, unmanned aerial footage, surveillance aesthetics, and machinic violence perspectives do not simply depict asymmetry; they enact it, conditioning viewers to see through hierarchies of power. Yet, at the same time, cinema offers tools for subversion: montage, salvage, experimental narration. The *Cine-Cartographic* method introduced here treated film not as isolated text but as constellation of hyper-texts, mapping networks of association across decades of cinematic production.

This method has proven more than analytic. It is itself a practice of resistance: by refusing the “god’s-eye view” of surveillance,





Cine-Cartography proposes a different perspective of and on mapping, one that is fragmentary, multi-perspectival, and affectively charged. Across exhibitions, installations, and timelines, this method has allowed the research to situate films not as stable works but as nodes within militarized ecologies. This conceptual and methodological framework was also tested through its earlier chapter publication in the collective reader *Drone Aesthetics: War, Culture, Ecology*, edited by Pong and Richardson. Under the title *Asymmetric Cinema*, the chapter's circulation within a collective volume reinforced *Cine-Cartography's* collaborative ethos, exposing the framework to critique and exchange, and allowing its further refinement within the wider ecology of artistic and scholarly debates. *Asymmetric Cinema* thus becomes not just a part title but a methodological principle: a reminder that every cinematic encounter is shaped by the asymmetries of visibility, and that acknowledging these asymmetries is the first step toward resisting them.

Modular Filmmaking is its procedural counterpart. The module is the unit of attention that can be recombined. The method answers a practical problem — the fragmentation of audiences, attentions and the impossibility, under recurring circumstances, of constant large-scale production — with an ethic. Modules are made to be reassembled and reconsidered; they carry with them evidences about provenance, ethical notes about collaboration and participation, and the affordances of recombination (such as what happens when footage of one contested territory is paired with another?). Modules allow a film like **After States** to be formed across time and place. Here, the modular methodology was most explicitly activated: the film's essayistic form, the research's responsiveness to pandemic constraints, the attention to multispecies co-presence all underscored the necessity of adaptive practices. Not an illustration of theory, but as a cinematic re-staging of philosophical thought under conditions of pandemic surveillance and interspecies entanglement. What was learned is that Militarized Nature

is never static: crises reshape its contours, open new thresholds, expose new asymmetries. The research, therefore, must remain adaptive, willing to reconfigure itself, to work with modules rather than closed forms. This has been further experimented and allowed the exhibition **Militarized Nature**, for example, to be reconfigured across challenging institutional infrastructures without losing the research's core questions. Setting it clearly against the paralyzing determinism of ecocide discourse a mode of engagement that is speculative, interspecies, and insurgent.

These methods come with a long list of frictions and frays. Ethics are not a checklist. Working in militarized fields means making choices about what to show and what to withhold; how to protect contributors (of all species), how to avoid giving extractive industries new maps to exploit. In the early iterations of participatory editing I found that participation could feel liberatory in theory and extractive in practice. Giving a participant an editorial knife does not automatically distribute power; it risks reproducing structural inequalities unless scaffolded with resources, debriefing, and remuneration. The pandemic taught similar hard lessons: working remotely made some collaborations possible that otherwise would not have been, but it amplified the invisibility of some labor and the precarity of certain contributors. Yet what emerges most urgently is that the drone cannot be contained by technological or representational analysis alone. To study the drone is always to study the conditions of Militarized Nature more broadly: the infrastructures that sustain it, the economies that profit from it, the cultural imaginaries that normalize it, the species relations it unsettles. If one contribution of this research is to reframe the drone as both material and symbolic, another is to insist that its study requires transversal methods—methods that cut across cinema, curatorial practice, fieldwork, language, and exhibition, among others. The drone thus becomes a methodological catalyst: it demands a research practice that is in itself modular, adaptive, and asymmetrical.



Cinematic Speculation & Adversarial Anticipation

The figures that travel through the works — the Drone, the Animal, *Threshold Technologies*, *Extinction Economies*, *Eco Noir*, *Asymmetric Cinema*, *Airborne Epistemologies*, *Modular Filmmaking* and *Cine-Cartography* itself — are not theoretical props but active nodes of interrogation. Each reveals its own part within a set of enmeshed and intricately political commitments. The Drone in this dissertation starts as the obvious antagonist of many contemporary critiques: a machine of asymmetry, a sighting device that renders the seen hyper-visible and the seer invisible. But by living with drones—by filming their limitations, by juxtaposing their images with animal movements and weather disturbances—the drone becomes more ambiguous. It is still a weapon and a surveillance device, but it is also a technical object whose presence produces new ecologies of perception. It collides with birdlife, with fog, with thermal updrafts; it fails as much as it prevails. In practice, foregrounding the drone's failure is a political move: it undercuts technological determinism and reveals that control is always partial. Films like **Future Proof** and **Arctic Antagonist** follow the drone as it attempts to stabilize what is inherently unstable, and in its failures we see openings for critique and subversion. We get a better grasp that drones do not only observe terrains and eliminate adversarial elements in remote territories; they infiltrate imaginations and ecologies by mimicking animals, by adopting predatory logics, by appearing in popular cinema as quasi-organic figures.

The Animal appears in the dissertation as an ethical barometer. Animals return, signal, disappear, and the human responses to them reveal much about our social order. The pandemic's double-edged return of wildlife to emptied urban spaces and the equally brutal reactions — culling, mass eradication of species thought to be implicated in zoonoses — were stark demonstrations of how

quickly our species resorts to violence as immediate reaction to crisis. The mink culls, the killing lists threatened in certain zoos, and the scapegoating of bats are not peripheral anecdotes; they are part for the dissertation central claim: that militarization and ecological annihilation are co-symptoms of an extractive world. Practically, working with animal presence meant developing non-invasive field protocols, refusing to film sensitive sites, and considering the animal as collaborator—an ethical shift that shapes how images are shot and how films are edited.

Threshold Technologies are the innovations, devices and regimes that collapse once-separate boundaries such as the ones between military and civilian, organic and machinic, human and other-than-human, local and planetary. The dissertation's attention to *Threshold Technologies* — AI, cinema, the drone itself, etc.— is not a fetishization of the instrument but an attention to the epistemic breaks they create: points where having the required context becomes the difference between exploitation and stewardship. Tracking how *Threshold Technologies* are narrativized in film shows how cinema acts as an anticipatory apparatus: film imagines certain technologies into being and normalizes their futures. *Cine-cartography* aims to expose that anticipatory loop.

Extinction Economies is the hardest figure because it names the infrastructural heart of the problem: a set of economic logics that treat loss as manageable, calculable, and even profitable. From insurance algorithms to carbon markets that commodify offsetting, the operations of *Extinction Economies* are as much about perception management — the attention economy's dulling effect — as they are about profits. The exhibitions, artworks and films try to render visible the aesthetics of extinction: the way corporate spectacle and securitized media make disappearance feel inevitable. The dissertation aesthetic strategies — disruption, infiltration, and participation, among others — are political refusals of that inevitability. They ask for alertness rather than compliance. Together, *Threshold*

STOP!

POLAR BEAR DANGER



Security point

Before leaving town:



- Half load your gun
- Direct your gun into the pipe and pull the trigger

Before entering town:



- Empty your gun
- Check that the chamber and magazine are empty
- Enter town with open mechanism

Do not walk beyond this
sign without firearm

Technologies and *Extinction Economies* frame Militarized Nature as a condition in which technologies of control and economies of destruction are inseparable.

What this research has also added is a recognition that these figures must be understood not only theoretically but aesthetically. By shifting registers—from economic to cinematic, from military to poetic—the research demonstrated how *Threshold Technologies* operate not just in laboratories and battlefields, but in the syntax of images, sound and text that form our cultural imaginaries. And by staging these translations in exhibitions, artworks and films, it showed how *Extinction Economies* are not only measured in carbon or profit, but in the affective registers through which collapse is made consumable.

Finally, *Cine-Cartography* returns, here, as figure and method folded into one. It acts as the dissertation classificatory instrument, not by making a taxonomy but by enabling a shifting topology of relations. In practice it has shown that mapping is not necessarily an imperial act of dominance but could be an ethical technique: mapping that records not simply what is there but how it came to be visible, who profited from it, and who suffered because of it. It further suggest that anticipation is not a closed loop but an open horizon. Cinema does not merely rehearse drone vision; it provides the conditions and possibilities for imagining otherwise. This is not to romanticize Artistic Research nor cinema's potential. The same infrastructures that allow critical re-mappings also sustain surveillance, spectacle, and commodification. But the project as a whole argued that to abandon cinema would be to abandon one of the central battlegrounds where Militarized Nature is fought and felt. To work with Artistic Research and cinema critically and experimentally is to accept its complicity while refusing to concede its possibilities.

This project and its working methods does not resolve Militarized Nature but inhabits it, instead of mapping from above

it cartographs from within, without claiming neutrality but by practicing infiltration. This methodological bearings insists that research is not only about producing knowledge but about shaping relations—between humans and other-than-humans, between images and infrastructures, between researchers and participants. It has stayed with such instabilities, asymmetry, entanglements.

Artistic Research as Infiltration

Across the project's different Doctoral Artistic Research Components (DARCs) a specific attitude has been enacted materially. These were not supplementary works, but constitutive elements of the research: experiments as much as evidence. Each one tested how some of the figures earlier discussed could be lived and practiced, how terms like *Eco Noir*, *Asymmetric Cinema*, *Threshold Technologies*, *Extinction Economies*, *Future-Proof Predators* and *Airborne Epistemologies* could be translated into collective, spatial, and sensory forms.

Taken together, these works demonstrate that Artistic Research does not only describe; it performs. *Cooking for the Apocalypse* staged *Eco Noir* as collective sensibility, refusing singular authorship and curatorial control. *Daily Disasters* enacted infiltration by inserting drone imaginaries into networks of cinematic reference and cultural discourse. *Dictionary of Darkness* tested language at intersections with *Threshold Technologies* and *Extinction Economies*, subverting and translating militarized jargon into counter cinematic registers. *After States* and *State of Security* embodied *Modular Filmmaking*, adapting to pandemic and philosophic conditions while exploring how surveillance and contagion intersect. The *Militarized Nature* exhibition mapped these concerns into space, bringing together films, installations, and ultra panoramic interventions as cartographic acts. All these works suggested an artistic research

attitude that foreground process over product, relation over object, drift over ground. The unstable zones traversed here include ecological collapse, cinematic spectacle, militarized surveillance, pandemic contagion, interspecies relations. Each part has engaged one of these zones not to master it but to inhabit it, to experiment with methods adequate to its instability.

What unifies these diverse projects is their embrace of the principle of infiltration: working within compromised systems rather than outside them, occupying infrastructures of surveillance and spectacle in order to redirect them. They treat exhibitions not as static displays but as unstable constellations, publications not as finished products but as collaborative experiments, films not as linear narratives but as modular assemblages. In doing so, they enact the very conditions of Militarized Nature: instability, infiltration, entanglement. But they also propose counter-conditions: transparency of their modes and means of production, collectivity, insurgency. This is where the ethical stand of the research becomes clearest: not in proclaiming alternatives from outside, but in enacting them inside compromised terrains.

How does this work sit inside the broader field of Artistic Research? There are immediate lineages: essayistic filmmakers who deploy and deconstruct montage as argument (Farocki), investigative visual projects that translate evidence into public argument (Forensic Architecture), multispecies ethnographies and posthuman critiques that refuse human exception (Tsing), and critical media artists who chart control and surveillance (Steyerl). This thesis sits at the intersection of those fields but stakes a claim for cinema's specific affordances: cinema as anticipatory apparatus, cinema as infrastructural actor, cinema as a methodology that can reveal and recompose the terms of militarized visibility. My modest contribution is not just to study these interdisciplinarity modes from a safe distance — it is to perform it within conflicted frontiers, to put into play a set of practices that itself serves as a mode of knowledge

production. *Cine-Cartography* and *Modular Filmmaking* are offered as methodological tools for other practitioners who want to do embodied, ethically aware research in violent, technological ecologies.

There are limits. The works are bounded by resources, by institutional constraints, and by ethical red lines. Some ambitions remain unrealized: certain field trials with drone mimicry were curtailed by legal constraints; certain attempts to assimilate cinematic works and archives were arrested by copyright questions; some audience experiments revealed the unevenness of participation, exposing how gendered, racialized and economic inequalities shape who can speak and who remain silent. I make these limitations visible because honesty about failure is an essential aesthetic and political stance. The research does not pretend to be exhaustive; it is deliberately partial, contingent, and conditional. It enacts practices that acknowledge uneven capacities, different positions, and unequal stakes, yet work to redistribute agency across human and more-than-human participants. Collaboration here does not mean consensus. It means negotiation and the willingness to remain in dissonance.

An essential drift that runs across the dissertation is the politics of fieldwork. Research sites have included abandoned Arctic military posts and crash sites, decommissioned desert surveillance stations, ecologically fragile coastlines, and pandemic lockdown urban areas. These are not neutral sites. Each is charged with histories of militarization, colonization, ecological violence, and displacement. To work within them is to enter into uneven power relations, to risk complicity, to negotiate permissions and silences. The research has not sought to resolve these tensions but to foreground them. It has highlighted the politics of being in place: what it means to record in contested environments, what it means to exhibit in institutions tied to power, what it means to speak next to more-than-human species. The project insists that Artistic Research must remain accountable to its conditions of production. It cannot pretend neutrality, nor can it claim innocence.

Toward an Open Horizon

To work on Militarized Nature within academic, artistic, and curatorial institutions is to navigate structures that often demand legibility and impact—qualities that sit awkwardly with methods of salvage and instability foregrounded here, among others. The challenge of working in such contexts is not merely logistical but epistemological. How does one produce knowledge in an environment that is in the process of transformation — where the ground is literally shifting, borders are redrawn, and species are displaced or extinguished? The projects and analyses assembled in this dissertation do not claim to resolve this challenge; instead, they allow the instability to inform both process and outcome. The resulting works are not definitive statements but arrangements and entanglements, aware of their own incompleteness. Each of the elements and works composing this project negotiated institutional demands by inhabiting them tactically, fulfilling the formal requirements while simultaneously subverting them. This tactical inhabitation is crucial. To produce a doctoral dissertation, to mount exhibitions in established and regulated spaces, to publish books and essays—these are institutional acts. But within them, the project has sought to insert productive disruptions, to open creative cracks, to foreground what does not fit. This is not sabotage but infiltration: a practice aligned with the very subject of the research. Just as drones infiltrate ecologies, this research infiltrates institutional epistemologies, re-mapping them from within.

There are also broader stakes. At a time when artistic practice is increasingly instrumentalized—whether for commodification of identity politics, for cultural-national diplomacy, urban gentrification, or academic impact metrics—Artistic Research can assert its capacity to resist co-option. The works in this project do so by refusing to deliver such commodified outcomes, neat narratives, or policy recommendations. They instead produce forms that are

legible enough to enter institutional circulation, but strange enough to disrupt it. An annotated timeline instead of a theory chapter; a modular film instead of a single artwork; a dictionary of darkness instead of a glossary of terms.

In this way, the project positions Artistic Research as both inside and outside: inside enough to gain access, outside enough to resist assimilation. It aims at Artistic Research that produces knowledge *through* artistic forms—knowledge that cannot be translated without loss into other registers. This insistence matters in the context of Militarized Nature, where dominant knowledge systems—military, scientific, economic—already claim totalizing authority. Artistic Research counters these claims not by offering an alternative totality but by multiplying partial perspectives, by foregrounding instability, by insisting on the value of meandering.

The institutional dimension therefore connects directly to the ethical. To work within institutions is to be complicit with their infrastructures—of funding, extraction, surveillance. This project does not deny that complicity. The task is not to claim purity but to navigate entanglement ethically: to ask how research can infiltrate institutions without simply reproducing their logics, how it can open possibilities without being entirely absorbed. This is the challenge for Artistic Research going forward, and one this project leaves unresolved toward its next horizon.

To conclude, then, is not to close. It is to look toward horizons where surveillance is not only human and machinic but interspecies—where animals and drones, cinema and espionage, ecology and militarization converge in new and urgent ways. If the dissertation has to summarize its ethical claim, it is this: to refuse the seduction of clarity when clarity is used to occlude responsibility; to hold open the difficult and shameful facts of extraction and extinction; to insist that collaborative artistic research and practice can register, translate and — in small ways — reroute the flows of power that make extinction possible. Militarized Nature names a practice

that is hybrid and ongoing. The work does not end. The films will be screened, the installations remounted or recomposed, the modules recombined in other contexts. *Cine-Cartography* remains an open method. *Modular Filmmaking* remains a tactic for working with precarity. The figures — drone, animal, *Threshold Technologies*, *Extinction Economies* and more — will continue to mutate as technologies, policies, markets and species do. What this dissertation seeks to do is to gather what has been learned into a readable form; to make explicit what was embodied; to place the works and methods into conversation with a field of thought and practice.

Finally, then, the concluding claim is humble: Artistic Research, when practiced as this project has attempted, can be a mode of witness that is both rigorous and partial, that insists on infiltration as method and on subversion as political virtue. *Subversive subspecies* are not a species at all but a condition of practice: a set of relations that are willing to remain porous, collaborative, and unsettled. To continue is to keep making, testing, refusing the tidy comforts of single solutions.

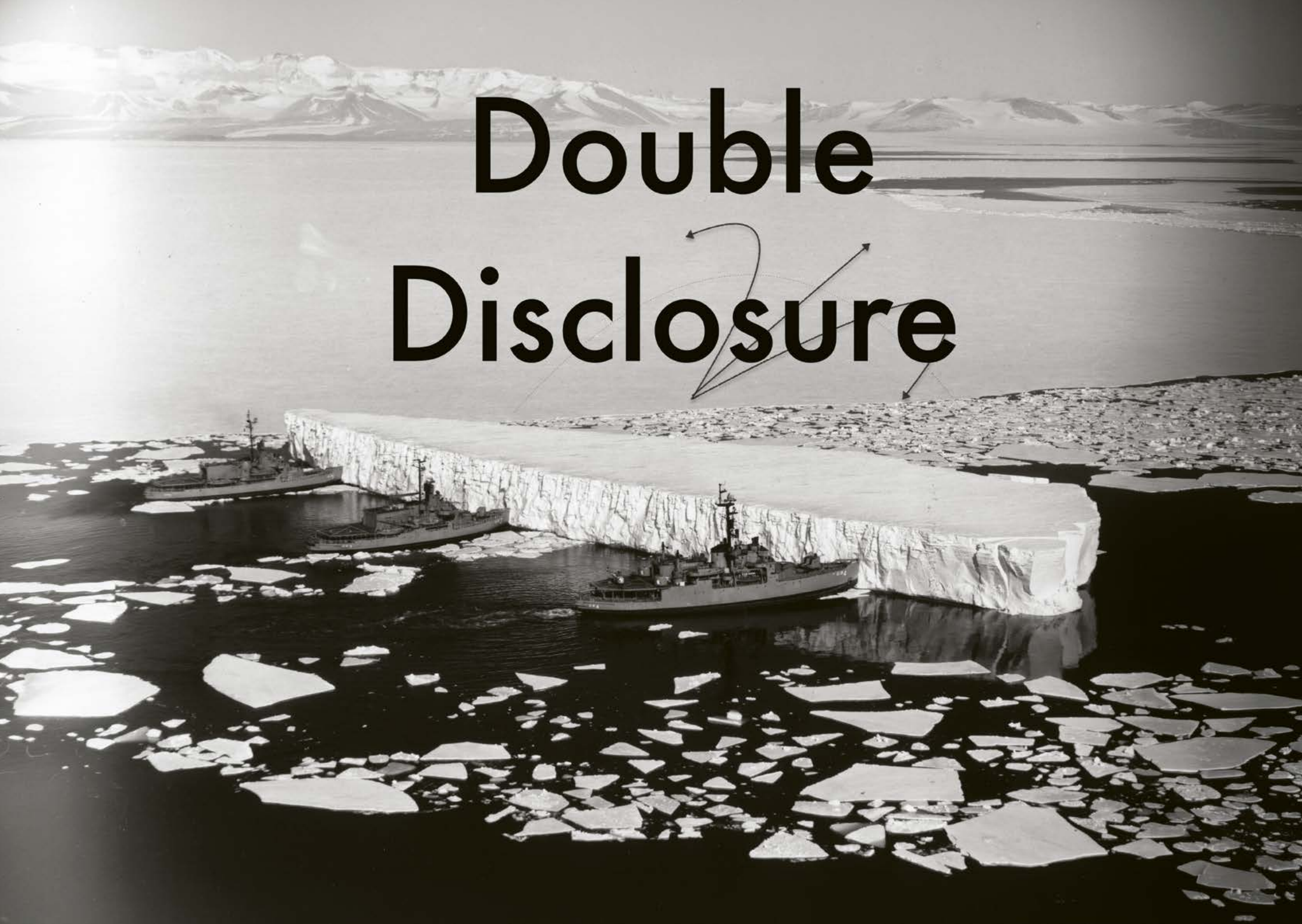


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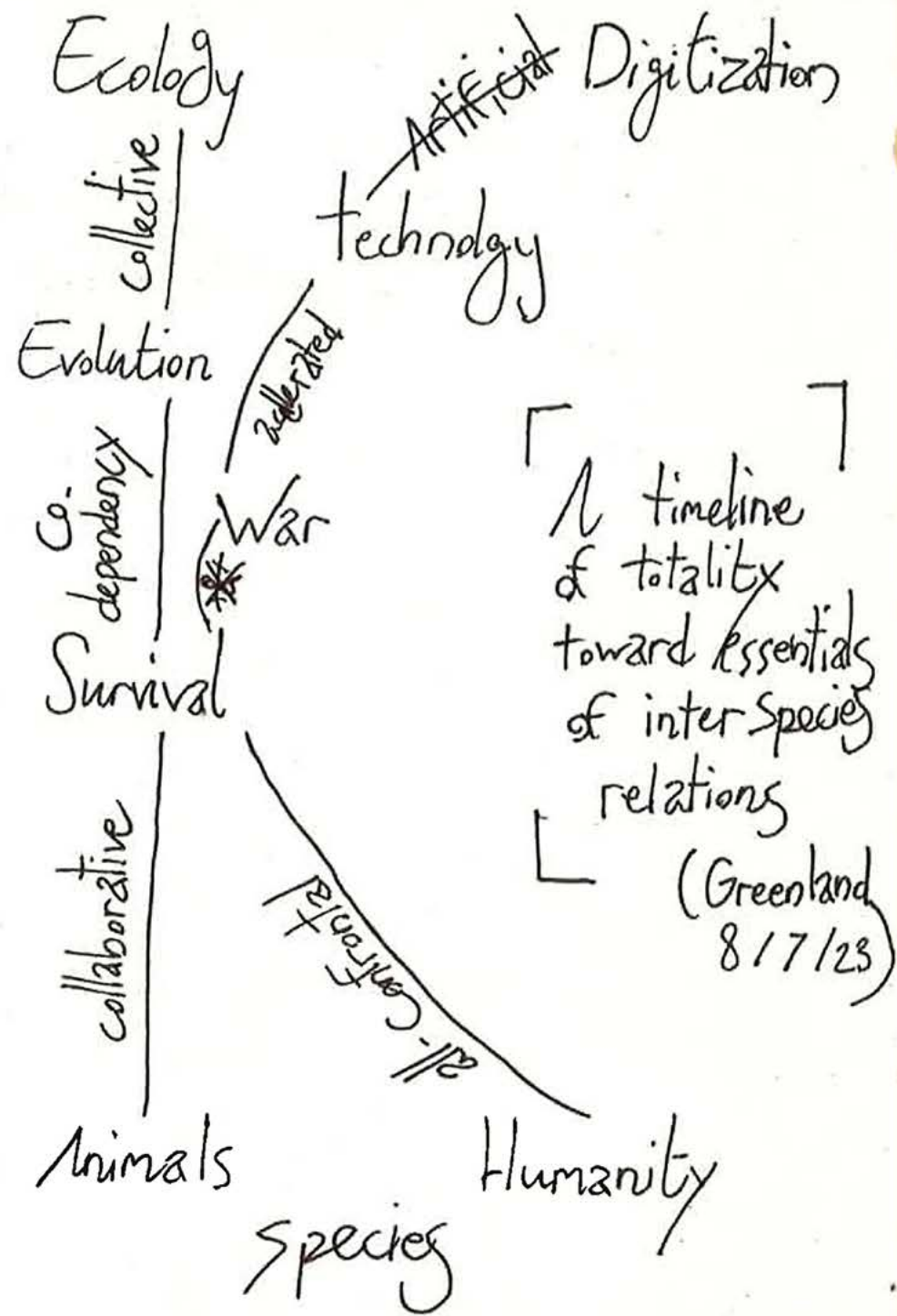
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Double Disclosure



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Top notes:

- Handwritten text at the top right, possibly related to 'Artificial Digitization'.

Diagram 1:

Diagram 2:

Textual notes:

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- Some notes include dates like '8/7/23'.

Bottom diagram:

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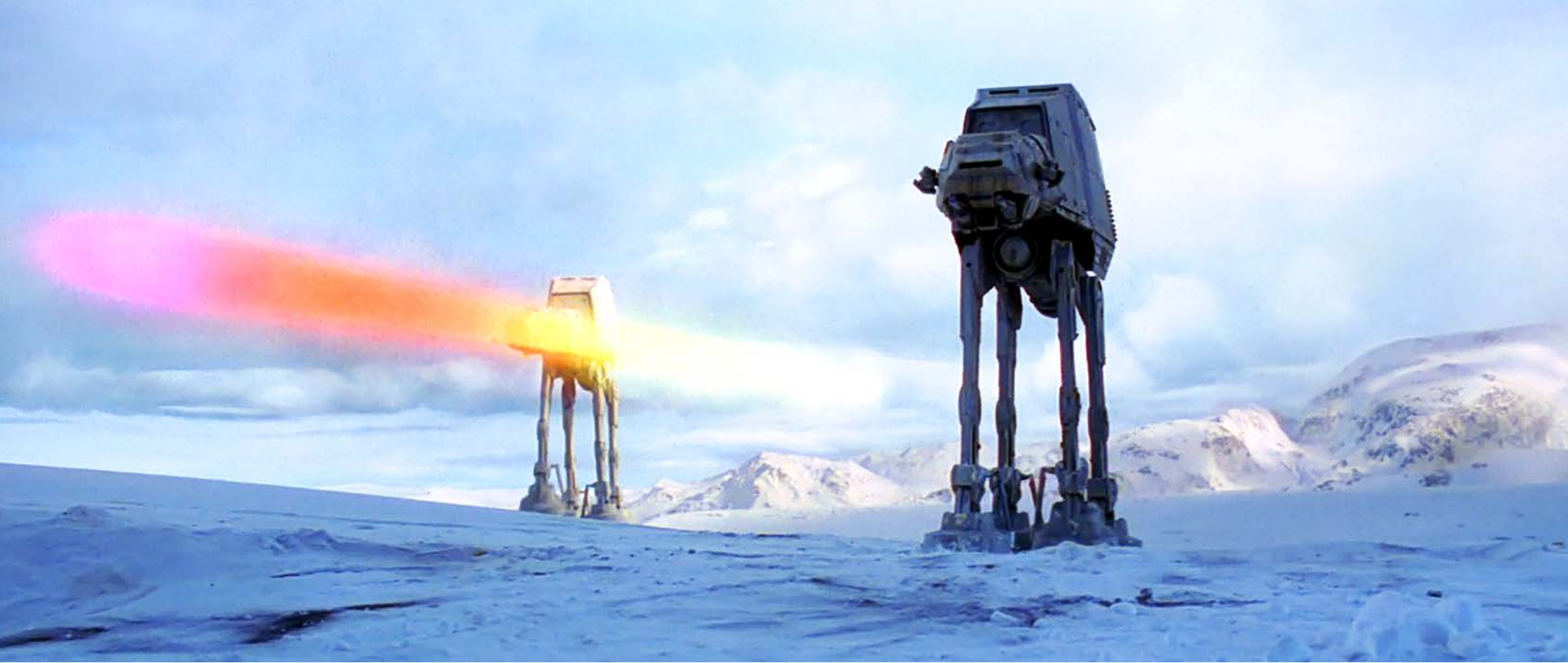
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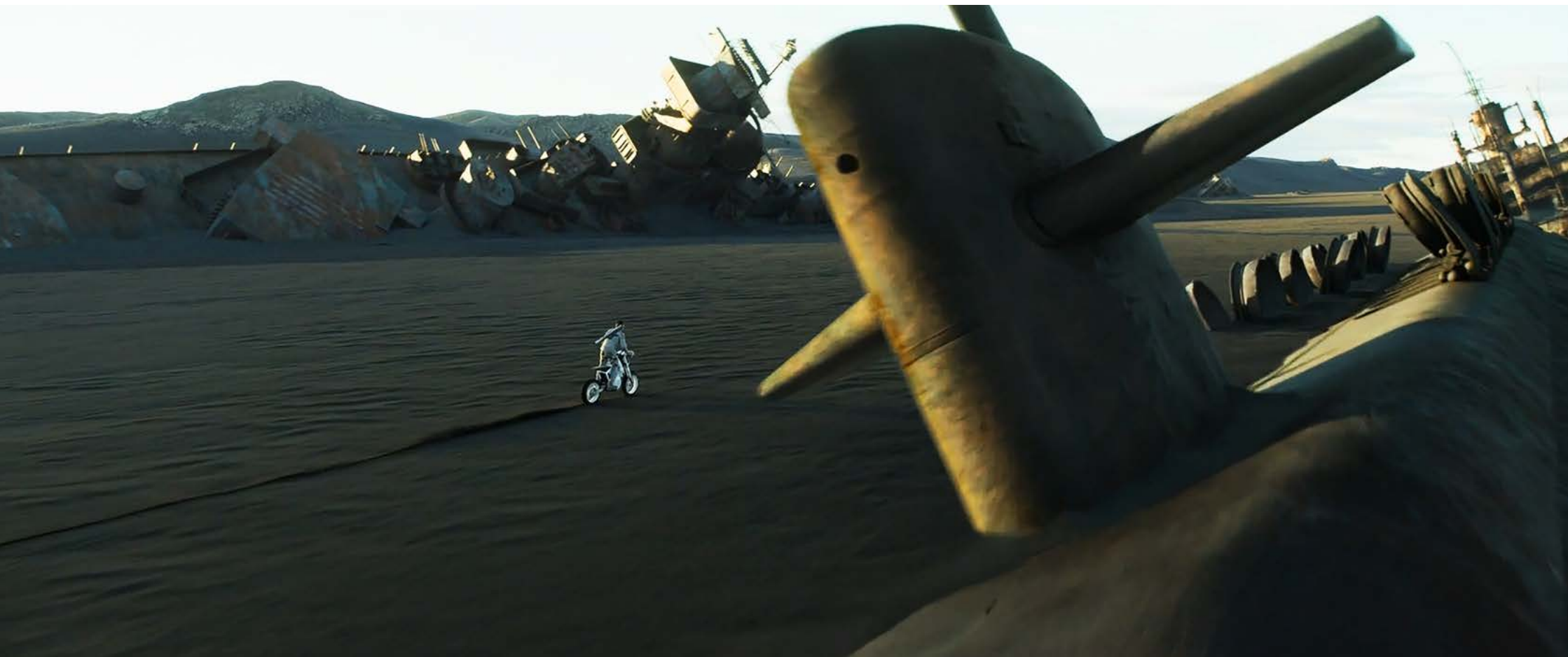
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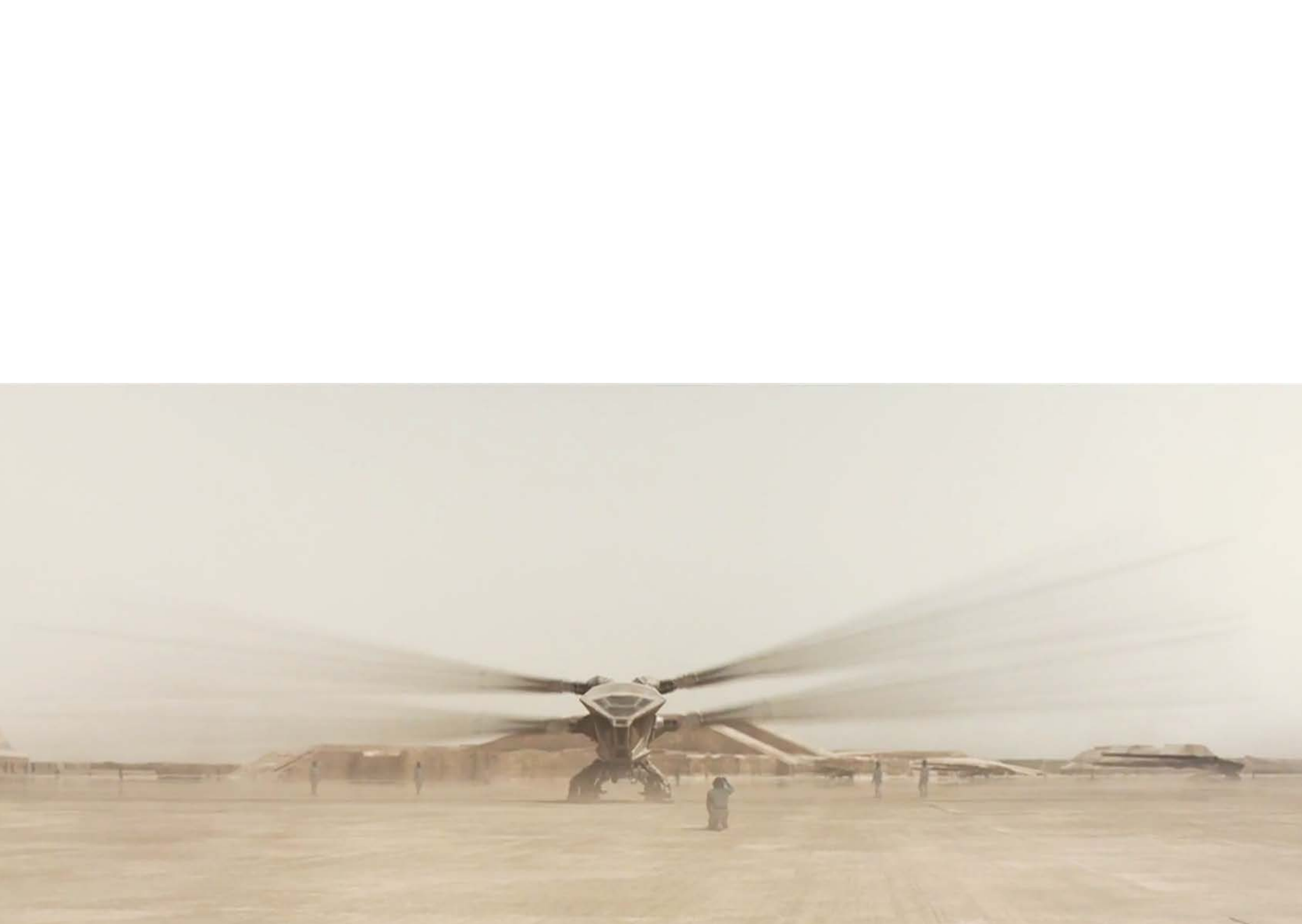
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And to all those who accompanied along the serpentine road which is this work - without you this journey would have ended way too soon, leading nowhere.



М И Р А М И Д Я

М И Р А М И Д Я

Jack Faber is a filmmaker and artist-researcher working with moving image, site-responsive installation, photography and sound. His practice traces landscapes shaped by militarization, ecological instability, and technological acceleration, often developed through fieldwork in contested areas in the Arctic, Central Asia, Middle East and Europe. Merging cinematic subversion with spatial and collaborative processes, his work moves between documentary and speculative constructions, examining how power, perception, and territory are entangled.

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Militarized Nature is an urgent account of a world where ecological collapse and security regimes are becoming indistinguishable. Moving across contested landscapes—from Arctic frontiers to zones of surveillance and extraction—this book traces how drones, with their AI infrastructures, and cinematic imaginaries shape not only territories, but perception itself.

Blending theory, mythology and geopolitics with an expansive body of films and art works, *Militarized Nature* unfolds through encounters with airborne surveillance, animal mimicry, drifting histories, and the quiet violence of data-driven worlds. The analyses and works gathered here do not offer a single resolution. Instead, they move within instability, exposing the fault lines of a reality in which the boundaries between nature and warfare, image and infrastructure, have already collapsed.

This is not a study of distant futures. It is a map of the present—one that insists the ecological crisis is already a security crisis, unfolding as one and the same, where images are weaponized and inseparable from the logics that sustain it.

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