

A Driving Force. On the Rhetoric of Images and Power

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Countersurveillance Aesthetic Resistance Through Wearable Technologies

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Abstract Countersurveillance designs are a dynamic form of resistance, creatively responding to pervasive surveillance. The imaginary these designs created is a response to the virality of camera footage and a reflection on the current reality of power imbalance. This article explores their evolution from the WikiLeaks Scarf by Metahaven to modern wearables, emphasizing their empowerment, subversion of norms, and political statements. Case studies include Adam Harvey's iconic work and new contemporary brands. These designs challenge norms, and raise awareness about privacy protection, ultimately safeguarding one's personal identity in the digital age.

Keywords Countersurveillance Fashion. Wearable Technologies. Surveillance. Drone. Design. Speculative Design.

Summary 1 Introduction. – 2 The Intrusive Power of the Camera. – 3 A Decade Later: Surveillance Core. – 4 Conclusion.

1 Introduction

We will not solve the problem of the present with the tools of the past.

James Bridle, *New Dark Age*, 2018, 120

In 2010, the world was shaken when WikiLeaks released the classified US military video known as 'Collateral Murder'. This video, recorded by the gunsight camera on a US Apache helicopter, depicted three airstrikes that took place on July 12, 2007, in New Baghdad, Iraq, resulting in the tragic deaths of at least eighteen people, including two Reuters journalists. This leak revealed the stark realities of



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modern warfare. In 2011, the design duo Metahaven, founded by Vinca Kruk and Daniel van der Velden, embarked on a project exploring the visual identity of WikiLeaks. Their work delved into the paradox of an organization striving for transparency through whistleblowing and secrecy. The result was the creation of the *WikiLeaks Scarf*, a unique piece of clothing, adorned with camouflage patterns, challenged the idea of visibility and opacity, with proceeds from its eBay auction going to support WikiLeaks during a financial embargo. For better understanding of the designers creative process, their publication *Black Transparency: The Right to Know in the Age of Mass Surveillance* (2015) unveils the research and source of their visual projects.

The combination of the viral images of the videos and the response from the design studio are at the origin of this research that is aiming to highlight the point of encounter between the surveillance resistance and the constant upgrade of wearable technologies. On one side, with the presence of an overlooking eye that puts us in a modern form of Panopticon, there is the need to regain agency over our image, once it is somehow taken away from us and shared in an invisible and pervasive network. On the other side, wearable technologies can offer solutions to explore form of resistance through clothing and our personal image. As it is discussed in this article with the help of various case studies from both pioneering efforts and more modern attempts, a new usage of textiles and patterns allows one to be protected from the cameras and at the same time find space to embark on a self-definition journey. There are many narratives to approach this discourse, in this article the chosen *fil rouge* is the eye of the camera (mainly CCTVs) as the leading imaginary of contemporary surveillance.

Case Study: Adam Harvey

The year 2013 saw the emergence of further discussions on surveillance and privacy. Famous artist Hito Steyerl's video *How not to be Seen. A Fucking Didactic Educational.mov File* provided ironic insights into evading surveillance in the digital age. Concurrently, artist and designer Adam Harvey introduced *Stealth Wear*, a visionary concept in fashion addressing the rise of surveillance. Inspired by traditional Islamic dress, this collection incorporated silver-plated fabric that reflected thermal radiation, allowing wearers to evade thermal surveillance from drones. These developments in art, design, and technology shed light on the ever-increasing presence of a specific kind of surveillance in our lives: drone footage. Grégoire Chamayou's book *A Theory of the Drone* (2015) laid out the principles underpinning this surveillance, highlighting the psychological impact of constant aerial scrutiny. In particular, because of their

massive use in war zones, these items have now another layer of significance. Wars are characterised by an invasive surveillance of civilians, remote-control weaponry, and the use of drones as a mechanism for delivering both weapons and propaganda to a target population. Once armed, drones grant persistent aerial surveillance which, when fused with other data, can create an archive of movements, establishing life patterns and targeting individuals. Chamayou describes drones as petrifying that are causing a “psychic imprisonment”, because of the absence of a physical perimeter and an induced sense of persecution instilled by these flying watchtowers.

To prevent a possible negative output or behaviour, constant surveillance is seen as the lesser evil, without acknowledging the installed feeling of restriction of one’s life and therefore personal definition. Adam Harvey’s project explore the aesthetics of privacy and the potential for fashion to challenge authoritarian surveillance technologies, by pointing at the implications in war zones. Even to this day, it remains one of the more comprehensive case studies, incorporating multiple perspectives, with Chamayou delving into various aspects. One noteworthy perspective is the concept of the camera serving as the eyes of an overlooking God, which is explored through its connection to the hijab and burqa.

A previous project by Harvey, useful to better understand his explorations in these fields, is an unexpected form of camouflage, revolving around dazzling patterns and with a long history with the renowned example of ships painting in World War I. Dazzle camouflage, or razzle dazzle, comprises intricate patterns of geometric shapes in diverse colours that intersect and intertwine. Its primary purpose is not literal invisibility but rather an emphasis on unrecognizability. During WWI, this type of camouflage found extensive use on ships, as it confounded attempts to gauge their range, speed, or direction, rendering them more elusive targets. In 2010, designer Adam Harvey developed CV Dazzle (Computer Vision Dazzle) as part of his NYU Master’s thesis, an open-source toolkit designed to thwart facial recognition software. This innovative approach involves altering hairstyles and applying asymmetrical, colourful makeup to obscure key facial features, thus manipulating the features that computer vision algorithms use for object identification. This effective strategy mitigates the risk of remote and computational visual information capture while disguising itself as a fashionable statement. By preventing digital surveillance from capturing one’s identity, it grants individuals agency and a choice in self-representation.

Two domains, fashion trends and technology, are in constant evolution, and Harvey recognizes the need for ongoing updates in his designs. What might currently appear eccentric could evolve into a future fashion trend. Simultaneously, as a style becomes mainstream, technology advances to keep pace. However, due to this rapid

technological progression, not all projects will remain relevant over time. Harvey's website notes that the 2010 examples were specifically tailored to the Viola-Jones face detection algorithm, a framework introduced in 2001. Contextually, if someone wants to reproduce one of *CV Dazzle* look today has to consider the fact that it might need to update it to a more modern face detection system.

2 The Intrusive Power of the Camera

Drone-evading hoodies, signal-blocking cases, reflective jackets, anti-AI masks or hairstyles, are some of the tactical gear now at our disposal to prevent being tracked and recognized. Why are these tools being produced outside the sci-fi and utopian propositions in popular culture? Because in our current age of oversharing and over-representation of our image, there is an increasing necessity of finding private spaces where our personality can be safely developed and displayed. Choosing these wearable pieces of smart tech is now a fashion choice not dissimilar to any other, especially in our relations with an outsider's gaze. How did we get there?

The evolution of intrusive cameras has been marked by a remarkable shift from traditional Closed-Circuit Television (CCTV) systems to the sophisticated realm of facial recognition technologies and other system constantly gathering sensible data as biometric information without prior consent. In the earlier stages, CCTVs primarily served as monitoring tools, recording footage for later review and analysis. However, it soon emerged the improper use made by police forces and the governments. With advancements in digital technology, these cameras gained remote access capabilities, allowing real-time monitoring and the integration of facial recognition algorithms. Facial recognition cameras, equipped with AI and machine learning, have the ability to identify and track individuals in real-time by analysing unique facial features. While proponents argue that such technology enhances security and efficiency, critics raise significant concerns about privacy and civil liberties. In the midst of rising social justice concerns, the use of facial recognition systems has raised alarms about the widespread usage and the embedded bias surfacing. By 2018, the global stage witnessed the Amnesty International's 'Ban the Scan' campaign, particularly active in New York City, opposing the use of facial recognition technologies as tools of harassment against minorities and instruments of mass surveillance for law enforcement. The campaign highlighted alarming inaccuracies, with facial recognition systems being up to 95% inaccurate, exacerbating discriminatory policing and stifling peaceful assembly. Additionally, it unveiled a map of the New York Police Department's surveillance apparatus, compiled by vigilant volunteers who meticulously tracked street-level surveillance cameras.

Another pivotal moment in surveillance studies was the publication in 2019 of Shoshana Zuboff, American scholar and social psychologist, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*.

The element that characterised our age, in Zuboff's research, is the widespread collection and commodification of personal data. At a certain point, analysing massive data sets was executed by the state apparatuses and also companies. In fact, she claims that two companies, Google and Facebook, invented and transferred surveillance capitalism into "a new logic of accumulation" (2019, 20). Selling personal data with the core purpose of making profit, makes this an economic mechanism, here defined with the concept of surveillance capitalism. For Zuboff, this economic force is not merely a higher expression of capitalism, but a perversion of it since the companies understood that they had a new, untapped and unexpected data to deal with, our *behavioural surplus*:

Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioural data. Although some of these data are applied to product or service improvement, the rest are declared as a proprietary behavioural surplus, fed into advanced manufacturing processes known as 'machine intelligence,' and fabricated into prediction products that anticipate what you will do now, soon, and later. Finally, these prediction products are traded in a new kind of marketplace for behavioural predictions that I call behavioural futures markets. Surveillance capitalists have grown immensely wealthy from these trading operations, for many companies are eager to lay bets on our future behaviour. (Zuboff 2019, 14)

Zuboff reports how the tech giants unilaterally decided that these resources were theirs for the taking and thought nothing of it. The absence of regulations and laws came a long time after the companies' first moves. The interesting factor is that all these data are given by the user, by us. Indeed, this is leading back to the prosumer reflection and how user generated content is harvested, and our freedom is at stake. Zuboff concludes, advocating for the need for new kinds of policies to approach those issues.

From the wide spread of CCTV cameras, that lead to initiatives highlighting inequality biases of the technology, to the comprehensive analysis of Shoshana Zuboff for a generalized audience, the purpose of this paragraph was to depict the situation in which countersurveillance fashion thrives.

Case Study: Vexed Generation

A peculiar example is the one of Vexed Generation, conceived by the designer duo Joe Hunter and Adam Thorpe in 1994, emerged as a bold response to the threats on civil liberties and the proliferation of surveillance cameras in London's most impoverished neighborhoods. Their unique approach bore semblance to groundbreaking ventures in other domains, akin to Vivienne Westwood and Malcolm McLaren's pioneering *SEX* boutique in 1970s London. Vexed Generation's clandestine retail shop, hidden away behind Carnaby Street, bore no identifiable logo or conspicuous signage, deliberately shrouded in anonymity. The interior mirrored this covert atmosphere, featuring a stark white room and basement with clothing racks and tape-letters adorning the walls, offering a contextual narrative about the clothes' significance in the struggle for personal safety. The sole piece of furniture, a television, broadcasted grainy footage of riots. Their clothing designs, marked by the use of military-grade ballistic fabrics, knife-resistant, and bulletproof materials, pursued two principal objectives: increasing awareness about air pollution and surveillance concerns, while satirizing prevailing fashion trends.

The iconic *Vexed Parka*, conceived in 1994, embodied their vision. This balaclava-hooded jacket could be fully zipped up to eye level, serving as protective armour. Crafted from fireproof military nylon originally developed for NASA, it also featured additional padding at the kidneys and groin. This design responded to the controversial Criminal Justice Act of that year, which sought to curtail unlicensed rave parties and suppress certain social behaviours. This legislation sparked intense opposition, culminating in demonstrations and acts of resistance. The *Vexed Parka* was designed by Hunter and Thorpe as a parody of police riot gear. It offers safety by hiding the wearer's face and serving as a barrier against unnecessary police violence. Another notable creation was the versatile *Ninja Hood*, introduced in 1995-96 and reissued annually until its discontinuation. It served a dual purpose, safeguarding the wearer's identity and providing a filtered mask to combat London's polluted air. Unique zippers and Velcro pockets were the design identifiers for Vexed Generation.

Committed to their principles, as their creations became increasingly commercialized and copied by fast-fashion chains, Hunter and Thorpe opted to shift their practices to different endeavours, ultimately leading to the label's cessation. Adam Thorpe transitioned into a professorship in responsive design at the University of the Arts London, while Joe Hunter assumed the role of a lecturer specializing in fashion design and fashion futures at the University of East London.

Fast-forwarding to the early 2000s, several significant events unfolded and the problematic surveillance of CCTV cameras which are now embedded with facial recognition systems, an even scarier

threat to urban safety and personal protection. All of this revived Hunter and Thorpe desire to propose a relevant change through responsive garments, therefore in 2019 they released an eleven piece capsule collection, a reissue of the most famous designs, in conjunction with Byronesque (a well-known vintage store) and Farfetch (an online luxury fashion retailer). The urgency to return after twenty years was given by the need to remind new generations that there is the possibility to respond creatively to the things that concern us. This recreation of archive pieces is deeply rooted in a new way of engaging the communities by choosing local manufacturers, so that the designs are the same, but the quality is higher, and they are more sustainable. In an interview about their comeback, the duo shows the coherent choices made towards hiding as a recognition of one's identity declaring:

A preference for privacy or anonymity is not a threat unless it is received as one. The old adage of CCTV advocates in the 90s was, 'If you have nothing to hide you have nothing to fear' – scarily, this phrase has been attributed to Nazi Minister of Public Enlightenment and Propaganda, Joseph Goebbels. Conversely, we could argue: 'If we have nothing to fear from the anonymous, then why do we need to know their identity?'. ("We Speak to Resurrected Cult '90s Label Vexed Generation about Its New Capsule" 2019)

3 A Decade Later: Surveillance Core

Roughly ten years after 'Collateral Murder' shook public conscience and raised awareness towards the possibility to retrieve images from cameras meant to be private, countersurveillance design has gained resonance and importance. From being images representative of speculative design projects, they become products of emerging brands, therefore showing how an actual subversion of power can come in forms of anti-surveillance. Upon confronting the probing gaze of a drone and subsequently that of the camera, it is worthy mentioning other designers who are embarking on the formidable task of engaging with the invisible web of the infosphere. This is the case of project KOVR (to be read as 'cover'), described as a wearable countermovement that has a profound impact on safeguarding personal privacy within an increasingly data-driven global landscape. In this era of an ever-expanding invisible network, individuals are exposed to the potential risks of having their personal information tracked and exploited. Project KOVR takes proactive measures to address this pressing issue by harnessing the potential of metalliferous fabrics, effectively providing a protective shield for the electronic components embedded in items like cards, clothing, and keys.

This innovative technology not only renders your devices untraceable but also serves as a robust barrier against incoming and outgoing signals, thereby safeguarding individuals from radio waves and radiation. A standout example of their innovative approach is the Anti-Surveillance Coat Type II. This privacy-focused coat empowers individuals to remain connected on their own terms, allowing for a reassertion of control over one's personal data and privacy, all while doing so in a stylish and fashion-forward manner. It represents a powerful statement about achieving disconnection within an interconnected world, ultimately preserving what it means to remain distinctly human in an environment increasingly defined by information and connectivity.

The term 'surveillance core' is a play on the concept of core style aesthetics in the world of fashion. Core refers to the idea that clothing and accessories should not only serve a practical purpose but also embody style and align with the latest fashion trends. It emphasizes the fusion of fashion and functionality, ensuring that garments are not just utilitarian but also aesthetically pleasing. When applied to the term 'surveillance core', it suggests that there is a fashion trend or aesthetic emerging around the concept of surveillance. This could involve wearable technologies, clothing or accessories designed to incorporate surveillance-related elements, reflecting the influence of the current situation in modern society on fashion choices and aesthetics.

Three Case Studies of Countersurveillance Design

The three case studies that will follow show how countersurveillance design has changed from the early pioneering examples, occasionally straddling the line into speculative design, to fully enter the world of fashion. They demonstrate the extent of this trend by travelling from Germany to Italy and then into Belgium. Because of space constraints, the author chose examples from Europe, acknowledging the limitations on what can be described as a global phenomenon. In two of the following case studies, the aforementioned surveillance core is given by a specific pattern designed to misguide the eye of the camera reproduced on knitwear, bringing this manual/artisanal fashion aspect in touch with technologies.

The first to mention is Urban Privacy,¹ a brand - founded in 2017 by Nicole Scheller in Germany - that reimagines digital privacy through fashion. They believe that digital privacy doesn't have to be

¹ Urban Privacy - Fashion That Empowers Your Privacy <https://urban-privacy.com/>.

an either-or choice. Their approach involves creating clothing that empowers individuals to regain control over their private information without sacrificing the advantages of the modern digital age. For example, *Of'lain* is their design for a smartphone bag that blocks unwanted data harvesting. In essence, the slogan of the brand is 'make privacy wearable', enabling people to handle their information in a self-determined manner. *Faception* is similar to an oversized dress, made with a knitted adversarial pattern that not only shields your face, but uses wide silhouettes to obscure your gait, which is another people identifier's trait.

A similar case is the Italian start-up *Cap_able*, a brand that operates at the crossroads of fashion design and technology. In 2021, *Cap_able* CEO Rachele Didero prototyped and patented its first capsule collection of knitted adversarial patterns, with the sponsorship of Politecnico di Milano. The *Manifesto Collection*² by *Cap_able* serves a dual purpose: raising awareness about the critical need for privacy protection while offering a practical, consciously designed addition to one's wardrobe. Their mission revolves around embracing self-expression within a technological and cultural avant-garde, shaping the future through community collaboration. *Cap_able*'s innovation lies in applying these adversarial patches to knitwear, partnering with Italian company Filmar to source sustainable yarns that offer the necessary intensity of colours for the pattern to be effective. *Cap_able*'s future plans include expanding their fashionable collections and exploring ways to make them more economically accessible.

The last case study presented is the one of Elmo Mistiaen, a young visionary artist behind the Brussels-based brand *aidesign.png*. He transforms outerwear into biomorphic outdoor fashion, using AI-generated concepts that draw inspiration from the world of insects. His creations, generated with DALL-E text-to-image software, are not mainly focused on surveillance, but in May 2023 he posted on Instagram his SS24 Look Book concepts captioning them 'surveillance core'. Trending puffers and coats presents a wardrobe conceived as a warm and cosy cocoon, tainted by the unsettling presence of surveillance cameras instead of human faces. His designs take outerwear to an otherworldly realm, combining AI innovation with a keen sense of style to create unique, biomorphic fashion statements. The work of Elmo Mistianen allows us to catch a glimpse of another intertwined narrative to the one presented in this article: the introduction of the machine in the creative process. Exiting the field of wearables and entering the complex discourse of using artificial intelligence as a tool for speculative design.

² "La nostra missione". *Capable*. <https://www.capable.design/it/mission>.

4 Conclusion

In an attempt to conclude a much wider discourse on the power of a needed anti-surveillance practice, it is crucial to consider the point of view presented by previous researchers and in particular Dr. Torin Monahan, Professor of Communication at The University of North Carolina. Already in 2015 addressing some of the groundbreaking works of artistic countersurveillance resistance, he noticed a trend or an increase towards a certain aesthetic that tackled in his more recent works and which posed a base for the current further research of the author of this article. In Dr. Monahan words:

The aestheticization of resistance enacted by anti-surveillance camouflage and fashion ultimately fails to address the exclusionary logics of contemporary state and corporate surveillance. These anti-surveillance practices emerge at this historical juncture because of a widespread recognition of unchecked, pervasive surveillance and popular criticism of government and corporate overreach. [...] What gets left out of this framing is a serious discussion of race and gender differences, a critique of surveillance commodification, and reflexive awareness of the possibility that the artistic interventions could contribute to the harmful conditions they seek to change. (2015, 171)

Another consideration to be made is linked to the chronology chosen in this article. Willingly, the turning point presented is the Wikileaks video of 2010 in order to present the almost ten-year evolution of a shift in visual culture, where camera footage is part of our daily lives and overused in artistic practice. For the sake of this article, no digressions were done towards two main points of the research: the moment internal cameras were embedded into smartphones, the global phenomenon of the COVID-19 pandemic.

In conclusion, the investigation of fashion countersurveillance is led by the interest in the strive for personal identity in a hyper-surveilled world. The resistance motioned by these designs lays in a layered structure that can be summed up in two main parts. First, it begins by raising awareness and educate the public, fostering a broader conversation and spreading the knowledge of which tools, or textile, or accessories to use in the subversion of a normative surveillance system. Therefore, wearing countersurveillance clothing become a political statement. Second, it moves into empowering the individuals to reflect on their identity through clothes, drawing attention to legal and ethical questions. Ideally, while regaining agency of their personal image and identity, people develop a stronger will for a genuine community outside the surveilled world that can lead to collective action towards this form of power, aimed at safeguarding personal

freedoms and civil liberties in the digital age.

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