

## **A New View from Above**

### **Report on the Drone Salon, Het Nieuwe Instituut Rotterdam, 23 May 2014**

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There have been other events devoted to the contemporary phenomenon of drones, but none has called itself a ‘salon’ before. A gleeful Guus Beumer, director of Rotterdam’s Nieuw Instituut, which hosted the event, revelled in the title of the Drone Salon, with its “unlikely pairing” of associations and expectations. Drones, the potentially deadly airborne robots, after all would seem to have little to do with ‘the salon’, that refined type of gathering invented by the enlightenment to further Horace’s aims of poetry, “either to please or to educate.”

But Beumer directed our attention to a previous FAST event, staged at the Marres centre in Maastricht, which framed the desperate situation in Gaza in the context of the zoo, refreshing the issue with an angle as much popular and poetic as it was polemic – and so enabling “another kind of discussion” entirely. Similarly FAST’s Drone Salon, a collaboration with DPR Barcelona, Studio X, Columbia University and the Center for Study of Drone, set out to reinvigorate a topic all too often rendered two-dimensional by rhetoric, hysteria and hype - whether applied to the drone’s military incarnation as a rapidly escalating but largely opaque weapon in conflicts in Pakistan and Yemen, or to the business ambitions of Amazon, promising, in the next half-decade, ‘Prime Air’ delivery via drone within 30 minutes.

Drones have exploded in more ways than one into the unprepared world of the 21<sup>st</sup> century. The market as estimated by the drone industry itself (in the shape of the Association for Unmanned Vehicle Systems International) will be worth an estimated \$82 billion by 2025, while employing 100,000 people. Behind this expansion, agencies from civil aviation authorities

to international lawyers grapple with drone implications, legal and otherwise. The salon, in two parts, set out to examine not only these issues, but their wider ripples in the cultural landscape; the drone's manifestations in conflicts, but also in civilian and built and social urban space.

### **Beyond the human eye**

Malkit Shoshan, Director of FAST, the Think Tank for Achieving Seamless Territory and the initiator of the event, spoke first, explaining the wider context of the salon as part of a tripartite examination of architecture in contemporary conflict covering missions, compounds and drones.

Drones, she pointed out, have taken conflicts from the battleground and into an altogether more ambiguous space. "In the contemporary organisation of conflict, the old notion of war and peace no longer exists as a spatial division," she said. "War takes place in civic space – and it therefore necessitate the military to update their warfare doctrine."

Hence the new rhetoric of counter-insurgency, which aims to identify the terrorists hiding among civilians: "Soldiers therefore need to observe civic space, how people move through it and use it, listing individuals and mapping their movements. These observations turned into data that was used to create a dynamic matrix, to evaluate threat. By now the distinction of threat is no longer based on proof, but on probability.

"The warfare strategy that was used in Afghanistan turned the most expensive mission in history," continued Shoshan. "It was difficult to sell the costs at home. A better solution had to be found." Drones – controlled from afar, and given a pre-set mission – were the answer: reducing, or at least appearing to reduce, costs and casualties, they also transformed the way conflicts are seen not only by observers, but also participants.

"Drones make us see our environment as never before – their sensors and cameras see objects not visible to the human eye."

But perhaps, in line with the new objective of removing every threat, they also make us see what is not there, as was suggested by a White House bureaucrat anonymously quoted in the *New York Times* and cited by Shoshan:

“The joke was that when the C.I.A. sees ‘three guys doing jumping jacks,’ the agency thinks it is a terrorist training camp, said one senior official.”

From this drone operator’s eye view, Shoshan then zoomed in on those under C.I.A. scrutiny, citing the testimony of Pakistani women living under the daily reality of drone patrols. “After the first attacks, they retreated from markets and cultural facilities; and after a drone hits the school, they stop their kids going there. But then, drones start to target homes.” This unprecedented step effects “a fundamental ethical transformation regarding civic space. Architecture is a sense of comfort and safety. It houses our social networks. Attacking civic society and turning it into the front line is relevant to us all.”

This, she concluded, is the essential point needing to be addressed by the salon and by two further projects that will follow on from it. *Retreat*, a collaborative design and research project, will explore the option of withdrawal, while *Unmanned* will be a public project on the spatial and ethical impact of drones.

## **Ravens to Reapers**

The next presentation gave the audience an up-close view of the drone – or to use the preferred NATO terminology, the UAS (unmanned aerial system) in the Dutch military context, courtesy of Lieutenant-colonel Pieter Mink, who is a senior advisor in UAS for the Royal Netherlands Army Command.

“The Dutch armed forces do not have and will not have armed drones – we use them only for intelligence gathering,” he stated.

The Netherlands currently has two systems operational on land and sea; one of their most important uses is to support “national operations – the police, fire service, local government.”

A quick scan of the different drones available showed a range from the micro drone – an insect-like few grammes of technology suited for built-up areas – and the toy-scale mini drone, while at the top of the pyramid is the Global Hawk (with a wingspan of almost 40 m), able to rise to 20,000 m altitude and with an endurance of 48 hours – far beyond that of a manned aircraft.

The lieutenant-colonel stressed that the UAS is a system, consisting not only of the air vehicle but also a ground control station (GCS), plus operator or operators. Dutch forces currently have 24 of these systems, divided between the Raven and Scan Eagle, but there are also plans to acquire two new types. Meanwhile, the Raven, with its 1.4 m wingspan, launched by hand and viewed as “flying binoculars”, provides “more situational awareness for soldiers on ground.”

The Scan Eagle, with a bigger 3.1m wingspan and higher endurance, is a dual operator system (the flight operator is joined by the “payload operator” (for the camera). Used onboard the HNLMS Rotterdam, the Scan Eagle has been used successfully in Somalia, where it reduced piracy by revealing the “complete logistics chain of the pirates” after long surveillance.

Videos showed the drones in use, both the Scan Eagle at sea and the Raven, launched by hand during a reconnaissance patrol in South Africa, then streaming aerial images to a laptop for analysis. Subsequent footage showed many civilian-context uses of drones by the Dutch police force and fire and other state departments, including: using a drone to locate a suspect and make an arrest; to monitor the New Year riots at Veen; and detect cannabis farms and illegal hunting; to inspect the country’s dehydrated peat dykes; to investigate dune fires; and for surveillance during the NATO summit.

## **“You are scared of not being under a roof”**

There have been in the region of 64 to 76 confirmed US drone strikes in Yemen since 2004 (according to the Bureau of Investigative Journalism). Human Rights Watch’s Belkis Wille joined the salon via Skype to report from Yemen, where, she said, “it would be unrealistic to say there isn’t a war in the south”.

Being based in Sana’a, Wille does not currently live under the perpetual hum of drones: “We currently have few drone attacks here – there have been periods of greater activity.” From Southern Yemen, however, she reports there are continual complaints about “the constant noise, and the feeling of being watched. Also, as a Yemeni you feel that your national sovereignty is being undermined and that you are monitored by foreign governments. It really increases anti-American sentiment, although the US Defence Department always says that the Western media plays it up, and Yemenis aren’t really concerned with drone strikes.

“At Human Rights Watch, we frequently release reports,” she continued. “At six recent press conferences for these, of which five had nothing to do with drone strikes, the first question was always: ‘Why aren’t you doing more about drone strikes?’ That issue is top of the list for Yemenis.”

The Human Rights Watch position on drones is that “not all drone strikes are wrong – our position is that there are cases in which drone strikes are lawful and others in which they are unlawful. To be lawful, they must minimise civilian casualties. In Yemen, the problem is that because USA is covertly carrying out drone strikes, it does not do what it did in Afghanistan and Iraq – namely, issue a statement naming the target and civilian casualties. Also, it has no compensation scheme as it did in Iraq. This absence of a statement backfires on a policy level, as terrorists can claim all casualties are civilian. In my experience, however, there are low numbers of civilian casualties.”

Nevertheless, “Anger is disproportionate. If there is a drone strike, there is a demand for information. Under the laws of war, taking out a couple of civilians with a legitimate target is considered ok. But the problem here is, we can conclude that maybe two out of six strikes are unlawful – but it’s hard to say. When a wedding convey is attacked – is that lawful? We don’t have the information, so we can’t say. We put the responsibility squarely on the USA, although the Yemeni government is complicit and gives permission. The Yemeni government compensates only powerful tribes.”

Human Rights Watch, she reported, is now working with Yemenis on making demands – including for a compensation scheme like that in Afghanistan or Iraq. Meanwhile life in Yemen is changing, Wille said: “Do drones change the way cities are used? It’s only anecdotal evidence I have, but yes they do – they led people to avoid being outdoors in Sana’a when there were strikes here. I hear from others that ‘drones shut you in, because you are scared of being not under a roof.’”

### **“Will I be next?”**

The following presentation, by Quirine Eijkman, took us to another region targeted by armed drones, and to the research of Amnesty International, namely its report entitled ‘Will I Be Next?’. “This may surprise you, but at Amnesty we don’t take issue with drones as such. However some examples of US strikes in Pakistan may violate international law,” she said. “Nine out of 45 strikes between January 2012 and August 2013 on the border of Pakistan and Afghanistan are under question.”

She stressed the great difficulty of establishing the facts on the ground, echoing what we had just learned about the lack of transparency in Yemen: “People who talk to us for research take a high personal risk – some are visited by security forces. There are significant international legal challenges, but what we want is more accountability and transparency.”

In the face of the covert nature of drone attacks in the Federally Administered Tribal Areas (North Waziristan), a heavily contested region, gathering information is challenging: satellite images must be used to establish the sites of strikes. Nevertheless, Eijkman was able to list the particulars of one, presumably unlawful strike in all its tragic detail. The 60-year-old grandmother Mamana Bibi was killed on October 24<sup>th</sup>, 2012, as she worked in her family's fields with her grandchildren - some of whom were hurt in a second strike, which caused nine serious injuries.

“The total lack of accountability means there has been no investigation or compensation,” said Eijkman. “Was Mamana Bibi perceived as a threat? Was she a target, or was this a ‘signature’ strike [the term given to strikes against individuals who match a pre-identified ‘signature’ of behaviour that the US links to militant activity]. What is the legal basis? Lack of transparency makes it impossible to assess. Was it a war crime, or an extrajudicial execution?”

Amnesty is questioning fact that under such circumstances there is no justice for victims, who cannot get compensation (in this case, the victims' family had to sell part of their land so that the children could receive medical treatment). “In mid-May 2013, Obama promised more transparency,” said Eijkman. “But this has not happened. One grandchild went to the US congress to tell her story, but only four members were present to listen to her.”

### **War moves into city**

For Eyal Weizman, who addressed the salon next via Skype, “being remotely present is like a drone-operated lecture.” Weizman, professor of visual cultures and director of the Centre for Research Architecture at Goldsmiths College, London University, is also director of the European Research Council-funded project, Forensic Architecture - on the place of architecture in international humanitarian law.

Forensic Architecture “assumes we are in a time when war has important urban dimensions,” he said. “Drones are assumed to operate in remote areas, but they are largely used in densely populated urban and rural environments. War has moved into city. Forensic Architecture is an attempt to understand conflict through the built environment. Urban analysis can teach us something about the people being killed.”

A report by Forensic Architecture therefore looks at different target types – the places hit, and number of casualties of drone strikes: “For the first time, public places are being struck, public or private buildings,” said Weizman. “I am interested in what the patterns of buildings hit can tell us about war. How does it affect our interpretation of a conflict? Signature strikes target people through ‘suspicious’ patterns of behaviour, including movement along so-called ‘toxic’ roads. People on the ground are being hunted.”

Following a drone strike, people act differently, avoiding roads and taking covered routes, “so there is a constant co-evolution between the pattern or algorithm and people’s behaviour. Living under drones is not static. It’s a pattern of co-learning, between the ground and air.”

Studying these shifting patterns reveals that not only people and algorithms are dynamic, but so is the legal framework. Just as people’s behaviour is changed by algorithms and strikes (and vice versa), so rhetoric changes perceptions and legal attitudes: “What is happening now is attempted legislation. When Israel started targeted assassinations, these were at first not accepted as legal. But Israel kept doing it and offering its own interpretations, and they are now more or less accepted. So we need to act not only on behalf of the victims, but also of international law. The law has a degree of elasticity – and states want to shift it to their advantage.”

**International law: horizontal, with an enforcement problem**

The next presentation, by researcher Catharine Harwood of the University of Haarlem (Netherlands), focused on international law, which, she explained, is still attempting to get to grips with the “recent phenomenon” of armed drones. “The only states in world to use armed drones so far are the USA, UK and Israel – also apparently the non-state actor Hezbollah,” she said. “They are not prohibited under international law,” but their legality “depends on the context.”

International law, in any case, is a problematic and often hazy concept: “All states have a duty to respect international law, but it is horizontal system, with an enforcement problem: the laws apply to the very states which make them and enforce them.”

The situation with drones is compounded because international humanitarian law applies only in international armed conflicts, and not to the war on terror in which drones are largely used. Furthermore, “The USA and Israel don’t accept that human rights apply in armed conflict, although otherwise that is generally accepted.”

International conflict is defined as occurring between states, and soldiers are ‘combatants’; non-international armed conflict occurs between groups, or states and groups, and there is no combatant status, with “a certain spill-over of non-international conflict tolerated, but the question remains as to how great this may be.” (This point illuminated Belkis Wille’s earlier comment on Yemen that “the Red Cross since 2009 has characterised [the situation there] as a non-international armed conflict, with the USA as a co-belligerent invited by Yemeni government). A new category, trans-national war, is not legally recognised but refers to conflicts crossing borders with non-state actors.

In non-international armed conflicts, “civilians can be targeted, it depends on what they are doing.” In fact, under international law, attacks on civilians are technically “limited to organised armed groups and civilians directly participating in hostilities – there are strict criteria. One big problem in practice is signature

strikes. The USA targets people based on location, age and the fact of being male – so this is quite concerning.”

### **In the Netherlands, how many terrorists would the algorithm find?**

A short discussion concluded this first part of the programme, during which the lack of transparency regarding drones had emerged as the most striking feature of the new landscape, said Malkit Shoshan: “Everything is blurring. Many different zones overlap with each other. I started looking at drones after researching the architecture of peace-keeping missions – drones change combat, but also the way the military is operating so it can be more involved in aid, redevelopment and organising civic space.”

Quirine Eijkman of Amnesty countered Pieter Mink’s emphatic statement that the Dutch army has no plans to use armed drones by pointing out that the new drones it plans to buy have the potential to be armed. “The issue with drones is when non-armed drone nations share information with different agencies,” she added. “This leads to complications. The Dutch have shared information collected by drone in Mali with other nations. Legally, this is unclear. It’s a big issue in the EU, because European partners share information about Yemen and Pakistan with the USA.”

Catherine Harwood stressed that, “with drones, some functions are benign. Others are not. There’s a need for information and transparency. In March, the UN voted on greater transparency in drone use, and six states voted against that. So we need to insist on it.”

“Intervening before an act takes place does not preclude some information on the legitimacy of targets,” added Quirine Eijkman. “We should be able to question what the indicators are.” Catherine Harwood stated that “People involved in targeting

have to have responsibility – if a machine does it, people will no longer be criminally responsible.”

At this point a member of the audience suggested a way of making people more aware of algorithms. “If we applied the algorithm to the Netherlands, how many terrorists would we find?” he said. Although the salon was felt to be a step in the right direction, policy makers, it seemed, could try harder. “Politicians are interested only in how safe drones are, and rules of privacy,” said Pieter Mink.

### **Battlefield to adhococracy**

“I am looking for you like a drone, my love. You have become Osama, no one knows your whereabouts.”

A Pakistani folk poem was the introduction to the presentation of Ethel Baraona Pohl and the start of the second part of the programme with its focus on cultural and societal enquiry. She paraphrased Cedric Price to ask us: “Drones are the answer, but what was the question?” Despite a range of real and potential applications from anti-wildlife poaching to pizza delivery, the answer is unclear. Legally too, drones inhabit a twilight zone:

“You can buy a drone in a toy store, and they’re all over YouTube, but US law still doesn’t know what to do with them.”

- Aviva Rutkin in *New Scientist*

Despite the confusion, drones are not a new invention. Nicholas Tesla pioneered the concept 100 years ago. The army began to adopt them after the Second World War, with the Ryan models of the 1950s the prototypes of today’s drones. Baraona Pohl argued that the sudden take-off of drones in the last ten years may have much to do with cultural factors, ranging from Kathleen Ann Goonan’s 1994 sci-fi novel, *Queen City Jazz* to Wikileaks footage.

Beyond war, drones feature in advertising, agriculture, journalism, wildlife conservation and real-estate marketing. They can be used by activists, as well as the establishment.

Baraona Pohl's presentation quickly surveyed El Salvador's drone journalism, and art projects like Dronestagram by James Bridle and the Metadata app by Josh Begley, both of which document drone strikes as they happen. Bridle's drone-shadow paintings make visible the usually unseen, while the large-scale close-ups of #notabugsplat.com are designed to confront drone operators with the human faces they normally do not have to see. The presentation ended with another piece of Pakistani folk poetry:

“Your eyes are no less than a drone. They turned me into ashes as I was facing them, like a member of the Taliban.”

### **When drones are democratised**

“Drones are not objects but systems,” Liam Young reminded us next. “Although we fetishise them as objects.” Young, founder of the think-tank, Tomorrow's Thoughts Today, is an architect who believes that “the physical city is dissolving, its social structures like squares giving way to nomadic ones like networks and algorithms.”

Drones “allow us to collapse geographies. The drone network is a form of teleportation – a drone station in Australia coordinates strikes in the Middle East.” The drone infrastructure represents weaponised connectivity, so Young's organisation has responded with a concept called Silent Protest: “Gliders in fleets surf air currents, generate white noise and temporarily jam telecoms infrastructures.”

Such initiatives may seem far-fetched, but are becoming increasingly plausible. “Civilian drones now outnumber military ones,” said Young. “We are on the edge of imagining what they might be deployed for. It's like the dawn of the PC. When drones are democratised, what will happen next?” He envisages

“flocks of drones like an airborne Napster or Pirate Bay – people could log on to file-share. It’s a new form of nomadic infrastructure. Drones might generate geographically specific technological neighbourhoods.”

“Taking as a starting point Los Angeles’ hidden landscape of helipads (every building over 20 m tall is apparently equipped with one), he speculated that, “Landing pads for drones might shape our city. And cities, how will they change so that drones can navigate them?” He predicted the evolution of “a new visual language based on calibration graffiti – this could also be subversive, causing surveillance drones to crash into walls.”

In this new infrastructure of the sky, he asked, “will Amazon drones herald a new gold rush? Will drones become so ubiquitous they start to disappear in our consciousness like pigeons? The buzz of the drone is the sound of our generation. A bottom-up technology will reveal itself. Pushing against authority, democratisation will make it clear what drones can do.”

### **Drone survivalism**

Dutch artist Ruben Pater sees drones as defining “a new habitat” – there are, he said, 30,000 of them predicted to shortly occupy the USA, after all. Just as our remote ancestors could recognise the silhouettes of dangerous birds of prey as they soared above the ground, Pater imagines a day – already here for some – when we will distinguish between threatening and harmless drones in the sky. This idea informed his Drone Survival Guide, a drone-spotter’s collection of the most common “species”, illustrated according to scale, from the parrot drone (on sale at Amazon) to the huge Global Hawk currently used only by the USA and Germany.

The guide to drone types is accompanied by countermeasures, including hacking drones and hiding from drones (it seems a simple survival blanket will suffice). The Drone Survival Guide was initially translated into Pashtun (the language of the lately

drone-patrolled Afghanistan and Pakistan border); 28 other language versions followed, all compiled by volunteers – an indication of the interest in the project. “Drones are a sophisticated mirror,” said Pater. “Through them we are looking at others, and at ourselves.”

## **Decolonised skies**

Art curator Yael Messer is part of the High&Low Bureau, which is currently working on an exhibition of drone-related art for the Apex Gallery, New York, in a process she described in her presentation as “a new search for ethics and aesthetics.” Previous presenter Ruben Pater and Eyal Weizman’s Forensic Architecture will be part of the show.

“The view from above has always been a method of control used by states and other bodies to monitor situations,” she said. “Drones involve the framing of humans in ways to justify their elimination.” Art’s response to this fact “offers ways to be subversive by taking control of the manipulation of images,” so regaining the initiative and “decolonising the skies”.

Messer referenced the July 2013 action of George Clooney, who spent his earnings for the Nespresso commercials on a spy satellite aimed over North and South Sudan, monitoring the Sudanese dictator Omar al-Bashir – a blurring of lines between military surveillance technology and private activism.

The forthcoming Decolonised Skies exhibition sets out to explore the ethical, social and spatial implications of the “democratisation of the view from above” through the strategies of artists such as Bik van der Pol, who “explores the layers of urban environment” in a manner that reclaims mapmaking from the forces of control, “empowering prospects for art and society in this time of vast change in our point of view.”

## **Drones, angels, demons**

“No system is unmanned; we are talking about a system that is human,” said author Matthew Stadler, who is currently working on a novel about drones, at the outset of his presentation. A backdrop of harrowing images of small children killed by drones threw into relief his use of terms. As he insisted, drones represent “a loss of moral capacity rather than an enemy we have to defeat.”

YouTube images indeed revealed “a system that hasn’t moved out of human realm, an HD camera on a 3d axis,” an instrument of “self-regard and self-policing.” Not for the first time during the salon, the drone was revealed to be a mirror, reflecting ourselves and our society.

Stadler drew a parallel between the ambiguity surrounding the drone - both weapon of death and fun selfie generator - with the ambiguity of another era, the starting point of humanism during the Renaissance. “Artists have long dealt with the problem of angels versus demons”, he said, showing images of Pieter Brueghel’s *Fall of the Rebel Angels* and similar works. It is, he concluded from these, “hard to tell angels and demons apart.”

Art – whether Renaissance paintings and engravings or the novel Stadler is writing – is “a mode to live within a paradox; to feel empathy as well as revulsion.” As such, it can capture the moral ambiguity of the drone, of an age in which Stadler likens us to the clergy feasting in the mouth of the devil in a 16<sup>th</sup>-century woodcut. “I want to give us hope and ambition to deal with the challenge we face,” he said, as Jonathan Richman’s *Angels Watching Over Me* played over a slideshow of drone images. “After all, it is no greater than that at any time during past 1000 years.”

### **A multi-faceted reality**

In the closing discussion that followed, an audience member commented that the cultural speakers tended to relate the drone to the past, but doubted whether the law and military saw this

continuity. Matthew Stadler argued that, “it is in the interests 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.”

“There is less clarity because the battlefield has changed,” added Malkit Shoshan. “Drones operate in a gap, civil space; the same forces of control now shift into big transitions we don’t understand.” Catherine Harwood agreed that “the need to constrain power within acceptable limits” was the thread of continuity, even if “the law is always behind technical developments.”

This comment produced another remark from the audience – that in Spain a law is currently being drafted to ensure that drones cannot fly without the permission of authorities (in the Netherlands, another audience member responded, you have to obtain prior permission six weeks in advance in order to fly anything – and Pieter Mink added, a drone operator needs a pilot’s license in the Netherlands, which is the only country to require this).

“Our capacity to invent things is much faster than our capacity to decide what they mean,” said Liam Young. “Our projects are about increasing visibility and awareness. This instigates cultural change. All it will take is for someone to monetarise the low-flying drone and the laws will change.”

Malkit Shoshan pointed out that the discussion often seemed to be about “good or bad. We are in the middle of a change. It’s hard to say whether that’s OK or not OK. Drones may prevent crime – but what price do we pay for that? We need the bigger picture.” This is where art comes in, said Catharine Harwood: “Art can make issues more human than law. It triggers the imagination, gets you thinking in new way – and that’s good for a lawyer. The law must reflect a multi-faceted reality.”

(ends)