

# Viewing Ecologies

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Fig. 01

NASA, AS17-148-22727, from the Apollo Image Atlas

What happens when the whole world is made visible? *The Blue Marble*, the iconic photograph of planet Earth taken in 1972, had a huge symbolic and socio-political impact from the moment it was released. It was taken with a Hasselblad camera from outer space during the Apollo 17 mission and was unique in that (unlike its predecessor, the equally iconic *Earthrise* photograph from 1968) it showed a perfectly round globe. The entire planet, in all its geographical diversity and unity, could now be captured in a single image. These overview shots of the Earth combine the core characteristics of aerial surveillance — science and militarism — and link them back to the very first photographs of the Earth seen from space. The latter were taken from a height of sixty-five miles in 1946 by a film camera attached to a V2 missile launched from the desert of New Mexico.<sup>1</sup> Territorial overviews are always motivated by military interests, just like the Hasselblad cameras on NASA's Apollo missions. These cameras also came out of the development of an aerial camera for reconnaissance planes, which the Swedish air force commissioned Victor Hasselblad to design when the Second World War broke out.<sup>2</sup> His task was to reconstruct a camera found on a German plane shot down off the coast of Sweden in 1940, and his work resulted in several famous cameras with features that were later to appear in the Hasselblad 500C and 500EL that were used on the space missions.

The life of Victor Hasselblad and history of the company he founded exemplify not only the relationship between cameras and war,<sup>3</sup> but also the relationship between science, expeditions, birdwatching and the urge to refine and enhance vision. His own interest in photography stemmed from his passion for ornithology and the desire to develop better cameras for photographing birds. As early as 1926, at the age of twenty, he published the article 'How Do I Photograph Birds?' in the German journal *Photo-Technik*.<sup>4</sup> The same question motivated his interest in improving cameras. Reread today, and compared to the heavily technical accounts that dominate contemporary nature photography, the article serves as a reminder of the synergy between the acts of photographing, looking and moving in an almost symbiotic relationship with the observed, as well as being aware of one's own visibility. With his wife, Erna, a key partner in the Hasselblad Company, Victor Hasselblad was as invested in exploring the resources and sustainability of nature as he was in photo-

graphy.<sup>5</sup> Today, the question is whether his sustainable perspective can be applied effectively to the photographic image and the practice of photography, especially in a contemporary context where it is arguable that military surveillance, everyday multiveillance, the surfeit of image production and consumption, and overall connectivity make the need for some kind of ecology of the image and ethics of the gaze more urgent than ever.

## The Whole (Image) World

One of the main effects of Earth being photographed as a solitary, precious blue planet for the first time in 1972 was a new awareness of the fragile environment of the Earth and the responsibility of human beings to protect its ecosystems.<sup>6</sup> The photograph of Earth also resulted in an acknowledgement of the world as an interconnected system, and visualized the paradoxical yet unavoidable experience of being part of the system we are observing.<sup>7</sup> In the major research and exhibition project *The Whole Earth*, centred around the *Blue Marble* photograph and its global ramifications for the environment, political propaganda, lifestyles, cybernetics, etc., Diedrich Diederichsen and Anselm Franke also pointed to its photographic and cultural historical relationship with the famous *Family of Man* exhibition.<sup>8</sup> Over five hundred photographs in *Family of Man* represented people of all ethnicities, and allegedly promoted a composite 'overview' that made it possible for viewers to identify themselves with 'the subject of every photograph: citizens of World Photography all', as Susan Sontag later described it in her critique of the exhibition's aestheticized and sentimental humanism.<sup>9</sup> With the *Blue Marble* in 1972, it had apparently become possible to take a single photograph with a similar, universalizing message. However, as Anselm Franke writes of the image, it 'manifests a continuation of the colonial and genocidal frontier of modernity', an American frontier 'of conquest and empire, and of a modern ontology at war. The image of Earth is representation in the service of the frontier, part of the violence of representation and an identitarian regime that was crucial to its progression.'<sup>10</sup>

In 2012 NASA created a new version of the *Blue Marble* — a composite made up of digitally corrected satellite images. As visual theorist Nicholas Mirzoeff points out,

the image 'is accurate in each detail, but it is false in that it gives the illusion of having been taken from a specific place at one moment in time. Such 'tiled rendering' is a standard means of constructing digital imagery.' The new version, he adds, 'is a good metaphor for how the world is visualized today.'<sup>11</sup> We believe that we are constantly improving our overview of the world through enhanced automated technology, not primarily in the sense of a 'God's eye view' from above, but as accumulated knowledge or big data that promises total transparency. A parallel can perhaps be found between the utopian effects of seeing the Earth from space in the Apollo photographs circa 1970, and the realization that we find ourselves in a complex, rhizomatic network of visibility in our contemporary surveillance society. The alleged feeling of community — 'we're all on the same planet' — communicated by *Earthrise* and the *Blue Marble*, as well as popular later aerial-photography projects like Yann Arthus-Bertrand's millennium project *Earth From Above*, not to mention Google Earth, should, in theory, increase now that we are all visible to each other<sup>12</sup> — or at least to those of us with access to the images.

Every invention of vision technology comes with new promises of overview and insight, but that overview is either militarized or monopolized and, if not Americentric, then phallogocentric. As argued in the introduction, 'blind' multiveillance usually reinforces or confirms surveillance by those in power, because discrimination is inherent in the technology, and most likely to impact individuals visually identifiable as minorities. Visual regimes are disguised as instances of democratic transparency, and as sociologist and surveillance scholar Andrea Brighenti writes, '[e]very time the mass media and new communication technologies enlarge or reshape the field of the socially visible, visibility turns into a supply-and-demand market. At any change in the field, the question arises of what is being seen, and at what price — along with the normative question of what should and should not be seen.'<sup>13</sup>

But what if the notion of a global network of image information could promote a step forward in image ecology and ethics equivalent to the non-militaristic and counter-imperialist effects of seeing a blue planet Earth? This could create a kind of environmentalism of the image, understood as a critical awareness of the over-consumption of images, an excess of photography, and mutual mass surveillance. As early as 1977, Sontag called for an ecology

of images in her essay 'The Image World'.<sup>14</sup> Her appeal was based on what she identified as a surplus of photography and the overconsumption of images, something digitalization has exponentially increased since then. Similarly, the reality-producing power of photography has also increased. Sontag describes it as follows: 'Cameras define reality in the two ways essential to the workings of an advanced industrial society: as a spectacle (for masses) and as an object of surveillance (for rulers).'<sup>15</sup> Today these practices merge in multiveillance. The current challenge, therefore, is to formulate an ecology of images and vision, i.e. a sustainable use of images that enables us to focus on the social potential of photography in the face of digital overconsumption.

This is where the philosopher and photography theorist Ariella Azoulay's concept of the civil contract of photography can be applied. For Azoulay, the camera has historically had the potential of capturing subjects who did not (as yet) have full citizenship to participate in the production and distribution of public interests. As she writes: 'Photography is one of those instruments which has enabled the modern citizen to establish her liberal rights, including freedom of movement and of information, as well as her right to take photographs and to be photographed, to see what others see and would like to show through photographs.'<sup>16</sup> The civil space of photography is open to all even though it has repeatedly been challenged by the controls of the market and nation state. Most importantly it is a space configured by a civil contract as opposed to the mediation and control of the ruling power: 'The mutual guarantee established amongst the citizens of the citizenry of photography is the basis for the formation of a political community that is not subjected or mediated by a sovereign'.<sup>17</sup> Such a civil contract has become even more difficult to enter and comply with in a multiveillant society, where the production and consumption of digitalized images has diluted the political potential of photographic representation. As Hito Steyerl points out, '[w]hile every possible minority was acknowledged as a potential consumer and visually represented (to a certain extent), people's participation in the political and economic realms became more uneven.'<sup>18</sup> In other words, '[v]isual representation matters, indeed, but not exactly in unison with other forms of representation. There is a serious imbalance between both. On the one hand, there is a huge number

of images without referents; on the other, many people without representation.'<sup>19</sup>

In a multiveillant society, it is increasingly difficult to find the space for civil contracts of photography. Brighenti also makes it clear that '[t]he threat surveillance poses to democracy today can be related to the fact that the contract of visibility in the public domain is being increasingly blurred and ultimately rendered fictional.'<sup>20</sup> For Brighenti there is a democratic challenge in the fact that '[s]urveillance regimes make more things more visible, and bring more practices to the attention of surveillance agencies, but they do so in ways that are not openly accountable.'<sup>21</sup> Whereas a sociological approach usually looks back on and exposes surveillance practices, the responses of artists and visual theorists can counteract such practices by identifying image and gaze ecologies that draw on the possibilities of analogue photography (and thereby the conservationist strategy Sontag argued for), as well as on characteristics of the digital image.

## Birdwatching

For the project *One Time One Million (Migratory Birds/Romantic Capitalism)*, the German artist Susanne Kriemann bought a 1942 Hasselblad aerial camera. She then flew over and photographed the large housing complexes in the suburbs of Stockholm that were built around 1970 as part of the Swedish 'Million Homes' programme.

Initially seen as progressive, the concrete, high-rise blocks later became symbols of segregation and ghetto formation, with the majority of residents marginalized with limited economic resources and immigrant backgrounds. Kriemann's use of 'Migratory Birds' in her title refers not only to the book *Flyttfågelsår* (The Flight of Migratory Birds), which Victor Hasselblad wrote in 1935,<sup>22</sup> but also to migration as a socio-political phenomenon. The project consists of her own photographs of the suburbs and birds, historical photographs of military aircraft, and Hasselblad's late photographs of birds from the period when the 'Million Homes' programme had been completed. The artist combines military and scientific overviews, using birdwatching as a sociological and aesthetic strategy in viewing the suburban population. The artwork also includes some handwritten 'fieldnotes' implying that the birdwatcher

becomes a bird, observing the world from a bird's perspective but suddenly also being watched, and with Kriemann's transformation into a flying, observing being, a kind of interspecies connectivity emerges.<sup>23</sup> Similarly, in the musician and multimedia artist Laurie Anderson's 2015 film *Heart of a Dog*, she recounts observing her dog suddenly looking up and becoming aware of the potential danger of a bird of prey during their walks in nature, which in turn makes Anderson recognise and understand the look of fear of New Yorkers after 9/11: Threats could now come from above, adding a whole new dimension of danger.<sup>24</sup> This experienced dimension of threat is, of course, shared on a daily basis in other parts of the world, namely where the US carries out drone attacks: 'They're always surveying us, they're always over us, and you never know when they're going to strike and attack', as one voice says in the film *Living Under the Drones*.<sup>25</sup>

In 'How Do I Photograph Birds?' Victor Hasselblad describes the painstaking, patient work of the birdwatcher and not least the bird photographer, with a green camouflaged tent and an assistant to help cover the tent entirely once the photographer had crawled inside with a camera. Similarly, counter-surveillance uses camouflage in strategies comparable to the nature photographer's attempts to merge with their surroundings as exemplified by Hille Koskela and Liisa Mäkinen in their contribution to *Watched! Camouflage*, disguise, concealment and mimicry are also the main lessons of 'how not to be seen' in Steyerl's video work of the same name. One of the points of the work is that, in the realm of digital imagery, everything is about resolution, so low resolution (becoming smaller than a pixel) can provide an effective cover. A related example is Martin Backe's *Pixelhead* mask (2010), a media camouflage hood 'completely shielding the head to ensure that your face is not recognizable in photographs taken in public places.'<sup>26</sup> Steyerl's own *How Not to be Seen: A Fucking Didactic Educational .MOV File* takes the consequences of the merging of digital images and reality in a counterstrategy of performing as an image ('to erase, wipe, shrink') and becoming invisible by merging with other images, in other words Photoshopping yourself or your data.

Camouflage is a crucial strategy for exposed subjects, who often have to resist enforced, identifying visualization using strategies ranging 'from attempts by migrants to burn, or use acid to erase fingertips, to attempts at digitally evading algorithmic capture in face recognition software,'<sup>27</sup>

something Eyal Weizman calls 'counter-forensics'. As mentioned in the introduction, unwelcome refugees, migrants and asylum seekers are often safer in 'foggy social structures' that can help them stay out of sight in order to 'frustrate government policies that aim to identify and control them.'<sup>28</sup> Some degree of camouflage is thus often the only, albeit increasingly difficult, strategy for exposed subjects, so the responsibility for establishing an ecology of the image and gaze falls on more privileged shoulders. The spread of photography, the act of photographing and the circulation of photographs demands the same degree of responsibility as freedom of speech. We may not be able to protect the most vulnerable subjects in our society entirely from the surveillant gaze, but we can at least expect more privileged viewers to carefully consider the dissemination and distribution of surveillant imagery wherever and whenever it takes place. Several of the art projects in *Watched!* dealing with migration, such as works by Marco Poloni, Tina Enghoff and Hanne Nielsen & Birgit Johnsen, address these considerations using filtering strategies such as stand-ins, blurring, opacity, displacements, gaps, uncertainties and 'fog'. A socially and ethically conscious image formation demands restraint, reticence and insight into the 'ecosystem' of multiveillance to generate sustainable viewing ecologies in democracies of the future that go beyond the naïve, representational logics of 'family of man' universalism.

### Sustainable Images

In 2002 the Danish artist Jakob S. Boeskov launched a fake weapon called ID Sniper, which could allegedly inject small GPS chips beneath the skin of demonstrators. Disguised as the CEO of the equally fictional Empire North Company, he first presented the concept of the ID Sniper at an international arms fair in Beijing. People showed real interest, with the most serious inquiry coming from a Chinese agency that implied that the human rights issues blocking the manufacture of the weapon could be circumvented by moving weapon production to China.<sup>29</sup> Despite working with a fictional future scenario, Boeskov's project reflects the current, real-life use of surveillance and security technologies like crowd dispersal systems and the widespread use of the preventative arrest of demonstrators. His work can be seen as an allegory of the curtailment of the right to protest, and more



Fig. 02

Jakob S. Boeskov,  
*ID Sniper*, photograph, 2002

Fig. 03

The 'Friday of Victory' after the fall of President Mubarak, Tahrir Square, Cairo, Egypt.

Photo by: Lara Baladi.



generally as supporting spaces of assembly over surveilled spaces. When the philosopher Judith Butler theorizes the potential of demonstrations and public assemblies, she rereads, among others, Hannah Arendt's ideas of 'spaces of assembly' as a precondition for political action, but adds the importance of the physical gathering of bodies as a visual, performative statement,<sup>30</sup> taking Occupy Wall Street and the protests in Tahrir Square as examples. Butler's concerns are focussed on public spaces where people would normally gather coming under threat from increasing privatization, to which we can add the threat of expanding and intensified forms of surveillance.

This is precisely the thesis of the philosopher Xavier Marquez. He also sees Arendt's egalitarian spaces of appearance on non-instrumental grounds, exemplified by Occupy Wall Street, as being challenged by spaces of surveillance in the biopolitical sense of Foucault: '[W]e find a shrinkage of spaces of appearance, where human beings in their plurality may emerge in their full individuality, and their replacement by "social" spaces and other spaces where conformity rules, i.e., by spaces where visibility is turned into an instrument of control or regulation, including self-regulation. This includes the deployment of increasingly elaborate technologies of surveillance

and (self)-monitoring that extend their tendrils into ever more “ordinary” aspects of social life, and the relative narrowing of public spaces to those mediated spaces of modern democracy where only relatively few political leaders can appear and act.<sup>31</sup> In a call for shared spaces of appearance, a corresponding image ecology would be less about restraint, invisibility or camouflage, and more about creating possibilities for non-polluting images, such as sousveillance or ‘citizen forensics’ using smartphones, where the versatile and ubiquitous photograph continues to play a key role in the vast complex of images that defines our realities.<sup>32</sup> As Butler reminds us, even digital, documentary media still require physical participation, which connects subjects across time and place: ‘We have to think about the importance of media that is ‘handheld’ or cell phones that are ‘held high’, producing a kind of countersurveillance of military and police action. The media requires those bodies on the street to have an event, even as those bodies on the street require the media to exist in a global arena. But under conditions in which those with cameras or Internet capacities are imprisoned or tortured or deported, the use of the technology effectively implicates the body. Not only must someone’s hand tap and send, but someone’s body is on the line if that tapping and sending gets traced. In other words, localization is hardly overcome through the use of media that potentially transmits globally.’<sup>33</sup> Here connectivity is effectuated both in and beyond the digitized network, and photography can be seen to function as a connector.

The ideas above about shared spaces of appearance and visual connectivity can also be seen to offer the potential of a civil contract of photography, a social space for inclusive recognition in both analogue and digital form, which the researcher André Jansson suggests calling ‘interveillance’.<sup>34</sup> Thinking along the same lines as Azoulay, photography in particular can be seen to offer a space for appearance, for a free public where a res publica can be re-established. We could also call this a shared view. Through photography, citizens can establish a distance to those in power and observe their actions – if, that is, the photographer is granted access to public and disciplinary

spaces, an access that has become more restricted since 9/11 and its global consequences in the regulation of security.<sup>35</sup> Invoking the right to look should, according to Nicholas Mirzoeff, be seen as a form of counter-visibility and a mutual look of autonomy that is ‘not individualism or voyeurism, but the claim to a political subjectivity and collectivity.’<sup>36</sup> Just as bodies of assembly, according to Butler, function as a protective group surrounding the vulnerable individual, collective photography can also offer the possibility of safety versus the security sought by the authorities. Writing about the role of photography in situations of conflict or disaster as a tool for ‘the public’s right to see’, Azoulay clarifies: ‘It is not simply the right to see, but the right to enact photography free of governmental power and even against it, if it inflicts injury on others who are governed.’<sup>37</sup> ‘The citizenry of photography’, as she calls it, provides mutual protection – it is a right, but also a duty.

A concluding example of this kind of sustainable use of photography and other digital media as community-based reporting and sharing is the artist Lara Baladi’s project *Vox Populi (Archiving a Revolution in the Digital Age)*.<sup>38</sup> Based on the Egyptian revolution in 2011 and data on the now-historical assemblies, especially on Tahrir Square, this open media archive is comprised of photo documentation, articles, eyewitness accounts, etc. The project functions as an archaeology of the present,<sup>39</sup> creating counter-images to authoritarian surveillance and mainstream media reporting. The complex archive is thus also an example of embodied and shared views of the world beyond the ‘violence of representation’.

The whole world has been made visible in the sense that the multiveillant image complex encompasses us all. The increased power to see and to create technologies capable of registering more than we can feeds the colonialist, imperialist and militaristic desire to perceive it all. Image ecology means taking a step back and finding spaces to share the view. Not only can we observe only the areas of the system we are part of, but we are also entangled in the very systems of visualization we use to watch the world. Camera, birdwatcher and bird in one, or drone, attacker and attacked: watcher and watched!

**1** The background for the missile launch was the invitation issued to scientists to experiment with a large number of German missiles acquired by the US military after the Second World War.  
**2** For a detailed historical account see: Sören Gunnarsen, *Victor Hasselblad: The Man Behind the Camera* (forthcoming publication by Stockholm: Journal, 2016), 70–79.  
**3** This is explored in detail in visual theory. See, for example, Paul Virillo, *War and Cinema* (New York: Verso, 1989).  
**4** Victor Hasselblad, ‘Wie fotografiere ich Vögel?’, *Photo-Technik 1*, January 1926.  
**5** In addition to exploring nature across the world in their free time, Erna and Victor Hasselblad supported a variety of research projects on sustainability and wildlife protection. Together they founded The Hasselblad Foundation to support photography and the natural sciences, specifically mentioning the conservation of flora and fauna (unpublished testament of Erna and Victor Hasselblad, 1978).  
**6** The image was, for example, used on the cover of the *Whole Earth* catalogue by the environmental activist Stewart Brand.  
**7** Ana Teixeira Pinto, ‘The Whole Earth: In Conversation with Diedrich Diederichsen and Anselm Franke’, *e-flux*, 45 (2013), <http://www.e-flux.com/journal/the-whole-earth-in-conversation-with-diedrich-diederichsen-and-anselm-franke/>.  
**8** *Family of Man* was the initiative of Edward Steichen. It was exhibited for the first time at MoMA in 1955, and subsequently toured the world. It was made up of over five hundred photographs by several hundred photographers.  
**9** Susan Sontag, *On Photography*, (London: Penguin, 1977), 32.  
**10** Anselm Franke, ‘The Forensic Scenery’, in Forensic Architecture, ed., *Forensis. The Architecture of Public Truth* (Berlin: Sternberg Press, 2014), 485.  
**11** Nicholas Mirzoeff, *How to See the World* (London: Penguin, 2015), 9–10.  
**12** Cf. the utopian ideas on post-privacy as generating tolerance mentioned in the introduction.  
**13** Andrea Mubi Brighenti, ‘Democracy

and its Visibilities’, in Kevin D. Haggerty and Minas Samatas, eds, *Surveillance and Democracy* (New York: Routledge, 2010), 61–62.  
**14** Sontag, *On Photography*, 180.  
**15** Ibid., 178.  
**16** Ariella Azoulay, *The Civil Contract of Photography* (New York: Zone Books, 2008), 125.  
**17** Ibid., 126.  
**18** Hito Steyerl, ‘The Spam of the Earth: Withdrawal from Representation’, in Hito Steyerl, *e-flux journal. The Wretched of the Screen* (Berlin: Sternberg Press, 2012), 170.  
**19** Ibid., 171.  
**20** Brighenti, ‘Democracy and its Visibilities’, 57.  
**21** Ibid., 64.  
**22** Victor Hasselblad, *Flyttfågelstråk* (Stockholm: Bonniers, 1935).  
**23** Susanne Kriemann, ‘The Birdwatcher in the Burbs’, in Susanne Kriemann, *One Time One Million* (Berlin: Roma Publications, 2009).  
**24** Laurie Anderson, *Heart of a Dog*, 2015.  
**25** Quoted from Grégoire Chamayou, *Drone Theory* (London: Penguin, 2013), 44.  
**26** ‘New Artwork: Pixelhead’ [website] <http://www.martinbackes.com/new-artwork-pixelhead/>.  
**27** Eayl Weizman, ‘Notes of Forensics’ in Christian Delage and Thomas Keenan, *Images of Conviction: The Construction of Visual Evidence* (Paris: Xavier Barral, 2015), 232.  
**28** D. Broeders and G. Engbersen, ‘Illegal Migration: Identification Policies and Immigrants’ Counterstrategies’, *Academia* [website] [http://www.academia.edu/4326814/The\\_Fight\\_Against\\_Illegal\\_Migration\\_Identification\\_Policies\\_and\\_Immigrants\\_Counterstrategies](http://www.academia.edu/4326814/The_Fight_Against_Illegal_Migration_Identification_Policies_and_Immigrants_Counterstrategies), 1593–94.  
**29** Dean Olscher, *High Tech High Art*, New York Public Radio [transcript] <http://jakob-s-boeskov.com/interview-with-dean/>.  
**30** Judith Butler, *Notes Towards a Performative Theory of Assembly* (Cambridge: Harvard University Press, 2015), 72 ff.  
**31** See Xavier Marquez, ‘Spaces of Appearance, Spaces of Surveillance, and

#OccupyWallStreet’, October 28, 2011, <http://abandonedfootnotes.blogspot.se/2011/10/spaces-of-appearance-spaces-of.html>  
**32** Weizman, ‘Notes of Forensics’, 234.  
**33** Butler, *Notes Towards a Performative Theory of Assembly*, 94.  
**34** André Jansson, ‘Interveillance: A New Culture of Recognition and Mediatization’, *Media and Communication*, 3/3 (2015): <http://www.cogitatiopress.com/ojs/index.php/mediaandcommunication/article/view/305>  
**35** Daniel Palmer & Jessica Whyte, “‘No Credible Photographic Interest’: Photography restrictions and surveillance in a time of terror”, *Philosophy of Photography*, 1/2 (2010). Among their arguments are that restrictions on photographing in public spaces are an attempt to monopolize the power to generate images.  
**36** Nicholas Mirzoeff, ‘The Right to Look’, *Critical Inquiry*, 37/3 (2011), 473.  
**37** Azoulay, *The Civil Contract of Photography*, 105.  
**38** Vox Populi [website] <http://tahrirarchives.com>.  
**39** Weizman, ‘Notes of Forensics’.