

Whispers in White Noise:

Modest Experiments with Arts of Aerial Mobility and Transmission



In Don DeLillo's 1985 novel *White Noise*, an accident involving a tank car releases, "a feathery plume" and then "a black billowing cloud" that finally becomes "an Airborne Toxic Event". On August 28th 2017, a mist drifted toward the Sussex coastline at Birling Gap Beach, causing acute respiratory illnesses in over 150 people before dissipating without being identified. A symptom of the Airborne Toxic Event in DeLillo's novel is an acute sense of *déjà vu*. The Sussex toxic mist was later traced to an oceanic plume emerging at the same spot that the *SS Mira*, a 3,700-tonne armed tanker, was sunk by a mine from a German submarine on October 11th 1917, almost exactly 100 years ago. Atmospheric histories haunt an atmospheric present. Time folds uncannily on itself as we remember, and forget again, the heavy weather that once disturbed a night's sleep or an aerial journey; the repeated and prolonged violence of tropical storms in the Caribbean; the *El Niño* season that returned far too soon. Intrinsic to this forgetting, and to the frequent *déjà vu*, is our (in)capacity to *feel* the atmospheric present. While in some ways our bodies are more alive to the atmosphere than ever before – the mobile technologies we constantly carry with us monitor the atmosphere, searching for signals – we are also enveloped, as Peter Sloterdijk writes, in bubbles of distraction and immunity. There is an urgent need for wider participation in practical experiments that expose us to the tangible, sensible matters of the air we breathe. We need stories, too, that inspire novel investments in the atmospheric commons in which we are immersed.



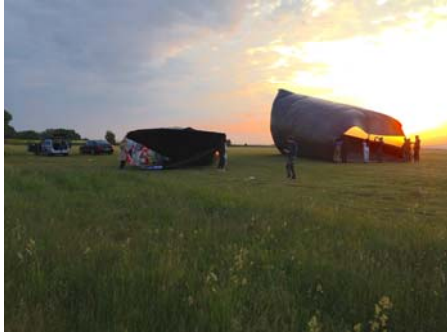
In this paper, I am concerned with how we might build up a sense of real, material and ethical engagement in atmospheric spaces that go beyond uncritical utopia and work toward more nuanced and plural utopias that inspire the participation of communities. In other words, I am concerned with a *risky re-investment* in our atmospheric commons. I say this playing on the word “risk” as it is interpreted by the philosopher of science Isabelle Stengers. Risk, for Stengers, relates to the courage to allow the world and its materials infect and inform the research we do. It is also about practicing and experimenting at the edge, or beyond, our areas of expertise. However, risk has another, equally important meaning that I’d like to hold on to in the same breath. Risk has a particular meaning in the context of the atmospheric securitization, pollution and militarization that overwhelmingly condition how and in what modes and with what stories and imaginaries we are able to interact with air and atmosphere. These are conditions that, like Delillo’s *Airborne Toxic Event*, we are able to forget until they force themselves into our sensory fields. The image I am showing here was taken from a 1988 investigative report by Duncan Campbell on the rampant gathering of personal data from intercepted satellite transmissions carried out by GCHQ, the NSA and many other intelligence agencies, whose actions have recently been forced into the spotlight again with Edward Snowden’s leaked files. I am broadly interested in ideas about what counts as acceptable action, movement and investment in atmospheric space. Just as escaping the cycle of atmospheric *déjà vu* requires that we *feel* the conditions in which we are immersed, so as to commit them to memory and action, a more pluralistic and inventive approach to atmospheric politics and mobilities is

dependent on our capacities to sense, describe and trace an atmospheric commons otherwise. A different atmospheric mobility requires a different aero-geography.



Because we are here in the framework of a conference called Mobile Utopia: I'd like to make one quick point about mobility, aesthetics, and politics of the atmosphere. Moving in and sensing atmospheric space are deeply entangled. Indeed, as Bachelard stresses when he writes of air's *dynamism*, the primary way that we are able to sense the air is through its movement against our bodies and those of other things. And if mobility and sensation are entangled in an experience of atmosphere, so are movement, sensing and politics. A number of important scholars, including that of Jacques Rancière, have made this last point forcefully in thinking about how all politics is formed at the level of personal and daily sensory-aesthetic experience and I think this applies directly to the personal and daily experience of air and atmosphere. One could say, following Luce Irigaray, that atmosphere has been forgotten from research and from politics precisely because it is easy to make the claim that atmosphere is vacuous, empty, unimportant. This is a highly problematic situation and is concretized for example in London's illegal levels of small respirable particulates and nitrous oxides – a situation which evidences just how seriously we have forgotten the atmosphere in our race for economic growth. Of course, aerial

movements are profoundly political too, especially when we start to consider which bodies and things are allowed to move freely across the globe and across borders, and which are not.



The central risk of my argument, if you will, is the following: It is precisely in the interstices of the sensing, movement and politics of the atmosphere that art can contribute to a risky re-investment in atmospheric space. And when I say ‘contribute’, I don’t mean contributing imaginatively or subjectively, although of course this is intrinsic to what art does. To paraphrase Elizabeth Grosz, art doesn’t only engender imaginative becomings... it acts on and influences the physical and material becomings of the Earth and its beings (Grosz, 2008). I say this because a primary way in which art is enrolled to think about global environmental change has been to say that art proposes imaginative alternatives, it invents stories we can choose to believe. This is undoubtedly true. While I do not want to diminish this, I think that what deserves equal attention, and is often elided at least in the social sciences, are the various forms of art that intervene with craft, artifice and know-how, *directly in the atmospheric conditions we experience today*. So the tether I am trying to hold on to is the following: there are numerous alluring examples of arts practice that make atmosphere more tangible, material and sensible to us; that precipitate atmospheric politics; that intervene in the infrastructures of aeromobility and transport; and that are, with each performance or enactment, bringing heterotopias of atmosphere to bear on the present. And their geo-material force must be held together with their imaginative allure.

I am currently working on a book proposal provisionally called *Sensing an Atmospheric Present* in which I outline seven ethnographic encounters with artists who intervene in the aesthetics and politics of atmospheric space, and do so by concretizing imaginative lures into material-atmospheric practices. In

the original talk I had planned, I would have pointed toward two examples of such practices – one on the Aerocene and one on amateur radio transmission. However, given that we had a successful Aerocene launch yesterday and I have been working with the data from the flight late into the night yesterday and most of this morning, I really would like to focus only on the Aerocene project, as it has been initiated and circulated by the contemporary artist, and my friend, Tomás Saraceno.



Aerocene

As many of you already know, Tomás Saraceno works with a large, studio-based team to envision different styles of atmospheric dwelling, moving, sensing and communicating that transcend scales and disciplines. He has developed a series of works called *Cloud Cities*: or, floating, nomadic sculptures that inspire and sustain human investment in the atmosphere. *Aerocene* is a more recent intensification of these practices and concerns. The name *Aerocene* refers to a series of sun and air-powered sculptures such as the *Aerocene Explorer* that we flew yesterday.

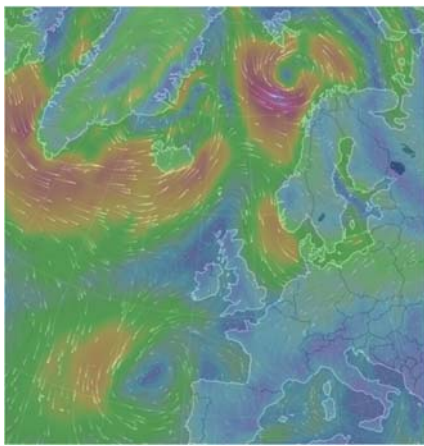


The *Aerocene Explorer* gains buoyancy using only the sun and the air that it moves. Such a sculpture requires no helium or hydrogen, no combustion of fuel, and no propellers or turbines. The sculpture flies only by enveloping a volume of air that becomes warmer inside the membrane; this generates a pressure differential between inside and out, and therefore allows the object to become more buoyant than the air around it. But the name *Aerocene* also refers to a post-Anthropocenic planetary epoch: one in which elemental and atmospheric experiments are more widely performed. While Aerocene sculptures depend on solar irradiance, temperature, convection, weather, and the albedo of the Earth's surface in order to fly, crucially, they also depend on the different skills of the human participants who design, construct, launch and follow them.



Who are these human participants? The *Aerocene* is the product of decades of research and experimentation carried out between the studio of Tomás Saraceno and numerous collaborators, including Nick Shapiro at Public Lab, Sven Steudte who is an expert radio amateur in Germany, Alexander Bouchner at the Technical University of Braunschweig, Ludovica Ilari, Bill McKenna and Glenn Flierl at the Massachusetts Institute of Technology's Earth, Atmospheric and Planetary Science department (MIT EAPS).¹ It's fantastic that we have Rob La Frenais here as a discussant because Rob has worked with Tomas for many years and co-curated the D-OAEC Aerocene launch that happened at White Sands in November 2015. Bron has also had a role in collaborating with Tomás, for example in the frame of the

Anthropocene Monument exhibition that took place in Toulouse in 2014. I was lucky enough to be the first PhD researcher in the social sciences invited to Studio Tomas Saraceno, back in 2014, and for three years I worked closely with Tomás' studio team. I collaborated with Tomás, Jol Thomson, Ivana Franke, Alan Prohm and Natalija Miodragovic among others, in inventing a new arts curriculum for two years at the Technical University of Braunschweig, near Berlin. Now, having completed my PhD in geography in relation to Tomás' work, I'm developing a new advanced level course at Royal Holloway called *Atmosphere: Nature, Culture, Politics* in which geography students will participate in several atmospheric experiments, two creative practice workshops and at least one Aerocene launch.



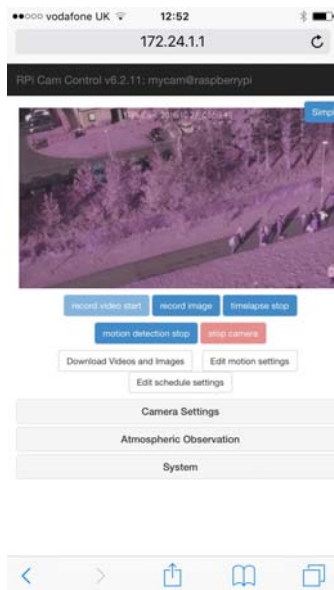
So what happened yesterday? I will try to do justice to the story of the Aerocene Launch using images and observations, noted and synthesized here. Leading up to the launch yesterday, Bron, myself, and the team at Studio Saraceno were checking the weather and the winds. I was preparing the Aerocene Explorer sculpture, checking that all the components were in place, the batteries charged and memory wiped clean from the devices. I practiced tying the right knots. I was also learning how to use a Garmin flight tracker, with help from Joaquin Ezcurra, which I used for the first time successfully yesterday and I'm going to show some results from this in a moment.



Around 12 noon yesterday, Grace and I began by slowly inflating the sculpture around noon. We were fortunate that it was sunny. And we were paying attention to the speed of the wind, the passage and approach of clouds, and the way that energy cascaded from our nearest star, the Sun, into the membrane of the Aerocene sculpture which passed the energy to the air inside. We were feeling the membrane with our hands as it gained dimension and buoyancy. As we did this we were luring around fifty people from the Mobile Utopia conference out of the Lancaster House Hotel. We were luring people towards an event that was taking place in the atmosphere around and above the mobile utopia conference, an atmosphere that conditions what we are doing when we go to a conference like this one.



We were bending peoples' attentions away from their papers and their post-lunch fatigue as they turned to look at solar powered object in the sky.



As we launched the sculpture, Grace and I activated a range of different sensing devices. There was a camera and a range of atmospheric sensors in a water bottle that was suspended from the bottom of the Aerocene sculpture. Some of you were given instructions to connect with your smartphone to the camera of the sculpture and ‘see what it was seeing’. You could also monitor the temperature inside and outside the sculpture, and you could record videos from the aerial position. If you were there at this launch, you were not simply viewing an artwork or performance. Rather, you were extending yourself *sensually, materially and politically*. You were part of a momentary public that formed in the grass outside Lancaster Hotel, a public concerned with the energetic conditions of this particular autumnal day. Indeed the energetic and atmospheric conditions were collaborators in this experiment. You were also extended sensually and visually through the pulses of information that the sculpture transmitted to you on the ground, and that you received on your mobile device.



Here is my favorite picture from the launch, of Bron and Sam in action...

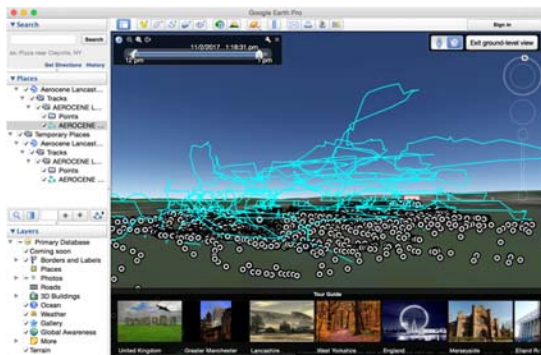
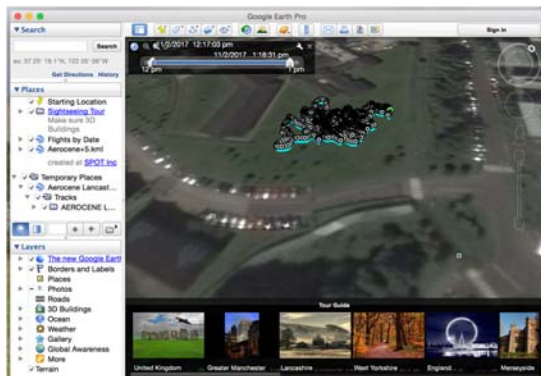
Now, the way I am speaking about the launch, you might think, risks glamorizing an event that was actually quite minor, and quite insignificant relative to the infrastructures that govern the atmosphere. I have a range of responses to that point which depend on the fact that this was not an isolated event, but one among many, that such Aerocene launches are happening globally as part of a growing network of people engaged in the Aerocene project. However, the harder and riskier answer to this provocation is to consider yesterday's event on its own. Hyperbolizing this event after the fact, as you might think I have done, is a risk I am willing to take. I am willing to take that risk because I follow Isabelle Stengers again, in thinking that what happened yesterday was a risky re-investment in the atmospheric conditions of Lancaster and what we are doing here at the Mobile Utopia Conference. This risk was performed and articulated in a variety of material practices, from the checking of weather to the preparations of the sensors to the collaborative launch of the sculpture flying in the air above us. All of this underpinned by the very real probability, given the place and the season, that the Sun would not be out, or the wind would be too strong. Stengers would call this arrangement of materials, human skill, technology, institution and weather an *ecology of practices*. And she elaborates:

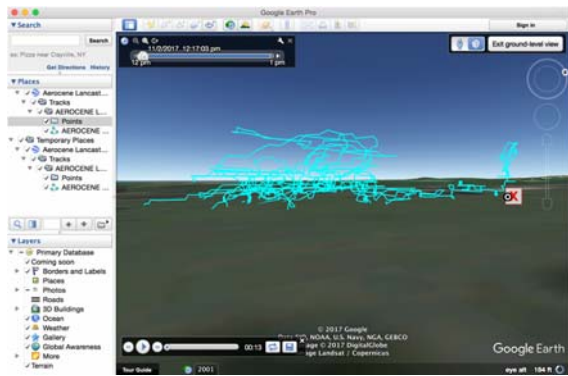
...each achievement in the ecology of practice, that is, each (always partial) relation between practices as such, as they diverge [from the norm], must be celebrated as a ‘cosmic event,’ a mutation which does not depend on humans only, but on humans as belonging, which means they are obliged and exposed by their obligations. (Stengers, 2013: 192)

Even if it was only for an hour, the launch of the Aerocene yesterday was not about a single flying object or any one person. It was a specific achievement in *an ecology of practices* that unfolded over days and intensified yesterday on the field at noon. And it was a ‘cosmic event’. It was a cosmic event because it implicated us as living beings who belong to an atmosphere and to a specific arrangement of cosmic and solar conditions, just as we belong to the Lancaster House Hotel and the conference in which we are participating. For many of us, who would have otherwise spent the entirety of the conference locked into airless, dimly lit rooms, this is not an insignificant point. But going further: folded into the alluring atmospheric event that happened yesterday is an achievement in being and belonging to the atmosphere, and as such, it is veritably utopian.



Now before I end I will just flash really quickly through the flight data that I downloaded and processed from the Garmin GPS device that was attached to the Aerocene Explorer yesterday...





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THANK YOU