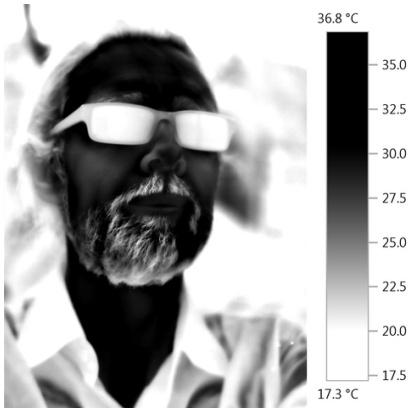
Visualising climate change

Adam Sébire



It's an age old tale of 'seeing is believing' - how do we truly grasp the severity of climate change when (for many of us) its impact is elsewhere, elsewhen and out of sight? Adam Sébire is an Australian artist whose work powerfully exposes the current effects of climate change and identifies humanity as the driving force behind this phenomena. Whilst completing his PhD from UNSW's Paris studio, Adam took the time to talk to me about the role of art in addressing climate change and how his artworks contribute to this space. His artworks help to untangle the complexity of this issue, but most importantly they make climate change visible and perceptible.

Talking Points

- Perceiving climate change
- Thermographic imaging as an art practice
- The Anthropocene
- Distinct but collaborative disciplines of art and science
- Making the complex issue of climate change more accessible through polyptych artworks
- The role of art in addressing climate change
- Future projects

Below the Line (2015)

AS: Well as a documentary filmmaker I'd already attempted to make a film about Tuvalu's disappearance beneath rising seas for Film Australia and the ABC in 2003. They funded me to make a couple of preliminary research trips and to do some filming. Eventually it ran aground however because the film I wanted to make was about how the impact of climate change was just beginning to be felt, whereas there was political pressure to make sure public institutions didn't suggest that climate change was actually happening. The Howard government's man running the ABC at that time was Maurice Newman, and he continues right to this day to be one of the most powerful denialists of climate science. The short story is that it didn't get commissioned despite a year's work and the our national broadcaster ended up screening a discredited British documentary called The Great Global Warming Swindle — make of that what you will! You can at least see the teaser I shot for them: www.adamsebire.info/the-works/high-tide-in-tuvalu

Some time later, I decided that video art might allow me to bypass broadcasting's gatekeepers, but more importantly to explore climate change in a way that visible evidence couldn't; to investigate our impact on the world in ways imperceptible to our sensory experience. "Seeing is believing" is very ingrained in our culture and yet the causes and effects of climate change are largely invisible.

Thermographic Imaging as an art practice: *In the Heat of the Moment* (2015)

PL: In the Heat of the Moment (2015) is a striking series of thermographic photographs and videos. How did you first come across this idea of combining a scientific technology with the creative discipline of art?

AS: I guess it started with the basic problem I'd faced in Tuvalu, which was recording a phenomenon that was pervasive but imperceptible. Timothy Morton talks of global warming as a "hyperobject" to emphasise these same problematic qualities. http://ecologywithoutnature.blogspot.fr/2012/12/what-does-hyperobjects-say.html

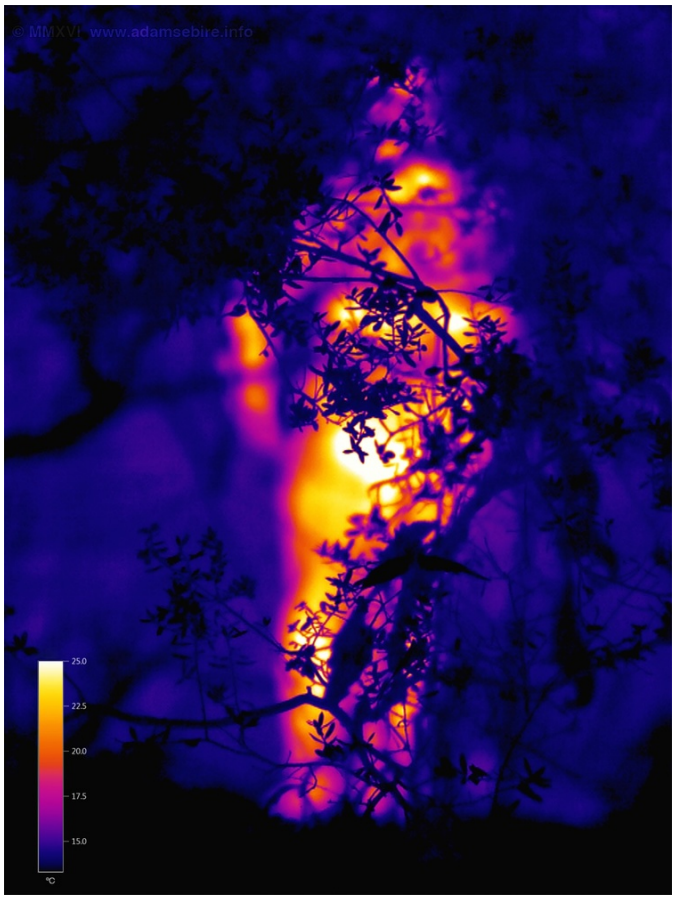
So visualisation of climate change has been a question sitting at the back of my mind for many years. Then one day I stumbled across a thermal image. It was of something very mundane, maybe a defective motor or something! But it got me thinking about how our built-in optical apparatus, the eye, doesn't allow us to see heat, the fundamental driver of climate change. Sure we can feel it — thermoception — but we don't even consider that one of our 'five senses'. I was intrigued to find out what would happen if one of these thermographic cameras — which were rare and expensive because they're basically industrial equipment — was pointed at humans in an ecological setting.

PL: The focal figure of this series is a hot, radiating human figure that is interacting with a paradoxically cool and subdued environment. What ideas were you exploring through this relationship?

AS: I guess my thermographic works are about trying to find an aesthetic for the Anthropocene. I'm not sure how well known this term is to your readers but it's based on evidence that humans are now manipulating Earth systems on a geological scale. Later in 2016, it's due to be debated for official ratification as our contemporary geological era — succeeding the Holocene— by the International Commission on Stratigraphy. It'll be a big deal, symbolically, if it happens! http://quaternary.stratigraphy.org/workinggroups/anthropocene/

Anyway, after a lot of experimentation, I found that when I place a human nude model in the bush, even at night, their radiant body heat effectively illuminates the scene for anything that can see infrared, ie. thermal imagers but also some animals and plants. So it's the emission and transfer of heat energy that I'm photographing or, more accurately, 'imaging'.

The Anthropocene: In the Heat of the Moment (2015)*PL: What were you hoping that the In the Heat of the Moment (2015) series would communicate to viewers?*



In the Heat of the Moment (Thermal Image 00349) (2015)

AS: We perhaps start to think about a world being warmed by humans. A human figure near an object such as a tree, or touching an object leaves a heat trace, which fades away over time. For me these traces tie into the idea of humanity's ecological footprint, particularly global warming. So I'm working metaphorically with these ideas. Mind you, the format presents a few problems and I'm still working through them. For one thing, some people read my images very literally as explorations of how much heat bodies give off, and smugly point out that if we didn't emit heat, we'd be dead. Well — yes! I'm not saying our core body temperature is a cause of climate change; in fact it's pretty darn vulnerable to it.

Another problem is that until it's explained, people sometimes think it's just a Photoshopped image or some kind of filter. You can even get faux thermographic 'looks' on iPhone photos these days! It takes a bit of explanation to get across that the device is actually measuring each pixel in a scene as a temperature value, showing us how the world would look to beings that perceive infrared. But most of my challenges are technical. The imager I use is on loan from Dr Andrea Leigh at the University of Technology, Sydney's Faculty of Science. She has such amazing passion for her research, and she also acknowledges that scientists can have emotional responses to the subjects of their otherwise highly rational enquiry. To measure extreme leaf temperatures in Australia's arid zones she uses one of the best devices on the market, tens of thousands of dollars worth — yet its sensor is still only 640x480 and the video codec it outputs is almost 30 years old. Over many months I've learnt how to deal with its shortcomings but it's still painful to use! On the positive side I can never quite predict what amazing perspective on the world I will see through it, especially at night.

PL: At the BEAMS Festival in 2015 you presented this series but through a performative dance composition. Did this new medium reinforce ideas that you had been exploring through the video works, or did it help to shift the

focus towards a new area?
AS: Dance added temporality to the ideas I could explore — the idea of increasing and decreasing heat over time. It was very interesting to see the traces the contact dancers left on their environment, but it soon risked becoming too figurative and made me realise that I really preferred to defocus the human bodies and focus instead on non-human forms in the foreground. This was partly an aesthetic decision — because plants have the most amazing shapes and forms — but also a philosophical one: I think any aesthetic for the Anthropocene needs to stop placing humans front and centre all the time, as if the world is our stage and we're somehow separate from nature: that way of looking at the world is precisely what got us into our present fix!

Distinct but collaborative disciplines of art and science*PL: Should art and science be seen as distinct disciplines?*
AS: I think art shouldn't aspire to become science communication nor simply its PR tool; it needs to work on its own level, otherwise you risk blunting its edge. Both art and science have emerged from their silos enough to acknowledge that each can gain something from the other without compromising their integrity. Climate change is a classic case of how having scientific evidence of a problem doesn't necessarily result in us acting on it; I think we need an emotional connection to it, not just a rational one, to get past all the obstacles — from rampant consumerism to our detachment from 'nature' — that lie between us and concerted action. Meanwhile, from an art perspective, almost all visual art to date has taken place in a one tiny part of the electromagnetic spectrum, namely visible light.

It's said that the painter Monet was able to perceive ultra-violet after a cataract operation, but he's an exception! If a scientific apparatus could give me access to the world in long-wave infrared, to use heat energy as my raw artistic material, then great. The problem was to push it beyond scientists' textbook settings and uses, and not just to be illustrative with it. One day I'd like to hack the thermographic colour palettes too, I have to say — they can be a bit gaudy! But to get back to your question: while I think they're separate disciplines, both are forms of philosophical enquiry, just with different parameters and methodologies

Polyptych artworks making the complex issue of climate change more understandable
PL: Your recent video installations Raise | Retreat | Rise *(2013) and* No Man is an Island *(2013) use Renaissance structures of the triptych or polyptych. Why do you choose to incorporate this traditional art practice with the contemporary discipline of video? What advantages do polyptychs possess that single canvas works lack?*

Video Polyptych N°1: Raise / Retreat / Rise (2013)

AS: Polyptychs are the main focus of my PhD at UNSW Art & Design. They're multi-panelled paintings — diptychs, triptychs, etc. In early Renaissance times they enabled illiterate people to understand and have a personal relationship to the complex problems of time and space thrown up by church doctrine using these moveable frames. By making multi-screen video works using similar techniques I'm trying to find another path to visually representing the complex spatiotemporal relationships that we find at the core of climate change — relationships in which we're also somewhat "illiterate"! The dislocation of cause from effect; for example, of pollution here from melting glaciers there; of flicking on a power switch here today, which causes a coal-fired power station to work just a little bit harder 200km away, which one day may contribute to the disintegration of the West Antarctic ice shelf, in turn adding to sea level rise, leading to the disappearance of an island nation like Tuvalu. I don't want to be that didactic about it of course! But my video polyptychs are about making simultaneous spatial connections that single screen works would struggle with. That said, *Raise / Retreat / Rise,* while a triptych, was primarily interested in duration and the imperceptibility of change — in this case, of atmospheric CO_2 levels, glacial retreat and sea level rise — over the course of 8 hours.

The role of art in addressing climate change*PL: What power does art hold in addressing climate change?*
AS: I've begun reading about the various psychological barriers to addressing climate change, the so-called "dragons of inaction". Psychological distance is one of the main ones: a problem that's perceived as distant or abstract in geographical, temporal, cultural and evidential terms is less likely to be acted upon. More generally I think art can reach us in ways that data visualisation can't, and give us impetus to address some of the basic cognitive dissonances underlying climate change. Many people still claim to "disbelieve" climate science simply because its manifestations are not apparent in daily life. Certainly it's tempting not to confront how our way of life has become a destructive force on our planet! I think that part of addressing the problem has to be about working on our subconscious in a way that rationality can't. Not to replace the scientific evidence, but to take its conclusions to a different level. Where they can speak to us on an emotional basis, or maybe offer parables to our predicament in a way that can influence humanity's overall narrative in some small but crucial way.

Video Polyptych Nº2: *No Man is an Island* (2013)

PL: How is climate change and environmental concern being explored in the arts at the moment?
AS: There's a school of thought that the urgency of the problem justifies art putting ambiguity aside to take an advocacy role. While I agree that the urgency is there I also think that ambiguity can be generative whereas the shutters of the mind come down when we're faced with propaganda and didacticism. Deep down we already know there's a problem with our exploitative relationship to a finite planet. I think it's on a deep psychological level that we're going to make the changes that will sustain the existence of all Earth's lifeforms. So I don't think that hitting people over the head with images of environmental destruction alone is going to work. We need ways of coming to terms with our predicament in order to think about ways out.

Future projects*PL: What are you currently working on at the moment?*
AS: I'm based in Europe for the last half of 2016, researching for my PhD. It took an act of cognitive dissonance to fly here I've got to admit, and it's been weighing on my mind. Could the 2.4 tonnes of CO_2 emitted by my flights be the cause of someone's death in the future? I think I need to work through this in an artwork because it's a horrifying thought. As well as my theoretical research into video polyptychs, in Venice I want to continue my documentation of the disappearance of that city underwater. Acqua alta has been getting worse and worse for Venice, and the MOSE flood barrier system is still a year or two away. It feeds into the content of my multi-screen works looking at disappearing utopian isles such as the Maldives, Tuvalu and Venice. When I get back to Australia I hope to borrow the thermographic camera again to continue my project interviewing climate scientists with their own technologies about their emotional responses to their research.

Links

Adam Sébire's website: http://www.adamsebire.info/

Adam's trailer for *High Tide in Tuvalu,* for Film Australia/ ABC*:* www.adamsebire.info/the-works/high-tide-in-tuvalu

Art and the electromagnetic spectrum: http://static1.squarespace.com/static/53479b4be4b022b8c63561d8/t/5577f20fe4b062d1db05423a/1433924119644/CSIRO+electromagnetic+spectrum

Australia amongst the worst CO_2 polluters in the world: https://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions_per_capita

Global Warming as a "hyperobject" - Timothy Morton: http://ecologywithoutnature.blogspot.fr/2012/12/what-does-hyperobjects-say.html

Ratifying the current ecological age as the 'Anthroposcene' - International Commission on Stratigraphy: http://quaternary.stratigraphy.org/workinggroups/anthropocene/