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Abstractions – and How to be Here and There at the Same Time

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Predictions and forecasts are good for multiple things. You can assume something might take place, you can prepare. You can give warnings, or gentle nudges. You can make money, or ensure someone loses money. Predictions can work in everyday life, and they certainly do work for the military; you can survey and you can pre-empt; you can convince and build an argument about things that do not even yet exist, except perhaps as forecasts.

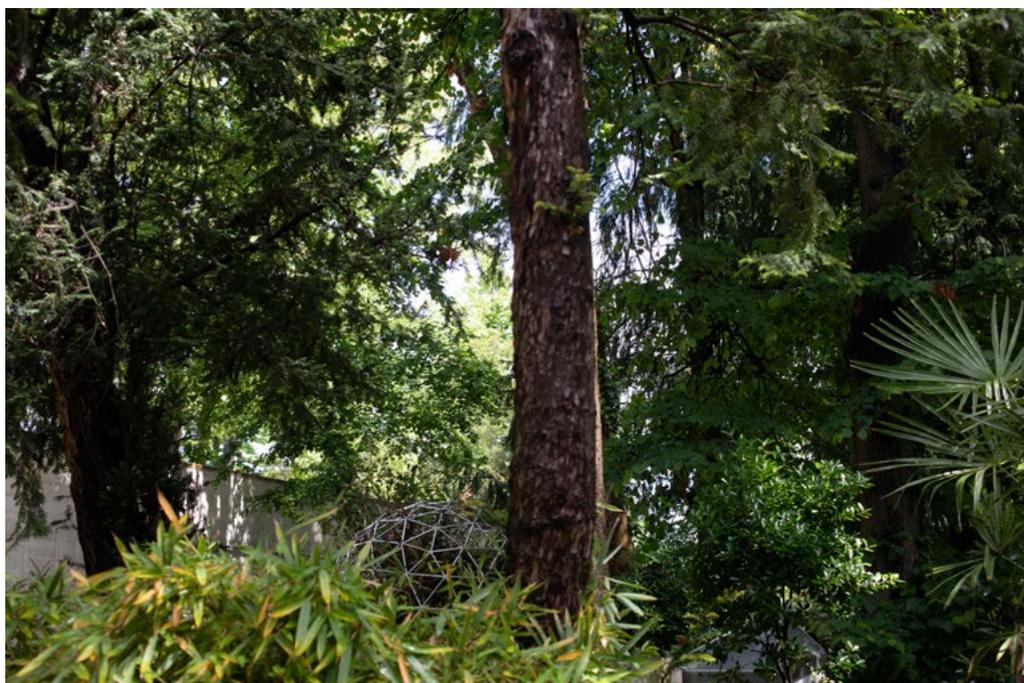
Traditionally, forecasts had to be separated from prophecies. Prophecies were, after all, the foremost technique for telling the future, long before the advent of modern technologies that combined observation and statistical reasoning. Forecasts offered a tool for trying to understand the dynamic nature of such things as the weather.¹ Meteorology and climatology emerged as part of a systematic attempt to think across scales: these disciplines highlighted how local observation is informed by, and can in turn inform, global patterns.² Weather, early on, became technological, based on statistics and data, management and knowledge. And being technology-based, it was also enabled by and integrated into the latest network media of the 19th century, namely telegraphy.³

As far as telegraphy and weather go, synchronisation is a key underlying principle at play. But it is not just about synchronisation across a distance measured as space, like when a flock of birds draws patterns of movement in the sky, when trains connect on schedule, or when geographically separated observation towers are able to compare data. Predictions and forecasts synchronise as technologies of time. Synchronisation across time establishes a link that is insecure, yet necessary, not merely here or there, but connecting the two based on the assumption that there is a comparable unit of time, too. Predictions as synchronisation convince us that this, here and now, is somehow related to that, there – what might happen, perhaps, if the statistical probability sticks to its tentative promise. Aesthetics and time go together nicely. At best, they gel, produce, synchronise, cut across a multiple of existing

1 Katherine Anderson, *Predicting the Weather. Victorians and the Science of Meteorology*. Chicago: University of Chicago Press, 2005.

2 On early phases of scalar thinking and climatology, see Deborah R. Coen, *Climate in Motion*. Chicago: University of Chicago Press, 2018.

3 John Durham Peters, *The Marvelous Clouds*. Chicago: University of Chicago Press, 2015, 251.



The environs of the Nordic Pavilion in Venice, showing Dead Hedge (centre), part of the installation *Ethnographies of a homespun spinelessness cult and other neighbourly relations*, 2019, by nabbteeri at Venice Biennale

Photo: Finnish National Gallery / Pirje Mykkänen

registers, enforce decay and produce qualitative leaps. An invented new threshold of time is like a form of seeing, a fresh form of experiencing, a way of stepping outside one's own body. Both, also, are speculative.

Everyone who has dealt with weather knows it may or may not happen. It is habitual in the fundamental sense that it connects with the body and its expectations, while also having to acknowledge that it is not only experience that determines what actually happens.⁴ We engage in the business of forecasting and expectations, the back and forth of checking the window and cross-checking the weather report to see whether or not to pack an umbrella.

The harmless little details of this everyday habit obviously do not match up well with the other scale of climate and reports speaking of longer-term futures. Or, in other words, only a fool would mistake the perception of weather with what is the more abstract large-scale reality of planetary transformation. Climate refers to these patterns over a long stretch of time – a 30-year period is often the standard unit of measure. It then becomes a matter of long-term durations, of possible futures, of massive scales of interaction of measurements: temperature, precipitation, pressure, wind, humidity.⁵ And these different scales of measurement are also injected into a different perspective on the human. Hence, it is not foolish to consider what forms of perception, experience and time are enfolded in climate and weather: a different time, a different rhythm. In cultural theorist Claire Colebrook's words: 'As long as we think of climate in its traditional sense – as our specific milieu – we will perhaps

4 See Wendy Chun's analysis of habit, in Wendy Hui Kyong Chun, *Updating to Remain the Same. Habitual New Media*. Cambridge, MA: The MIT Press, 2016, 55.

5 'Climate' in IPCC, 2013: Annex III: Glossary [Planton, S. (ed.)]. In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press.

lose sight of climate change, or the degree to which human life is now implicated in timelines and rhythms beyond that of its own borders.⁶

Much as the weather is not merely a professional concern for weather reporters or meteorologists, climate is not solely the concern of climatologists and other specialists dealing with the masses of data that are processed, modelled, statistically interpreted and presented to policy-makers. Climate becomes, as is obvious by now, one of those areas of concern that becomes a topic for science and engineering, humanities and contemporary art practice. But besides this truism underscoring its importance, it injects a whole range of specific parameters into our work. Questions of humidity and wind become part of humanities, issues of temperature or rain feature in artistic practice. Things biochemical, geophysical, or atmospheric form a crucial context for understanding contemporary situations in politics and aesthetics in ways that act as a passage to other times, other species, and, if we are lucky, an inroad into a different ethics.

Images such as scientific models and simulations are sorts of cosmograms for our times, helping us to address the material manifestations of how we understand large-scale entities, such as the universe (not a modest feat). Of course, these entry points to the large-scale are themselves rather concrete things, too, as John Tresch articulates: ‘maps, diagrams, buildings, calendars, poems, encyclopaedias’ that act as ‘performative assertions, entries into debates, points of reference for further elaboration’.⁷ Cosmograms can also be visual, even artistic tools; they are material, and yet they can speak across scales, synchronising separate events and phenomena into a quasi-argument, even. This is what I try to tell you, they say with a whisper or a low-frequency roar.

Part of our job is to invent cosmograms that are sufficiently complex to address possible futures. Some of them are synchronised with an eye and an ear towards a different time. There is a futurism packed into this context but futures are a different set than in traditional art and cultural contexts. This future arrives as climate models, it arrives as reports, an administrative category of information, convincing, yet establishing more than the greyness of bureaucracy that performs itself. If we ‘cannot absolve ourselves selectively of the past’⁸ the ensuing question would be how to stick with futures in a similar way that insist their force is felt now, whether they arrive as fictional imaginaries or scientific-based reports. The issue and the challenge is not to absolve oneself selectively of the future.

The recent Intergovernmental Panel on Climate Change (IPCC) report ‘Special Report on Global Warming of 1.5 °C (SR15)’⁹ makes a clear case for particular forms of a future that are now, to say the least, imminent. This is the report that made headlines again. It warned that the next 12 years are the crucial period for governments and intergovernmental organisations to make drastic changes across the board, from infrastructure and industry to personal habits and values, in order to curb global warming to ‘only’ 1.5 degrees Celsius instead of 2 degrees and counting (by way of escalating based on radical feedback loops). Some evidence points towards a trajectory of even four or five degree warming by the end of the century.

The IPCC’s style of reporting its findings is premised on a particular methodology of confidently making statements about the causalities of various proxies deemed to be relevant and how this affects our stance towards the future. So, for example, this part of the Policymaker’s summary of the report is flagged as ‘high confidence’ and ‘medium confidence’ based on the particular points of analysis: ‘Warming from anthropogenic emissions from the pre-industrial period to the present will persist for centuries to millennia and will continue to cause further long-term changes in the climate system, such as sea-level rise, with associated

6 Claire Colebrook, ‘A globe of one’s own: In praise of the flat earth.’ *SubStance* volume 41, issue 127, 2012, 36.

7 John Tresch, ‘Cosmologies Materialized: History of Science and History of Ideas.’ In Darrin M. McMaho and Samuel Moyn (eds.), *Rethinking Modern European Intellectual History*. Oxford and New York: Oxford University Press, 2014, 163.

8 James Williams, *Gilles Deleuze’s philosophy of time: A critical introduction and guide*. Edinburgh: Edinburgh University Press, 2011, 18.

9 <http://www.ipcc.ch/> (Accessed 13 November 2018).



Gingerbread House (detail), from the installation *Ethnographies of a homespun spinelessness cult and other neighbourly relations*, 2019, nabtteeri, in the Nordic Pavilion, Venice Biennale, 2019

Photo: Finnish National Gallery / Pirje Mykkänen

impacts (high confidence), but these emissions alone are unlikely to cause global warming of 1.5°C (medium confidence).'

The report lists a meticulously researched web of statements and their weighting based on levels of confidence that become like a rhetorical roadmap in terms of the various possible routes to the future, and their possible causalities that follow from observation of past trends. Furthermore, the IPCC report is also a good reminder of the stakes in forecasting futures based on the various intersections of this particular temporal forecasting. 'Climate-related risks for natural and human systems are higher for global warming of 1.5°C than at present, but lower than at 2°C (high confidence). These risks depend on the magnitude and rate of warming, geographic location, levels of development and vulnerability, and on the choices and implementation of adaptation and mitigation options (high confidence).'

The forecast marked 'high confidence' translates as the longer discussed point made in humanities and social sciences about the uneven distribution of the risks and effects of climate change. What is interesting is how the future comes very near; science fiction versions of radically and involuntarily transformed lifestyles are not a distant future, but one happening in the next 10–20 years, with accumulating impact. The salient issue is not only when, but where does the future arrive faster than you thought. This future 'there' becomes this happening 'here', or in most cases, that event 'there', where the geographical link between radical effects of climate change and global poverty need to be clearly understood. The seemingly clinical language of dealing with the distribution of certainties also needs to be connected to the politics of 'environmentalism of the poor'¹⁰ and the patterns of waste that define global culture: there's the chemical waste, and then there's the human waste (or life and labour treated as waste).¹¹

10 Rob Nixon, *Slow Violence and the Environmentalism of the Poor*. Cambridge, MA: Harvard University Press, 2011.

11 Sean Cubitt, 'Integral Waste.' In *Theory, Culture & Society* volume 32, issue 4, 2015, 133–45.

Models and simulations are technologies of knowing; they synchronise time in ways that are oddly out of place but constantly, at least as virtual potential, real. As cosmograms, they teach us particular forms of knowing that articulate the reality of abstractions as material manifestations. Hence, the aesthetic side of such weather reports, climate reports, futures now, is not mere ornamental decoration but becomes lived practice in that regime where abstractions and habits must work side by side. The task of aesthetics, then, is to teach and readjust our sense perceptions in relation to abstractions; ‘defamiliarisation and derangement of sense perception. This is primarily what is unfolding around us: the complete transformation of the sensations and qualities of the world’¹², as Heather Davis puts it in the context of Anthropocene aesthetics.

Abstractions as part of the transformation of the scale of sensing are interesting additions to this derangement. As noted by Sanford Kwinter, abstractions are ‘ingenious tools contrived to distribute the senseless procession of events in nature within an external, thinkable space of measure, management, and mastery’¹³. But that does not really exhaust their meaning entirely. In many ways, one can say, we already live as embodied abstractions that ensure that our sense of perception is more than just internal or even personal. This links to the sort of *weathering* that Astrida Neimanis and Rachel Loewen Walker talk about: weather, or climate for that matter, is not merely an external environment for human embodied sensation, but a temporal, intensive, qualitative participant in our bodily being and becoming. Bodies are in and of the weather and its long-term climates. The moods of the body are informed by the much larger-scale material forces that are expressed as air pressure, humidity, and temperature. And this weathering is also temporal: ‘climates and weather are not something we pass through (in a linear progression of time) or sustain (in an impossible denial of time), but are rather a time that we weather together.’¹⁴

In what ways can we also cultivate collective forms of understanding the temporal future? The future-now of forecasts is not a mere rationalising abstraction, but becomes the current horizon of praxis. One has to live in and through abstractions, as this is the only way to gain a sense of the scale of the issue. It does not of course mean that one does not cultivate forms of experience and activism. One form of lived abstraction could be the recently launched Extinction Rebellion activist movement, which instantly made headlines with its direct action in the UK, slowing down traffic, offering its own non-violent form of disobedience as part of the repertoire of weathering. Many others could be mentioned, for example the #Climatestrike wave of student strikes.

The sort of scalar thinking that resulted in the emergence of meteorology and climatology became an essential part of scientific knowledge, instilling a set of particularly odd timescales that were normalised gradually over the 20th century. The powers of forecasting that, for a long time, had to be strictly separated from prophecies or prediction, have however, again to be felt like weather – this time the slightly longer-term climate futures that are felt in the bones and on the skin. If the weather was already a war on multiple fronts, mobilised by technical media, then climate marks an escalation of violence measured in the reduction of human population, potentially by hundreds of millions, starting with the poorest. Suddenly, the seemingly mundane nature of ‘weather reporting’ becomes, again, political. Weather reports, as well as climate predictions, can act as activist practices and as indications of the storm clouds of the 21st century.

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12 Heather Davis, ‘Art in the Anthropocene.’ In Rosi Braidotti and Maria Hlavajova (eds.), *The Posthuman Glossary*. London: Bloomsbury 2018, 63.

13 Sanford Kwinter, *Architectures of Time*. Cambridge, MA: The MIT Press, 2001, 4.

14 Astrida Neimanis and Rachel Loewen Walker, ‘Weathering: Climate Change and the “Thick Time” of Transcorporeality.’ *Hypatia* volume 29, issue 3 (Summer 2014), 570.