

ART, TECHNOLOGY AND NATURE

Renaissance to Postmodernity



Edited by
Camilla Skovbjerg Paldam and Jacob Wamberg

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Since 1900, the technology of printing has been increasingly innovative and this book presents the intersections of art and technology in post-medieval Europe.

Transdisciplinary essays explore the shifting conceptual and micro level patterns of the Renaissance art academy and the followers of the precursors in the *Wunderkammer* printing, the presentation of the heretofore

In their contribution, Camilla Skovbjerg Paldam and Jacob Wamberg trace the history of art and technology from a distance to the transient of the present technology and ancient and modern technology common and methods (in an area more and more forces of

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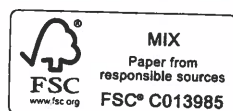
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How to Experience and Relate to Climate Change: The Role of Digital Climate Art

Søren Bro Pold and Christian Ulrik Andersen

Greenwashing or a Toolkit for Survival?

Towards the end of the first decade of the new millennium, a wave of interest in the climate crisis culminated with the United Nations Climate Summit COP15 in Copenhagen in December 2009, and waned somewhat after the failure to reach a binding agreement. As part of this, exhibitions were taking place and in general there was a broad discussion about art's relation to climate change. Within this, digital art forms – including installations, performances and activism – played an important role, exploring the new and prevalent complex connections between technology and nature that climate change puts on the agenda. This chapter will discuss the role of digital climate art and the renewed artistic interest in the climate crisis. After introducing the discussion, the chapter explores digital climate art from an *epistemological* and a *political* perspective based on analyses of two art projects: Petko Dourmana's room installation *Post Global Warming Survival Kit* presented at Transmediale in 2009 (Colour plate 12), and *Planetary Pledge Pyramid*, a collaborative project presented during COP15 in Copenhagen in December 2009 (Figure 9.1).

In the discussions surrounding the focus on climate art – for example, in relation to the Copenhagen Rethink programme of exhibitions and events which accompanied COP15 – it was argued that the focus on climate change is damaging to art, reducing art to being subservient to a political agenda. Especially at COP15, where climate art was closely related to a prestigious international climate conference, it was tempting to disregard the art as just a politically correct way to brand Copenhagen, the sponsors and the summit.¹ This temptation indicates that climate change is a difficult subject for art. It is a highly complex issue that disrupts many of the traditional concepts and dichotomies according to which we understand, construct and order the world, such as nature versus culture, reality versus representation, ecology versus technology. As a result, it is difficult to set up the criteria for and



9.1 The People Speak, Talkaoke at City Hall Square (2009), Copenhagen, during COP15 with host Erik Pold. © The People Speak/ Photo credit: Hektor Kowalski/ The People Speak

discuss the qualities of climate art. Does climate art have to be green itself, and should art propose solutions – for example, point out alternatives on a small scale – and if so, how do we evaluate these? Or does this kind of green art risk being dogmatic, subservient, docile and, as a consequence, uninteresting art? Should art instead remain critical and ultimately avoid serving other agendas than its own, even if the future of the planet is at stake?

We believe it is more important at this moment to *raise* such questions in order to challenge traditional worldviews than to find quick answers. The discussions surrounding climate change do in fact have artistic, cultural and aesthetic dimensions, and to fully realize this, art is needed. As it was argued at the final panel at Transmediale's Deep North conference, the issue is not *whether* climate change is coming – because it is already here and will continue even if we managed to immediately stop all CO₂ emissions – but *how* we can learn to live with it, prevent the most catastrophic developments and handle the altered relationship between us and our surroundings which climate change signifies.² If we accept this line of reasoning, the next question could be whether *digital* climate art has a specific role to play, even though its dependency on technology and electricity entails that it is not immediately 'natural' or green.

The astrophysicist Roger Malina argues for the importance of digital climate art from the position of the growing distance between science, technology and our everyday experience of the world. The problem is that 'common

science does not make common sense'. We use mobile phones, computers and many other results of modern techno-science, but we are generally unable to understand this technology, let alone its underlying cultural consequences. There is a need to work against the scientific world's institutional isolation and reach a deeper understanding of what takes place in the labs. We need a 'tool kit for survival' in which digital art is an important component: 'artists using new media and new technologies are not creating playthings for rich people but are part of the rapid cultural engineering we need to do to face the burning issues of our times'.³

As suggested by Jacob Wamberg, the evolution of the 'world picture' is connected to social and technical history.⁴ Whereas especially critical, digital media art such as net art and software art has to some degree been occupied with a critical exploration of its own media, currently an environmental sensitivity is emerging in digital art. The environment and climate have increasingly been a theme at leading festivals for digital art such as Transmediale, Ars Electronica, FutureEverything and ISEA. Besides the climate crisis, this environmental turn is also related to the development and spread of ubiquitous and mobile computing. Whereas digital media were more or less localized and stationary until a few years ago, such as the game console in the living room and the computer in the office, now they are embedded, slip easily into the pocket and increasingly overlay all aspects of our everyday life. We are gradually getting used to networks, data and communication overlaying our sense perception and feeling of presence – for example, in the form of smartphones equipped with geo-localization, Internet access, music players, social media and cameras.⁵ To an increasing degree, we are connected to data and the Net, even when walking in nature, and we are experiencing our surroundings mediated through mobile digital devices. As the environmental artist group HeHe phrases it, 'We are the Google Earth generation. We need to observe everything from above, from afar, through the glasses of a scientific model'.⁶

Consequently, digital climate art can be seen as part of the 'rapid cultural engineering' Roger Malina asks for, especially regarding our changing relations to the environment and how new technological paradigms such as ubiquitous and mobile computing increasingly become part of how we experience, relate to and interact with nature.

Imaginary Interfaces in the Deep Country

Entering a completely blacked-out room at Transmediale 2009, the audience receives night vision goggles and subsequently moves into the darkness. The work we are about to 'see' is called *Post Global Warming Survival Kit* and was made by the Bulgarian media artist Petko Dourmana. However, the darkness is thick, and our first experience is of being unable to see anything at all. Little by little we learn how the goggles work and discover an 'invisible'



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film featuring a coastal landscape projected onto a back wall. The film is shown via infrared light, which is invisible to the naked eye but can be seen through the night-vision goggles. We see a small caravan in the middle of the room from which infrared light emanates. On entering the caravan, we find a handwritten book, some communication equipment and various other instruments for sustaining life in a post-climate catastrophe world. With our night-vision goggles and a good deal of effort, it is possible to read in the book, which tells of life after the climate catastrophe, why it got dark and what the guard inhabiting the caravan is doing.

Slowly the layers of the installation are uncovered and its narratives pieced together, but still the difficulty of seeing is a central part of the experience. We move about uncertainly and awkwardly, meet other viewers that we cannot see properly, with their infrared goggles, and generally feel inhibited and alienated. The installation is a post-climate-catastrophic mystery that requires both intensive interpretation and night vision to be experienced. We leave with the experience of the inadequacy of our immediate senses, and a main point of the installation is the idea that the climate crisis demands a fresh perspective, our ordinary senses no longer being sufficient.

Digital media art like Petko Dourmana's installation offers the opportunity to experience a new, mediated perspective on nature. In addition to being a crisis for the globe and for humanity, the climate crisis is also an epistemological crisis, and we need to change our perception of the environment to better understand and deal with it. In other words, the climate crisis is also a cultural challenge.

The cultural challenge could be outlined as a breakdown – or perhaps more likely a reconfiguration – of the dichotomy between culture and nature. This breakdown leads to a semiotization of the weather, which we have previously regarded as something simply 'out there', beyond our reach, as nature in opposition to culture; however, the weather has now turned into yet another structure of signs to be read and interpreted. Furthermore, we have to act based on our interpretations: we cannot perceive the greenhouse gasses or their effects on the climate directly with our senses, so our understanding of climate challenges is largely based on complex climate models, and we must learn to act on this background. Epistemologically speaking, the climate crisis introduces us to the fact that our immediate surroundings are now being mediated by complex visualizations, statistics and carbon quotas. We have to rely on complex mediations or interfaces both in our interpretations and in our actions. In other words, an imaginary interface lurks in the blue sky, even deep in the country with no computers in sight. Or perhaps more precisely, we are increasingly experiencing the weather as an interface which shows the results of processes that we cannot immediately see with our eyes, but only through science; however, we know that we are influencing these processes, and what we experience might be signs of our influence. Just as in front of an interface, seeing through the mediation is a complex matter, but we become

part of a cybernetic feedback loop by way of our interactions. In this way, the climate becomes a question related to interface criticism.⁷

Although this climate-as-interface might sound complicated, we are increasingly experiencing it concretely. For instance, as nagging doubts – perhaps a pang of bad conscience – when we are enjoying the unusually warm weather that perhaps, perhaps not, is a sign of climate change. Or as an extra worry when storms hit: is this only bad weather or a portent of the future climate? While we can feel the weather, the climate is more abstract, or to quote an old meteorological saying, ‘climate is what you expect, weather is what you get’. In this sense, weather becomes the perceivable ‘front-end’ to an interface of which climate is the running system or the ‘back-end’. It would probably be easier to change our behaviour if the changes were easier to see – if the greenhouse gasses were visible as black smoke, smelled foul or were otherwise directly perceptible.⁸ We are used to acting on what we can perceive directly (the weather), not on scientific predictions as to what will happen in the course of the next centuries (the climate). In addition to being a subject of uncomplicated small talk, the weather is increasingly discussed as a potential sign of climate change and as such a subject for political debate, something we should do something about.

Recognizing this is a rather big challenge that demands a cultural process of change. What should we strive for now that it can no longer be growth, exotic holidays and bigger cars? How can we learn to acknowledge the invisible balances in a nature that is no longer absolute and unspoiled? To assist us in this process, art can confront us with new ways of seeing, as in the case of Petko Dourmana’s installation.

The Things of Climate Change

If acknowledging the climate problem is difficult, it is even harder to learn how to address it and act politically. How do you act, what does it mean to act, what can you act upon and what will the results of your actions be? Identifying the actors is also a challenge: who are the actors capable of making real change and how can we judge their commitment?

Besides taking to the streets, as many did with varying success during COP15, one way of exploring how to act is through media activism. Net art activists like *The Yes Men* expose hypocrites and frauds of all kinds by kidnapping companies’ brands, events, websites and press releases, and worthy opponents include Exxon Mobil, Halliburton and former President Bush’s (lack of) climate ambitions. These activists lay bare the greenwashing and empty rhetoric of some of the people who, behind the façade, are trying to prevent binding climate goals. At COP15 they exposed the Canadian government in particular and the political leaders’ lack of action in general by setting up a fake press studio, sending out fake press releases and giving people access to the press studio to make their own announcements.⁹

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But what if criticism is not enough? Bruno Latour has raised the question whether criticism, as we know and cherish it in the humanities and social sciences, has 'run out of steam' and even risks serving lobbyists in undermining scientific authorities such as the United Nations Intergovernmental Panel on Climate Change (IPCC) by establishing a default critical attitude or scepticism.¹⁰ Latour proceeds to discuss whether science studies have contributed to destabilizing scientific facts by doing analyses that show how scientific facts are produced by complex organizations and technological mediations and by directing 'attention toward the conditions that made them possible'.¹¹

In this manner, Latour critically examines his own method and the impact and role of both the humanities and the social sciences in the climate crisis. He questions whether our critical methods are at risk of turning into a default scepticism towards the findings of science at a time when it might be vital for our survival to actually trust in science. And he answers this question by arguing for a new understanding of the world, according to which we recognize that matters of fact are only very partial renderings of matters of concern, and that the world is much more complicated and things much more intertwined with social dimensions and cultural perceptions than the bare facts suggest. If the critical mind is to renew itself and be relevant again, he argues, it demands 'the cultivation of a *stubbornly realist attitude* – to speak like William James – but a realism dealing with what I will call *matters of concern*, not *matters of fact*'.¹² The concept of facts being too limited for most contemporary phenomena, Latour instead makes a distinction between objects and Things, with the latter containing both the object out there and 'an *issue* very much *in there*, at any rate, a *gathering*'.¹³ The concept of Thing is etymologically related to the Germanic and Scandinavian *tinge*, meaning an assembly such as the Norwegian Storting, the Icelandic Althing or the Danish Folketing.¹⁴ In general, Latour suggests a new epistemology based on the concept of Things:

things have become Things again, objects have reentered the arena, the Thing, in which they have to be gathered first in order to exist later as what *stands apart*. The parenthesis that we can call the modern parenthesis during which we had, on the one hand, a world of objects, *Gegenstand*, out there, unconcerned by any sort of parliament, forum, agora, congress, court and, on the other, a whole set of forums, meeting places, town halls where people debated, has come to a close. What the etymology of the world *thing* – *chose, causa, res, aitia* – had conserved for us mysteriously as a sort of fabulous and mythical past has now become, for all to see, our most ordinary present. Things are gathered again.¹⁵

Latour's argument is complicated and relates back to his book on the myth of modernity, *We Have Never Been Modern*, in particular its final chapter on 'The Parliament of Things', but it also rather precisely points out the complexity of the climate change debate.¹⁶ First, as discussed above, it points towards an epistemological problem: what do we see when looking at nature and the world, what is behind what we see, and how can we interpret and relate to this

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complexity? What we see when looking at the world becomes a 'gathering' that relates objects, scientific interpretations, technologies, political and cultural discussions. A Thing, such as the IPCC, the Kyoto Protocol and COP15, is related to scientific observations, cultural frameworks for how we view nature and, finally, what we can observe as objects in nature, such as sea levels and the weather. The climate changes and observations are consequently not facts – and will not be facts before after the fact, which is too late – but this does not mean that the IPCC climate scientists are lying, suppressing evidence or succumbing to political goals, as they have been accused of in the so-called climate-gate, but that things (and Things) are more complicated. However, if understanding this is difficult, and implies an epistemological change requiring facts, objectivity and nature to be reconsidered as Things, finding out how to act upon this – which we need to do faced with the climate crisis – is even harder. If Petko Dourmana's installation shows us that the perception of our immediate surroundings is mediated and relies on interfaces, then we also need more sophisticated models of understanding to engage ourselves politically.

Planetary Pledge Pyramid – A Design for Things

With such complexities in mind, *Planetary Pledge Pyramid (PPP)* was designed as an artistic project aimed at discussing the issues of climate politics, through collaboration between the London-based artist group The People Speak, the Digital Aesthetics Research Center and the Center for Digital Urban Living¹⁷ at Aarhus University. The project created an interface for change through collective idea generation, fundraising and online demonstration using popular media formats such as Facebook, talk shows and game shows. Whereas social media have often been used to quickly demonstrate how many of us support a specific cause, this project takes the next step and uses Facebook to recruit and connect people to generate, discuss and vote on ideas, also encouraging them to pledge a minimum of \$10 for the best idea to be carried out. At the same time, groups could debate in round-table talk shows (Talkaokes) at the City Hall Square in Copenhagen, and the final decision on the winning idea was taken by the audience in the final game show, 'Who Wants to Be?', which took place at Klimaforum09–People's Climate Summit at the end of COP15 in Copenhagen.

The project tested whether people can use online and offline communities to negotiate solutions and raise the money to carry them out. The vision – built on Buckminster Fuller's idea of a 'World Game' from 1960¹⁸ – was to recruit people from all over the globe to engage in discussions on how to solve the climate problems when the climate conference was launched in Copenhagen in December 2009. *Planetary Pledge Pyramid* was thus a global, planetary project designed based on the utopian idea that if people are given the

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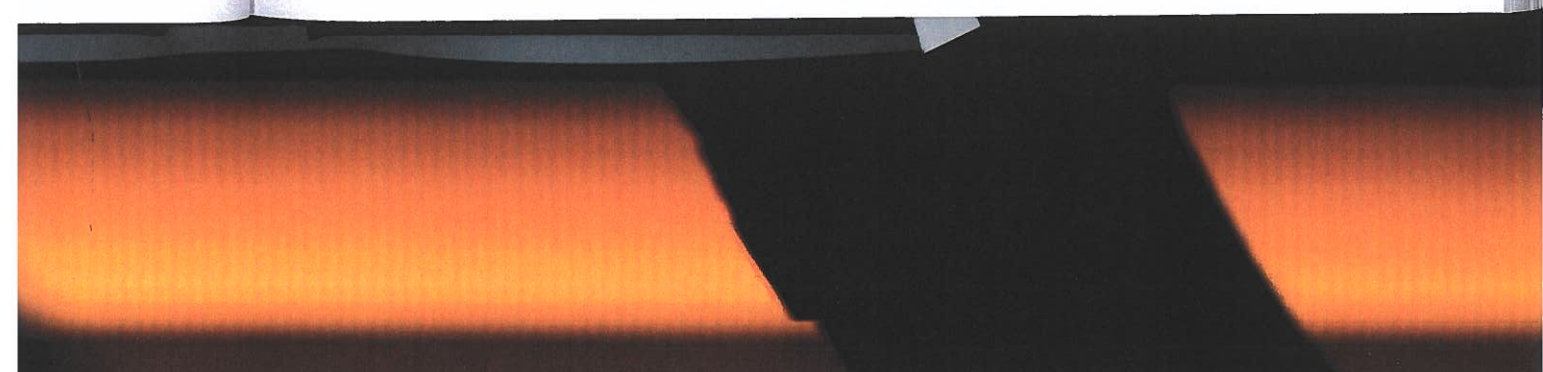
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appropriate tools in the form of an interface for collective activism on climate change, they will take on the task, including collecting the money through pledges. As such, it is a pyramid scheme for planetary activism designed to use Facebook's network of 'friends' for recruitment and dissemination.

Of course, the utopia did not fully succeed, and the project encountered problems staging serious debate and commitment in Facebook's attention economy. Still, the project managed to let the people speak and negotiate through various gatherings or Things (in Latour's sense). In fact, for the crowd of engaged users, it did create a community and open up discussions during the weeks leading up to COP15. It combined popular formats and serious discussions as a strategy to engage people but also to encourage them to reflectively explore the contemporary state of democracy. It aimed at simultaneously protesting against the ineffective negotiations of the serious politicians at the COP15 summit, supporting the hopes behind the summit and generating new ideas and taking responsibility. As such, *PPP* contained many paradoxes and dichotomies, which can be seen as weaknesses compared to more clear-cut protest strategies; and in fact the project was difficult to communicate, especially on Facebook, due to its complexity. On the other hand, given the situation, Things and explorations of how to create gatherings, make decisions and take action are necessary if we are to develop political action in the face of the climate crisis. The climate crisis is not clear-cut and based only on scientific facts, but rather is a new kind of gathering of fields within nature, science, technology, society and culture. Not only does this complexity make political action challenging, but it is also why the climate debate needs new Things to develop. By managing to engage more than a thousand people in Facebook and the Talkaokes and raise \$3,000 for the winning idea of planting 2,500 trees in Colombia, *PPP* offered a way to discuss and explore climate politics and alternatives to the COP15 failure.¹⁹

The Aesthetics of Digital Climate Art – A Starting Point for Exploration

Although climate change seems to be an obvious stage for digital art, the role art plays while onstage is essential. To avoid being dogmatic, climate art should accept the challenge as an artistic challenge – by not 'merely' servicing the climate discussion and communicating the results of science but also discussing how the climate crisis challenges our culture, art and experience. It can do this by addressing and letting us experience the epistemological challenges, as in Petko Dourmana's installation; by criticizing and exposing empty rhetoric and greenwashing, as do *The Yes Men*; or by delivering interfaces for change, as in *Planetary Pledge Pyramid*. As we have argued above and exemplified with Dourmana's *Post Global Warming Survival Kit* and *Planetary Pledge Pyramid*, the field ranges from the epistemological to the political, and of course also includes combinations, and this observation should merely be seen as a starting point for exploring the aesthetics and

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poetics of digital climate art. Not just serving as green embellishments for the actions of serious politicians and companies, nor as mere illustrations and diversions for the circus surrounding the climate conferences, digital climate art is challenging explorations of what it means to live after the climate crisis.

Acknowledgements

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Notes

- 1 Most of this debate took place in the Danish press; see 'Kunstretorik: Klimakunst er politisk bestillingsarbejde', *Politiken*, November 6, 2009, <http://politiken.dk/kultur/kunst/article827236.ece>. The Rethink exhibitions took place during COP15 at various locations in Denmark, mainly in Copenhagen. See <http://www.rethinkclimate.org>, and Witzke and Hede, 'Rethink – Contemporary Art and Climate Change' (Aarhus, Denmark: Alexandra Institute, 2009).
- 2 The panel was called 'Environment 2.0' and took place at Transmediale 09, Deep North, January 31, 2009. The argument was introduced by Dr Jochen Richerts as an answer to a question about the role of climate change art.
- 3 Roger Malina, 'What Is a Climate Artist?', in *Deep North*, ed. Stephen Kovatz and Thomas Munz (Berlin: Revolver Publishing, 2009), p. 99.
- 4 Jacob Wamberg, *Landscape as World Picture: Tracing Cultural Evolution in Images* (Aarhus, Denmark: Aarhus University Press, 2009), p. 23.
- 5 Currently, in the early 2010s, social media platforms such as Facebook and Twitter are increasingly including geo-localization features, and we are seeing the first (still sketchy) augmented reality interfaces that use geo-localization, the camera and the Net to present what we see overlaid with data (Layar, Wikitude, Nearest Wiki). Besides, websites and Web services such as Google increasingly include geo-localization features, but just being able to access the Net, bring along our data and music and instantly connect everywhere might nevertheless be the most important development.
- 6 Alessandro Ludovico, 'HeHe Interview', *Neural* (2009): p. 40.
- 7 Cf. Christian Ulrik Andersen and Søren Pold: *Interface Criticism – Aesthetics Beyond Buttons* (Aarhus, Denmark: Aarhus University Press, 2011).
- 8 In relation to pollution and smoke, the work of the artist group HeHe is particularly relevant with their ways of high-lighting smoke emissions from power plants and cars (see <http://hehe.org.free.fr/> [accessed July 30, 2010]) and their 'Disappearing Clouds', in *Deep North*, ed. Kovatz and Munz (Berlin: Revolver Publishing, 2009), pp. 126–27.

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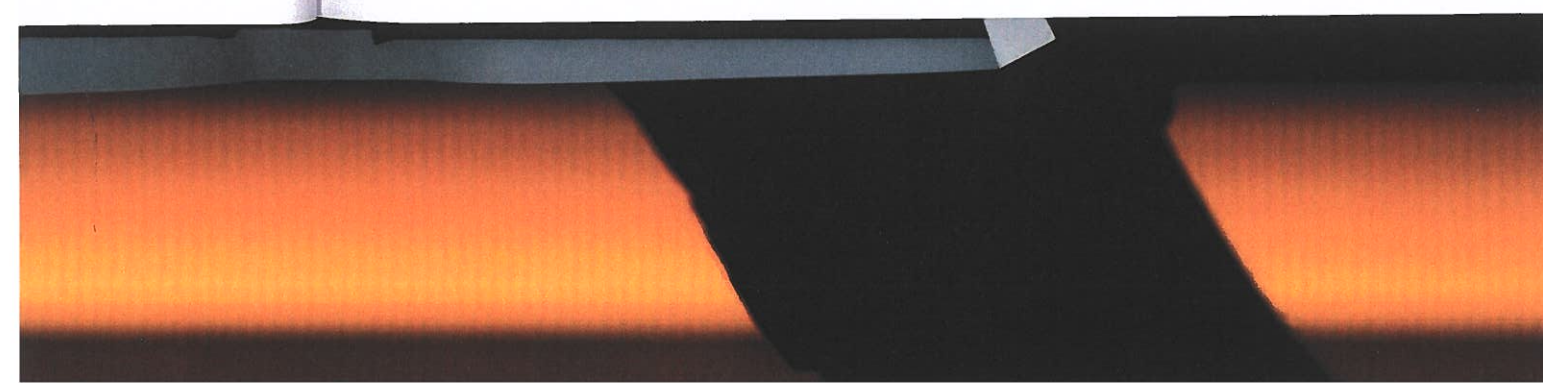
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- 9 Cf. <http://good-cop15.org/> (a copy of the official COP15 website, now defunct), <http://theyesmen.org> and <http://www.babelgum.com/yesmen> (accessed July 30, 2010).
- 10 Bruno Latour, 'Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern', *Critical Inquiry* 30/2 (Winter 2004): pp. 226–27.
- 11 *Ibid.*, p. 231
- 12 *Ibid.*
- 13 *Ibid.*, p. 233.
- 14 Cf. also Bruno Latour and Peter Weibel, *Making Things Public* (Cambridge, MA: MIT Press, 2005), p. 22ff.
- 15 Bruno Latour: 'Why Has Critique Run Out of Steam?', p. 236.
- 16 Bruno Latour, *We Have Never Been Modern* (New York and London: Harvester Wheatsheaf, 1993).
- 17 The authors are affiliated with the two research centres. The project was supported by TEKNE Production and part of Rethink, Hopenhagen and Klimaforum09.
- 18 Medard Gabel, 'Buckminster Fuller and the Game of the World', in *Buckminster Fuller: Anthology for the New Millennium*, ed. Thomas T.K. Zung (New York: St Martin's Press, 2001).
- 19 We estimate that more than 1,000 people experienced the Talkaoke table and among these 100 participated actively as speakers. On Facebook almost 500 users participated and the *Who Wants to Be ...* show attracted a local audience of around 50. We participated ourselves in the events, observed participants and collected material such as questionnaires and extensive video material. Thorough analysis of this material is beyond the scope and space limitations of this article, but we are preparing further publications on this. See also <http://darc.imv.au.dk/?tag=planetary-pledge-pyramid>.