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CLIMATE SCIENCES MEET VISUAL ARTS

Linking sediment and sentiment: on observing a sci-art project

Werner Krauß

Abstract

To observe art and science in interaction offered a great opportunity for me as cultural anthropologist to learn about the production of climate knowledge. Like ethnographers, artists entered the world of science, observed climate scientists and participated in their daily routines. They dissected elements of the scientific process and focused on science as a social practice. For scientists and artists, a process of "self-identification via the other" [Kramer, 1993] was set into motion. The artwork reflects this process by "mimicking" scientific procedures and by linking human sentiment and material sediments. Introducing the anthropological imagery of the trickster, I suggest that the project challenges a basic modern constitution — the separation of nature and culture — and brings the debate about climate change back into society.

Introduction

Climate change is a matter of public concern. Climate science provides a constant influx of information derived from models, statistics or technologies of observation; information that is interpreted and discussed like an oracle about the future of Planet Earth and humanity. But increasingly, climate science aches under the burden of prophecy and seeks help from transdisciplinary projects to learn more about the social life of climate, about itself and its role in society. When I started to conduct ethnographic research on the tribe of climate scientists at the beginning of the millennium, this was still considered as an exotic ethnographic topic. Today, "integrated science" is one of the unique selling points of climate research in Hamburg, and a program like "Understanding Science in Interaction" is part of this agenda. It is in this context that the "art meets science" project was started; they invited young artists and offered funding to conduct artistic research in interaction with climate scientists. The artists were no less exotic than the anthropologist, and they shared the same ethnographic curiosity in order to inform their sci-artwork.

For me, the interaction between artists and climate scientists offered another great opportunity to learn more about the production of climate knowledge. I am not an art critic, and my interest is not in the beauty or aesthetics of the artwork; instead, my focus is on the intercultural contact between science and art. Anthropologists consider art objects "as indices of agency and effective in mediating social

relationships" [Myers, 2004, p. 206] and in this line of thought, I direct my attention "to the ironies, disjunctures and convergences" (ibid) put into motion by the artists, their research activities and artwork. As a guideline, I deploy some elements of the ethnographic register of fieldwork in order to structure the account of my observations; when it comes to the discussion of the artwork, I switch into the role of an anthropologist studying the art objects of an indigenous culture.

In this field report, I argue that the "divergent forms of self-interpretation via the other", as Fritz Kramer[1] [Kramer, 1993, p. 246] once famously defined the ethnographic encounter, were responsible for the greatest benefit of the project. The direct contact of artists and scientists and the subsequent "culture shock" enabled a new way of self-reflection. This shift of perspective creates "an opportunity to arouse a slightly different awareness of the problems and situations mobilizing us" [Stengers, 2005, p. 994]. The project "slowed down" (ibid) the scientific process, and science came under scrutiny as a social practice. Or to put it differently, the project helped to link geological sediment to human sentiment.

The artist between culture shock, social death and deadline

Like the ethnographer, the artist uses herself as a measuring instrument. Ethnography as an act of "self-interpretation via the other" is a transformative process; the ethnographer has to be ready to challenge her own ideas and theories in order to be open for the concepts of the others. This often comes at the price of "social death" [Erdheim and Nadig, 1990], as a kind of traumatic experience, when the original plans fail and the artist-ethnographer is close to capitulation. This ethnographic terminology came to my mind when listening to the artists: in the course of the project, all of them changed their original plans; in various degrees, they experienced deep moments of crisis, and all of them argued for a prolongation of the deadline in order to get their final artwork done. In the following, I will present some vignettes to give an idea of these encounters between artists and scientists and the transformational process as crucial part of the project.

Imagine being a student of art and you enter the holy halls of the Max-Planck-Institute for Meteorology, experiencing the symbols of power, scientific authority and close-to-Nobel-Prize attitude of scientists; or you come into the sterile cubicle-like departments of KlimaCampus at Grindelberg, with their bureaucratic atmosphere and awkward collegial behavior; or you are mandated to explore the world of the secluded Helmholtz Center in Geesthacht, this strange mixture of campus, industry park and 19th century romantic science-scape, with a nuclear reactor as a kind of holy grail — in each of these cases, there is a taste of "culture shock" that you experience within your own culture.

In interviews, artists articulated the difference between this world of science, its architecture and bureaucratic etiquette compared to their own ideology of non-conformity, to the painted classrooms and cult of deviation in the University of Fine Arts (HFBK). At the same time, this image is part of the artistic self-confidence that they can bring to bear; it is their license to improvise, to come and go whenever they want, and to make a difference. Thus, scientists experienced their culture shock, too, and they expressed curiosity, delight and lots of respect. Scientists and

[1] Fritz Kramer is an anthropologist and was from 1989 to 2007 professor at the Hamburger Hochschule für bildende Künste (HFBK).

artists share a set of beliefs and of questions: where do ideas come from, what does "genius" or "ingenuity" mean, and what are the similarities and differences in the research process?

Artists turned into participant observers; they made contacts and looked out for interesting topics and interlocutors. Scientists gossip; they chatter when drinking coffee, before and after meetings, during lunch, when coming into each other's offices to discuss projects and papers. Like most people, scientists love to explain what they do, and artists ask, discuss and listen not as competitors, but as interested interlocutors with sometimes surprising ideas. Artists break the routine, they are exciting, they are a challenge, and they raise curiosity. Scientists are good in establishing "joking relationships", another anthropological vocabulary. Joking relationships are established with members of other tribes, and they are used to maintain equilibrium of power and to balance tensions. And tensions and doubts there are, of course. Are the young artists really competent enough to understand the process of science? Are they strong enough to have an independent mind, and will they match the level of excellence that these institutions proudly carry as their label? Or are they just another bunch of young "do-gooders" — an often-used derogatory term at KlimaCampus? One scientist complained about the naivety of "their" artist who "believed everything we said"; in a case of conflict, another scientist insisted that the artists still were "students" — and, consequently, subordinate in terms of academic rank.

But in the end, both artists and scientists rely on their own worlds to finally produce a piece of science or art. They belong to different tribes, and after their mostly short and intense encounters, the artists went back into their own "laboratories", into their familiar studios with the smell of paint and the air of rebellion. They discussed their projects with their colleagues in film, design, or painting; they worked with the material according to the rules of their disciplines and schools. Finally, they recollected their shattered identities and turned into artists, filmmakers, or art designers again. There is the routine of the deadline that takes over; rooms have to be organised, ideas have to be stripped down to what is possible to achieve; professors and project organisers enter the plan. Like scientists who are forced to publish their articles, to present a result for the project, and last but not least to keep their job, artists produce their work between social death and deadline.

Mediating between funders, artists and scientists, the directory board and especially the project managers come into focus. They quite naturally attract all of the tensions created through these awkward encounters, and they add further stress: from the beginning, the project had to be presented to the public. Climate science is 'Big Science' and competing on a market of knowledge; they have their own marketing and press infrastructure. From the beginning, artists were presented "like trophies", as one artist sighed confused, inside KlimaCampus and to the press; in short, they had to be someone and they had to present a project of their own. Here the definition of Fritz Kramer, self-identification via the other, comes into full swing: one does not have an identity fit for this purpose, but you have to perform one in interviews, seminars, presentations and contacts in a new environment. As said before, all of the artists went through a period of identity crisis, all of them changed their initial concepts, and they wanted a prolongation of the deadline.

The fabrication of a flyer for the final symposium and exhibition serves well as an example that the transformation process was encompassing scientists, too. The artists were responsible for producing it, but the final result did not meet the expectation of the project organisers. They argued that it was designed in a way that was "too confusing for scientists to read" and "did not meet the standards of the press": "Our scientists don't read flyers where they cannot see from first sight what it is all about"; the potential Nobel Prize winners were presented as too busy, in need of being spoon-fed. There were negotiations, and finally, a compromise was found; miraculously, all the before missing titles and institutional affiliations of the speakers at the symposium had found their way onto the flyer. The insistence of the artists on having the right to design the flyer according to their own criteria raised questions if they were really as independent as they pretended to be: weren't they slave to their own myth of independency? For a moment, mutual labelling challenged taken-for-granted identities, science and art indeed were in interaction. But there is no doubt that artists took the greater risk in this interaction, as they finally had to deliver artwork.

Mimicry and the Anthropocene

How did the ethnographic encounters transform into artwork? Did they finally "arouse a different form of awareness of what is mobilizing us", as Isabelle Stenger has put it? It is hardly possible to separate the process from the final product; the project has to be seen as a continuous process. Some of the artists were reluctant in adding additional information to their artwork; they wanted to present their "facts" without any further explanation. This is indeed a dilemma, because scientists normally also only present the final results as "facts" without further explanation. When we read in the newspapers that sea levels or temperatures will rise or a tipping point in Antarctica was reached, we normally do not discuss models or statistics. This is where some of the projects indeed raised awareness in producing artwork that shifts the focus onto the scientific production of knowledge, on the process itself. They did so in mixing-in miscalculations when re-visualising the abstract simulation of waves (Jessica Leinen); when mimicking the generation of data through scientific methods (Hagen Schümann) or when modelling dewdrops on a windowpane analogous to the scientific translation of natural phenomena into simulations (Reto Buser).

From an anthropological perspective, the artists deployed the concept of mimicry [Ferguson, 2002]. Colonial rulers wanted to educate the "uncivilised", and mimicry of European behaviour was part of this plan. But there was also the danger of excess of mimicry, when the "uncivilised" started to mock the colonisers and making fun of them in parodying their behaviour. Mimicry is a form of dialog, of an interaction that goes beyond mere reflection or mirroring; instead, it raises awareness for the unequal relationship in this situation and simultaneously undermines it. By mimicking scientific methods by transporting them into the field of art and using them for a different purpose, the artworks raise awareness of science as a cultural practice. Philipp Prinz deployed this cultural technique in the form of subversive humour: he decided to exhibit the imprint of pizza on baking paper, thus bringing the scientific method as cooking recipe into the art world.

The artwork reminded me of some arguments made by philosopher Gabriele Gramelsberger [2010] who studied the history of simulation, the central role it plays in climate science and for our perception of climate change. In a lecture

in Hamburg, she talked about how life would be when we take the simulation at face value and imagine living inside the simulated world. Our bodies were stretched over continents and oceans, the skies were grey, and there would be a constant drizzle.[2] There is the reality of simulation, and there is the reality we inhabit — but how do they fit together? What kind of reality is climate change?

There is another dimension to the artwork that exactly reflects this problem. In the films of Laura Reichwald and Katja Lell as well as in the VJ performance of Alice Peragine, humans and non-humans, scientists and their geological, fluid or human counterparts populate the scene of climate science. Sediments in a test tube are contrasted with a hand that expertly scans a human face, while the pedologist dreams in his office chair (Katja Lell); a hand controls a huge computer while waves hit a research vessel in the performance of Alice Peragine, and in Laura Reichwald's film the skin of the Earth, the erupting Mount Etna, is contrasted with the skin of a woman dying of skin cancer in a hospital. The world of science is filled with emotions, sounds, activities, expert knowledge, scales, dreams and literally, life and death. Without raising alarm or addressing climate or global change explicitly, these artworks humanise climate science (without betraying its methodology) and link simulation back to the real world. In doing so, the project and its result bridge the gap between art and science, but also transcend the boundaries between nature and culture.

This approach coincides perfectly with the concept of the Anthropocene, which currently is much talked about.[3] It is used to denominate the change from the Holocene as a climatically relatively stable period towards an era in which humans are equal in influence to tectonic forces. The concept bridges art and climate science in an interesting way: recently, leading geologists met in the House of Cultures in Berlin to discuss whether the concept of the Anthropocene is scientifically sound.[4] The task imposed by the Anthropocene is to link material sediment and geological sentiment, as well as to re-establish our trust in the institution of science. The sci-art project can be understood as a contribution to this effort.

Conclusion

When climate science and art meet, expectations are high: the project organisers spoke of 'mutual irritation and inspiration', of art as a challenge for climate science and vice versa. The concept of the project met well with Isabelle Stengers' idealistic proposal "to slow things down" in order "to arouse a different awareness of the problems and situations mobilizing us". The concept also provided enough room for the mutual "self-identification through the other", as suggested by former HFBK professor Fritz Kramer. The gain of knowledge did not consist in form of regular scientific progress, in reaching objectivity through abstraction from everything personal. As I have shown, it is quite to the contrary; knowledge is gained through personal experience, the individual confrontation with the other and its oftentimes confusing or devastating effects on identity formation. We have never been modern, as Bruno Latour [1993] once famously stated, and indeed, the final artworks resemble more the symbols used by indigenous Melanesians instead

[2] Gabriele Gramelsberger in a lecture at HafenCityUniversität Hamburg, 2013.

[3] See for example "The Anthropocene Project", http://www.hkw.de/en/programm/projekte/2014/anthropozaen/ anthropozaen_2013_2014.php, last retrieved on 31/1/2015).

[4] Information derived from the distinguished lecture by Bruno Latour at the Annual Conference of the American Association of Anthropologists in Washington, 2014.

of results expressed in equations or models. Even more, the equations and models turned themselves into symbols — and gained new meaning and became inspired with life.

In the final symposium, there was another anthropological moment that reminded artists, scientists and the audience what the "problems and situations mobilising us" actually are. The last speaker was the science-fiction author Dirk C. Fleck, and he painted in his lecture a panorama of doom and apocalypse, mixed with conspiracy theory and a deep distrust against climate science that is supposed to be a slave to the oil industry. Like a mad prophet, he preached that climate change will come as a catastrophe, and only primitive cultures and their shamans can offer advice how to survive it. The Hamburg school of climate research is known for its insistence on science and its animosity to any kind of climate alarmism. The project was carefully designed as an encounter between science and art, without bringing the political dimension of climate change into the foreground. Thus, nobody was prepared for the blank alarmism as presented by the popular science-fiction author. In terms of anthropology, he perfectly represented the mythical figure of the trickster. A trickster is a troublemaker who endangers the public order; he plays false, spreads rumours and plays out cheap tricks. Mr. Fleck, accompanied by two women who filmed audience and lecture, played this role virtuously, consciously or not. One eminent climate scientist left the audience in disgust. The discussion following the presentation was agitated. Scientists loudly argued that they are not paid by the oil industry, and they defended their reputation. Others appreciated that finally someone mentioned that climate science deals with a topic of high relevance, for humanity and planet Earth. Suddenly, the heated climate debate was on the table, and with it the question of truth, of trust and distrust in science, of climate fear and skepticism — finally, the climate debate was here, but under slightly altered premises.

At the following reception, artists and scientists frankly made confessions concerning their attitude towards climate change, questioned statements, and discussed the question in the light of the project. The pictures and artworks surrounding them had their saying, too — actually, the discussions centred around the art projects; the pre-configured opinions were filtered through a newly gained and still fragile common ground. Integrated science does not necessarily mean adding knowledge or improving methodologies; at least in my understanding, the divergent forms of self-identification, the intellectual and emotional repercussions of the culture shock, were its greatest benefit. The artists had to carry the greater risk; the scientists presented themselves as great hosts. Maybe the visitors — and the artwork — left some traces of their short visit.

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Author

Werner Krauß is a cultural anthropologist. His main interests are environmental anthropology, climate change and multi-sited ethnography. He worked in many interdisciplinary settings at the University of Hamburg, the University of Texas at Austin, and the Institute for Coastal Research/Helmholtz Center, Geesthacht. He was a contributing author to the IPCC report AR5 WGII, and he is also participating investigator of USI (Understanding Science in Interaction) at CliSAP. Recent publication "Die Klimafalle. Die gefährliche Nähe von Politik und Klimaforschung" (with H. von Storch, 2013, Hanser Verlag).
E-mail: werner.krauss@gmail.com.

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