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Nomadic Scientists, shifting fields and multi-sited ethnography: Exploring global change

In my paper I want to present a methodological approach on how to explore global change. Usually, ethnographic studies on global change investigate the effects of global change on and in specific locations. In the case of my fieldwork, it was the other way round: I started to do ethnographic research on environmental conflicts in Northern Germany, and I partly ended up in following nomadic scientists through shifting fields, exploring global change.

But first of all: what is global change? Global change is a truly macroscopic structure, it is the icon of globalisation. It is a non-metaphysical and science based description of the world we live in, of our life condition. For a definition, let us ask the experts and have a look at the “The Amsterdam Declaration of Global Change” from 2001, signed by nobel prize winners and other high scientific authorities:

„The scientific communities of four international research programmes recognise that, in addition to the threat of climate change, there is growing concern over the ever-increasing human modification of the global environment. Basic goods and services supplied by the planetary life support system, such as food, water, clean air and an environment conducive to human health, are being affected increasingly by global change.“ And it says: “Global change is real and is happening now”.

As part of my fieldwork, I attended the conference in Amsterdam, where this declaration was delivered to the public. I observed how a reality was made explicit through ritual and symbolic practises, and how it was added with value. In my paper, I want to strengthen the argument, that the openness of ethnographic fieldwork is not restricted through challenges such as global change, but quite the contrary: From an anthropological perspective, it is less a question of micro and macro, but rather of

connections, discourses and personal relations that constitute a field. (Hannerz 1996)
But how to follow the threads, paths and transnational connections of people and things, which finally make up what is called global change? In the following I demonstrate some methodological aspects of what is called “multi-sited ethnography”, using examples from my fieldwork.

Fieldwork

In the year 2001 I started fieldwork in the North of Germany, in the Wadden Sea region. The Wadden Sea coastline is shaped by natural forces and human intervention, by storm floods and by dykes to protect and to gain land. Today, climate change and the forecasted rise of the sea level is bad news for the region. But this is not the only reality of global change in that area. Global change increasingly serves as well as a frame and a concept for the management of the coastal landscape in general.
As part of an interdisciplinary project called “Nature in Conflict” (www.pronik.de), in which we looked for differing perceptions of nature resp. the Wadden Sea, my starting point were the conflicts between coastal population and nature conservation in this area (Krauss 2001, 2003). In the eighties, with the rise of the ecological movement, the Wadden Sea was declared as a National Park. Many locals protested against the implementation of the National Park. One of their arguments was:
“The Wadden Sea is a livelihood for the fishermen and not a playground for the scientists”.
“A playground for scientists” – what do people mean by that? Obviously, scientists play an important role in this area: The national park is based on the largest ecosystem research project ever pursued in Germany; economic activities are subject to environmental impact studies; scientific expertise legitimates the implementation of environmental directives of the European Union, the Wadden Sea is permanently monitored and increasingly becoming subject of science based coastal zone management. Thus, scientists are important actors, stakeholders and even cultural producers (Marcus 1998:99) – cultural producers, because today

the Wadden Sea is in almost everybody's eyes now defined as an endangered ecosystem, with practical consequences for the perception, administration and management of the coastal landscape. This made up my decision to integrate scientists into the realm of my fieldwork, to make the scientific construction of the Wadden Sea an object of my study. In doing so, global change and its enactment as a political device became an important object of my study, too.

Multi-sited ethnography

To study coastal science and to explore an object like global change you have to construct a design for your ethnographic work. Scientists are only occasionally present in the respective area. Sometimes, you find them on especially designed research ships with high-tech instruments or creeping with laptops in water-proof boxes through the mudflats, gathering field data. But they are no residents, they live outside the area. Their Wadden Sea mainly exists in form of simulations on a PC in their laboratories, constructed by transforming terabytes of field data. Thus, to explore the scientific construction of the Wadden Sea, you have to leave the area and to follow the scientists. The field is shifting, the research is becoming multi-sited.

A concept which George Marcus (1998:90) defines as follows:

"Multi-sited research is designed around chains, paths, threads, conjunctions, or juxtapositions of locations in which the ethnographer establishes some form of literal, physical presence with an explicit, posited logic of association or connection among sites that in fact defines the argument of the ethnography."

The related methodological device is "to follow", as Marcus goes on: To follow the actors, the things, the metaphors, the conflicts, the stories. In fact, to follow was the most natural thing to do for me: I chose a coastal research institute and followed the scientists, I followed how they constructed their objects, respectively the coast, I followed some of their projects, how they developed, organised and pursued them; I followed the life and biographies of some scientists, especially in connection to their career patterns, how they became science managers, global players, and

of course I followed the initial conflict – the conflict between coastal population and ecosystem researchers, who were accused to use the Wadden sea as a playground. In doing so, global change gained shape as a main object of study.

Shifting fields I: Laboratory

In our interdisciplinary project there was a co-operation with an Institute for Coastal Research, situated in Northern Germany, some hundred kilometres away from the Wadden Sea. Scientists from this institute had been involved in the ecosystem research project which legitimated the foundation of the national park. The director of the Institute, our co-operation partner, invited me to do fieldwork in his institute, to do fieldwork on the tribe of natural scientists as one of the main stakeholders and to find out the cultural baggage immanent in the conceptions of ecosystem research. Once accepted, this part of my research got its own dynamics.

With Latours “Laboratory Life” (1986) in mind I started my fieldwork for some weeks in the Institute. I had my own desk, my own computer in one of the many rooms, I tried to find out who is who among the more or less 120 researchers, I participated in coffee and lunch breaks, I conducted open and theme-oriented interviews and tried to take part in daily gossip. Fieldwork experiences as usual: I was identified as a spy from the executive board, as member of a management consultancy, or similar paranoid projections in a world of constantly changing science policies. We played the “otherness game” between natural science and humanities, establishing a joking relationship – there is only one real science, guess which... But there is a more fundamental difference than the one between the two cultures of science – there is an outside, which is the people, the great unknown, with strange beliefs and in need of enlightment about the one and only nature...

Most of the time I was learning: The scientists liked to explain what they are doing, astonished about so much naivete; I learnt about simulation and modelling, about bio-optical research and echolots and GPS; I never became an expert, but I got an idea. And I learnt about the difference

between science as officially producing truth, and its daily practice of experimenting, searching and trying, a work full of uncertainties and sometimes almost esoteric specialisation.
On conferences about the future of the coastline or in workshops in the Institute I had the possibility to present my work, that means the cultural dimension of the coast – an aspect that is almost completely neglected in coastal management, as well is every kind of reflexivity. Thus, I took sides or at least a position in my field. In defending my own work as an anthropologist, I presented myself as a coastal researcher too, and I got involved in interesting discussions. To put it ironically, this was my way of "going native".

Shifting fields II: Global Change

But following the scientists of the research institute meant to realise even another shift of my field, even though following them appeared to be possible only in a restricted sense. At least in respect to some of my main informants, who are travelling a good deal of the year around the world, presenting their organisations and the work done there to the global scientific community. After all, I managed to do this on some rare occasions. One was my participation at the "Challenges of Global Change" conference 2001 in Amsterdam, where the above mentioned Declaration of Amsterdam was delivered. The scientific global community is not only a metaphor but a well organised and structured community. At least, there are four such communities as mentioned before as the originators of the declaration of Amsterdam:
The IGBP (International Geosphere-Biosphere Programme), IHDP (International Human Development Programme, WCRP (World Climate Research Programme) and Diversitas (International Diversity Programme), each of them representing networks covering many subdivisions. Network is the key word in describing these organisations. They are non-governmental, with small secretariats where the networking is organised. The overall interest of these organisations is research in global change, with concerned scientists alarming and informing the public. Networking at least means, that thousand of research projects world-wide are summed

up and valued in the respective organisation. These NGOs are connected to and influence national and international science policies, i.e., they play an important role in the structure of funding science policies, and their findings serve as a basis for global policies such as the Kyoto process.
It is here where global change is constructed, where individual research findings are summed up to an overall picture of the state of the earth. New disciplines are evolving across traditional borders, under the name of earth sciences.
On another occasion I gained an insight into the dynamics of this global science practice, related even more closely to my research: on the tracks of the director of the institute I accompanied him to Miami, Florida to a workshop of LOICZ (Land Ocean Interaction in Coastal Zones), the global organisation of coastal research,. Here an elite of coastal researchers from all over the world was summing up the first ten years of global research and transformed them into a management plan for the next ten years. This shift from basic to applied research is reflected now in the programmes of the EU and other funding institutions, whose representatives take part in these meetings. On these conferences and workshops I was not only following my informants, but listened to dozens of presentations, established contacts to scientists and members of the executive boards of the respective organisations. And I was hanging around with them, as people on conferences do.
Globalisation is for people like these more than a metaphor or abstract formula, they are global players themselves. Listening to their conversations is hearing stories about meeting places all around the world, about the privileges of getting access to the golden cards of airlines, about the difficulties for maintaining a marriage while travelling so much and about prices in hotel bars. Networking means negotiating, in coffee breaks as well as in the night with a bottle of duty free whiskey or in the transition zone of the airport. Every organisation just like LOICZ has its own founding myth – after a conference of the overall organisation IGBP in France, three scientists sat together, in a nice location in a castle above the Loire, and reasoned about whether coasts are sinks or sources for carbon. They

considered this an important question, started some activity and that is how LOICZ was born and coasts became a global scientific affair.
It is nomadic community which can be studied along cultural research criteria just like identity, race, gender, it is a culture with hierarchies according to the rules of the academic world, with big men like nobel prize winners, scientists with mediating capacities, with science managers and an infantry of specialists and hungry young scholars. It takes some time to become acquainted to this global culture and to become an acceptable interlocutor. And, of course, you don't have too much time, workshops and conferences are limited, as well as my fundings. But I managed to establish some personal relationships, and you can stay in contact via e-mail. You may call this kind of study studying sideways (Hannerz 1996)– my informants were scientists and thus are colleagues too, of course.
Another shift in the field: Global change is part of popular culture – it was only recently that everybody went to see the climate thriller "The day after tomorrow". You open up the newspaper and you are confronted with global change. Thus, even if I sat at home at my desk, my field was with me. Natural catastrophes, weather extremes, floodings or droughts are almost immediately linked to global change, are explained as a result of or as a sign of climate change, on the basis of expert opinions, which are at the same time fiercely contested by other experts. Here I meet some of my informants again in the public arena – in multiple functions: as scientists searching for truth, as concerned advisors, as managers of their own institutes. In analysing public and scientific discourse you easily come to the conclusion, that the reality of global change is not yet constructed perfectly, but it is under construction.

Conclusion

"The Wadden sea is not a playground for researchers" – global change as a scientific construction is coming home to specific locations such as my fieldwork site. Following the paths, threads and transnational connections which lead to global change sheds a new light on the actual management of a coastal landscape. Global change is coming home in multiple ways: it is coming home in form of new legislation, as implementation of

transnational directives, as coastal zone management, or, more profane, in form of power point presentations of experts to the regional administration or population, as a structural element of everyday assemblies concerned with the future of the coastline. Coming home means that global change started as well in this area as well as in many other locations. In areas where local populations are dwelling, make a living and have senses of belonging. Where scientists gather their data, too. Multi-sited ethnography is a method to integrate both aspects as part of the same field, which is a shifting one.

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