The Climate Change in the Age of Its Technological Reproducibility. Geoengineering between Forecast, Risk, and Fiction

The philosophical subproject aims at interpreting possible future technologies which seek to manipulate the climate system of the earth on a large scale. With this in mind, geoengineering attempts to reverse the predicted consequences of climate change by controlling the biophysical environment. Firstly, the study dwells upon functions and problems of scientific climate forecast. Secondly, it develops a profile in the philosophy of technology with historical and normative questions. Lastly, film examples will be used to analyse how specific means of representation can transform technology and nature into arguments.

The first part of the philosophical project deals with embedding 'climate change' and 'geoengineering' in social processes. The methodical approach will draw on 'systems theory' components with respect to discourse-creating concepts. The goal is to find out how the abstract scenario of global warming can be illustrated to the wider public. In this respect, we have to ask how medial representation can actually create public awareness of the urgent need for technological developments and their possible designs. After all, projections prevalent in society decide whether particular options and their alternatives will gain acceptance. The study deals with comprehensive aspects such as uncertainties and risks, the logic of simplification in scientific communication, and the self-affirmation of the merely possible.

The inversion of traditional rationalities like means-end analyses and the principle of cause and effect is also an issue which has to be examined in the field of technology. Accordingly, the debate over geoengineering will be approached from the realm of historicisation. Moreover, we need a hermeneutic comprehension of technical thinking to understand the attempts of addressing the challenges posed by nature technologically. The examination of philosophical statements on technology has to be seen in this light. Based on techno-friendly and techno-critical positions, these discussions constitute the theoretical groundwork for normative arguments. With this in mind, concepts such as 'nature' and 'technology' will be presented in their historical context and juxtaposed with one-sided concepts of relief and threat.

The third part looks at cultural representations in films and novels and asks how fiction in the mass media may influence reality. As our expectations and perceptions of phenomena are informed by history and the media, it is necessary to unveil the historical and medial imprint on our prejudices and interpretations. To this end, the phenomenology of the 20th century will form the methodological basis in that the dispositives of our perception and of what we consider to be true are located in the context of the lifeworld. Especially in the case of interdisciplinary cooperation the phenomenological analysis of man's lifeworld provides a basis to the integration of the social, legal, historical, geographical, and physical aspects of geoengineering within the framework of a comprehensive anthropological interpretation.

One objective of the project is to elucidate contemporary and historical constellations of thought regarding the relationship between the naturally grown and the technically made. Reciprocal influences of mass media and social communication, of fiction and public discourse, of 'natural' nature and 'anthropogenic' technology will be described and possible processes of transformation will be reflected upon. Thus, three questions are

guiding the analysis. The first question starts from a perspective based on the social sciences and anthropology and asks what climate change and invasive climate technologies mean for people's perception of the world. Furthermore, what are the risks and side effects of technological systems?
Secondly, are there any problems of legitimacy regarding technological interventions to the ecosystem? That begs the normative question in how far the arguments brought forward by proponents and opponents of new technologies can be legitimated and evaluated ethically. Thirdly, how are 'technological solutions' presented by the media and which formal representations underlie the way how nature is depicted in films?
In sum, special attention is to be given to aspects of relief and threat, of chances and risks, of emancipation and regulation in technology.