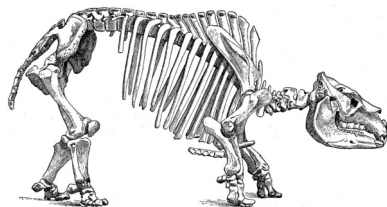


## Abstracts

**Martin Meiske**  
**Rachel Carson Center/  
Deutsches Museum**

*Earth Sciences in the  
Shadow of the Big  
Ditch. Epistemic Consequences of Geoengineering the  
Isthmus of Panama.*



Even though the Panama Canal was celebrated as a national triumph of US engineering, its planning, construction and extensions went hand in hand with extensive field work of international scientific experts. Recent historical research has described the development of biomedical and life sciences as well as the formation of tropical ecology at the Isthmus of Panama. My paper aims to contribute to this history of science perspective on infrastructures – in a first step, by tracing back the evolution of geological and paleontological research in the shadow of the planning, construction, and management of the Panama Canal. The appointment of the first permanent geologist at the canal construction site in 1911, who was supposed to analyze the principles of landslides that endangered the canal project, was very soon followed by a broad extension to a geological research program, supported by the US Geological Survey, and the Smithsonian Institute. In a second step I would like to analyze how geological profiles, collected fossils, and data sets that resulted from the field work at the Isthmus of Panama might have informed larger debates in the earth sciences in the first half of the 20th Century, like e.g. on evolutionary theory or the continental drift controversy.



**Raf de Bont**  
**Universiteit Maastricht**

*International Travelers: On the Intersecting Geographies  
of Interwar Bird Protection*

In 1922, the International Committee for the Protection of Birds (ICPB) was founded as 'the first truly international conservation organization'. In my paper I will discuss the difficulties the ICPB members encountered in their self-set task to work out a worldwide protection scheme for wild birds. I will do so by exploring the con-

flicting geographies involved. The flyways of birds, national borders, the transnational trading routes of feathers and bird meat, and the networks of the (mostly western) bird protectors intersected in complicated ways. This, I will argue, raised seemingly insurmountable difficulties both in terms of organizing field research and political negotiations. My paper will focus on this episode of failure, controversy and frustration in an attempt to understand a global environmental regime in the making.

**Robert-Jan Wille**  
**Ludwig-Maximilians-Universität**

*Claiming the Stratosphere: German  
Weather Balloons and Kites at Sea,  
under the Sun, and at the Ice*

In 1902, the stratosphere was jointly proposed by French and German meteorologists who had found 'temperature inversions' in the upper atmosphere. My paper analyzes three expeditions that were organized by the German state, or in which German scientists played a large role, in establishing a global stratosphere, taking balloon measurements in several parts of the Earth: the marine expeditions of the SMS *Planet*, Alfred Wegener's measurements during the *Danmark* expedition to Greenland and the 'aerological' East Africa Expedition of the Lindenberg Aeronautical Observatory, all between 1906 and 1908. These expeditions formed part of a larger international program to study the atmosphere above the seas, but thanks to investments by the Kaiser, would become instruments in claiming environments for German scientists: next to the tropics and the Arctic, the 'free atmosphere' as well. This large scale program of aerological field sciences changed older practices of 'cosmic physics' in the German universities and created the new field of atmosphere physics.

Commentators:

**Gregg Mitman**, University Wisconsin-Madison / Rachel Carson Center

**Franziska Torma**, Technische Universität München

**Jan Arend**, Ludwig-Maximilians-Universität



WISSENSCHAFTSGESCHICHTE @  
HISTORISCHES SEMINAR

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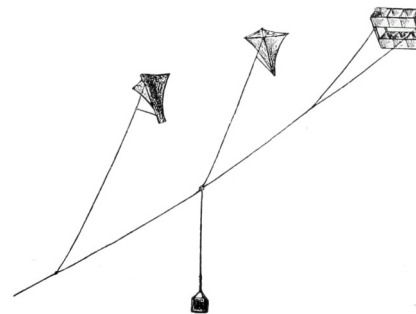
# LOCATING AND REORGANIZING GLOBAL SPHERES

SCIENTIFIC EXPERTS, THE NATURAL  
ENVIRONMENT AND TRANSCONTINENTAL  
FIELD WORK, 1900-1950

March 22nd 2017, Rachel Carson Center

Leopoldstrasse 11a

4th Floor, Room 415 (Conference Room)



## Introduction

"The plan, a memory of the future, tries on reality to see if it fits."

Laurence Gonzales

This workshop encounters those scientists in the early Age of Extremes who planned to study nature, and in the process carved up nature in specific spheres. These spheres were either entities that required human caretaking, such as nature reserves or experimental settings, or projected epistemic entities that needed to be watched and evaluated, such as the stratosphere and the Neotropic and Nearctic ecological zones.

These 'nature spheres' were designed to capture different climates, environments, physical processes or other natural phenomena, but more often than not they also represented political spheres: academic disciplines, scientific cultures, national and imperial claims, all in an increasingly competitive transnational and multidisciplinary world. Locating spheres in nature meant planning and coordinating at home, with the help of blueprints and instruments, and then negotiating these in the field. Spheres created new realities: many times nature had to be assisted to become more like the blueprint; in other occasions political realities had to be reimagined in order to accommodate nature's resistance.

Three speakers will engage with the interactions of the environmental sciences with different global environments between 1900 and 1950, in an age of high imperialism, radical nationalism and systematic industrialization.

Lately, more and more historians have used the concept of the Anthropocene to locate this period at the doorstep of the Great Acceleration, in which mankind itself became a geological force. In this period also the 'earth system sciences' started to assemble themselves from fragmented field sciences. This workshop studies that fragmented landscape.

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## Program

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|--------------------|--|
| <b>9:15-9:30</b>   | Opening  |
| <b>9:30-10:30</b>  | <i>Panama Canal</i> —Meiske<br>Comments—Mitman     |
| <b>10:30-10:45</b> | Coffee Break                                       |
| <b>10:45-11:45</b> | <i>Protecting Birds</i> —De Bont<br>Comments—Torma |
| <b>11:45-12:45</b> | <i>Stratosphere</i> —Wille<br>Comments—Arend       |
| <b>12:45-13:15</b> | Conclusion   |

Please register by March 19th: [R.Wille@lmu.de](mailto:R.Wille@lmu.de)