



Rachel  
Carson  
Center

Perspectives

# International Environmental History

Nature as a  
Cultural Challenge

CHRISTOF MAUCH  
HELMUTH TRISCHLER

2010 / 1

A photograph of a person walking across a vast green field, viewed from an elevated perspective. The field is framed by a thick, wavy border that transitions from yellow to green. The background is a solid orange-brown color.

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RCC Perspectives

# **International Environmental History**

Nature as a Cultural Challenge

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*The following introduction to the Rachel Carson Center is adapted from a 2008 proposal submitted by Christof Mauch (LMU Munich) and Helmuth Trischler (Deutsches Museum) to the Federal Ministry of Education and Research in a competition for the funding of an International Humanities Center (Internationales Kolleg für Geisteswissenschaftliche Forschung / Käte Hamburger Kolleg). The proposal's success led to creation of the Center.*

## **Introduction**

The Rachel Carson Center (RCC) is an international, interdisciplinary institute for research and education in environmental studies. It was founded in August 2009 at LMU Munich (Ludwig-Maximilians-Universität München) as joint initiative of LMU Munich and the Deutsches Museum with a grant from the German Federal Ministry of Education and Research. The Center aims to advance research on the interaction between human agents and nature, and to strengthen the role of the humanities in local, national, and international debates about the environment. Carson Center fellows, who come from a variety of national and disciplinary backgrounds, research topics including resource scarcity; cultural perceptions of and social adaptations to natural hazards; colonial and postcolonial influences on the environment; transformations of agrarian and post-agrarian landscapes; environmental criticism, ethics and politics; and forms of environmental knowledge.

Perhaps no other research field can profit so intensely from exchange and cooperation as environmental studies.<sup>1</sup> This is because, to begin with, nature has no national borders. Even as environmental issues differ from region to region, and as differing intellectual, ethical, cultural, and political frameworks inform human understanding and engagement, environmental problems are of *global* significance. The Center's organizing theme, "International Environmental History: Nature as a Cultural Challenge," underscores the significance of human understanding and agency in natural processes, thereby aiming to increase the visibility of the humanities in current discussions about the environment. By providing an institutional and intellectual home for these

<sup>1</sup> The relevance of international and interdisciplinary partnerships can be best seen when looking at the program of the bi-annual European Society of Environmental History (ESEH) conferences. Even more so than other humanities disciplines, the ESEH is multinational and multi-disciplinary.

discussions, the Center advances environmental studies as a distinct field of research that prospers from the cross-fertilization of different international, comparative, and historical perspectives. In this brief introduction, we explain the significance of the field, outline its central research questions, and describe the Center's interdisciplinary and international structure and activities.

### **Significance and challenges of humanities research in environmental studies**

Over the last few years, shifts in nature and their ramifications for humanity have featured much more prominently in our lives than ever before. Compared to the 1980s headlines about *Waldsterben*, the twenty-first century media have been much more interested in recent climate changes in various ecological systems, and especially in the human roles in these processes. Heat waves, tsunamis, and hurricane catastrophes have become fixtures in human collective consciousness around the globe. Bookstores and video rental shops supply their customers with a steady flow of new images featuring both real and imagined natural catastrophes; Hollywood especially seems to be continually producing blockbusters that dramatically present extreme natural disasters and their consequences. Furthermore, the global importance of environmental consciousness is increasingly recognized; the Nobel Prize awarded to former U.S. Vice-President Al Gore and the United Nations Intergovernmental Panel on Climate Change attests to the international relevance of environmental changes for politics and society in general.

In the realm of the natural sciences, environmental questions have long enjoyed a prominent position. In the Federal Republic of Germany alone, many universities and independent institutions examine research questions pertaining to the environment from very specific perspectives (meteorological, energy-related, atmospheric, oceanic, geologic, agricultural, etc.). Humanities scholars, by contrast, are very poorly represented in these institutional organizations. Such scholars could, however, contribute well-founded research in the context of current environmental discussions and would also advance dialogues with public officials in both a constructive and consistent manner. Humanities scholars, even more so than natural and social scientists, are able to describe, interpret, and present the complex relationships between nature and cul-

ture (which are central to the current environmental problems) to the general public. Unlike most natural scientists, humanities researchers analyze not only how human practices affect nature; they also investigate the ideologies, interests, and visions that form the basis for these practices. By means of focused historical and comparative perspectives, humanities scholars consider contingent factors like natural catastrophes and war, epidemics and droughts, embargos and price increases; these aspects are notoriously underrepresented in natural sciences' calculations and models. In addition, because of their interest in long-ranging developments and their openness to different fields of inquiry, environmental historians in particular play a key role in examining the often-neglected impact of human actions on the natural world and vice versa.

In spite of its capacity to contribute to environmental knowledge and debates, humanities research is too often confined within disciplinary boundaries developed in the nineteenth century. Because of such classifications, scholars do their research in precisely defined fields. By contrast, natural scientists have been most innovative precisely *because* of interdisciplinary study, as seen, for example, in the fields of global change and neuroscience. John McNeill, a world and environmental historian, dramatically raised this underlying deficiency when he compared a humanities scholar to a drunk who looks for his car keys under a lamppost — not because the drunk has lost his keys, but because this is the only place on the street that has light.<sup>2</sup> Many humanities disciplines have concentrated on ever-shrinking terrain, and these research fields are becoming more and more specific. As a result, truly new research will only be able to develop from the margins, not from within established disciplines. The Rachel Carson Center is consciously committed to the goal of defining a new research field through intense academic cooperation. This new field will not develop from or within long-established academic traditions; rather, existing research strands will be combined to pave the way for new methods and types of research.

2 John R. McNeill, "Drunks, Lampposts, and Environmental History," *Environmental History* (January 2005), <http://www.historycooperative.org/journals/eh/10.1/mcneill.html>.

## Establishing a distinct humanities research field

Clearly humanities research is of great relevance for environmental studies; yet there are several reasons it has been subdued in recent environmental debates. Despite work by early environmental historians, most historical accounts continue to relegate the role of the environment (as opposed to the role of political decision makers or social groups) to the periphery. More than 25 years ago, medievalist Arno Borst claimed that natural disasters had no lasting impact on society and history.<sup>3</sup> This perspective also applies to other natural phenomena and is still symptomatic of the views of many historians. Most historians privilege autonomy (or the primacy of the cultural sphere) while simultaneously ignoring the impact of ecology (or of the natural sphere) on cultural developments. The specter of ecological determinism still haunts many scholars in the humanities.

In spite of the hesitant approach of humanities scholars towards the inclusion of natural science in their research, a series of recent studies have analyzed the participation of humans in changes to the natural environment as well as the cultural consequences of these developments. Research topics include the cultural effects of the Little Ice Age (the general drop in temperatures in central Europe between 1300 and 1900),<sup>4</sup> as well as work on the deforestation of the Mediterranean area, which can be seen as a prime example of a failed, ecologically destructive form of land use. These examples, to which one could add many more, reveal a reason why questions about the interaction between nature and culture in the humanities have often been underrepresented. As a general rule, these topics were discussed mainly in specific disciplinary and regional contexts. They did not take related disciplines into consideration, nor did they examine comparable practices in other countries. Therefore, the central problem is not a total lack of research into the interdependency between cultural conceptions and ecological changes. Rather, what have been missing are dialogues between different disciplinary fields, and — even more important — comparative and global perspectives. The Rachel Carson Center aims to serve as a corrective to this situation by establishing

3 Arno Borst, "Das Erdbeben von 1348. Ein historischer Beitrag zur Katastrophenforschung," *Historische Zeitschrift* 233 (1981): 529-69, esp. 532.

4 Wolfgang Behringer, Hartmut Lehmann, and Christian Pfister, eds., *Kulturelle Konsequenzen der „Kleinen Eiszeit“* (Göttingen, 2005).



a distinct research field within the humanities that encourages exchange between all academic fields that address environmental questions.

### **Central research questions**

The main goal of the Rachel Carson Center is to produce diverse, interdisciplinary research on the relationship between human culture and the natural environment — and specifically how this interplay reveals the *nature/culture* dichotomy with all its various implications, but also questions and destabilizes it as a construction. Despite the terms' cultural construction as well as the prevalence of “cultural traces” across the globe, the idea of a fundamental difference between nature and culture continues to influence our thoughts, actions, and social, political and technical discourses. In order to increase manageability and transparency of this field of research, as well as to shape the profile of the institute, the Rachel Carson Center groups its projects into six (often interrelated) thematic clusters: *Resource use and conservation*, *Natural disasters and cultures of risk*, *Ecological imperialism*, *Transformations of landscapes*, *Environmental ethics*, and *Knowledge and knowledge societies*.

#### **1. Resource use and conservation**

How have societies throughout history reacted to diminishing vital resources (such as water, wood, land, or fossil fuels) and items of trade (such as precious metals)? How were the changes perceived? Which rules, practices, and discourses were developed to deal with such challenges — or to ignore them? For example, the early Spanish explorers in North America — and even the Native Americans and Mormons — were much more inventive when dealing with scarce water resources in the American West than the European settlers in the nineteenth century. Methods that compare cultures, technical solutions, and their supporting philosophies and paradigms provide important insights when considering the availability and use of natural resources within national and regional energy systems.

#### **2. Natural disasters and cultures of risk**

Throughout history, humans have been exposed to the risk of the total material destruction of their way of life by natural disasters. This can be seen not only in the destructive floods on the Philippines in the twenty-first century, but also in the annual

floods in Baghdad 1000 years ago, and in every place that — especially in the recent past — has been threatened by volcanoes, earthquakes, or hurricanes. Research in this cluster examines “cultures of disaster”: how different societies have historically attempted to protect themselves against the devastating impact of natural disasters, and how they have responded to catastrophes.<sup>5</sup> Topics include investigations into the cultural perceptions of risk, social and ecological factors that influence settlement in “risky” areas, representations of catastrophes, and forms of remembrance following a disaster.

### 3. Ecological imperialism

Colonial regimes have left colonial lands with not only social scars and legacies, but with environmental ones as well.<sup>6</sup> The spectrum of colonial impact from conservation to destruction spans from the establishment of natural parks in Africa to the systematic clearing and devastation of tropical forests in South America. Colonial lands have also been transformed by the introduction of new species, the hunting large animals, and the installation of “European” infrastructures. Less obvious — but not less important — is the impact of knowledge transfer processes such as cartography, surveying, and development planning on colonial and postcolonial environments. Knowledge transfer includes not only technologies for physical transformations, but also ways of thinking about nature, such as conceptualizations of nature as a “wilderness” to be domesticated or as a font of resources; such values have been transmitted culturally in novels, travelogues, and economic plans.

### 4. Transformations of landscapes

Agricultural history reveals both human acclimatization to ecological changes and the sophisticated cultivation/manipulation of the natural environment. How have recent technological developments (including large-scale dams and other infrastructure projects) or the globalization of trade influenced in the reorganization of agricultural areas? While political and economic questions dominated earlier research on agriculture,

5 Greg Bankoff, *Cultures of Disaster: Society and Natural Hazards in the Philippines* (London, New York 2003); Christof Mauch and Christian Pfister, eds., *Natural Disasters, Cultural Responses: Case Studies Toward a Global Environmental History* (Lanham, 2009).

6 Research taken from the British geographer, biologist, and historian Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism, 1600-1860* (Cambridge, 1995). See also Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900, 2nd ed.* (Cambridge, 2004).

an understanding of the complex interplay between physical factors (soil, climate), cultural preferences (landscape types, preferred foodstuffs), and social consequences (migration) is needed. In this cluster, the perspectives of environmental history, technical history, and infrastructure history are connected in examining the physical and cultural factors that have led to transformations of agricultural landscapes.<sup>7</sup>

### 5. Environmental ethics

In and of themselves, polluted water, eroded soil, and deforested lands are neither historically meaningful nor naturally political. Rather, humans, through their perceptions, beliefs, and engagement, attribute them with value. This cluster examines the cultural contexts from which environmental movements and values (such as an obligation to future generations) have emerged and the social phenomena that have contributed to their social and ethical relevance. A variety of work on these questions is being done, including research on the human-animal relationship,<sup>8</sup> the role of the media,<sup>9</sup> the symbolic and legal dimensions of environmental politics,<sup>10</sup> “climate justice” and the theology of sustainability,<sup>11</sup> and the history of environmental protests in the 1970s.<sup>12</sup> The Rachel Carson Center aims to put such diverse research strands into dialogue with one another, address transnational dimensions, and encourage intercultural comparisons.

### 6. Knowledge and knowledge societies

This cluster examines the emergence of knowledge about “nature” while also attending to the intersection between environmental history and the history of science. The ecological implications of scientific research go back to the early modern period, as

7 See also Dirk van Laak, *Weißer Elefant. Anspruch und Scheitern technischer Großprojekte im 20. Jahrhundert* (Stuttgart, 1999); and idem, “Infra-Strukturgeschichte,” in *Geschichte und Gesellschaft* 27 (2001): 367-93.

8 Keith Thomas, *Man and the Natural World: Changing Attitudes in England, 1500-1800* (London, 1984).

9 Jens Ivo Engels, „Von der Sorge um die Tiere zur Sorge um die Umwelt. Tiersendungen als Umweltpolitik in Westdeutschland zwischen 1950 und 1980,” in *Archiv für Sozialgeschichte* 43 (2003): 297-323.

10 Bernd Hansjürgens and Gertrude Lübbecke-Wolff, eds., *Symbolische Umweltpolitik* (Frankfurt am Main, 2000).

11 Markus Vogt, “Climate justice: An ethical analysis of the conflicts, rights, and incentives surrounding CO2 Emissions,” and “Sustainability and climate justice from a theological perspective,” *RCC Perspectives* (Munich, 2010).

12 Franz-Josef Brüggemeier and Jens Ivo Engels, eds., *Natur- und Umweltschutz nach 1945. Konzepte, Konflikte, Kompetenzen* (Frankfurt, 2005).

seen in the debate about the “commodification of nature” in the eighteenth century.<sup>13</sup> Darwinism is a prime example for the social dimension of scientific research. The advancement of explicit environmental studies and sciences under this name in the late twentieth century is based on multiple precursors in biology, agriculture, and forestry. Important questions of modern scientific research, such as the relationship between academic disciplines and ecological problematics as well as the social production of ignorance (agnotology), have received little attention in environmental studies.<sup>14</sup> At the same time, it cannot be forgotten that modern knowledge of the environment is always acquired in competition with — or in discursive and practical separation from — traditional knowledge forms (“traditional ecological knowledge”).

### Diversity and coherence of research questions

The research topics described above form the backbone of the research endeavors at the Rachel Carson Center. In order to maintain diversity within the Center, as well as to achieve the largest possible pool of applicants for fellowships, the annual call for papers features three or four rotating thematic clusters (or areas of research) each year. Even though the clusters focus on different areas, they are all linked through the central theme of the Rachel Carson Center: the relationship of nature and culture. The central questions, applicable to all research areas, are as follows: Which ideas, conceptions, and experiences are underlying our understanding of natural phenomena? Which differences are brought to light by the comparisons of diverse time periods and cultural areas? To what extent are cultural perceptions relevant for human actions? Which knowledge forms and knowledge resources shape the negotiations between the environment and society, between nature and culture? How do these forms and resources differ in different societies and in which ways? What reciprocity has there been and is there still between cultural conceptions, human behavior, and the “unique logic” of nature?

13 Torsten Meyer and Marcus Popplow, “‘To employ each of Nature’s products in the most favorable way possible’: Nature as a Commodity in Eighteenth-century German Economic Discourse,” in *Historical Social Research* 29.4 (2004): 4-40.

14 Some starting points can be found in Paul Forman, “Recent science: Late-modern and post-modern,” in Thomas Söderqvist, ed., *The Historiography of Contemporary Science and Technology* (Amsterdam, 1997), 179-213; and Robert N. Proctor and Londa Schiebinger, eds., *Agnotology: The Making and Unmaking of Ignorance* (Palo Alto, 2008).

The participation of many different humanities disciplines means that there is no overarching theoretical framework. This should be seen not as a drawback, however, but rather as a prerequisite for success. The work of Mary Douglas<sup>15</sup> or James C. Scott,<sup>16</sup> as well as the “green” analyses in literary studies, often called *ecocriticism* or *green cultural studies*,<sup>17</sup> are examples of how effectively diverse theories and methodologies can be implemented in interdisciplinary projects. One of the main goals of the scholars working in the Rachel Carson Center is to establish a community of methodological openness and transparency. In such an open climate, participants can reflect on the limits of various methods and theories and are then motivated to consider experiments and collaborations within their own work.

While a humanities project that examines nature is not going to produce scientific research, it is clear that such a project will have intense dialogues and relationships with related natural and social science fields. The experience and knowledge of the *Deutsches Museum* is essential for developing and maintaining such partnerships. The *Deutsches Museum* has a set of tried and tested formats for accomplishing one of the main goals of the Center: *the public understanding of research*. The Rachel Carson Center relies on such experience when making humanities knowledge applicable to natural and social science research. On the whole, the Center has been established with a wide-reaching disciplinary and methodological base on which specific and focused research questions will be developed and examined.

### **Activities and organization of the Rachel Carson Center**

The Rachel Carson Center functions primarily as a think tank of researchers. The Center provides a home to scholars working on international, historical, and comparative environmental studies, and creates opportunities for young academics. Importantly, the Center also contributes to the public debates and discussions on environmental policies and politics.

15 Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London, 2005).

16 James C. Scott, *Seeing like a State: How Certain Schemes to Improve the Human Condition have Failed* (New Haven, Conn., 1998).

17 Lawrence Buell, *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture* (Cambridge, Mass., 1995).

The main emphasis in the Rachel Carson Center is the research work of its international “Carson Fellows,” highly regarded, established researchers or to promising young scholars who are looking to complete a book or articles which correspond to one of the thematic clusters of the Center. In order to attract excellent fellows from all over the world, the length of the fellowships are flexible. In order to achieve continuity, the fellowships are staggered so that no more than half of the fellowships end at any one time. All Carson Fellows are required to work actively on their research in Munich and are expected to contribute their substantial expertise to the work of the Center.

The organizational structure of the Rachel Carson Center is designed to reinforce its goals of international and interdisciplinary exchange. In addition to the directors, and fellows, the staff of the Rachel Carson Center consists of a total of nine positions, advertised internationally. They include a Managing Director, Office Manager, Project Director, and four Research Fellows. The Research Fellows devote part of their working time to their own research projects and part of their time to one or more of the Center’s programs. In addition, Research Fellows are asked to offer at least one course per year at the university. This set-up provides an integral and visible component of an intellectually vibrant academic community. The work of the Center is complemented by an international advisory board. This board offers critical analysis and advice, and also publicizes the work of the Center locally, nationally, and internationally. The board is constructed so that the members, together with the Center leadership, represent the wide-ranging thematic duties and responsibilities of the Center.

RCC fellows and staff participate in a variety of activities and programs that support the Center’s mission:

### **1. Colloquium**

During the semester (and during the semester break as needed), the Rachel Carson Center offers an open colloquium, which meets once a week. The Carson Fellows, as well as select national and international guests, faculty of LMU and other Munich based universities, present and discuss their current research. Participation in this colloquium is expected of all Carson Fellows, research fellows, research associates and, in the future, will be a requirement for students enrolled in the new M.A. and Ph.D. program (see below).

## **2. Summer School**

The RCC also plans to offer an annual summer workshop for doctoral students and recent post-docs. Ideally, each workshop will correspond to one of the thematic clusters of the RCC. The workshop will be based around an intense discussion of pre-circulated papers.

## **3. Degree Program**

A degree program (M.A. and Ph.D.) in “Environment — Knowledge — Society” (working title) will be launched at the RCC, and by extension, at LMU Munich. The goal of this degree program is to produce graduates trained in interdisciplinary environmental studies who will have the international perspective and skills necessary to become leaders in academia and in the public sphere.

## **4. International Conferences**

In addition to thematically oriented conferences, symposia, summer schools, and workshops, the RCC also plans to sponsor and organize a small number of international conferences on environmental topics.

## **5. Exhibitions**

Exhibitions of the *Deutsches Museum* will be part of the outreach program of the Center. They will be designed to provide a broad public forum for presenting the Center’s principal research results. In addition, they will demonstrate the importance of humanities work in environmental studies. The results of the Center will also be integrated into other exhibition projects at the *Deutsches Museum* on energy and the environment.

## **6. Digital Resource**

The RCC is designing an online portal that will give academics and the interested public worldwide access to digitized documents (texts, but also documents such as advertisements, climate records, photos, or correspondence), and small online interpretive exhibitions. One of the ways in which the Carson Fellows and Research Fellows might wish to contribute to the Center is by providing materials to this collection from their own research fields. The digital resource would not be limited to serving scholars, but would appeal to broader audiences as well; small online exhibitions will contextualize featured documents and demonstrate the kind of questions environmen-

tal historians ask about them, the kind of insight and knowledge we gain by asking, and the impact of environmental research, education, and public engagement on environmental issues. Videocasts of Carson Fellows and RCC programs will complement this collection.

### **7. RCC Perspectives**

Complementing the Digital Resource will be a publication designed to serve as a forum for discussing current debates and research controversies on environmental questions. Thought pieces and working papers, as well as response papers, are encouraged. RCC Perspectives will appear primarily online; there will also be a small (environmentally friendly) print run.

### **8. Book Series and Media**

Outreach and visibility for RCC research will be achieved through a German-language book series with Vandenhoeck & Ruprecht in Göttingen, and through an English-language book series with Berghahn Books in New York and Oxford. The English-language series is planned in cooperation with the European Society of Environmental History (ESEH). Fellows and researchers in the RCC will publish anthologies as well as books in this series. In addition, the directors of the RCC plan to use their local media contacts to present the work of the Center to the German public in specialized books and radio and television programs.

### **9. Newsletter**

Finally, the RCC will produce an electronic English-language newsletter which will further communication with the academic community around the world. To stay informed about future activities and programs at the Rachel Carson Center, please subscribe to this newsletter by sending an e-mail to [carsoncenter@lmu.de](mailto:carsoncenter@lmu.de).



**Christof Mauch** is Director of the Rachel Carson Center and a historian with an interest in 19th and 20th century German and American history as well as international environmental history. He holds a Dr. phil. in literature from Tübingen University (1990) and a Dr. phil. habil. from the University of Cologne (1998). From 1999-2007, Christof Mauch was director of the German Historical Institute in Washington, D.C. Before that he held positions at Tübingen University, Bonn University, Cologne University, American University, and Georgetown University. In 2007 Christof Mauch joined LMU Munich to become the Chair in American History and Transatlantic Relations. He is Vice-President of the European Society for Environmental History.

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**Helmuth Trischler** is Director of the Rachel Carson Center, Head of Research at the Deutsches Museum, and Professor for Modern History and History of Technology at the LMU Munich. His main research interests are knowledge societies and innovation cultures in international comparison; science, technology and European integration; transport history; and environmental history. Helmuth Trischler is the author of 26 books and edited volumes, circ. 100 articles, and (co-) editor of a number of book series, including “Umwelt und Geschichte” (Vandenhoeck & Ruprecht, Göttingen) and “The Environment in History: International Perspectives” (Berghahn Books, Oxford and New York).

## RCC Perspectives

*RCC Perspectives* is an interdisciplinary series of papers and essays in environmental history, environmental studies, and related fields. The papers have their roots in the scholarly activities of the Rachel Carson Center for Environment and Society and in current debates in society. They combine thought pieces and fresh empirical research, and they are designed both to further international dialogue and to inspire new perspectives on the complex relationship between nature and culture.

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