

The Age of Ecology

A Global History

Joachim Radkau



First published in German as $Die\ \ddot{A}ra\ der\ \ddot{O}kologie\ @$ Verlag C.H. Beck oHG, München, 2011

This English edition © Polity Press 2014

The translation of this work was funded by Geisteswissenschaften International – Translation Funding for Humanities and Social Sciences from Germany, a joint initiative of the Fritz Thyssen Foundation, the German Federal Foreign Office, the collecting society VG WORT and the Börsenverein des Deutschen Buchhandels (German Publishers & Booksellers Association).

Polity Press 65 Bridge Street Cambridge CB2 1UR, UK

Polity Press 350 Main Street Malden, MA 02148, USA

All rights reserved. Except for the quotation of short passages for the purpose of criticism and review, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher.

ISBN-13: 978-0-7456-6216-9

A catalogue record for this book is available from the British Library.

Typeset in 10 on 11 pt Times New Roman MT by Servis Filmsetting Ltd, Stockport, Cheshire Printed and bound in Great Britain by Clays Ltd, St Ives PLC

The publisher has used its best endeavours to ensure that the URLs for external websites referred to in this book are correct and active at the time of going to press. However, the publisher has no responsibility for the websites and can make no guarantee that a site will remain live or that the content is or will remain appropriate.

Every effort has been made to trace all copyright holders, but if any have been inadvertently overlooked the publisher will be pleased to include any necessary credits in any subsequent reprint or edition.

For further information on Polity, visit our website: www.politybooks.com

Preface to the English Edition

For everything that happens can become a story and fine discourse, and it may well be that we are caught up in a story.

Thomas Mann, *Joseph and His Brothers* (Joseph to Potiphar's wife, p. 952)

The German edition of this book came out at the end of February 2011, a fortnight before disaster struck the nuclear reactors at Fukushima. Over the following weeks, at the Leipzig Book Fair, the final sentence about historical moments when something new becomes possible was repeatedly quoted and declared prophetic: 'Who knows, perhaps we shall soon be living at such a moment.' A turbulent year ensued, with many interviews, debates and talk shows, and I did not always feel good in the prophet's role expected of me. Again and again the question came up: is this the end of the nuclear age? Is the age of renewable energies around the corner? As a 70-year-old historian, I know that predictions are usually wrong. When I began to write this book, I had no grand theory or great message in mind. Only gradually, during its composition and related discussions, did its political usefulness, both practical and theoretical, become clearer to me. The following three points seemed to stand out:

(1) The standard argument of German opponents of the environmental movement has always been that excitement about ecological issues has emotional, and very German, roots; it is one of those cases of angst that make Germans seem ridiculous abroad, a hysterical concoction on the part of sensation-seeking media. This thesis, however, does not hold water if we take a global, long-term perspective, for then it becomes apparent that the environmental movement has the features of a New Enlightenment (a term I actually thought for a time of using as the title of the book) and that its origins are at least as much American and British as they are German.

For my own part, I confess that I have never felt great emotions of fear concerning our environment; my concerns have been rational. And since the early 1970s the main attraction of environmentalism has been that the insight 'everything is connected with everything else' allows an enormous

number of discoveries to be made: something new every morning. These discoveries increase as one's gaze opens out to cover the whole world. Yet I have never associated such a global vision with the aim of a globally uniform protection of the environment. Rather, I believe that an international understanding of these issues is best served if we consider the different situations of various countries and accept that their policy priorities will also be different.

(2) Many environmentalists become frustrated all too quickly, concluding that there is no point in any activity, that conservationists are fighting a losing battle, that campaigns are usually unsuccessful, that the whole history of humanity is essentially one of the destruction of nature, and that the clock now shows 'five minutes to midnight' or even five minutes after, with no hope of salvation. All this shows how little many activists know about the story in which they find themselves – perhaps even the fine story that Thomas Mann's Joseph had in mind in speaking to Potiphar's wife.

Potential history is contained in this book too. A useful lesson from recent decades might be that we should take a deep breath and think in longer time frames. We might then realize that many conservationist initiatives that initially appear farcical produce an effect in the end. Environmentalism is nearly always a patchwork affair, with no grand, definitive solutions. It is therefore always possible to criticize environmental policy. But for that very reason one does well to avoid the kind of fruitless hypercriticism that is so often found in the literature.

(3) The about-turn in German energy policy after Fukushima, which, if successful, may set a precedent internationally, represents a huge victory for environmentalists, but it may also prove to be their greatest test. For renewable energies – above all, wind farms and maize-based biogas and biofuel installations – often encounter major resistance and hatred from activists fighting to preserve nature and landscapes. There is still a general confusion about how such conflicts should be rationally discussed.

Here a historical approach may help to counter the fervour of self-destructive dogmatism; once again, thinking in long time frames has its uses. As this book will show, the environmental movement did not arise as a panicky response to the threat of catastrophe, nor is it as clear as some believe that the sound of alarm bells is necessary to get something moving in political and public life. Clarity is actually impeded by panic reactions. A search for quick fixes to energy problems leads down a blind alley.

Whenever I one-sidedly emphasize the rational basis of environmentalism, my wife Orlinde has reminded me of the spiritual undertones noticeable ever since Earth Day on 22 April 1970, more clearly in the Green milieu than among leading Green politicians. This does not contradict my thesis of a new Green Enlightenment; after all, the eighteenth-century Enlightenment had its secret spiritual side. The key point is that the

plethora of individual initiatives was knitted together at a rational, not a spiritual, level. The spiritual themes remained diffuse – which is not to say that they had no significance.

My chapter on the ten heroines – a word with slightly ironical connotations for modern historians – did not meet with the approbation I expected among women of my acquaintance. Orlinde, first of all, thought the portrait gallery should have included Joanna Macy (b. 1929), the founder of 'deep ecology', who sought to heal the relationship of human beings to their inner nature as well as to external nature. In a sense my biography of Max Weber was an essay in deep ecology, and many different approaches are also concealed in the present book. Yet there is much in it about which I, as a historian, would prefer for the time being to remain silent in public.

Whereas Alice Schwarzer - the most famous and most feared German feminist, author of a twin biography of Petra Kelly and the lover who killed her, Gert Bastian - found my chapter on Petra Kelly generally perceptive, Orlinde thought I had been too disparaging of this Green heroine, since chaotic people are necessary to get things moving, at least in the early days of a movement. I countered by referring to Max Weber, for whom the born politician excels in 'strong, slow drilling through hard board'; this quality is needed all the more in environmentalist politicians, and I found it lacking in the restless figure of Petra Kelly. Orlinde responded in kind, arguing that Max Weber himself had pointed out the importance of charismatic figures in historical innovation and that they often have something mad about them. However, we saw eye to eye again about the need for a historical approach; there are new departures which require the energies of Petra Kelly to drive them, but there are other situations which call for experts to draft and impose laws on such matters as water contamination. I had a number of long walks in the woods with Gertrude Lübbe-Wolff. former head of the Bielefeld water protection agency, then chair of the German Environmental Council and today a judge in the Constitutional Court. She repeatedly brought home to me that big words about conservation are so much hot air unless one also provides for institutions and instruments to make the goals a reality. But she further pointed out that environmental legislation and authorities often achieve nothing if there is not a powerful external impetus behind them.

Other friends who read parts of the text and were more attentive to academic qualities than to its spirituality made the critical point that I do not precisely define my concept of 'ecology'. This was to be expected, since arguments over the definition of terms are especially popular in Germany. But Wolfgang Haber, the grand old man of German ecology, who read through the whole manuscript, strengthened my belief that the precise scientific concept of ecology cannot be used for the purposes of political environmentalism. What I refer to is the ecology which has made world history – and that includes toxicology, natural therapies and concern for the sustainable use of natural resources, for the human habitat, biodiversity and the beauty of nature. It was the linking up of these previously disparate

endeavours that led to a never-ending flow of discoveries and made it justifiable to think in terms of a new Enlightenment. Those who trace environmentalism back to specific doctrines engage with only a very limited part of the field.

Not the least of the reasons why I immediately felt environmentalism to be *my* movement is that I had always been a keen hiker and cyclist, who never considered for a moment getting a driver's licence and felt horror at the ceaseless advance of automobile culture and the destruction of cities and landscapes by motorways. In this respect, the British 'Reclaim the Streets' movement best corresponded to my feelings about the subject. I knew from my personal experience of walking and cycling that lower energy consumption need not mean giving up pleasure – on the contrary! Distancing himself from atomic energy late in life, the nuclear physicist Carl Friedrich von Weizsäcker was right to sigh: 'We would all be happier if we used less energy.' And he added: 'But we want to be unhappy.' Is that really what we want?

For some decades now, when a European has tried to write global history without being able or willing to deny that he is a European, he has laid himself open to the charge of 'Eurocentrism'. I tried as hard as I could to avoid such a limitation of vision by presenting a first draft of this book at Beijing University in 2005. But perhaps the mark of my generation's experience of life is an even greater problem than my Eurocentricity. I was accompanied on my trip to China by Frank Uekötter, a man 28 years my younger, who for two decades had been my closest interlocutor and for many years my fellow research-worker. The Chinese were therefore more than a little surprised when he promptly presented an alternative draft, one which eventually gave rise to a rival work (*Am Ende der Gewissheiten – Die ökologische Frage im 21. Jahrhundert –* Campus Verlag) that was published in the same year as the present book.

Generational cycles are of importance in the history of environmentalism, and Frank and I are forever arguing with each other in ways that reflect this difference between us. Frank complains of the growing rigidity of German environmentalism since the 1980s; I perceive greater movement over the course of time and argue that many issues of the earlier period have still not been resolved. Frank wants the environmental movement of the future to be independent of the state apparatus; I consider the interaction between movement and administration to be an existential law for environmentalism. Frank thinks that at least the German movement is too besotted with its own angst; I maintain that despite everything the core of environmentalism is a new Enlightenment.

In a sense, this book is a sequel to *Nature and Power*, first published in German in 2000 and then in an expanded American edition in 2008. Feedback from the English-speaking world, where reviewers often touched on other aspects than in Germany, gave fresh impetus to my thinking. A generally friendly review by Edward D. Melillo in *Environment and Nature in New Zealand* (vol. 5, no. 2, December 2010) regretted the absence of

three themes: (1) justice, (2) 'an avowedly anti-statist and anti-corporate eco-social movement, such as the one that emerged during the Bolivian "Water War" of 2000', and (3) women! I read this only after I had finished work on the present book, but it would still be pertinent to speak of thought transmission, since these three themes are right at its heart. On the other hand, *Nature and Power* was not primarily a history of environmentalism; it was intended to show that for thousands of years the unstable relationship between man and nature has been an element in the dynamics of history.

The year after Fukushima saw an outpouring of information, debates, ideas and perspectives; almost every day brought something new. The reactions to my book – both favourable and critical – never dried up. My own copy of the first German edition came apart long ago because of all the emails and press cuttings I pasted inside it. For the present English edition I have thoroughly revised the text, taking advantage of the opportunity to reorder the flow of my ideas that threatened to burst inside my head. Now I can see many things more clearly than before, and I hope that the book has profited as a result. Yet I cannot help wondering whether the mass of history presented here does not offer insights that I have not managed to grasp.

In the wake of Fukushima, it was a standard gag among German media pundits that the Japanese, the worst hit by the disaster, seemed to be the least affected by it. Now another paradox might be placed alongside this. The Germans, who for long have been talking about phasing out nuclear energy, continue to receive nuclear-generated electricity; whereas in Japan, where the need for alternatives is officially a taboo subject, nearly all nuclear power stations have been taken out of service 'for tests'. Miranda Schreurs, an expert in Japanese environmental policy, assures me that prefectural authorities are disappointed with the results of the nuclear industry and will block any new reliance on it - although a victory for renewable energy is not vet on the cards either! (But things are changing all the time, and meanwhile the new Japanese government is announcing further nuclear projects - only the future will decide whether they are among the many bubbles of our day.) All this makes it clearer than ever that discursive history should not be confused with real history, even more in the case of environmental policy, where there is a great deal of 'symbolic politics'. It also shows that an environmental historian needs to have a feel for the irony of history.

But often one has to discover this irony through historical research. When Angela Merkel, in the wake of Fukushima, announced her intention to withdraw from nuclear energy, there was much derision about the sudden panic of a chancellor who had seemed untroubled for so long at the thought of the risks. From a historical point of view, the situation looks different. No new nuclear power station had been commissioned in the Federal Republic since 1982, so that the withdrawal from nuclear energy had already been inconspicuously brewing for thirty years. Knowledge of

this may be useful in weighing the high compensation demands made by leading energy corporations after the policy turn.

In the year of Fukushima I have become more keenly aware of many problems associated with environmentalism. The obsessive preoccupation with 'Stuttgart 21' (construction of the main railway station in Stuttgart) among Greens in southwest Germany, at a time when the ecological threat posed by other projects such as new airports or runways is a thousand times greater, again brought it home to me that the setting of environmental priorities is only partly a rational process. Most of all, it made me wonder whether it is wise for ecological communication to focus on climate change to the extent that – as often happens today – it comes to replace the issue of 'environmental protection'.

The wide-ranging opinions that acquaintances of mine hold about various renewable energies (without ever openly debating their differences) reminded me that the Green Enlightenment still has a long way to go. And the endless discussion on the international financial crisis, which constantly threatens to push environmental issues to the sidelines, made it as clear as it could possibly be that the fate of conservation crucially depends on whether it can be combined with strategies to address the economic crisis. The opportunity for this is there. 'Sustainability' is both an ecological and an economic goal; economic and environmental interests are coming together in the new longing for solidity.

When I have been lecturing abroad, I have repeatedly noted the extent to which environmental policy messages are bound up with particular times and places. In the case of German intellectuals, who often have an aversion to the nation-state and think of it as a leftover from an evil past, I usually warn against overestimating the importance of supranational against national institutions; democracy, transparency and political effectiveness are still today most likely to be provided at the level of nation-states. But in other countries – whether France, the USA or Japan – that would be knocking on an open door. There it is more important to recall the significance of the global horizon for the rise of environmentalism.

Right from the beginning I saw it as one aim of this book to tell the story of the environmental movement, with reference to real persons, actions and dramatic tensions. Many modern historians consider this too banal or old-fashioned; and in the ocean of literature on environmentalism (apart from journalistic reportage) the main studies have had no ambition other than to assign concrete phenomena to abstract models, with the result that no awareness of history has arisen in the practice of the movement. Environmental activism requires not only knowledge of structures but also an eye for players, situations, opportunities and dynamic potential – for possible histories.

It was also clear to me from the beginning, however, that it would be wrong to present a single master story, that this would be an arbitrary construct resting upon much too restricted a viewpoint. Nor is this just a matter of historical correctness; most of the possible histories in which I

find myself provide a stimulus to act in certain ways. I would like to find myself not in a tragedy but in a success story – or at least in a comedy. The main part of my account therefore contains several histories of equal value: latent dramas that have traversed environmentalism since its earliest days. Hayden White, in his *Metahistory*,² taught us that historians willy-nilly follow literary models: they should be fully aware that this is what they are doing and take conscious inspiration from modern experimental literature. It seems to me that this is how we will best do justice to the novelty of environmentalism. And precisely this might be a stimulus to think more clearly, and discuss more openly, about many aspects of environmentalism.

Frequently I was pulled this way and that by alarmist literature presenting environmental problems as virtually beyond hope and another genre offering pat answers to everything. I would prefer to say of myself what Jacob von Uexküll said in 1988 at the awarding of the Alternative Nobel Prize to the courageous Brazilian environmental activist José Lutzenberger: 'He is not an optimist, he is not a pessimist; he is a possibilist.' I believe that possibilism in this sense is the best foundation not only for the writing of environmental history but also for getting something moving.

Bielefeld, May 2013 Joachim Radkau

Acknowledgements

The author and publisher wish to acknowledge the copyright images used in this book:

p. /3:	Rachel Carson. © Pittsburgh Post-Gazette/ZUMA Press/Corbis
p. 97:	David Brower. Christopher Felber/Corbis
p. 98:	Barry Commoner. The Granger Collection/Topfoto
p. 187:	Dian Fossey. Press Association/AP
p. 188:	Jane Goodall. AFP/Getty Images
p. 192:	Rudolf Bahro. Klaus Mehner/BerlinPressServices.de
p. 195:	Chico Mendes. Reuters/Str Old
p. 196:	Ken Saro-Wiwa. Lambon/Greenpeace
p. 203:	Petra Kelly. ullstein bild/Schulze-Vorberg
p. 207:	Dominique Voynet. ullstein bild/SIPA/Rex
p. 210:	Celia Hunter. Camp Denali & North Face Lodge
p. 214:	Jane Jacobs. Bob Gomel/Time Life Pictures/Getty
p. 219:	Marina Silva. Wikimedia Commons
p. 221:	Wangari Maathai. Press Association/AP
p. 225:	Vandana Shiva. Craig Golding/Getty images
p. 226:	Medha Patkar. Picture Alliance/epa
p. 230:	Dai Qing. picture-alliance/dpa
p. 234:	Ishimure Michiko. Mario Ambrosius, Tokyo
p. 291:	Rainbow warriors. Sims/Greenpeace
p. 297:	Paul Watson. Picture Alliance/epa
n 301.	Dave Foreman The Daily of the University of Washington

The publisher apologizes for any errors or omissions in this list and would be grateful if notified of any corrections that should be incorporated in future reprints or editions of this book.

Tree-hugging activists. Günter Zint, panfoto

Chipko movement. epd-bild/Rainer Horig

Archives

p. 309:

p. 310:

Contents

	e to the English Edition wledgements	vii xiv
Introdu	action: The Green Chameleon	1
One	Environmentalism before the Environmental Movement Good Mother Nature and the 'Appalling Wood Shortese's The Train Fees of Nature in the Decline of	11
	Shortage': The Twin Face of Nature in the Decline of the Commons	11
	 Nature in Need of Protection and Nature as Healing Power: Environmental Activism in the 'Nervous Age' 'The Desert Threatens': Environmental Fears in the 	24
	Age of Crisis - the New Deal and Nazi Germany	46
	4 Think Big! A Charismatic Intermezzo on the Olympian Heights	61
Two	The Great Chain Reaction: The 'Ecological Revolution' in and around 1970	79
Three	Networked Thinking and Practical Priorities: An Endless Interplay 1 On the Ecology of Ecologism 2 Water and the Atom 3 Changing Priorities: The Movement in Motion	114 121 137 162
Four	Charismatics and Ecocrats 1 Spiritual Quest and Charismatic Moments 2 Ten Heroines Embodying Tensions in the Movement 3 Institutionalization, Routinization, Revitalization	182 182 201 237
Five	A Friend–Enemy or Win-Win Scenario? 1 From Nuclear Power to the Spotted Owl 2 Violence and the Green Conscience	259 259 288

		۰	
٠		٠	

Contents

	3	Ecology and Economics: The Challenge of Conceptual Analogy	320
Six		ology and the Historic Turn of 1990: From Social Justice Climate Justice?	339
Conclus	sion	: The Dialectic of Green Enlightenment	425
Notes Index			432 517

Introduction The Green Chameleon

An impossible history? Let me begin with a confession. When the first 'environmental' initiatives began to mushroom all over the world in the early 1970s, I soon thought to myself: 'This is my movement!' I had not felt the same during the student revolts of '68 and after: I had enjoyed their carnivalesque side but found their revolutionary jargon both inauthentic and anachronistic. The aim of the environmentalist movement was not to re-enact past revolutions but to meet the challenges of the present day; it thus finally gave expression to a deep discontent that I and so many others had always felt but been incapable of articulating politically.

Forty years ago that was the actuality of the day, not the subject-matter of history. Until the Fukushima disaster in March 2011, however, many people in Germany - unlike in other parts of the world - thought that the environmental movement was already more history than a part of the present. The first generation of environmental historians made one discovery after another which suggested that the protest against many kinds of environmental damage had roots stretching far back into the past. So one may well ask, for example, whether the idea that something new had begun around 1970 was an optical illusion. It is an important question, and we shall have to consider it in some detail. But in any event, it can hardly be doubted that the environmental movement has since become a historical phenomenon – indeed, the symbol of a whole era. And even if one identifies with what is genuine in the movement, it is very attractive to shed greater light on it by distancing oneself to some degree. A theorist who is too close to the movement will often focus only on particular groups, goals and situations, while leaving much else out of consideration; only distance makes it possible to appreciate the range and the unity of environmentalism. Mere snapshots are often misleading, and nowhere more so than in relation to such an iridescent phenomenon. Analysis of it within a broader spatio-temporal perspective will bring many surprises and a new quality of perception.

But the way there is not simple. For many years I made notes for a history of the environmental movement, yet the suspicion kept coming over me that it might be an impossible task. The internet flooded me with

information about environmentalism everywhere in the world, but it was often not easy to make out what was substantive amid the virtual. Never before had I postponed such a book project year after year; seldom had the feeling of 'I know that I know nothing' been so overpowering, sometimes without the Socratic self-assurance that this realization was wisdom itself. Often I was left only with the Pharisaic consolation that others were even more lacking in knowledge: experienced historians could display amazing ignorance in this respect, and even longstanding environmental activists could have completely wrong notions about the history in which they found themselves. But I too felt embarrassed by all the things I had forgotten or overlooked during decades of perusing huge quantities of material. Up to now there has been something shapeless about the history of environmentalism – which is why one forgets so much so easily. On the other hand, all this stimulated me not to give up. Difficulty itself represents a challenge.

In his book on 'ecological communication',¹ Niklas Luhmann remarked that eco-declarations which refer to the whole world while adopting a reproachful attitude to 'society' fall on deaf ears, since they have no addressee in modern societies divided into (and operating only through) various subsystems. At the time this had an ironical thrust: it was directed against the intellectual pipe-dream (fuelled by Habermas's theory of 'communicative action') that communication as such is already action. But as with all literature on the essentially fluid ecological movement, we must be attentive to the year in which it was written: 1986. Today it is astounding that this high priest of sociology did not yet have any idea of the rapidly advancing professionalization of environmentalism and its perfect insertion into subsystems. But the blindness seems excusable when one recalls the scene among Bielefeld sociologists in the early 1980s.

No less amazing today is Luhmann's belief that he could simply rattle off general yet accurate statements about 'ecological communication'. Famously unsociable and remote from the ecological scene, he constructed communication without much experience of his own. Over all these decades I have picked up a huge amount of 'ecological communication', for the whole area of the environment is one in which solutions usually spawn new problems and an endless supply of material for discussion. If one is not content with fixed ideas but seeks out intellectual adventure, reflection about environmental problems generates communication that can leap across scientific disciplines and span the frontiers between theory and practice or between different nations and cultures. All in all, this provides grounds for the optimism of Luhmann's opponent, Habermas, for whom such communication brings into being a cross-border public that eventually achieves something.

This effect is by no means assured, however, and in many cases it becomes apparent only over a period of time. To perceive it requires a historical approach, not momentary snapshots, even if these pass themselves off as structural analysis. What seems at first to be merely 'symbolic poli-

tics' could thus acquire real substance over the decades, only after earlier environmental protests fell flat because they did not engage an audience capable of taking effective action. The extent to which reality accords with Habermas or Luhmann cannot be determined a priori or once and for ever.

One assumption is nevertheless common to these two groundbreaking thinkers: namely, social systems – even of this transnational kind² – are not apparatuses ready-made for communication but are first created by means of communication. Yet communication requires themes. Is environmental policy such a theme, which gives rise to a new public and new social structures? That is an open question for the time being. To be sure, environmental problems cross frontiers readily enough – but do they also form structures, or are they much too diffuse and heterogeneous? Ecological communication, precisely because of its lack of frontiers, is a paradigmatic case for the Habermasian concept of a 'new obscurity'.³ This does not exactly make it easier to concentrate one's thoughts – or to concentrate on definite goals at the level of political practice. It was in the circling of my own ideas that I first experienced environmentalism as a movement.

What is moving in the movement?

The historical empiricist who takes the word 'movement' literally has more trouble with it than the abstract system-builder. In Germany Bewegung was a modish term in the 1920s and a cult word during the Third Reich; it then long retained Nazi connotations after 1945, until it finally came back into fashion against a background of Americanism. As one can verify from the internet, the relevant American literature has thousands of titles containing 'environmental movement'. In the view of sociologists who insist on terminological precision, this tendency to inflate 'movement' is nothing short of scandalous. But researchers often find that, according to the very criteria tediously listed by such theoreticians, nothing much remains of 'environmental movements' in the real world today.

So, what shall I do about 'movement'? Fortunately Christof Mauch, who, as head of the German Historical Institute in Washington, promoted German–American contacts in environmental history more than anyone before him, helped me out by suggesting that I look beyond the confines of 'social movement' and focus on the most mobile and characteristic feature of the 'environmental movement': that is, the ways in which certain themes leap across the boundaries of social groups, scenes and countries, combine with other themes and give rise to new ones. The Indian historian Ranjan Chakrabarti warned me that in his country the environmental movement is made up of countless local initiatives, whose names and addresses alone would fill a 500-page handbook, 4 and that an author can get on top of it, if at all, only in terms of its various leitmotifs.

When Luhmann presents 'ecological communication' as a satyr play friskily revolving around subsystems, we may at least grant him that the environmental movement as a whole does not have a systemic logic. It cannot be understood unless living people are kept in mind. The slippery abstractions of organization theorists leave readers longing for real human beings. It is not possible to grasp social movements if one abstracts from what keeps them going, if one simply takes them as examples of general models, which inevitably have something rigid about them. The mobility of movements must be presented in the form of stories. The fact that the account will often be able to highlight only selected aspects, leaving gaps in both space and time, will be understandable to anyone who has ever grappled with such material. In many instances, something will be achieved so long as the surprising, historically novel, dimension of the story becomes apparent, while the puzzles and open questions stand out clearly and encourage further research.

The only previous history of the environmental movement from a single pen, at once wide-ranging and readable, is *Environmentalism: A Global History*, published in 2000 by the Indian historian Ramachandra Guha. Anyone looking for an accessible work of this length (150 pages) will be full of regard for the author's skill and boldness. But his construction takes risks and tends to be arbitrary in its choices, without making it clear that this is so. The German reader will be astonished to discover that he emphasizes the role of Rainer Maria Rilke – a poet held in high esteem in India – as the originator of environmental awareness in the German-speaking countries. Guha devotes a whole chapter to Gandhi, although it should first have been explained in which sense he belongs to the history of 'environmentalism'; the Indian leader appears no fewer than eighteen times in the index, whereas there is not a single entry for Greenpeace.

Guha identifies two major waves of 'environmentalism', separated by an 'age of ecological innocence' stretching roughly from the First World War until the publication of Rachel Carson's *Silent Spring* in 1962. On closer examination, however, there are many reasons to doubt the innocence of that period. Nor do Guha's stories really fit together; the narrative flow conceals many breaks; what is described as a consecutive sequence exists in reality as a tense coexistence. It therefore seems to me more accurate to tell several different stories, and to derive their arc of tension not least from within the multiplicity of forms of environmental commitment.

When the German-American literary historian Jost Hermand published his 'history of ecological consciousness' in 1991, it was still possible to believe that we were living at a high point of the unfolding (in Hegel's sense) of the ecological spirit. It is a hugely erudite work, which today brings back to mind much that has been forgotten. Yet Hermand also takes much that was disparate or contradictory in the historical reality and straightens it out into a continuous development of consciousness: from