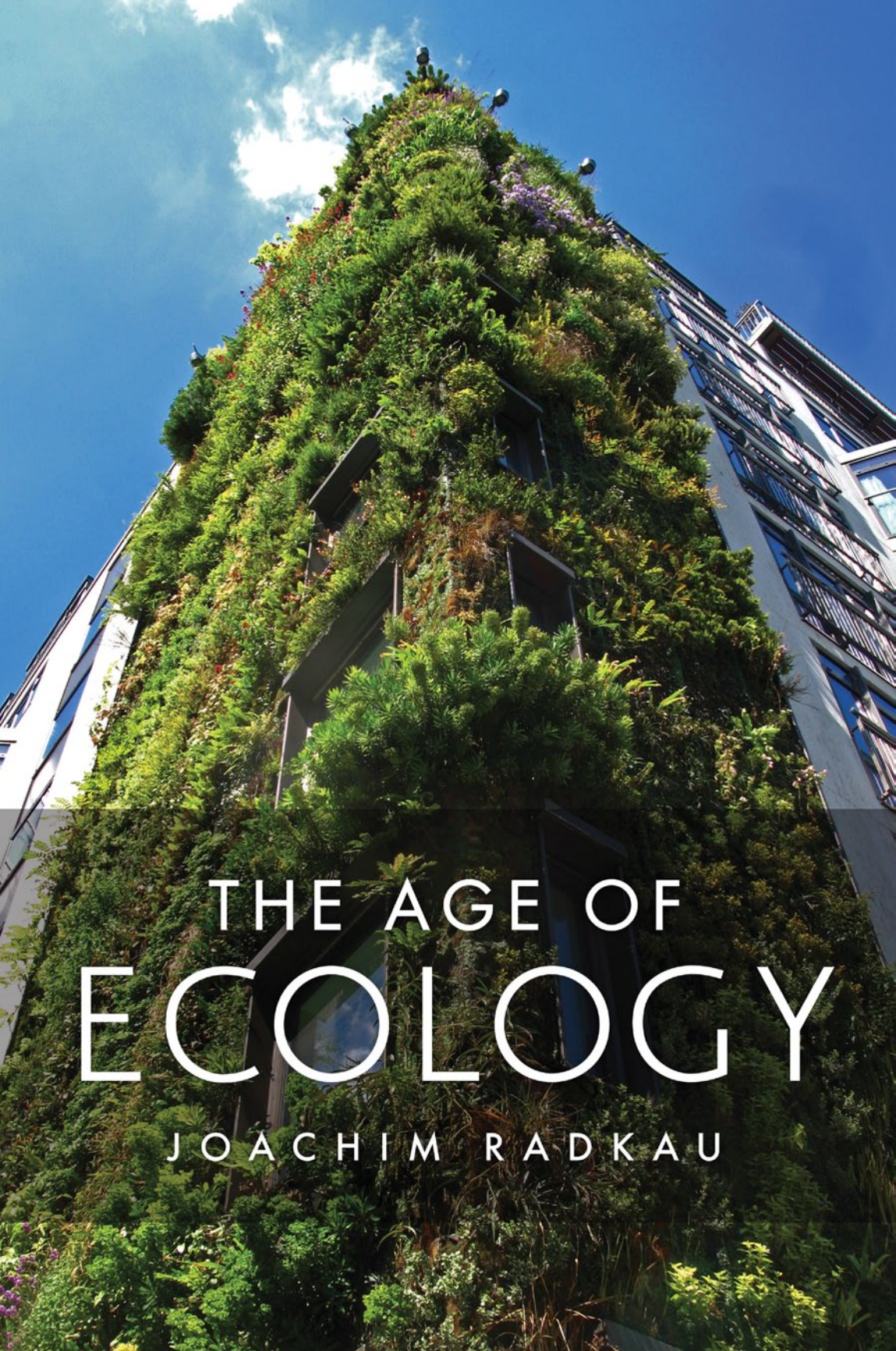
THE AGE OF
ECOLOGY
JOACHIM RADKAU

The Age of Ecology

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A Global History

Joachim Radkau

Translated by
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polity

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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 yet 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.[1] 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

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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 kind[2] – 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'[5] 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

Rousseau to the *Blut und Boden* ideology, from love of dogs to solar panels. That kind of narrative will be avoided here – as will the fantasy that we currently occupy the peak of ecological consciousness. Who knows what the future may bring: perhaps ideas that are considered passé will undergo a renaissance; perhaps it will turn out that a combination of Malthus and Marx best corresponds to reality and that a synergy of population growth and the capitalist growth dynamic remains the core of the whole problem of the environment. We might even build an alliterative triumvirate by adding the name of Machiavelli, since the fact that environmentalism often becomes an instrument of power politics is also at the heart of the problem.

A vast sea of literature has existed for some time, yet it contains major gaps that are particularly striking to a historian. There is an extensive no-man's-land between *pièces d'occasion* and general works, between theoretical models and journalistic reportage, between literature about what is and literature about what ought to be. 'Movements' are shy about themselves, and written records suitable for research tend to have been kept only at a certain level of solidification. It is therefore not surprising that theoretical studies of ecological movements are more common than empirically based investigations. To be sure, 'Think globally, act locally' has been repeated as a mantra these last forty years, but there is generally a dearth of comparative transnational literature. What we have instead are mainly bookbinders' collections of various odds and ends. Environmental movements and politics are a theme without end, and we certainly do not know the end of the (hi)story.

A single history, then, does not seem a promising idea. It would even threaten to lead environmental activists astray: they might think they are in a history that gives meaning to their action, but another possibility is that they are in a different history from the one they would like to think they inhabit, and that other people with whom they try to work things out locate themselves inwardly in a different history. Champions of the 'peaceful atom' felt proud that, in accordance with their pacifist vocation, they were turning swords into ploughshares.

Do histories produce only confusing myths? Anyone who seriously experiments with narratives and counter-narratives soon realizes that there are not an infinite number of plausible histories and that certain leitmotifs or typical arcs of tension keep recurring over the course of time. Yet one should renounce any ambition to synthesize a master story out of them. René Dubos, who did more than anyone to inspire the Conference on the Environment held in Stockholm in 1972, distanced himself from the eco-prophets of doom and subscribed to less clear-cut visions of the future that allowed some room for hope.[6] It is precisely the multiplicity of possible histories which justifies an assurance that something can be done. And such 'possibilism' – José Lutzenberger's attitude referred to in the preface – is the best foundation not only for historical research but also for political commitment.

Greens without a history

On 22 April 1986 (four days before the Chernobyl nuclear disaster), at a special meeting of Green parliamentarians called to discuss anti-Semitism, Ulrich Fischer referred to the Greens' 'lack of history' as a well-known fact – and, at the same time, as a political handicap that left them helpless in the face of attacks operating with history.[7] Also in 1986, Ulrich Linse began his 'history of ecological movements in Germany' in similar vein: 'Lack of history is a distinctive feature of the "new social movements" in Germany.'[8] One would have thought that Chernobyl offered the Greens a golden opportunity to recall their historical origins in the anti-nuclear movement, but at the time everyone had suddenly turned against atomic energy and such references were no longer enough to constitute a political identity. Besides, did not the real origins go further back? But to when exactly? The Greens' lack of a historical sense had a deeper reason than mere indolence; even scholarly historians would have given them little assistance in those days. The most diverse accounts of the history and prehistory of the environmental movement still have currency today – and it remains altogether unclear whether there are any 'lessons of history' to be learned.

Under these circumstances, it is possible for opponents to spread nonsensical stories about the genesis of the environmental movement: for example, that it arose out of a reactionary romanticism close to National Socialism, or that it was a continuation of Communist totalitarianism by other means. The latter version is found especially among rabid anti-environmentalists in the USA, where a great deal can be projected onto European movements,[9] as well as in Václav Klaus's *Blue Planet in Green Shackles*, which offers the rare spectacle of shrill polemic from someone in a high political office that is supposed to embody seriousness of mind.[10] The Czech president, who takes Michael Crichton's science fiction novel *State of Fear* at face value, conjures up the nightmarish vision of a powerful global eco-clique that has taken over from the Soviet empire as a threat to newly won freedom. No whiff there of the diversity and fissiparousness of the environmental movement, or of its strong elements of grassroots democracy, or of the fact that climate alarms caused much confusion in the eco-scene while receiving encouragement from the nuclear lobby. Such books are possible only because large sections of the public are totally ignorant of the history of the movement.

In 2005 Carl Anthony, a co-founder of the Urban Habitat Program, put forward the diagnosis that 'today's environmental justice movement' suffers from a 'lack of historical context'; it knows nothing of earlier struggles to improve the life of underdogs in American cities and has been influenced by narrow mainstream definitions of the 'environment' – as if it were a question only of the surrounding world, not of access to resources.[11] This charge of deficient historical awareness might seem surprising in relation to environmentalism in America of all places. Can it not look proudly to

a whole gallery of iconic figures: from Henry Thoreau through John Muir and Aldo Leopold to Rachel Carson? Yet it is no accident that the gallery ends precisely with the 'ecological revolution' of 1970.[12] Today a Green historical consciousness useful for political orientation can no longer attach itself to icons.

A new era of world history – and a New Enlightenment

In 1970 Max Nicholson, a British ecologist of international standing, published a book with the brash title *The Environmental Revolution: A Guide for the New Masters of the World*. Three decades later, on the occasion of the Johannesburg conference on sustainable development, *Time Magazine* presented its selection of 'Heroes of the Green Century', and even Ron Arnold, one of the most aggressive opponents of the environmentalists, spoke of the 'new environmental era' since the 1960s.[13] In 1992, after the Reagan and George Bush presidencies, the historian Philip Shabecoff could triumphantly proclaim: 'virtually every aspect of our personal lives, from the food we eat to the packages we use, to the way we drive and the fears we have for our children's future, has been altered by environmentalism'.[14] Really? Or is this an optical illusion on the part of those who constantly move within eco-networks and build there a virtual (and, thanks to the internet, global) world of their own?

John R. McNeill called his global environmental history of the twentieth century *Something New under the Sun* – and he marshalled an army of facts to demonstrate that, after two and a half thousand years, King Solomon's saying 'there is nothing new under the sun' (Ecclesiastes 1:9) was no longer valid. However, it is not altogether easy to say what is and is not new. For serious historians, the somewhat hyped-up euphoria of the New Age scene is reason enough to be cautious about proclaiming a new age. As McNeill himself soberly points out, much that is conventional is being conducted under the label of 'environmental politics'. An environmental historian feels particularly hesitant, since most elements of today's 'environmentalism' have had a long history under various other names – all the longer, the more the historian investigates them. One thing can be stated at once, though: the networking, wide impact and global horizons that developed from 1970 on were more or less new. Especially if one remembers some of the grotesque phenomena associated with the technocratic planning fever of the 1960s,[15] the subsequent period appears as a real watershed.

Donald Worster's seminal *History of Ecological Ideas* (1977) ends in an 'age of ecology' that he takes to be a self-evident fact. It began on 16 July 1945, with the detonation of the first atom bomb at Alamogordo in the New Mexico desert. The question is whether it marked an epochal change in material reality or in human consciousness. The bomb was first of all a brutal reality; when its existence became known, it triggered a public sense

of triumph but changed the thinking of few. As Worster himself put it: 'Not until 1958 did the economic effects of atomic fallout become of more widespread concern to American scientists.'[16] Attitudes in the general public showed signs of turning only in the course of the 1960s; the 1970s would be the 'ecological decade'.

Would it be going too far to make ecology the symbol of an incipient new era? Nothing is riskier than to define the present age; the historical epochs familiar to us today usually acquired their name only in retrospect. The historian, in particular, must not forget that appellations referring to recent times are provisional. It is not difficult to come up with alternative suggestions for the last few decades: age of globalization, age of convergence following the end of the Cold War, age of worldwide economic liberalization, age of the electronic revolution, of new information and communications technology, or of great migrations. But all these proposals have a meaningfulness deficit. According to Max Weber, the hallmarks of new epochs in world history include charisma, a mixture of fear and enthusiasm, a combination of strong spiritual and material driving forces. The brief dream that the global economy, freed of all barriers, would bring worldwide prosperity and reduce the gap between rich and poor has long been over. And the expectation that globalization would make national steering of the economy redundant fizzled out at the latest in the crash of 2007–8.

After the demise of the great ideologies, popular ecology is left as the only intellectual force giving content to the new global horizon and responding to the new challenges. The very fact that (to the disappointment of quite a few activists) environmental movements repeatedly dissolve into the mainstream bears testimony to the epochal character of environmentalism; it defines the age more powerfully than even many environmentalists would like. The chameleon-like character of ecology is proof of its vitality – as philosophy of life and source of political legitimacy, as science and as watchword of protest movements. It also points to the historical novelty of the entire phenomenon. If we think back to older movements – socialist, Communist, nationalist, fascist – we will realize how quickly the 'movement' became tied down in a set of objectives and fixed ideas, and how great is the difference in this respect from the environmental movement.

At the same time, motorized road and air transport as well as atmospheric pollution have continued to grow apace in the age of ecology, and only now have the chemicalization of agriculture and the pollution of soil and groundwater got fully under way in many parts of the world. For all the knowledge about sustainability, leading corporations are geared more than ever to short-term profit maximization, and the fact that they are less tied to a particular place means that they can afford to be all the more ruthless with regard to the environment. According to ecologists working in the field, the planet's biodiversity has been continually declining. In Africa, until the 1960s an agricultural exporting region, the Global Environmental

Outlook (GEO) Study conducted by the United Nations Environment Programme (UNEP) in 2000 showed disturbing levels of environmental degradation since the 1970s.[17] The overall picture is unambiguous: ecology stands in a relationship of dialectical tension to developments in the real world but is so far the only answer to them, or anyway the only one on a scale larger than all the promises of liberalization and globalization. In this sense, it seems justified to speak of an ecological age.

The real crux, however, is that some of the problems do not yet admit of clear solutions and that they cannot all be mastered, or even directly addressed, at once. In 1991 Jost Hermand thought 'the truth about global ecological degradation was plain to see'[18] and appeared to assume that the road to salvation was also more or less clear. But today there can no longer be any talk of that – hence the meandering path of the environmental movement and the pressure for experimental policies, however fixed many individual players may be on certain goals or methods. The Hegelian maxim 'The truth is the whole' here takes on a specific meaning: the essence of the eco-age, as well as its novelty, is most apparent on a broad spatial-temporal horizon. Despite the glut of literature on the environment, the new era is still in large part terra incognita, where traditional concepts have no purchase and prevent people from recognizing what is new or being surprised at it. The novelty is precisely what is so exciting, but one's appreciation of this is vitiated if the limits of one's ambition are to range environmentalism under more general headings.

From the point of view of past experience, the environmental movement is actually an impossible phenomenon. A 2008 work on German environmental organizations by the sociologist William T. Markham – the most extensive study of its kind up to the time of writing – culminates in a Pandora's box of seemingly insoluble problems. One dilemma follows another: dilemmas of internal structure, as centralization and professionalization come into conflict with grassroots initiative; dilemmas of resource acquisition for competing organizations dependent upon the public purse or wealthy backers; dilemmas of goals and strategy, since everything is somehow interconnected in environmental politics and it is by no means clear where to start. Markham himself, who emphasizes that each step he takes is guided by theory, points out that these dilemmas stem more from the predefined theoretical model than from what happens in history.[19]

In sum, the existence of the environmental movement is something for which theory does not allow. Right from its inception, a swift end has been predicted for it – shortly after Earth Day (22 April 1970) in the case of the United States. When disaster for the Greens loomed in the wake of German unification, two books appeared hot on each other's heels: *Can the Greens Still Be Saved?* and (by a prominent member of the 'Realo' wing of the party) *Rise and Fall of the Greens*.[20] But eight years later they were part of the central government. Their history up to now illustrates the German proverb: 'Those given up for dead live longest.' Markham sums up towards the end of his investigation: 'Perhaps the most striking feature

of German environmentalism is its sheer staying power.'[21] All the more surprising is it that the environmental movement has had a marginal place in recent overviews of German politics.

Admittedly, it is to some extent a matter of definition whether the major issues of the future will be seen as 'environmental problems'. It is possible, as at the height of imperialism a century ago, to define the signs of the time as a signal for struggle over ever scarcer natural resources; that may determine the future. Perhaps the age of ecology will prove to be only a temporary phase of clear-sightedness. On balance, though, this is what it has been and still is today. Voltaire once held the position that historical research had a point only if it concentrated on the worthy achievements of humanity. One may doubt this, and he himself did not succeed in the kind of historiography he demanded.[22] But if one wishes historical research to have a point, it is worth considering whether Voltaire's requirement cannot be fulfilled, at least now and then. And in fact the eco-age may be conceived as a New Enlightenment. Herein lies one point of the historical approach: the euphoria of elucidation, of rediscovering the experiences of revelation with which so much began. To be sure, this enlightenment has its own dialectic, complete with blinkers, arrogance and the pursuit of power. But, contrary to what many opponents have claimed, it is clearly not a mass psychosis originating in irrational fears. It may appear to be that in certain situations, but such an interpretation proves over time to be definitely wrong. To show this is another aim of the present book.

Chapter One

Environmentalism before the Environmental Movement

1 Good Mother Nature and the 'Appalling Wood Shortage': The Twin Face of Nature in the Decline of the Commons

From Rousseau to Romanticism: the first great age of nature worship

Anyone who wishes to tell a story must first have a beginning. The roots of modern environmentalism stretch far back in history, but is there a point at which everything began? If this means a certain person or publication, then a connoisseur of British environmental history would cite John Evelyn – the 'good Mr Evelyn', well known from Samuel Pepys's diaries – and his *Fumifugium* (1661), the first pamphlet against the scourge of city smoke, or *Sylva* (1664), the first call for afforestation. His friendship with Pepys, a naval administrator,[1] over more than forty years fits the picture, since the fleet was then the foremost consumer of timber. But Evelyn was not the originator of an afforestation movement, or of ongoing initiatives to fight coal smoke. If, instead of individuals, one looks for movements with lasting effect, then animal lovers and vegetarians, especially the Quakers, will seem more important – or else the endless quest for the near-natural garden, also British in its origins, which suggests that from early on industrialization and the longing for nature were closely related to each other and that a feeling for nature became the hallmark of a new cultural elite.[2]

Cultural historians prefer to begin the prehistory of environmentalism in the late eighteenth-century age of gushing enthusiasm for nature, the age of Rousseau, *Sturm und Drang* and early Romanticism. At Whitsun 1793, the Berlin students Ludwig Tieck and Wilhelm Heinrich Wackenroder went on a hiking trip in Franconian Switzerland; it counts as the historical moment when German Romanticism was first invented. 'Forest smoke, a stream flowing down a cliff, a crag leaping up in the valley – it can send me into a rapture that almost borders on madness', Tieck rejoiced.[3] But Reimar Gilsenbach, the 'cornerstone of conservationism in East Germany', maintains that a wider historical horizon is needed to overcome the perennial narrowness of environmentalism. True conservationism, he argues, began

with the great Alexander von Humboldt, whom contemporaries revered as the modern Aristotle.[4]

In reality, never before in history had there been as much talk of nature as in the period from Rousseau to Romanticism; never before had it been so much in vogue, but also so ambiguous. Historians of philosophy, who from antiquity to the Renaissance had brought a reasonable order into the history of the concept of 'nature', now increasingly gave up the task.[5] Montesquieu, in his *Considérations sur la France*, mocked nature as a lady whom everyone prided himself on knowing, with the result that her reputation was ruined. All the more remarkable, however, that the word 'nature' did not become worn out and hackneyed: in 1800, after the experiences of the Revolution, it was actually called the 'most dangerous word in the French language'.[6] Even philosophical authors of the time evidently presupposed an intuitive understanding of 'nature' and its various faces. 'Nature' became the watchword for liberation from the constraints of the old society; people discovered in the tropics and the Americas a wild, luxuriant nature – and wild 'savages' too – that they had never known in the Old World. But at the same time, scientists made vigorous advances in discovering law and order within nature.

'We obey her laws even when we resist them; we work with her, even when we want to work against her': the young Swiss Christoph Tobler, visiting Weimar in 1781, noted down such aphorisms of the 32-year-old Goethe's.[7] '*Süße, heilige Natur / Lass mich gehen auf Deiner Spur, / Leite mich an Deiner Hand / Wie ein Kind am Gängelband*' ['Sweet, holy Nature / Let me go in your tracks, / Lead me by your hand / Like a child in leading-strings']:[8] so begins the poem An die Natur [To Nature], composed in 1775 by the young poet Friedrich Leopold Graf zu Stolberg, who shocked the conservative Swiss by bathing naked with Goethe in a lake. Later, Karl Marx ridiculed this joy at being kept in nature's leading-strings as 'patriarchal drivel';[9] but paradoxically a full awareness of freedom went into this sentimentality about nature. Two centuries on, the hidden tension repeatedly burst into the open in the environmental movement: 'nature' as watchword for spontaneous living, but also as reminder that man's urge to press forward has only limited scope. At the same time: 'nature' as a passionately emotional term – a word resonating with love and enthusiasm, but also with shudders – as well as name-giver of the new natural sciences. Both are there in Goethe: his *Erlkönig* speaks of the magic of a natural spirit, but it is the rational, enlightened father who survives.

If one places Rousseau, the *Sturm und Drang* figures and the early Romantics at the origin of the environmental movement, one is implying a philosophy of history in which ideas, visions and spiritual themes come first. The nature honoured in the eighteenth century bore the features of a secularized goddess; nature worship had a pantheistic aspect. Spinoza's *Natura sive Deus* became – to quote Wolfgang Riedel – 'the most widespread nineteenth-century axiom of the philosophy of nature'.[10] But did the path lead straight from there to the modern concern for nature?

If nature was all-powerful, did that not mean its destruction was inconceivable? Immanuel Kant, whose belief in nature escaped his critique of knowledge,[11] thought it evident in 1795 (or was he making fun of such confidence?) that nature would provide people with wood even on the edge of the Arctic: 'Nature's care arouses most admiration, however, by carrying driftwood to these treeless regions, without anyone knowing exactly where it comes from. For if they did not have this material, the natives would not be able to construct either boats or weapons, or dwellings in which to live.'[12]

The great fear of wood shortage

The strange thing is that, precisely in the 1790s, Europe-wide alarms over the destruction of forest and the 'appalling wood shortage' reached their peak![13] There is a direct analogy here with *Limits to Growth*, that Club of Rome study which became a global sensation after its publication in 1972. But we have to detach ourselves from the concept of nature of the time, with its corresponding literature, to arrive at the prehistory of modern warnings about the destruction of nature. The wood shortage alarm can be found in a wide range of literature: forest records and ordinance, the archives of city forest departments, advice on new wood-saving inventions, complaints made by small and large commercial users of wood, but also in the *Cahiers de doléances* to the French government which allow us to follow the brewing of the Great Revolution. These teem with shrill cries of warning. In 1789, at the Convocation of the Estates-General, the complaints of shortage were right at the top of the agenda. According to French historians of the forest, such fears flared up like periodic bouts of malaria.[14]

Much the same was true in Germany at the time, although Heinrich Rubner calculated that in 1800 Germans had more than three times as much wood per capita at their disposal as French people.[15] In 1795, the year when Kant's *Perpetual Peace* first appeared, a prize-winning essay published in Leipzig predicted that 'life, trade and work will be made more difficult in every way for those who come after us, and our destructive acts will make them think of us with horror'. And in 1797 the inventor of a more economical oven announced: 'If the wood shortage worsens over the next twenty years at the same rate as in the past twenty, may God have mercy on us!' 'Not enough wood! High wood prices! is the general complaint in nearly all the large and small towns of Germany': so began one forester's 'frank thoughts on the wood shortage'.[16]

Does that make things crystal-clear? Have we been looking in the wrong place for the early origins of our environmental consciousness – among poets and philosophers, instead of practical people facing everyday shortages? Things are not quite so simple, however. The complaints of wood shortage, present or future, should not be taken indiscriminately at face

value. Indeed, their reality content is the object of endless controversy, in Germany and elsewhere.[17] Shortly after 1800, leading foresters were heaping scorn on the alarmists: the Bavarian reformer Joseph Hazzi, for example, sneered in 1804 that the 'frightful ado about impending shortages' was a way for 'forest charlatans' to impress the government and public opinion; and from time to time they did indeed manage to whip up a wild hysteria. The Prussian forestry expert Wilhelm Pfeil sang the same tune, suggesting that 'the ever approaching monster of the direst wood shortage' was 'a chimera that many forest people and other writers want to frighten us with, as Africans frighten their women with mumbo jumbo'. It would be splendid if wood became more expensive and fetched a decent price, since that would be a sign that things were looking up for the economy and all proprietors would finally have an incentive to keep their forest in prime condition.[18]

Since then, the story of catastrophic shortage at the end of the 'Wood Age' has served as a prelude to two heroic tales of salvation: in one, modern forestry claims to have saved countries from disaster, while in the other, economies based on fossil fuels also claim to have saved the forest by reducing the demand for firewood. But even in a declensionist history of the environment – which detects nothing but deforestation everywhere – we come across the wood shortage story. No wonder it has been the subject of endless controversy!

At first sight, the arguments for and against a 'death of the forest' alarm in the early nineteenth century sound modern. If we read the quotations in context, however, it soon becomes clear that they are part of the great controversy of the age: the liberal attack on mercantilism, the rulers' protectionist system in the Absolutist era. The long growth cycles of trees gave statist theorists a new argument for official conservation of the forest. But liberals countered that rising wood prices were the strongest inducement to afforestation; state protection was worthless, because a policeman could not be placed beside every tree, and anyway many forestry officials were corrupt; its removal would be most beneficial to those with a vital interest in forest use. The dispute remains virulent in large parts of the world today, especially as it cannot be said once and for all who is right! When Russia, seduced by the gospel of deregulation, did away with state forestry regulation in 2007, the quest for short-term profit led to such neglect of safety rules that forest fires acquired horrific proportions. Although the forest-owners' men have often been of dubious value, competent and efficient officials have been essential in modern times for the success of environmental policy.

In 1800 this was not yet so clear. A further complication was that two other issues played a role in the wood shortage controversy, so that the front lines did not always coincide: one was the clash of interests between the local firewood economy and the timber trade; the other was the dispute over the old common lands. In all seafaring nations, the naval timber supply had the highest political priority; as soon as it was impaired, by