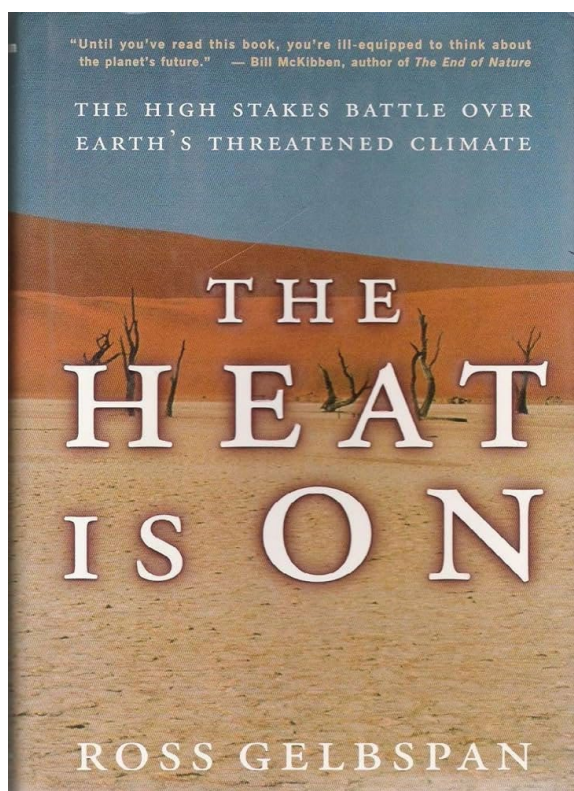


My 1997 'Climate Book of the Year'

Gelbspan, R. (1997) *The Heat Is On: The High Stakes Battle Over Earth's Threatened Climate*. New York: Addison-Wesley Publishing Company Inc. 278pp.

This essay continues my series of monthly posts in which I select one 'climate' book to highlight and review from one of the 44 years of my professional career in climate research (starting with 1984, my first year of academic employment). The series will end in September 2027, the month in which I shall retire. [See here for more information](#) about the rationale for this series, and the criteria I have used in selecting my highlighted books.

This '1997 essay' can be [download as a pdf](#).



Here is a challenge. Fill in the three missing words in the following sentence: 'The [???] evidence [???] there is a [???] human influence on global climate'. This was the task facing the Plenary Session of the UN's Intergovernmental Panel on Climate Change (IPCC) towards the end of their three-day meeting in late November 1995, held in the impressive Palacio Municipal de Congresos in Madrid. Several hundred governmental delegates from around the world were gathered to discuss and approve the Second Assessment Report (AR2) of the IPCC, including the all-important Summary for Policy Makers (SPM) of the scientific working group.

Debate among the delegates about the wording of this crucial sentence—and they included some of the scientists who had

drafted the underlying report—continued late into the evening. Dinner was cancelled; sandwiches were called for; the evening was extended. Exactly how strong was the scientific evidence that human activities were already altering the world's climate? And how could consensus be reached between very different governmental positions? Shortly before midnight, when the conference centre would close, the chair of the IPCC, Bert Bolin, banged his gavel on the desk. Agreement had been achieved through some clever linguistic

diplomacy. Bolin announced that the IPCC's formally agreed statement concerning current understanding of the science of climate change would read, "The balance of evidence suggests there is a discernible human influence on global climate."

At the time of this Madrid meeting in the mid-1990s, it was widely agreed that human emissions of greenhouse gases into the atmosphere would affect world climate. But how large would this effect be? Could it already be detected? And what might be the resulting impacts for societies in the decades to come of such a change in climate? These were all questions to which the answers were much less clear, but for which the IPCC were seeking to marshal the best available evidence.

Notwithstanding this tentatively emerging science, the first Conference of the Parties (COP1) to the UN Framework Convention on Climate Change had met in Berlin earlier in the year. Chaired by Germany's then federal environment minister, Angela Merkel, governmental delegates from around the world agreed what was to be known as the '[Berlin Mandate](#)', a decision to negotiate an international treaty which would specify national emissions reduction targets. (This treaty would be known as the Kyoto Protocol, signed in December 1997).

Across the Atlantic in the United States, however, there was growing opposition to the idea of mandated emissions reductions. Most vociferous was the Global Climate Coalition (GCC), a lobby group of businesses, including many oil, gas and coal companies, that had formed in 1989 to oppose legislation for reducing greenhouse gas emissions. The GCC's influence was weak to begin with, but after its reorganisation in 1992—and especially after the Republican Party took control of the US Congress in 1994—the GCC lobbied more aggressively against the science of climate change and against policies to implement emissions reductions. Following the publication of the finalised IPCC AR2 Report early in 1996—and its carefully crafted statement about "the balance of evidence"—arguments in the USA about the science and policies of climate change 'heated up'. At the same time, preparatory work for the Kyoto Protocol began to gather momentum.¹

In April 1997—in between the 1995 meetings in Berlin and Madrid, and the December 1997 meeting in Kyoto—a book was published in New York by Addison-Wesley Publishing that would have lasting significance for how the politics of climate change came to be understood in North America and Europe. I have chosen 'The Heat Is On: The High Stakes Battle Over Earth's Threatened Climate', written by the experienced American journalist Ross Gelbspan, as my **1997 Climate Book of the Year**.

Gelbspan (1939-2024) was a 58-yr old investigative journalist, recently retired from *The Boston Globe* and the chores of daily journalism. His journalistic interests were wide-

¹ Signatories to the Kyoto Protocol included the United States, although it was never subsequently ratified by the US Congress.

ranging, and he had covered both the 1972 UN Conference on the Human Environment in Stockholm and the 1992 UN Earth Summit in Rio de Janeiro. 'The Heat Is On' started life as a 1995 [cover story for Harper's Magazine](#), subtitled 'The warming of the world's climate sparks a blaze of denial'. Gelbspan's investigative journalism exposed the "financial interests" and the disingenuous tactics of some of the members of the GCC, and led him to want, in his words, "to set the record straight". He subsequently expanded his *Harper's* cover story into a full length book with the same title, which would be the first detailed and sustained investigation into the political resistance in the United States to climate change science and policy.

Gelbspan's motivation for writing 'The Heat Is On' is made clear in his Introduction: "The purpose of this book is not only to bring home the imminence of climate change, but also to examine the campaign of deception by big coal and big oil that is keeping the issue off the public agenda" [p.7]. Gelbspan used his journalistic skills to weave together a tightly written story which entangled climate science, big business, politics, international diplomacy, extreme weather, projected climate impacts, and the views and activities of sceptical scientists. But for Gelbspan, the story was first and foremost a battle about science, thereby adopting [what I have called elsewhere](#) a 'science first' approach to understanding climate change.

The year Gelbspan wrote the book—1996—was the one in which the climate contrarian movement moved centre-stage in the climate politics of the United States. The GCC was now lobbying louder and harder than ever in Washington, Congressional hearings on climate change were being called by the Republican-majority Congress and, to round off the year, in November Bill Clinton was re-elected President, with prominent climate campaigner Al Gore as his Vice-President. And earlier in 1996, a few American climate scientists, such as [Richard Lindzen](#) and [Fred Singer](#) (1924-2020), had begun to aggressively challenge the conclusions of the IPCC—notably the wording of the SPM sentence painstakingly crafted in Madrid the previous November. Gelbspan offers an effective account of their very public attack in May and June of 1996 on the integrity of climate scientist and IPCC lead author Ben Santer.

There is no doubt that there was a very public dispute about the veracity of climate science in the years around 1996 and following. A few months after Gelbspan's book appeared, one of the scientists in his gun-sight, Fred Singer, published his own account of this dispute, 'Hot Talk, Cold Science: Global Warming's Unfinished Debate'.² And the IPCC's delicate wording about the detection and attribution of human-caused climate change did indeed reflect a scientific community that was not fully confident that detection had formally and decisively been achieved. For example, in July 1997, shortly after 'The Heat Is On' was published, *New Scientist* magazine in the UK ran a cover story titled, ['Greenhouse Wars: Why the Rebels Have a Cause'](#) (see image below), while in September *Science* magazine published a news

² S.F.Singer (1997) *Hot Talk Cold Science: Global Warming's Unfinished Debate*. Oakland, CA: The Independent Institute. 120pp.

story which drew attention to the tentative nature of the detection of the enhanced greenhouse effect.³

The polemical nature of 'The Heat Is On' contrasts with earlier journalistic books about climate change, for example those written in the 1970s and 1980s by UK science writers John Gribbin and Fred Pearce who, at the time, did not have a powerful fossil fuel lobby to rail against. Gelbspan's abrasive account in 'The Heat Is On' also contrasts with [Bill McKibbin's 'The End of Nature'](#), written eight years earlier; McKibbin's was a more philosophical reflection on the significance of human-caused climate change for our relationship with the natural world. But both books gained similar widespread public exposure in the



USA, and beyond, and McKibbin was to blurb Gelbspan's book favourably, writing "Until you've read this book, you're ill-equipped to think about the planet's future".

So, why was 'The Heat Is On' a significant book?

Not only did it offer the first detailed exposé of the tactics of the Global Climate Coalition, it was also important because Gelbspan provided an influential narrative template for the public understanding of the science and politics of climate change. His plot-line contained several key elements for how climate change would come to be understood in the years ahead, at least in the English-speaking world. The most significant was the 'science-first' approach that Gelbspan adopted for explaining—and by implication settling—political disputes about climate change. The 'battle' to which he alluded in his sub-title was first and foremost a scientific one. This explains his inclusion of a 40 page Appendix—nearly 20 percent of the book's length—which offered a blow-by-blow rebuttal of the claims of the 'greenhouse sceptics' from several mainstream scientists.

Yet, given his science-first reading of climate change, it was ironic that Gelbspan was rather casual in his own representation of the state of climate science, not least in his insertions at the end of each chapter of anecdotal accounts of contemporary weather extremes around the world and their impacts. Many of the reviewers of the book pointed to his relatively weak grasp of the scientific state-of-the-art and to his sensationalisation of everyday weather extremes. Paul Stolley, for example, reviewing for *The Journal of Public Health*

³ Kerr, R.A. (1997) Climate change: Greenhouse forecasting still cloudy. *Science*. 16 May. 276: 1040. Science journalist Kerr explained that "...many climate experts caution that it is not at all clear yet that human activities have begun to warm the planet—or how bad greenhouse warming will be when it arrives."

Policy, commented that “the connection of [these extremes] with global warming is not made clear,”⁴ while [Michael Oppenheimer reviewing for the LA Times](#), lamented that his

... presentation of scientific details is far from the best available ... the descriptions [often] confuse rather than clarify the issues, and misrepresent the level of scientific understanding by using ‘will’ rather than ‘may’ in projecting potential outcomes of warming or, in a few instances, are just incorrect.⁵

Equally important for future writings about climate change, was the way Gelbspan framed the politics of climate as a war, as a “high stakes battle” between two opposing sides. This trope of climate politics constituting a war has been widely used over the past 30 years, not least by the combative climate commentator [Michael Mann](#).⁶ Framing disputes over climate policy as a two-sided battle, which sorts protagonists into the righteous and the unrighteous, is unhelpful, as I have explained [here](#) and [here](#) in my own reviews of Mann’s books.

A further element of Gelbspan’s narrative arc which continues to resonate today was his belief in the ease with which an energy transition could be achieved, if only the nefarious forces of the oil lobby and rogue scientists could be eliminated. Gelbspan’s blithe optimism is revealed: “The climate-friendly energy technologies that we need in order to begin to stabilize the atmosphere have already been created”, and “This time ... we can actively plan and manage the transition into our next energy epoch” [p.13]. He finds the director of the Business Council for Sustainable Energy Future, Michael Martin, “persuasive” when he says that leaving behind the carbon-based economy is “not as hard as it seems” and certainly not “as disruptive as the [oil and coal lobbies] would have you believe” [p.181]. This myth of a smooth, almost inevitable, energy transition as the solution to climate change is one which historian Jean-Baptiste Fressoz has recently exposed.⁷

‘The Heat Is On’ was widely reviewed in the months that followed its publication, for example by [Mark Hertsgaard in the New York Times](#), Michael Oppenheimer in the *LA Times* (see above) and Tim O’Riordan for the science journal *Nature*.⁸ Unsurprisingly, it also gained

⁴ Stolley,P.D. (1999) Reviewed Work: ‘Ross Gelbspan: The Heat Is On’. *Journal of Public Health Policy*. 20(2): 235-237.

⁵ Oppenheimer,M. (1997) [Review: ‘The Heat is On’](#). *The Los Angeles Times*. 4 May. Oppenheimer was a strong defender of climate and advocate for climate policies, which gives extra weight to his critique of Gelbspan’s science.

⁶ Mann,M.E. (2012) *The Hockey Stick and the Climate Wars: Dispatches From the Front Lines*. Ithaca, NY: Columbia University Press; Mann,M.E. and Toles,T. (2016) *The Madhouse Effect: How Climate Change Denial Is Threatening Our Planet, Destroying Our Politics, and Driving Us Crazy*. New York: Columbia University Press; Mann,M.E. (2021) *The New Climate War: The Fight to Take Back Our Planet*. New York: HBG/Public Affairs.

⁷ Fressoz,J-B. (2024) *More and More and More: An All-Consuming History of Energy*. London: Allen Lane.

⁸ See: O’Riordan,T. (1997) Betrayers of global truth. *Nature*. 389: 685-686. O’Riordan’s review did not go down well with everyone. A few weeks later (13 November 1997), the former editor of *Nature*, John Maddox, had his own review of O’Riordan’s review published in *Nature*, under an item of Correspondence. “I am alarmed”, said Maddox, “by the dangers of hyperbole with which Tim O’Riordan lards his review of Ross Gelbspan’s book”. ‘The Heat Is On’ was certainly capable of generating its own discursive heat.

the attention of one of America's right-leaning think-tanks, the [Cato Institute](#). Reviewing the book for that organisation, [Jerry Taylor haughtily dismissed Gelbspan's argument](#) by citing a frequently used lawyers' adage, "When you have the facts on your side, hammer the facts; when you have the law on your side, hammer the law; when you have neither, hammer the table". It was clear that Taylor thought Gelbspan was hammering the table.

Gelbspan's 'The Heat Is On' certainly caused large ripples, if not waves, after it was published, helped no doubt by President Clinton waving the book during a 1997 press conference in the run-up to Kyoto saying that he was reading it. The book's generally positive reception led to a paperback edition appearing the following year, updated to cover the signing of the Kyoto Protocol, and re-titled, 'The Heat Is On: The Climate Crisis, the Cover-Up, the Prescription'. And then in 2004, Gelbspan published his own follow-up book, 'Boiling Point: How Politicians, Big Oil and Coal, Journalists and Activists Have Fuelled the Climate Crisis – and What We Can Do To Avert Disaster'.⁹

Gelbspan's pioneering climate journalism about the climate contrarian movement was an inspiration for others in the years to come—for example, Oreskes' and Conway's 'Merchants of Doubt' in 2010—while James Hoggan and Richard Littlemore took their cue from his use of 'cover-up' when publishing their own account of the US climate contrarians.¹⁰ Yet in 'The Heat Is On', Gelbspan also offered a narrative template for the public communication of climate change politics which has proved hard to displace.

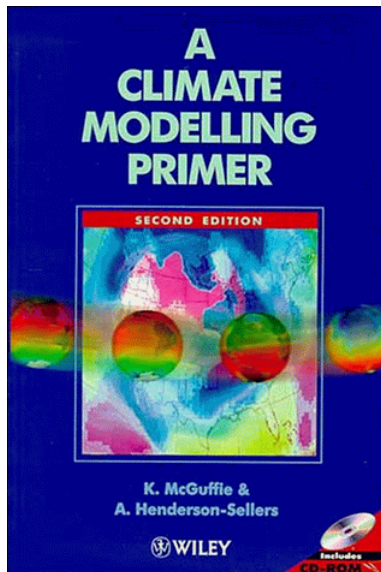
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⁹ Gelbspan, R. (2004) *Boiling Point: How Politicians, Big Oil and Coal, Journalists and Activists Have Fuelled the Climate Crisis – and What We Can Do To Avert Disaster*. New York: Basic Books.

¹⁰ Oreskes, N. and Conway, E. (2010) *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*. London: Bloomsbury Publishing; Hoggan, J. and Littlemore, R. (2009) *Climate Cover-up: The Crusade to Deny Global Warming*. Vancouver: Greystone Books.

Other significant climate books published in 1997

McGuffie, K. and Henderson-Sellers, A. (1997) *A Climate Modelling Primer: Second Edition*. Chichester: Wiley. 253pp.



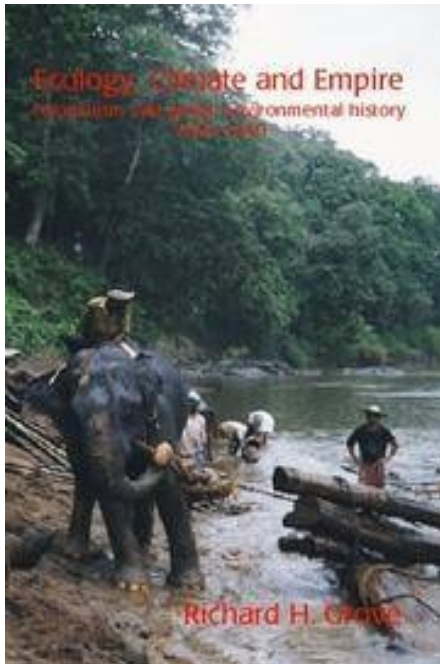
The development and use of models within climate science had become widespread by the 1980s. British climatologists Ann Henderson-Sellers and Ken McGuffie had collaborated in writing in 1987 the first accessible introductory book about the practice of climate modelling. Now, ten years later, with both of them based in Australia, they published a fully revised and updated edition, '**A Climate Modelling Primer: Second Edition**', and it is this book that I draw attention to for the year 1997.

In the intervening decade, climate models and modelling had significantly diversified and gained in visibility and status. Models were now a central tool in the design and execution of climate research, whether advancing understanding of the

dynamics of the Earth System or as an aid in the scientific investigation and assessment of past, current and future climate change. McGuffie's and Henderson-Sellers' modelling primer had value and durability—it was to go through two further editions, in 2006 and again in 2014—because it was targeted at the growing number of researchers who, while not modellers themselves, needed to know about climate models. As the authors explained in the Preface to this new edition, this readership included “oceanographers, ecologists, geographers, remote sensors and glaciologists”, whose domains of science were being incorporated into the new generation of Earth System models. It also included “economists, planners, sociologists, demographers and even politicians”, given the central place now given to climate models in scientific assessment, communication and policy-design around climate change.

'A Climate Modelling Primer' was organised around six chapters, from an introduction to the physical workings of the climate system and the history of climate models, to the different forms of climate models in use—simple energy balance models, general circulation models, and Earth System models. A new concluding chapter for this 1997 edition examined how models were evaluated and deployed in scientific assessments—such as those conducted by the IPCC—and in policy design. Here, McGuffie and Henderson-Sellers also included a short section about integrated assessment models (IAMs), whose role in the IPCC and in policy evaluation was becoming increasingly influential. (See my earlier [review of Jan Rotmans pioneering book](#) from 1990 on the topic of IAMs).

Grove, R.H. (1997) *Ecology, Climate and Empire; Colonialism and Global Environmental History, 1400-1940*. Cambridge: White Horse Press. 236pp.



Richard H Grove (1955-2020) was a pioneering environmental historian, who helped launch the academic field of environmental history, founding the journal [Environment and History](#) in 1995. He was perhaps best known for his 1995 book, 'Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism 1600–1860', which made the argument that an important strand of western environmentalism developed originally in the context of tropical colonialism. In 1997, Grove published a follow-on book, '**Ecology, Climate and Empire: Colonialism and Global Environmental History, 1400-1940**'. I draw attention to this as a significant book for the year 1997 because in it, Grove strengthens his case that early ideas about a changing climate should also be understood in the context of European colonisation. He uses historical

material drawn widely from India, the Indian Ocean, and from western and southern Africa, to show how colonial concerns about deforestation and land use change fueled anxieties about human-caused climatic deterioration in these regions. "Current and fashionable worries about climate change and global warming", says Grove, "actually have a very long pedigree that might well repay careful study" [p.4]. He was one of the first to make this connection between colonialism and climate change, a topic of research that has grown substantially in the past 30 years.

Grove later became Professor and founder of the Centre for World Environmental History at the University of Sussex in 2002, but shortly after he moved to the Australian National University, Canberra, in 2006, he suffered a very serious car accident which led to very severe incapacity and which prematurely ended his blossoming academic career. (Richard Grove was the son of Jean Grove, whose book 'The Little Ice Age', I have [previously reviewed as my 1998 Climate Book of the Year](#)).