



Page Proof Instructions and Queries

Please respond to and approve your proof through the “Edit” tab, using this PDF to review figure and table formatting and placement. This PDF can also be downloaded for your records. We strongly encourage you to provide any edits through the “Edit” tab, should you wish to provide corrections via PDF, please see the instructions below and email this PDF to your Production Editor.

Journal Title: PHG

Article Number: 949846

Thank you for choosing to publish with us. This is your final opportunity to ensure your article will be accurate at publication. Please review your proof carefully and respond to the queries using the circled tools in the image below, which are available in Adobe Reader DC* by clicking **Tools** from the top menu, then clicking **Comment**.

Please use **only** the tools circled in the image, as edits via other tools/methods can be lost during file conversion. For comments, questions, or formatting requests, please use . Please do **not** use comment bubbles/sticky notes .



*If you do not see these tools, please ensure you have opened this file with **Adobe Reader DC**, available for free at <https://get.adobe.com/reader> or by going to Help > Check for Updates within other versions of Reader. For more detailed instructions, please see <https://us.sagepub.com/ReaderXProofs>.

No.	Query
	Please confirm that all author information, including names, affiliations, sequence, and contact details, is correct.
	Please note that this proof represents your final opportunity to review your article prior to publication, so please do send all of your changes now.



Climate change, critical theory and scientific realism

Andreas Malm, *The Progress of This Storm*. London: Verso, 2018; 248 pp. ISBN: 9781788739405.

Reviewed by: Noel Castree, *University of Manchester, UK*
DOI: 10.1177/0309132520949846

This is a buccaneering text about the need for clarity of vision and moral courage. Authored by geographer Andreas Malm, it mixes withering critique with positive argument. The storm referred to in the title is the capitalist ruination of the Earth. Posing since its historical inception as a driver of human progress, capitalism is here subject to critical analysis courtesy of Marxist political economy. But so too are a number of ostensibly progressive attempts in social science and the humanities to make sense of society-environment relations in the 21st century. *The Progress of This Storm* is a polemic: it wages analytical war on capitalism and those who, wittingly or otherwise, remain blind to the enemy. While not particularly anchored in developments and debates in Malm's own discipline, the book will nonetheless be of real interest to many geographers who do research on how people interact with the non-human realm. Subtitled, 'Nature and society in a warming world', it's a call-to-arms designed to trigger deep, critical self-reflection among readers whose research and teaching has been inspired by everyone from Bruno Latour to Neil Smith. The book is part of a growing *oeuvre* by Malm, the content of which is radical and uncompromising (see <https://www.versobooks.com/authors/1960-andreas-malm>).

The argument: Regressive and progressive theories of society and nature

Malm organises his exceedingly readable argument into seven main chapters, framed by an introduction and a concluding chapter. The first three are exercises in searing criticism, with a positive case for 'climate realism' made in Chapter 4. That case hinges these early chapters to the next three. Chapters 5, 6 and 7 make the case for the perspicacity of a Marxist lens on society and the Earth. Chapter 8 summarises the book and reflects on its implications for 'theory', looking ahead, and real-world politics.

Malm uses 'theory' as a short-hand for a wide range of philosophical, analytical-diagnostic, methodological and normative approaches to understanding various aspects of society-environment relationships. Over the last 25 years, these approaches have grown in size considerably and become more diverse. While this generic use of the term theory allows him, in principle, to encompass everything from actor-network theory to socio-ecological systems thinking, in practice he homes-in on parts of Leftist social science and the humanities. Forty years ago, these parts were dominated by Marxist and feminist thinking, with post-colonial and anti-racist approaches beginning to gain significant ground. Four decades ago, there was also a relatively small focus on the society-nature question. Today, by contrast, Marxism jostles with many radical and reformist Leftist approaches where power, injustice and political struggle are the focus. Coincident with this, the

analysis of society-nature relations has been a huge growth area in disciplines like history, geography and sociology, sometimes framed in ‘green’ terms but very frequently not.

Malm’s treatment of theory (about which more below) is situated in what he calls ‘the warming condition’ (that is, the pervasive reality of anthropogenic climate change). The condition has, of course, long been identified by geoscientists in numerous papers and reports. Its diverse actualities (e.g. extreme weather events) are being registered more and more by people worldwide (especially the most vulnerable communities living in the Global South). ‘Now theory’, he notes, ‘does not seem like the most exigent business in a rapidly warming world’ (p. 16). ‘The election of Donald Trump’, Malm continues, ‘... dispels the last lingering illusions that anything else than organised collective militant resistance’ will do (p. 16). Even so, ‘action remains best served by conceptual maps that mark-out the colliding forces with some accuracy, not by blurry charts or foggy thinking, of which there is, as we shall see, no shortage’ (p. 16). Malm’s premise is that ‘any theory for the warming condition should have the struggle to stabilise climate – with the demolition of the fossil economy the necessary first step – as its practical, if only ideal, point of reference’ (p. 18).

Chapters 1 through 3 are set against various strands of influential society-nature theory in the social sciences and humanities. Malm is against ‘constructionism’, ‘hybridism’ and ‘new materialism’ respectively. Writing with great assurance, he summarises and takes issue with most of the influential thinkers in these areas over the last quarter century (Donna Haraway, Jane Bennett, Steven Vogel, Timothy Morton, Cary Wolfe and beyond). In each chapter he demonstrates the analytical limits of thinking about climate as a constructed, hybrid or neo-materialist phenomenon. Climate is forceful, quasi-autonomous and can rebound on people in ways that ‘theory’ of the sort the

present author proffers (my own writings about materiality and representation get a serious mauling) cannot grasp. Even someone ostensibly decrying the ‘climate crisis’ – American environmentalist Bill McKibben – is charged with failing to properly understand the reality of a climate-changed world. Clearly, Malm is not afraid to be provocative, nor to cast unexpected light on seemingly familiar thinkers.

Malm’s philosophical position is spelled out in Chapter 2, as part of his critique of ‘hybridism’, and in Chapter 4. His lodestars are philosophers like Kate Soper and Dale Jacquette, as well as sociologist David Elder-Vass (among others). Malm seeks a position between an untenable Cartesian dualism and a fairly shapeless holism that sees society and environment dissolve into each other. To register the relative autonomy of the social and the natural amidst their constant interaction, he explains the differences between ‘substance dualism/monism’ and ‘property dualism/monism’. This allows him to talk of ‘unity-in-difference’ and provides a philosophical basis for the claim that, while climate is irreducible to (and beyond the control of) any society, dialling down societal impacts on climate is now absolutely imperative – such is the threat posed by global warming. What Malm calls ‘climate realism’ is spelled-out in ten points (in Chapter 4). They are largely uncontroversial (e.g. ‘If scientists had never discovered global warming, it would still be happening’, p. 127). Yet in failing to be climate realists, everyone from myself to Latour to Neil Smith are said to be flirting with climate change denialism of the sort that has, recklessly or mendaciously, allowed the storm to grow larger and more threatening.

From Chapter 6 onwards, Malm begins to historicise the climate-society relation via his preferred theory, Marx’s historical materialism. He focuses on private property – its creation and institution, and the way it cleaves social life as well as the society-nature relationship (at least formally). This leads to Chapter 7, where Malm

defends John Bellamy Foster's (now mature) theory of the 'metabolic rift' between capitalism and the Earth. Chapter 8 then reminds readers that capitalism cannot ever wholly appropriate the two sources of all wealth – namely, working people (labour) and the material world (nature). Freeing both from the shackles of capitalism is what might allow both a chance to live well together. In the meantime, the 'warming condition' threatens to unravel capitalist 'progress' without yet triggering a coordinated movement able to redefine progress altogether. In his concluding chapter, Malm avoids undue pessimism and groundless optimism. Instead, it offers a gritty political realism in light of his evidence-informed theoretical perspective on 21st-century capitalism. There will be no revolution... yet. But business as usual will suffer the slings and arrows of the climate condition, leaving few unaffected and a great many badly harmed. At the time of my writing, scientists report sea bed methane leaks in Antarctica – further confirmation of just how bad the storm could get.

A storm in a tea cup?

The Progress of This Storm (*The Storm* for short) is, as I said, a polemic. It's really well written. The essayistic prose is clear and at times lyrical, despite its frequent sharpness. It also oozes confidence and readers are forced (willingly or not) to engage with Malm's many striking claims. The book has cross-disciplinary appeal and is based on very wide engagement with the literature. It's a work that clamours for attention, as well as one likely to divide opinion. Like any call-to-arms, questions arise about its intended impact. Will it convert the unwashed to Malm's cause or simply allow those already convinced that Marxism is a superior theory to further circle their wagons? For my own part, I thoroughly enjoyed the book and hope it sparks wide and deep reflection about the means and ends of socio-environmental 'theory'. Certainly, *The Storm* could be used in graduate seminars to

very good effect, so too upper tier undergraduate modules about climate change and society in the Anthropocene.

What are we to make of its core propositions? Malm is right to insist that society and nature have ontological properties that differ, even as climate change is the 'great blender and trespasser' (p. 15) of our times. He's also right to insist that global warming demands a serious analytical and practical response *now*, not in 20 or 50 years. When it comes to theory, Marxism does indeed provide an extraordinarily insightful tool kit of ideas, arguments and testable propositions – ones that (justifiably) make no pretence that fact and value can be held apart. Malm is right to decry the failure of much 'theory' to engage the critique of political economy and to operate as if climate change is just another 'issue' that can be bracketed-off or else treated as another 'social construction'. He's also right to press university researchers and teachers to soul search about how we use our much-valued academic freedom. Are we contributing to the storm (heads in the sand) or helping, in however small a way, to build the social capacity needed to rapidly suck the energy out of it? Should we be braver and bolder, recognising (as Karen O'Brien [forthcoming] contends) that we have more collective power than we realise?

All this said, I have some criticisms. Malm essentialises the huge bodies of research he is against. For instance, Bruno Latour is taken to task quite severely (with Malm making some very sensible claims about the forms and location of 'agency'). But whatever Latour's sins (he certainly has had little time for Marxism during his long career), there are ways of reading actor-network theory that are fruitful in contexts that Latour never considered. The same can be said about 'constructionism' (Marx and Engels' focus on ideology was acknowledgement of the power of epistemic frames to shape action, even when one-sided or false) and about 'new materialism' too. Talking of constructions, Malm is largely uncritical of geoscience – it's

treated as a metaphorical canary in a coal mine. Yet it remains far more prominent in the public domain than either Marxism or the varieties of theory that Malm criticises. How geoscientists construct the ‘climate condition’ through ideas like carbon budgets, average temperature targets, ppm concentrations of GHGs and so on is not subject to critical scrutiny here. Meanwhile, many STS scholars have rightly subjected these ideas to constructive evaluation in terms of what they exclude or occlude. Geoscience contains a hidden politics that is performative, even as geoscientists claim value-freedom as part of their professional identities. How to hook geoscience up to a critique of capital accumulation without the science losing its perceived credibility in the public realm or the scientists fretting about being ‘too political’? The same can be asked of society-environment research rendered in a scientific way (e.g. socio-ecological systems theory). If we were to essentialise these bodies of thought in the way Malm essentialises what he’s against, then the radical implications of the science on which he bases his realism could never be reframed through the Marxist theory he justifiably favours (cf. Castree, 2017).

We might also ask why Malm puts so much faith in reason to stem the tides of theoretical apostasy. Ecological Marxism is now a very well-developed field of inquiry across several disciplines (it wasn’t when I published my first academic article some 25 years ago: Castree, 1995). Malm has already made strong contributions to the field (along with his very talented Lund University colleague Alf Hornborg: see Malm, 2016; Hornborg, 2019). Is its apparent inability to attract more followers due to a lack of sophistication? Certainly not. There are other reasons why many in social science and the humanities have not helped to revive and update Marxism since it experienced a ‘crisis’ in the 1980s. Malm here lacks a suitably Marxist take on the dynamics of universities, set within a wider political economic context. Impassioned

reason and realism of the sort *The Storm* offers is necessary but not, of course, sufficient to help us direct more putatively ‘critical’ researchers and teachers to engage ‘the warming condition’. Malm’s various asides about complacent and complicit academics may well be justified, but would benefit from a supporting analysis of what drives wilful ignorance of the climate challenge. Is it merely a case of selfish and weak-willed individuals?

Let me end with two further observations. First, for readers not *au fait* with ecological Marxism, Chapters 5 through 7 provide a perfectly good presentation of one version of it. Malm highlights metabolic rift thinking, and to some degree critically engages other currents of ecological Marxism (such as Jason Moore’s work). He thereby shows readers why Bellamy Foster and co-workers’ writings are analytically superior, in his view. However, those of us well versed in these literatures will find the succinct and breezy treatment of big ideas problematic – even if, as Malm sees us, we use select quotations to pretend to know more about Marxism than we actually do (p. 157).

Secondly, and finally, Malm’s book contains very little geography. I mean that in two senses. Analytically, the book does not illuminate the important topography of social causation and response that are intrinsic to the warming condition. Malm begins *The Storm* with a focus on dissonant times (the here and now of daily life versus the long-term unfolding of climate change driven by the release of fossil energy). But questions of location, unevenness, long-distance connection and spatial scale are not built into the analysis. In disciplinary terms, Malm’s focus on the metabolic rift idea takes him more into the realms of sociology. The many geographers using Marxism to make sense of capitalism’s ecologies are not engaged with closely, with the exception of Jason Moore. In both senses, then, this is a general book about capitalism, theory and climate rather than a work of geographical analysis. That’s a pity

because geography (as much as history) has great cognitive and normative significance when seeking to understand the warming condition and how to slow its irresistible progress.

In sum, Andreas Malm has written an ornery book that's well worth arguing with or being persuaded by, depending. It contains deadly serious messages about the world and academic practice. It deserves to be widely read in any number of disciplines where climate change is a growing concern in research and pedagogy, even if the geographic content is muted.

References

- Castree N (1995) The nature of produced nature. *Antipode* 27(1): 12–48.
- Castree N (2017) Unfree radicals. *Antipode* 49(s1): 52–74.
- Hornborg A (2019) *Nature, Society & Justice in the Anthropocene*. Cambridge: Cambridge University Press.
- Malm A (2016) *Fossil Capital*. London: Verso.
- O'Brien K (2021) *You Matter More Than You Think: Quantum Social Change in Response to a World in Crisis*. Adaptation-CONNECTS, University of Oslo.