

Earth 2020

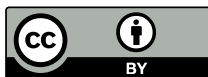
An Insider's Guide to a Rapidly
Changing Planet



EDITED BY PHILIPPE TORTELL



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Philippe Tortell (ed.), *Earth 2020: An Insider's Guide to a Rapidly Changing Planet*. Cambridge, UK: Open Book Publishers, 2020, <https://doi.org/10.11647/OBP.0193>

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ISBN Paperback: 978-1-78374-845-7

ISBN Digital ebook (mobi): 978-1-78374-849-5

ISBN Hardback: 978-1-78374-846-4

ISBN Digital (XML): 978-1-78374-850-1

ISBN Digital (PDF): 978-1-78374-847-1

DOI: 10.11647/OBP.0193

ISBN Digital ebook (epub): 978-1-78374-848-8

Cover image: *Earthrise* (24 December 1968). Photo taken by Apollo 8 crewmember Bill Anders, Wikimedia, https://commons.wikimedia.org/wiki/File:NASA_Earthrise_AS08-14-2383_Apollo_8_1968-12-24.jpg

Cover design: Anna Gatti

Media

Candis Callison

Two years prior to the first Earth Day, on December 24, 1968, the Apollo 8 mission returned with *Earthrise*, the first color image of our pale blue planet. Taken by US astronaut Bill Anders, the image appeared at a time when the Vietnam War, the Cold War and other geopolitical entanglements dominated news around the world. Many now look at *Earthrise* as the first in a series of galvanizing images for those concerned about the environment. A similarly iconic image, *The Blue Marble*, came from the Apollo 17 mission in 1972, the last manned flight to the moon. This image encompasses the whole Earth, showing the Southern polar ice cap for the first time, most of the African coastline, and some of Asia. Even though heavy clouds shroud many parts of it, *The Blue Marble* has become one of the most recognizable images of our shared planet, thanks in no small part to the role played by many kinds of media in spreading this image around the world.

These images of Earth suspended in its solar system have long been credited with a shift in our conceptualization of the planet, giving primacy to environmental borders instead of political ones.¹ They also contributed to a sense of the planet as vulnerable and at risk. Two decades after NASA distributed the Apollo images, *Time* magazine put ‘Endangered Earth’ on its 1989 cover as ‘Planet of the Year’, instead of its usual ‘Person of the Year’.² The previous year, NASA scientist James Hansen had presented the first testimony about climate change to the US Senate. And the year before that, in 1987, the Montreal Protocol had been signed, banning the global production of chlorofluorocarbons (CFCs), chemicals that contributed

to the Antarctic ozone hole.³ By 1990, the US was passing strong new amendments to the Clean Air Act,⁴ the Intergovernmental Panel on Climate Change (IPCC) was releasing its first Assessment, Carl Sagan had joined with thirty-two other Nobel Laureates to issue a letter titled ‘Preserving and Cherishing the Earth: An Appeal for Joint Commitment in Science & Religion’, and Pope John Paul II called for environmental responsibility on the World Day of Peace. These heady and hopeful times of environmental awareness were well covered by dominant media at the time: television, radio, newspapers.

The 1990s, however, gave way to shifts in media, science and environmental movements. While many point to the energizing social and political impact of the 1992 Earth Summit in Rio de Janeiro, still dominant legacy media began to shift their gazes away from environmental issues and science coverage more generally. Some have speculated that entertainment and celebrity news took over, displacing environment, science and other kinds of stories. What’s clear looking back is that Earth lost some of its celebrity status, while, at the same time, science coverage began to decrease during this decade. Moreover, by the time the 1997 Kyoto Protocol was signed by member nations of the United Nations Framework Convention on Climate Change (UNFCCC), questioning the very notion of climate change had already become entrenched in some national media contexts.⁵ Successive IPCC reports in 1995 and 2001 were progressively more clear, urgent, and confident in their conclusions, but media coverage still varied across different countries. This became particularly problematic in the US, as news stories on climate science were likely to include ‘both sides’, giving equal weight to climate change deniers despite strong and continuing scientific consensus. Support for the Kyoto Protocol waned — the US pulled out under President George W. Bush Jr.; public interest and engagement with climate change reached an all-time low. Many scientists, activists and policymakers blamed the media for not doing their job, and some journalists accepted the blame. But there were also other complex problems at play, and some of these still inform today’s media in their coverage of climate change.

It might seem surprising to the new generation of ‘climate-striking’ youth, but climate change, in its earliest years, was not considered a timely issue, nor one with a well-defined

range of possible and likely ramifications. As many reporters have pointed out to me over the last twenty years, climate change is a difficult story to tell — in part because it ‘oozes’ and doesn’t ‘break’. In other words, incremental stories on findings related to aspects of climate science generally do not conform to the ‘news values’ of timeliness, prominence and immediate impact — that is, unless climate change can be pegged to an event or famous person. IPCC scientists winning a Nobel Prize, along with Al Gore, or Greta Thunberg’s activist speeches spring to mind as good examples. These kinds of stories produce awareness, but whether or not they serve to educate or engage the public about climate change depends on *how* these stories are told.

Science education also poses some problems for reporting on climate science. Many journalists have told me that they aim at an early high school education level of science knowledge — corresponding to somewhere between US ninth and eleventh grade (ages fourteen to sixteen).⁶ Public education is thus always part of the task embedded in any story touching on climate change. Those who reported on it in the 1990s were cautious and careful in their efforts at public education. But, by the early 2000s, even as the science affirmed and confirmed earlier assertions, journalists who reported on climate change as an urgent issue were accused of being alarmist, unbalanced, or biased in their coverage. On the other hand, those journalists and news organizations who gave it scant coverage were equally castigated by scientists and activists for not being effective in their reporting, thus failing to mobilize public and political engagement.

It wasn’t until the mid-2000s that attention to climate change from news media began to shift, in part due to the extreme weather events. Perhaps more than any other weather event, hurricanes provide a case study on how a future with climate change can be made topical — and frightening. In the aftermath of the devastating 2017 hurricane season, climate scientist Michael Mann described the relationship between climate change and Hurricane Harvey in an op-ed for *The Guardian*, stating that: ‘While we cannot say climate change “caused” Hurricane Harvey (that is an ill-posed question), we can say that it exacerbated several characteristics of the storm in a way that greatly increased the risk of damage and loss of life. Climate change worsened the impact of Hurricane Harvey’.⁷

Even for Mann — a scientist used to the media spotlight and experienced in speaking to diverse audiences — the nuance required to characterize causal factors and links to climate change is a challenge, involving a reframing of what's in question. Like most climate-related findings, understanding the relationship between hurricanes and climate change requires a certain amount of knowledge about the difference between *climate* and *weather* — and, how scientific facts are formed, evolve and build on one another. Hurricanes Katrina and Rita in 2006 were a kind of precursor to this, as journalists and activists (think back to Al Gore's *An Inconvenient Truth* film poster) rushed to make causal links even while the science related to hurricanes and the risks of coastal development were much more nuanced and complex.

Legacy media — the same media that sent *Earthrise* and *The Blue Marble* photos around the world — have traditionally been tasked with calling the widest possible audiences to attention on issues of immense importance. Yet, legacy media are no longer able to rally large swaths of the public in ways previously expected. Many media are struggling with changing audience habits, faltering economic models and labor precarity, resulting in decreased resources for newsrooms and declining numbers of journalists able to earn a living wage. Science journalists have become as rare as the speciality knowledge and interest that comes with working on 'a beat'. Only the prestige press — those few news organizations with healthy subscription numbers *and* benefactors (e.g., *The Washington Post* and *The New York Times*) — or those who deem it a priority area based on their market or mandate (e.g., public broadcasters) have the luxury of employing reporters able to work in a single subject area over a long period of time.

Even more pressing than changes to legacy media are the changes wrought by social media and the sheer volume of information available on a daily basis. Social media now plays a huge role in what news gets read and shared, and the impact it has on what stories news organizations choose to cover is still unclear. For example, will social media uptake of climate news stories contribute to a shift in news values and editorial interests, so that climate change becomes a prominent topic worthy of consistent attention beyond clearly linked events, reports or disasters? At the moment, it is too early to tell.

Investing an issue like climate change with meaning, ethics and morality has generally been the work of social groups — conversely, this implies that one's social group can also undermine confidence in scientific facts and the immediacy of concerns about climate change.⁸ Scholars who study media, science and social movements have been arguing for some time that diverse communities play a huge role in the circulation of facts, but the exact and varied nature of this influence is only just beginning to be understood. This is a departure from the view that audiences demand and require textbook-like scientific facts. Instead, the work of journalism might better be considered as helping audiences develop a relationship with evolving climate facts that have been occasionally revised, but more often elaborated and affirmed.

When social movements are active online — providing source materials, perspectives and reporting — it becomes even more essential that journalists understand the varied contexts and audiences for their reporting, whilst also introducing new ideas about accountability into the discussion. The *Columbia Journalism Review* recently argued that climate change connections should be articulated when reporting on all environmental concerns.⁹ While it makes good 'news' sense to link high profile disasters like hurricanes and fires, it is equally important for business and policy decisions to be linked to climate change. Holding corporations and governments accountable to ever clearer metrics for climate mitigation and adaptation may not be an easy news story to pitch or tell, but, in the longer term, it is an arguably more imperative one.

Perhaps an even greater challenge to address in media coverage is the representation of diversity in human experience and relations, and the importance of acknowledging the long histories of these relations. Erasing ongoing and historic relations between humans and non-humans, or even recognizing the inter-connectedness of our social structures and societies doesn't just wave away the challenges of contending with them, even in the name of shared concerns. Consider, for example, how Indigenous communities have often either fallen out of coverage of climate change, or been relegated to the role of victims and occasionally heroes. In general, media have not done well in reporting on issues related to race, Indigeneity and colonialism, and this is particularly true in the context of climate change.¹⁰ Yet, Indigenous peoples comprise 5% of the world's population and

live in over ninety countries — and their communities, particularly those in the Arctic, sub-Arctic and southern Island nations, are likely to suffer disproportionately from the impact of climate change.

Indigenous communities offer deep oral histories, distinctive knowledge, instructive frameworks for relations with non-humans and humans, and pathways towards resilience in the face of enormous changes. Many diverse Indigenous communities tell stories not only of the immediate environmental changes they experience, but how these changes layer onto long histories of their lands, relations with colonial powers and the imposition of capitalism.¹¹ Understanding what climate change means and mandates in these varied global and Indigenous contexts forces us to examine deeply embedded questions about how we relate to each other, how our institutions and policies reflect these relations and how we might move toward a more just world even while contending with unequal climate disruptions.

Our myriad of handheld devices now connect us globally in ways that weren't imaginable fifty, or even twenty, years ago. In the last couple decades, our daily lives have been radically transformed by the influx of media and information. For many of us, regardless of where we live or our socio-economic status, mobile devices have become an essential conduit for navigating some (or many) aspects of daily life. Yet, with so much digital infrastructure, how connected we feel to each other and how informed we are is still very much an open question — and one that has consequences for global issues like climate change, with all its attendant potential and probable future impacts.

We have watched as, in the last decade, activists young and old have utilized a variety of media to call for action in the face of climate change. Still, news media continue to play an outsized and shifting role even as digital infrastructures produce more information sources and make it easier to educate and mobilize some publics and policymakers on climate change. How news media navigate their own structures, crises and persistent challenges in telling the story of climate change will be critical as more data, catastrophes and risks related to climate change become apparent. And while our social lives will continue to play an important role in what media we choose to follow, it will also become increasingly vital

to understand what images like *The Blue Marble* obscure: the histories of our relations, and the systems that inform our understanding of how to live together in a shared future with climate change.

Endnotes

1. Yet, as scholars have continually pointed out, efforts at erasing existing national and political differences in an attempt to offer common solutions still often replicate familiar social and economic divisions and power hierarchies. See for example, S. Jasanoff, 'Heaven and earth: The politics of environmental images', in *Earthly Politics*, ed. S. Jasanoff and M. Long Martello, Cambridge, MA: MIT Press, 2004, 31–52.
2. *Time* magazine's person of the year for 2020 is seventeen-year-old Swedish climate activist Greta Thunberg.
3. Available at <https://ozone.unep.org/treaties/montreal-protocol-substances-deplete-ozone-layer/text>
4. See also 'Air' by Jon Abbatt in this volume.
5. Available at <https://unfccc.int/resource/docs/convkp/kpeng.pdf> See also M. Boykoff, *Who Speaks for the Climate? Making Sense of Media Reporting on Climate Change*, Cambridge, UK: Cambridge University Press, 2011, <https://doi.org/10.1017/cbo9780511978586>
6. C. Callison, *How Climate Change Comes to Matter: The Communal Life of Facts*, Durham, NC: Duke University Press, 2014, <https://doi.org/10.1215/9780822376064>
7. M. E. Mann, 'It's a fact: climate change made Hurricane Harvey more deadly', *The Guardian*, 28 August 2017, <https://www.theguardian.com/commentisfree/2017/aug/28/climate-change-hurricane-harvey-more-deadly>
8. Callison, *How Climate Change Comes to Matter*, 2014.
9. J. Allsop, 'Climate change plays second fiddle as California burns', *Columbia Journalism Review*, 12 November 2018, https://www.cjr.org/the_media_today/california_wildfires_climate_change.php. See also USGCRP, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief*, Washington, DC: US Global Change Research Program, 2018, https://nca2018.globalchange.gov/downloads/NCA4_Report-in-Brief.pdf

10. C. Callison and M. Lynn Young, *Reckoning: Journalism's Limits and Possibilities*, Oxford and New York: Oxford University Press, 2020, <https://doi.org/10.1093/oso/9780190067076.001.0001>
11. See C. Callison, 'Climate change communication and Indigenous publics', in *Oxford Research Encyclopedia of Climate Science, Vol. I*, ed. M. Nisbet, Oxford: Oxford University Press, 2017, 112–32, <https://doi.org/10.1093/acrefore/9780190228620.013.411> and K. P. Whyte, 'Justice forward: Tribes, climate adaptation and responsibility', *Climatic Change*, 2013, 120, 517–30, https://doi.org/10.1007/978-3-319-05266-3_2, https://kylewhyte.marcom.cal.msu.edu/wp-content/uploads/sites/12/2018/07/Justice_Foward_Tribes_Climate_Adaptatio.pdf