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AUSTRALIA BURNING

Tom Griffiths

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In November 2019, as forest fires worked their way south along the Great Dividing Range, I walked for a week in the Australian Alps. The wild granite tors, the delicate beauty of the snow gums, and the exhilarating freedom of the Alpine herb fields always lift my spirits. In late spring and early summer, this landscape still carries the memory of snow, of a magic, ethereal otherworld I came to know on skis as a child. Slicks of ice remain tucked under crags. It is a place apart, of subtle colours and sharp air, where ranges of cerulean blue cascade in receding waves to the horizon.

But this time the mountains had all gone, swallowed by an apocalypse.



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From high in the Kosciuszko National Park, I could see nothing of the world below. In every direction I looked down upon a strange, suffocating orange blanket. This was no mystic lake of fog that would evaporate in the morning sun; it was something sinister and malevolent, infusing every scarp and canyon with its sickness. There below me, Australia was burning. Could people still be alive down there, in such dense, acrid smoke? Could they breathe? In the mornings, a temperature inversion kept the ugly blanket below me, but each afternoon my eyes started smarting as smoke infiltrated the Alpine valleys, dying the sun red. That smoke killed ten times more people than the flames. It was coming for me, and I couldn't go any higher.

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Looking down on a burning world brought home to me, perhaps more forcibly than facing the flames below, what the future might hold. One way to make sense of this critical tipping point is the idea that we are living in the Anthropocene, having left behind the relatively stable Holocene epoch, the period since the last ice age. But as I gazed down on the smoke, I remembered an alternative name for this era that has been proposed by historian Stephen Pyne. It is the Pyrocene: a fire age, comparable to past ice ages.¹

The Pyrocene centres fire in the human ecological story and contrasts it with ice. Fire is alive and ice is dead. Fire is at the heart of human civilisation, for we are a fire species. Yet we are also, paradoxically, creatures of the ice. Humanity was born in the Pleistocene, a geological epoch that began two-and-a-half million years ago and introduced a series of rhythmic ice ages—or, to be precise, one long ice age punctuated by brief interludes of interglacial warmth. The repetitive glaciations of the Pleistocene, which demanded innovation and versatility, promoted the emergence of humanity on Earth.

The Pyrocene is a radical category. The Anthropocene declares the end of the most recent interglacial period. The Pyrocene goes further by declaring the end of the much older Pleistocene. It announces the end of the Age of Ice, the beginning of the Age of Fire, and the end of what was the Age of Humans. Not the beginning of the Age of Humans, as the smugly named Anthropocene suggests, but the end. And Australia is on the front line of the Pyrocene. This is what I pondered as I watched the acrid orange blanket snake up the Alpine gullies towards me. Are we witnessing the beginning of the end? Is this what the Pyrocene looks like? Nowhere to go but up, and no up to go to?²

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For eight months, constant bushfires overwhelmed Australia. This traumatic period across 2019–20 became known as the Black Summer, although it began in the middle of winter and burned through to the start of autumn. It unleashed its power on a continental scale: from Queensland to the Western Australian woodlands, from the Adelaide Hills to Victoria's East Gippsland, from the coastal ranges of New South Wales to South Australia's Kangaroo Island, from the Australian Capital Territory to Tasmania. Everywhere, suddenly, bushfire was tipping into something new.³

Fire was not just more extensive, intense, and enduring; it went rogue. New South Wales declared six days of Catastrophic Fire Danger (the new level invented just a decade earlier), 22 days of Extreme Fire Danger, and 72 of Severe. There were 59 Total Fire Ban declarations.⁴

Fire shaped Aboriginal civilisation on the continent for tens of thousands of years and fire is scripted into the modern nation's identity. But Black Summer was the first time that bushfires burnt so vastly and for so long that they were neither a confined "event" and nor were they just "Australian." They became a planetary phenomenon: Smoke from these fires encircled the globe.

There is something personal about bushfire, something frighteningly irrational and beyond human comprehension. It roars out of the bush and out of our nightmares.

Great fires in Australia are given names, generally after the day they strike. They are almost always called "black" because of their legacy of grief and mourning, the loss of life they inflict, and the funereal stillness and silence of the burnt forests the day after, when there are no leaves to stir.

There are enough "Black" days in modern Australian history to fill up a week several times over—Black Sundays, Mondays, Tuesdays, Thursdays, Fridays, and Saturdays—and a Red Tuesday too, plus the grim irony of an Ash Wednesday on the first day of Lent, 1983. But when bushfires burn for months as they did in 2019–20, the Black day becomes a summer, the Black Summer.

Perhaps the bushfires of 2019–20 should have been called the Red Summer, to signal a new phenomenon. It was relentlessly red, the colour of danger, of ever-lurking flame. Acrid orange smoke engulfed cities and purple pyrocumuli terrified townships. The enduring image was of people cowering on beaches in a red-orange glow. The threat was always there. There was no longer a single Black day and no identifiable day-after.





(Left) Canberra covered in the smoke of a nearby bushfire. © Daniiielc on iStock. All rights reserved. (Right) Sky turned purple because of bushfire. © Tom Griffiths. All rights reserved.

There is something personal about bushfire, something frighteningly irrational and beyond human comprehension. It roars out of the bush and out of our nightmares. Not only do Australians give fires names, they also assign them the characteristics of monsters: The fires have flanks, fingers, and tongues, they're hungry, they lick and devour—and they know where we are. Houses are "swallowed" and people are "caught between the jaws of the flame." Fire has an "appetite," "seeks more victims," and "fiercely attacks." Bushfire makes people feel hunted and its survivors toyed with. Why did the fire destroy the house next door and leave mine unscathed? Children ask parents: How did the fire know we lived here?

Instead of the sprites, elves, and wood nymphs that populate the forest folklore of the Northern Hemisphere, Australian colonists found that their bush harboured a different creature. As poet Les Murray put it, the "gum forest's smoky ambience reminds us that the presiding spirit who sleeps at its unreachable heart is not troll or goblin, but an orange-yellow monster who forbids any lasting intrusion there." People on the south coast of New South Wales called the Currowan fire, which rampaged for 74 days, "the beast." §

During Black Summer, Australians witnessed the best and worst of their society: the instinctive strength of bush communities and the manipulative malevolence of fossil-fuelled politicians. In a searing piece of reportage from the NSW south coast, Bronwyn Adcock was witness to "Australians doing everything they could, even when their government didn't." If the fires revealed the strength of bush communities and the innate goodness of people in extremis, so too did they expose the absence of federal leadership and the weakness of our parliamentary democracy. As if neglect and omission were not enough, federal politicians hastily encouraged lies, declaring that the fires were started by arsonists and that "greenies" prevented hazard-reduction burns. Yet we know that these fires were overwhelmingly started by dry lightning in remote terrain and that hazard-reduction

burning—which is far from a panacea—is constrained by a warming climate. The effort to stymie sensible policy reform after the fires was as pernicious as the failure to plan in advance of them.

In early 2019, as a dangerous season loomed, experienced senior fire officers from across the country formed the Emergency Leaders for Climate Action (ECLA) and called for a meeting with the then prime minister, Scott Morrison. He said he was "too busy," dismissed their calls for strategy and resources, ignored offers of briefings, refused bipartisan political action, fobbed them off to ministers who fobbed them off to staffers, stood by while his deputy called them "time wasters," misled the public about the level of government response, abided false personal attacks on ECLA members by the Murdoch press, and was altogether so consumed by the busy work of spinning, dissembling, and gaslighting that neither the national interest nor the welfare of fire-ravaged communities ever seemed in the vision of the person occupying the highest office in the land. In the years that followed Black Summer, not one cent of the AU\$4.7 billion of federal funding promised for bushfire recovery was spent. At the next federal election, which took place in May 2022, the Morrison government was swept from office in what has been called "the climate election."

As beneficiaries of a dispossession they deny and a war they decline to recognise, Australians are highly practised in cognitive dissonance.

Australians cower on the burning frontier of a warming world. Yet political leaders decreed that possible links between bushfire and climate change were not to be spoken of in public. Where does this intransigence—or bloody-mindedness—come from? It is so deeply embedded in Australia's modern psyche that we can hardly analyse it. It comes first from a conquest mentality that was built on denial, the denial by British invaders of Aboriginal sovereignty and cultural sophistication. As beneficiaries of a dispossession they deny and a war they decline to recognise, Australians are highly practised in cognitive dissonance.

Second, Australia's modern history is a by-product of the Anthropocene. The transformation of hundreds of Aboriginal Countries into a cluster of British colonies coincided with the start of the fossil-fuel era. James Cook's HM Bark *Endeavour* was a refitted coal ship from the world's fastest industrialising nation. The new nation under southern skies, a fragment of the ancient supercontinent of Gondwana, was bequeathed substantial coal, oil, and gas resources and became dependent on them. Coal still delivers 54 percent of Australia's electricity generation. Undeclared fossil-fuel funding of successive governments explains much of Australia's twenty-first century politics. But so too does a culture of popular regard for the nation's heroic frontier-mining history, not only because mining is believed to generate wealth but also because many families and communities trace their origins to nineteenth-century emigration, tall ships, and the transformative gold rushes.



The bleached trunks of snowgums killed by fire in the Australian Alps. © Tom Griffiths. All rights reserved.

There is a third explanation for Australian climate denialism that is rarely acknowledged but perhaps more interesting, for it draws on the nation's peculiar environmental history. Europeans who came to Australia encountered a different nature, one that challenged them physically, emotionally, and intellectually. They found it a threat and a puzzle as well as full of wonder. It was seen as a land of "living fossils," "the last of lands," a continental museum, and "a palaeontological penal colony." Marsupials (the kangaroo, possum, wombat, and koala) and monotremes (the platypus and echidna) were considered undeveloped or inefficient compared to placental mammals. Australia is part of a completely different faunal world for it lies on the other side of what became known as the Wallace Line (identified by the British naturalist Alfred Russel Wallace), an abrupt boundary of faunal types between Borneo and Sulawesi that separates monkeys from kangaroos and woodpeckers from cockatoos.¹² Australia is truly "the antipodes," an "upside-down" land where trees shed bark rather than leaves and where the seasons are reversed.

The strange southern seasons are not even annual. Australia is renowned as a "land of droughts and flooding rains," of "fire and flood and famine," as Dorothea McKellar put it in her beloved 1908 poem "My Country." It is the driest inhabited continent, a land with a boom-and-bust ecosystem dominated by the fire-hungry eucalypt and governed by the El Niño-Southern Oscillation. Colonists considered drought years so unnatural that they were sometimes excluded from calculations of rainfall averages. British settlers learned the hard way that their new home was prone to climatic extremes that were natural rather than aberrant. Dealing with the repetitive traumas of flood, drought, and fire, and learning to expect and *fight* them, became part of what it meant to be Australian.

It's not surprising then that many farmers and bush folk have been slow to accept anthropogenic climate change—for they have spent their lives coming to terms with extreme natural variability. Their experience of wayward nature makes them sceptical about a different kind of variability, especially one they are told is global, unremitting, and unnatural. It is as if the rules of the game have changed. Thus, the history of modern Australian settlement sedated the populace against recognising its greatest peril.

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Australian public debates about bushfires and climate change are further weakened by a lack of understanding of fire ecology, even among fire authorities. Managers are under pressure to generate universal solutions and to work effectively with large-scale state and federal agencies. But fire regimes are intensely local. A forest is not just any forest, but a unique community of trees. A fire is not just any fire, but one of a particular frequency, a particular intensity, a particular range, a particular ecology.

Let me give an example of a neglected ecological insight. Firestorms are bushfires of a different magnitude; they cannot be fought. Until Black Summer, the most frightening and fatal Australian firestorms had all roared out of the same region—"the fire flume," as historian Stephen Pyne calls the hot northerly winds that sweep scorching air from the central deserts into the forested ranges of Victoria and Tasmania.¹³ In the flume, bushfires strike every year, firestorms every few decades. Most of Australia's Black Days were minted there. They were created not only by distinct topography and weather but also by particular trees—the mountain ash and the Alpine ash—species that conspire to create a raging crown fire that kills and reproduces the whole forest *en masse*.¹⁴

In spite of this vital ecological truth, no vegetation map appeared in the Royal Commission report into the 2009 Black Saturday fires, which erupted in the heart of the flume. "The natural environment," the commissioners blandly explained in their introduction, "was heavily impacted." The trees that welcomed the fire were allowed no agency. The commission sat for 155 days but described the distinctive forests through which the fires raged as "fuel." Perhaps this ecological blindness is now changing: Black Summer was the first fire season in which Australians tried to calculate the mortality of wildlife (estimated in the billions).



Newspapers reporting the 2009 Black Saturday firestorm and its aftermath. © Tom Griffiths. All rights reserved.

One of the signals of Black Summer's difference was that the firestorm extended its range. For the first time New South Wales experienced life-threatening fires and property losses on a scale like those in Victoria and Tasmania. Greg Mullins, a former Commissioner of Fire and Rescue NSW, who fought on myriad fire fronts throughout 2019 and 2020, found that tried-and-true fire-fighting techniques were no longer working and "pyro-convective events" (fire-generated lightning storms), once rare, erupted frequently. Although climate change destabilises fire knowledge built on history, research into the unique ecologies and human histories of each forest, woodland, and grassland can map change and protect life.

There is an irresistible tendency (which I have succumbed to here) to use language that describes bushfire in terms of tragedy and destruction. Not only do we talk in crisis language, we also use military metaphors—partly because, in the face of an awesome natural force, they offer some comforting human agency. Thus, we refer to the fire authorities hunkered down in a "war room," we revere the heroism of the firefighters and compare them to Anzacs (Australia's soldiers in the Great War), and we describe forests as *destroyed*, even if they are evolved to burn. And heroism in such a culture tends to be defined (dangerously) as staying and fighting. Leaving early in the face of a fire threat might be seen as cowardly or as betraying your community. On Black Saturday 2009, 173 people died, two-thirds of them in their own homes. Military metaphors make us believe that we can and must *beat* fire, somehow. Yet the challenging task is to learn to live with it.¹⁷



New growth after a firestorm. © Tom Griffiths. All rights

In the guest for how to live with fire, Indigenous cultural burning philosophies and practices have much to offer. On the wooded plains and the margins of the wet sclerophyll forests, Aboriginal peoples kept their hunting grounds open and freshly grassed by light regular burning. By burning small patches at a time and creating mosaics of vegetation, controlled large fires, fostered biodiversity, and encouraged an abundance of medium-sized mammals. Farming with the firestick created open woodlands of mature, well-spaced trees, and cultivated dominance of grass species, while the wet forests were corralled and respected. Today, Australians are still slow to recognise the complexity, diversity, and intentionality of Indigenous fire practices. We are slowly learning to respect cultural burning and its capacity to put good fire back into a land that needs fire. Sometimes we can even see a fired landscape (of the right intensity and frequency) as beautiful or "clean," Aboriginal peoples do. But we must go further and actually enable Indigenous fire practitioners to take the lead again. Victor Steffensen, a Tagalaka descendant from North Queensland, has written a hopeful book, Fire Country (2020), which is as much negotiating the hierarchies of firepower as it is about fire

itself. As his mentor, Tommy George, declared in frustration, "Those bloody national park rangers, they should be learning from us." ¹⁸

But cultural burning is not the same as prescribed burning.¹⁹ Sensitive controlled burning might render some lands safer for habitation, although it has proven difficult to achieve required levels in a warming world. And in a landscape of transformed ecologies, greatly increased population, and rapidly changing climate, it is unreasonable and dangerous to expect Indigenous peoples to make the land safe for the proliferating newcomers. Anthropologist Tim Neale has argued that the settler "dream of control" places an "impossible burden" on Aboriginal peoples, trapping them again within an idealised expectation of unchanging ancient behaviour.²⁰

Renewing and reviving Indigenous fire practices is important, first and foremost, for human rights, native title, and the health, well-being, and self-esteem of First Nation communities. We are fortunate that an additional opportunity presents itself: for a rapprochement between the exercise of Indigenous responsibility to Country and modern Australia's need for labour-intensive and ecologically sensitive fire management on the ground. There is much creative promise in that partnership and developing it requires time, patience, and respect.

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Australian scholars of fire need to work on at least three temporal scales. First, there is the deeptime environmental and cultural history of the continent and its management over millennia. Second, there is the century-scale history of invasion, documenting the changes wrought by the collision of a naïve fire people with the fire continent. And third, there is the long future of climate-changed nature and society. Australians have held 58 retrospective bushfire inquiries since Black Friday 1939; establishing them in the ashes is understandably a government reflex and part of the blame game. Arsonists, greenies, and errant managers are easier to blame than poor policy, environmental ignorance, or cultural blindness. Political and technological solutions are too often preferred over deeper environmental or cultural adaptations.

There will be more Black Days and even scarier Red Summers. Rather than spending millions of dollars on lawyers after the flames, the nation would do better to spend a few thousand dollars on environmental historians. Historians listen holistically to the voice of experience, however surprising or uncomfortable it may be. They release narratives that run counter to official or dominant interpretations. They are more inclined to acknowledge the complex and sometimes fatal integration of nature and culture, the embedded patterns of settlement that can create or amplify disaster. And they can elucidate the long perspective of Earth history demanded by the Pyrocene.

Notes

¹ Stephen J. Pyne, *The Pyrocene: How We Created an Age of Fire, and What Happens Next* (Oakland: University of California Press, 2021).

- ³ For the best multidisciplinary analysis of Black Summer, see Peter Christoff, ed., *The Fires Next Time: Understanding Australia's Black Summer* (Melbourne: Melbourne University Publishing, forthcoming), which includes my chapter "The Fires: A Long Historical Perspective."
- Greg Mullins, Firestorm: Battling Super-Charged Natural Disasters (Melbourne: Viking, 2021), 253.
- ⁵ Healesville and Yarra Glen Guardian, 27 February 1926, 3; Healesville and Yarra Glen Guardian, 6 February 1926, 1; Lilydale Express, 21 February 1919, 3.
- ⁶ Stephen Matthews, *How Did The Fire Know We Lived Here? Canberra's Bushfires January 2003* (Canberra: Ginninderra Press, 2003).
- ⁷ Les Murray, *The Australian Year: The Chronicle of Our Seasons and Celebrations* (Sydney: Angus & Robertson, 1985).
- ⁸ Bronwyn Adcock, *Currowan: The Story of a Fire and a Community During Australia's Worst Summer* (Melbourne: Black Inc., 2021).
- ⁹ Bronwyn Adcock, "Living Hell," *The Monthly*, February 2020, https://bronwynadcock.com/2020/02/11/living-hell/.
- ¹⁰ This is a summary of Greg Mullins' account in *Firestorm*, 125–60.
- "Electricity Generation," Australian Government, Department of Climate Change, Energy, the Environment and Water, accessed 23 November 2022, https://www.energy.gov.au/data/electricity-generation.
- ¹² Penny van Oosterzee, Where Worlds Collide: The Wallace Line (Sydney: Reed Books, 1997).
- ¹³ Stephen J. Pyne, Burning Bush: A Fire History of Australia (Sydney: Allen & Unwin, 1992).
- ¹⁴ Tom Griffiths, "We Have Still Not Lived Long Enough," *Inside Story*, 16 February 2009, https://insidestory.org.au/we-have-still-not-lived-long-enough/; Id., *Forests of Ash: An Environmental History* (Melbourne: Cambridge University Press, 2001), 76–89.

² I rely here on my essay "Drawing Breath" in Sophie Cunningham, ed., Fire, Flood, Plague: Australian Writers Respond to 2020 (Melbourne: Vintage Australia, 2020). I have also made use of my Royal Historical Society of Victoria (RHSV) Augustus Wolskel Lecture 2020, published in the Victorian Historical Journal 91, no. 2 (December 2020): 217–44; as well as my essays "Savage Summer," Inside Story, 8 January 2020, https://insidestory.org.au/savage-summer/; and "Season of Reckoning," Australian Book Review, March 2020, https://www.australianbookreview.com.au/abr-online/archive/2020/march-2020-no-419/734-march-2020-no-419/6243-season-of-reckoning-by-tom-griffiths.

- ¹⁵ Hon. Bernard Teague AO, Ronald McLeod AM, and Susan Pascoe AM, *The Fires and the Fire-Related Deaths*, vol. 1. of *2009 Victorian Bushfires Royal Commission Final Report* (Melbourne: Parliament of Victoria, 2010), xxiii.
- ¹⁶ Mullins, *Firestorm*, 170.
- ¹⁷ Christine Hansen and Tom Griffiths, *Living with Fire: People, Nature and History in Steels Creek* (Melbourne: CSIRO Publishing, 2012); Christine Hansen, "Deep Time and Disaster: Black Saturday and the Forgotten Past," *Environmental Humanities* 10, no. 1 (May 2018): 226–40, https://doi.org/10.1215/22011919-4385543.
- ¹⁸ Victor Steffensen, *Fire Country: How Indigenous Fire Management Could Help Save Australia* (Sydney: Hardie Grant, 2020), 22.
- ¹⁹ Daniel May, "To Burn or Not to Burn Is Not the Question," *Inside Story*, 17 January 2020, https://insidestory.org.au/to-burn-or-not-to-burn-is-not-the-question/.
- ²⁰ Timothy Neale, "Digging for Fire: Finding Control on the Australian Continent," *Journal of Contemporary Archaeology* 5, no. 1 (May 2018): 79–90, p. 87, https://doi.org/10.1558/jca.33208.
- ²¹ Kevin Tolhurst, "We Have Already Had Countless Bushfire Inquiries: What Good will It Do to Have Another?" *The Conversation*, 15 January 2020, https://theconversation.com/we-have-already-had-countless-bushfire-inquiries-what-good-will-it-do-to-have-another-129896.



Tom Griffiths is professor emeritus of history at the Australian National University and held a Rachel Carson Center Fellowship in 2016. He is a contributor to a forthcoming multidisciplinary collection edited by Peter Christoff, *The Fires Next Time: Understanding Australia's Black Summer* (2023).



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