THE SHADOW AND THE LIGHT

David Ritter

What is the first bedroom you remember from being a child? The room where I slept until the age of ten was located at the back of my family's single-story 1950s brick house, itself situated unnervingly close to the highway that ran through our part of Perth's unfashionable periphery. I slept in a steel-based single bed, the frame of which felt pleasingly cool and smooth under my fingertips in the dark. The curtains and the bedding – sewn by my mother when this was more commonly still part of life's usual labours rather than an indulged as Instagrammable hobby – were pictures of animals that I can't quite visualise now, though I still have some sense of some of the colours, greyish turquoise and harvest brown, straight from the late 1970s decorating palette. The furniture, an eclectic ensemble of wooden structures – from the genuinely antique (though not actually valuable) to what might now be euphemistically described as 'mid-century chic' – were out of scale for the diminutive boy who wrestled with their imperfect properties, including drawers that fought against opening and cupboards that resisted closure. Ironically, given my life's trajectory towards working for Greenpeace, one particular compartment was dubbed the 'weapons drawer' because it contained the numerous toy swords, cap-guns, bows and suction-arrows and other similar obnoxious paraphernalia that I was gifted from time to time. It was very rarely tidy, but I experienced my childhood bedroom as an airy hall of possibility and remembering. I felt the deep safety of growing up in a residence which – the fearsomeness of my 'weapons drawer' notwithstanding – was free from any real fear or violence. A great and privileged fortune, and one that every child should have as a right.

But that draughty room and its dysfunctional furnishings were not without terror. The ceilings felt high and the windows – full of light and green in the daytime – became portals to the underworld of my imagination by night. I knew well the terrors of childhood; the horror of that thing you cannot see but are sure inhabits the dark corner of the room as the witching hour draws closer. Sometimes the dread overwhelmed tiredness and I would march out of my bedroom to be consoled – or scowled at, depending on the adults' mood and absorption in other things, and whether it was the first time I had emerged or the umpteenth. Either way, I would be quickly returned to my room by my mum or dad, or by one of my older siblings, armoured with love and reassurances, ready to renew the struggle for sleep.

As every parent will know, there can be an ambivalent circularity to your encounters with your own child's life, as the stages through which you have already journeyed come around again in fresh form. So it is that I have found myself again confronting the unnameable bogeymen of pre-sleep imagination, this time coming from my kids' minds. My wife and I do our best to dispel their heebie-jeebies with incantations of love, and rote protestations of logic, before returning our children to their bunks. Yet we also both know that something has fundamentally changed between the years of our own childhoods and now.

Creeping from the cornices of our childrens' bedrooms is an actual shadow, which is also the stain of a much greater monstrosity. This is no phantom but a true terror, brought into being by unnatural forces of human creation, real and murderous. And this shade slithers deepers into our home as the days and weeks pass, a darkened weed capable of invading all that is safe and familiar.

It is the black mould brought by 2022's incessant rain in Sydney, driven by climate change here, now. And it is climbing across my children's ceiling, spreading towards them.

The first years of the twenty-twenties have had a miasmatic feel, as if dominated by bad humours carried on the wind. The sequence now has a quality that is both indelible and concussive: the rough order of things in Australia – fires, pandemic, floods – cannot be forgotten. Yet it is common to hear people discussing a fracturing of time too; a collective grogginess brought about by so much disruption – so strange, so sudden – in such violent succession. Keeping your bearings these days is a matter of both personal labour and civic obligation.

And now, with the rains and floods, the mould has come to where millions of us live, a gloomy whimper following the bang of the storms. Recent commercial research by consumer advocate group Finder reported that almost half of all residents in New South Wales, and around one third nationally, have mould in their houses following the prolonged period of unprecedented rainfall. After the firesmoke, the coronavirus and the deluge, our homes are now being infiltrated by the spores of another air-borne threat.

Moulds are a kind of fungi that can flourish wherever it is moist and sunless and still. As so many of us are being reminded, it can grow on a long list of common surfaces and materials, including paper, wood, leather, tiles, wall coverings, carpet and fabric. The damper, darker and less ventilated a structure, the greater the likelihood that mould will take hold and spread. When humidity is high and the earth is saturated, the conditions for mould become optimal, particularly in older housing stock.

Exactly how damaging common moulds are to human health remains a subject of research, but household dampness or mould is associated with a range of adverse health effects, including asthma, respiratory infections and symptoms, laboured breathing and lung disease according to the World Health Organisation. Mould can also be deadly, particularly for the aged, the very young and for anyone with a relevant pre-existing medical condition. The WHO warns that 'there is no exposure value for mould growth that can be considered safe for health'. Domestic mould has also been linked to poor mental health – wholly unsurprising, given its correlation with the presence of dank and gloom. The sight and smell of mould can feel like a physical manifestation of a depression as inner and outer worlds lock in an oppressive drear of melancholy and the pervasive sense that all is in decay. Mildew can consume our resolve as it also colonises our surfaces.

If the social experience of mould has felt ubiquitous in the wake of the incessant rain, the nature of the encounter is, like so much else, conditioned by class and the capacity to react to the slow violence of the fungi. Among the middle classes, complaining about mould can feel a bit banal – another first-world problem showing up in lifestyle columns and shareable content; the parfum du jour of late 2022. And there is, undeniably, a certain bleakly comedic quality to the phenomenon of mould in a bourgeois context, one that is associated with the skewering of our self-satisfaction. There's a kind of inherent irony associated with tiny fungi sneaking into the overvalued real estate of a society overwhelmed by an abundance of material things. The other day, when confronted by mould that had grown on a tin of coffee, I smiled with wryly embarrassed self awareness at my own petty revulsion amidst a world in turmoil.

The spores mock middle-class vanity and pretensions, landing to grow like tiny forests on our clothes or to give politely ordered kitchen cupboards the aroma of a fen. But those who live in insecure and lower quality housing, including many older rental properties, may not be so inclined to share the joke. What is a nuisance for those with resources can be disastrous for those without.

The mould now all about us has both general and specific qualities: it can impact any of us, but is most likely to get at those who are already on the wrong end of Australia's rising inequality. Poorer people, the aged and the less able, are all significantly more likely to be exposed to mould and damp – and less able to respond to the problem, whether by moving, by constant cleaning, or by undertaking repairs. In November 2022 a coronial inquest in the United Kingdom found that Awaab Ishak, a two-year-old boy who lived in Manchester, had died from a severe respiratory condition caused by prolonged exposure to mould in his family's social housing apartment. The flat had been poorly maintained by the relevant authority.

The rains that came and brought the mould in their wake had been expected for a long time by anyone who cared to read or listen. Earlier in 2022, as various federal Coalition politicians were regularly trying their 'shocked by unprecedented disaster, who could possibly have known this was coming' schtick, one of my teammates at Greenpeace Australia Pacific pulled together a lazy dozen or so expert warnings that global warming would lead to increases in storms and inundation. These references were neither hidden nor obscure; they were clear statements in major reports of which government ministers either were, or should have been, aware. In October 2014, for example, the IPCC's fifth assessment report had highlighted Australia as one of the developed world's most climate-vulnerable nations, including the propensity to increased flooding impacts as global warming worsened. Indeed the central fact that the air can hold 7 per cent more water for each degree that our atmosphere warms – leading to heavier rainfall and therefore increased risks of deluge – has been known for decades.

There can be no doubt that our political leaders knew, or should have known, that floods were coming, but so too did the executives of the corporations that are the primary drivers of global warming. The extraction and burning of fossil fuels – coal, oil and gas – is the single largest cause of climate change. And it is now a matter of public record that major corporations in this sector have known for decades that their industry, if left unabated, would lead to planetary cataclysm. As a range of journalists and historians including Stanford-based Benjamin Franta, has uncovered, the documentary record of the fossil fuel sector shows that 'companies knew about the risk long before most of the rest of the world'. Papers given by major scientific figures such as leading nuclear physicist Edward Teller as early as the late 1950s publicly warned of the cause-and-effect of fossil fuels heating the planet. Invited to give a keynote address at an event entitled 'Energy and Man: A Symposium' – an event convened by the American Petroleum Institute in conjunction with Columbia University to commemorate the 100th anniversary of the first oil being struck in the US – Teller used his speech to warn that transitioning from fossil fuels would be essential to avoid disaster from what was then dubbed 'the greenhouse effect'.

Franta's doctoral research revealed that, later, the American Petroleum Institute had set up a covert 'CO2 and Climate Task Force' of representatives from fossil fuel businesses which, despite being warned of the globally catastrophic effects, continued to lobby for the rapid expansion of coal, oil and gas extraction. Other information has now been made public which confirms that oil and gas giants such as Exxon, Shell and Total have understood the existential dangers involved in this expansion for many years. They have not only pressed on regardless, but have also engaged in political and public relations strategies to delay transitions to renewable energy – in order to maximise the profitability of the fossil fuel business while the going was good.

In 2022, fossil fuel corporations are far less likely to obstruct action on reducing emissions through explicit disavowal of the science. For example, Australia's largest domestic climate polluter, AGL Energy, preferred to co-opt the language and iconography of the imperative for a rapid transition to renewable energy in recent years as part of a hundred million dollar per annum marketing budget rather than engaging in any overt denial of the actuality of global warming. This public relations and communications smokescreen was combined with a manifest stated intention to continue to extract and burn coal until the middle of the century – almost twenty years beyond the date by which both the International Energy Agency and the United Nations have said that all coal burning power stations should be closed in developed nations. AGL's recent announcement that coal closures will be brought forward to 2035 – following intense engagement from Greenpeace and other civil society organisations, in combination with the decisive moves of impatient capital led by some of the company's major shareholders – marks an historical and redemptive alignment of rhetoric and strategy for this iconic company.

The Australian company Woodside Energy has also pursued a strategy of blending an ostensible commitment to action on climate change with aggressive plans to extract fossil fuels deep into the second half of this century. Woodside recently became one of the world's ten largest oil and gas corporations after successfully merging with BHP's oil and gas portfolio. In her introduction to the company's 2021 Climate Report, Woodside's CEO Meg O'Neill acknowledged that 'the science of climate change is clear: if the world is to limit temperature rise, it will need to change the way that it produces and consumes energy'. Yet what follows in the rest of the report dissipates any sense of urgency and responsibility. A pull quote on Woodside's website quotes O'Neill as saying that:

> The uncertainty of how the energy transition will unfold means that we need diversity in our portfolio and the ability to adapt our product mix to meet changing demand.

While the allocation of culpability is straightforward, it is in the interests of corporations who are responsible and who will profit from impunity to conjure a mugging fog of complexity. 'Uncertainty' functions as an excuse to keep extracting fossil fuels; 'diversity' functions as a catch-all which can sneak in continued burning of gas. The fundamentals of the moment are elided – that we need unstinting focus on a rapid transition away from all fossil fuels to avoid terrible consequences. O'Neill's quotes suggest the convenience of nuance where in reality there is none.

In Net Zero by 2050, its 'Roadmap for the Global Energy Sector', the International Energy Agency stated that there should be no investment in new oil or gas anywhere in the world. But Woodside is currently proceeding with the proposed Burrup Hub in Western Australia, including opening the massive offshore Scarborough and Browse gas fields, as part of the most climate damaging project currently under proposed development anywhere in Australia. As leading independent modellers Climate Analytics have observed, the Burrup Hub is 'a bet against the world implementing the Paris Agreement'.

To step back from the scale of such developments to the more micro spaces of our lodgings, it is true that, for many, the arrival of mould in a house is most likely experienced as only an unpleasant irritation. But its smelly shadow is connected by ever-tightening threads to the mounting chaos that is enveloping nature and civilization across the world. This is not to draw any false and obscene equivalency between inconvenience and devastation; it is to recognise the binds of common causation.

As mildew took hold in Australian living rooms and kitchens, one-third of Pakistan was totally submerged by floods caused by heavier than usual monsoon rains and glacial melt – both linked to climate change. Staggering unnatural calamities on an unparalleled scale are now worsening in both frequency and intensity as global warming intensifies across the world. There is nothing random or unforeseeable about this: the chain of attribution is unambiguous. The greatest culpability for mounting climate damage in all forms sits with the individual people who are executives and board members of the coal, oil and gas companies.

The extent of the obligations and liabilities of directors arising from the climate crisis is an area of rapidly growing scrutiny. In February 2020, Robert French – former Chief Justice of the High Court of Australia – warned of a growing tide of legal challenges caused by the failure of governments and businesses to act on global warming; around eighteen months later, the Australian Institute of Company Directors published its Climate Risk Governance Guide. And in the US, plaintiffs are using the same laws against racketeering that have been used against criminal enterprises to sue a number of fossil fuel corporations for allegedly conspiring to deceive the public in relation to global warming.

Because whatever rationalisations may be at work, moral complacency has, by inference, allowed the corporate leadership of fossil fuel companies to decide that they are okay with children's lungs filling with mould spores, with species becoming extinct, with nations being drowned and with countless other miseries. It is a phenomenon that is endemic to the sector. As a report by the Oversight Committee of the United States House of Representatives found recently, regardless of their marketing claims, major oil and gas companies continue to 'protect and entrench the use of fossil fuels, long past the timeline scientists say would be safe to prevent catastrophic climate change'. The business strategies of fossil fuel corporations reflect a commitment to accelerating omni-suffering on earth and the general degradation of human life – unless, like AGL, there comes an authentic shift towards rapid transformation. The odour of decay in our dwellings is the stench of consequence. It's the foul smell of necrotic corporate amorality.

Our towns and suburbs are not ready for what has arrived. According to one current Melbourne University research project, it is 'an unstated truth that the stock-standard housing that the majority of Australians occupy is not designed to withstand extremes of temperature'. As Rebecca Bentley, the professor of social epidemiology leading this research has explained, 'current building codes do not focus on preventing damp conditions' and tenancy regulations in this area tend to be inadequate.

Even before the vicissitudes of climate damage, it always felt like we Australians never really liked to admit that our sunny country could get even pretty bloody chilly on winter mornings in houses without proper heating or insulation. Perhaps this explains the local invention of the ugg boot. One of the hallmarks of the climate emergency is the way that multiple crises begin to tumble and amplify. So it is that the inadequacy of housing is more exposed by unnatural weather in a situation that is also worsened by the spiking energy bills fuelled by the greed of fossil fuel companies making engorged profits out of the war in Ukraine. Bentley has commented elsewhere that 'mould is on the rise' because 'our housing infrastructure is just not built for the climates we are experiencing'. And her work reinforces the class-based understanding that those with lower incomes who live in lower quality housing are much more likely to experience these kinds of infestations.

Our de facto national response to the plague of mould so far has been to see it as a problem for individual households. In a column in the 'lifestyle' section of news.com published in April 2022, a staff writer (who, to be fair, also took care to comment on structural matters) offered helpful advice on 'how to stop mildew from causing havoc in your home'. This included the suggestion to address 'all your home's plumbing issues'. Advice of this kind assumes, of course, that individuals can afford major maintenance to their waterworks, roofs and floors, and either possess or can gain access to the necessary practical expertise. The reality is that many housing owners can struggle to afford large repairs, while renters will often face challenges in persuading their landlords to undertake the capital outlay required to remediate such problems. And, at the moment, even with money and willingness, the availability of tradies cannot be guaranteed. As one mate of mine ruefully remarked the other day about his family's own post-deluge situation, 'I contacted loads of roofing companies, but nobody was interested; they are just so busy.'

The professional capacity to meet the needs of our saturated eastern seaboard is simply not there. Airtasker alone has reported a doubling of residential cleaning tasks listed on its site, with prices reaching as much as $6,000 for a single clean. Quite apart from the numerous other disadvantages associated with economic insecurity and exploitation, the 'gig economy' is also wholly unsuitable for meeting the public challenge of mass climate damage.

The same news.com advice column also noted that opening doors and windows, using a dehumidifier and wiping down affected surfaces with diluted vinegar were useful practical responses to dealing with mould. And while none of these options are wrong in and of themselves, there is a fundamental problem here in assuming that either personal resilience or individual contracting can be called on to provide the social and material resilience necessary to withstand the ravages of global warming. If only the impacts of severe climate damage could be adequately addressed by squads of doughty householders wielding cloths soaked in diluted vinegar.

Seeing mould and damp in terms of private households also risks moralising social disadvantage. A recent newspaper article covering the explosion in domestic mould was headed 'Spore Losers', a mean-spirited pun that comes close to implying that suffering from these consequences of extreme climate damage is a matter of personal failure. The headline almost hints at blaming the victims for their suffering. In terms of climate impacts, expecting people to personally cope with the chaos the fossil fuel industry has unleashed on them is equivalent to blaming rising emissions on individual consumption, rather than on the activities of the big polluters who are truly responsible.

As Professor Bentley has observed, 'mould in people's homes is seen as their responsibility, but this is individuals bearing the cost of a broader problem'. The prevalence of mould as a form of climate damage should be regarded as a mass social issue meriting a full public policy response. Bentley, writing with Emma Baker, professor of housing research at the University of Adelaide, has called for a new structural approach that would embed housing within a 'National Preventive Health Strategy' and involve measures such as improved minimum rental housing standards, increased investment in social housing, and government assistance for dealing with issues such as mould removal, insulation and energy efficiency measures.

This kind of comprehensive public policy is undoubtedly what is required to address the challenge of national housing stock that is unprepared and ill-suited to the climate crisis. It is part of a broader urgent project of a national readying – as best as we can – that builds our shared resilience for the intensifying disasters that are coming. All who live in a country as endowed with resources as the Commonwealth of Australia is can and should be housed well, with access to the material conditions for a good life. In the face of the climate change already upon us, this requires the provision of a safety net against climate damage. Unless we are willing to condemn millions of citizens to lives of perpetual damp and mould – not to speak of other forms of other extreme impacts – public policy mechanisms will need to rapidly evolve to keep people safe and secure. Just as we need large numbers of newly trained workers to deliver the hardware of the renewable energy revolution, so the country will require a boom in the numbers of those who can repair, maintain, strengthen and rebuild our homes to withstand the coming storms.

It is often the shafts of morning sunshine that finally dissolve the power of the night's imagined bugbears in children's bedrooms; but there is nothing diurnally inevitable about the dissolution of the causes of climate change. Conversations with my own daughters are informed by the promise of what is still possible, and the consolations of the unfathomable future unknown. And yet, as I whisper gently to them, I also feel the deepest unease about the reassurances I offer, given the global trajectory of business-as-usuals. And thanks to historic and current emissions, climate change has already reached the stage where chronic damage will inevitably worsen even if all fossil fuel infrastructure in the world was shut down tomorrow. Our children face the cruel experience of what the executives of the coal, oil and gas corporations have unleashed upon them, and upon all of the creatures on this planet.

And yet we still have profound agency; we have a well of resolve from which we can draw each time we speak with our children and as we determine how best to allocate effort and resources. It was through collective effort that Australia's largest domestic climate polluter was turned inside out and set on the road to becoming a renewable energy powerhouse. Such nonlinear leaps of progress are essential to enabling the chance of future flourishing. As UN Secretary General's António Guterres warned in his opening remarks to COP27 in Egypt last November, while 'we are getting dangerously close to the point of no return',

> A window of opportunity remains open, but only a narrow shaft of light remains. The global climate fight will be won or lost in this crucial decade – on our watch. One thing is certain: those that give up are sure to lose.

The option open to all of us is to promise the children of today our total effort, to seize the moment of these vital years, to seize our collective future from the grip of the fossil fuel polluters and their political apologists. The beacon of possibility is still shining, but whether that sweet and flickering ray of luminescence is enough depends entirely on the boldness and the doggedness of our collective commitment to overcome the fossil fuel order of power.

We have all the policy and technological solutions that we need. Solar, along with wind, tidal and other forms of renewable energy, are now invariably safer, more reliable and cheaper than fossil fuels. The International Energy Agency, the Australian Energy Market Operator and others have mapped out detailed routes for how we get through that transition. And change will always move faster than the modelling, once the momentum is there. What is needed now is the kinetic light of cultural, social, political and financial activism, the mass participation and tactical collaboration that is necessary to transform or vanquish the vested interests of the coal, oil and gas corporations that stand in the way of solutions being implemented at emergency speed and scale. What proved possible with AGL must also be applied to Woodside and so many other big polluters.

The power of our shared commitment to action is the light with which we will drive away the mould.

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