

India Radiating, Australia Disposing? Nuclear Waste and Indigenous Resistance.

Paul Giffard-Foret

Abstract: This article deals with an aspect of the nuclear fuel cycle, namely nuclear waste, by examining a recent proposal by the South Australian government to host an international high-level nuclear waste underground permanent repository in its “desert” outback region. The rub, though, is that the outback is no desert but has been the ancestral home of Aboriginal peoples for thousands of years and continues to be so, despite the disruptive effects of British colonialism. The article interrogates India’s stake in the proposal and the revival of Australia’s pro-nuclear lobby. In 2007, the Australian Liberal Party “unanimously endorsed a resolution supporting the establishment of a foreign nuclear waste dump ... in the geotechnically stable and remote areas that Australia has to offer” (Green, “Why Australia”). Australia, one of the world’s main uranium suppliers, and India’s fast-growing economy, with its emerging nuclear energy, uranium-hungry policy, are bound to engage with one another. But this would mean forgetting about a long history of antinuclear indigenous resistance on both sides of the Indian Ocean, demanding the recognition of native land rights and an end to “radioactive racism.”

Keywords: Indigenous rights; antinuclear resistance; nuclear waste management; Australia-India relations;

Introduction

In 2015, South Australia (SA), with the backing of the Federal Government, conducted a Royal Commission “considering a proposal to import 138,000 tonnes of high-level nuclear waste for storage and eventual disposal somewhere in SA” (“International Dump”). This project was met with fierce opposition from SA’s Aboriginal traditional owners. In this article, I investigate this latest attack by the nuclear lobby, and the arguments used by the latter to buttress their position. I also survey India’s stake in SA’s proposed plan for a nuclear waste disposal site, bearing in mind that India is not only a key international economic player but also a major nuclear power for which the prospect of a global nuclear waste dump in the Australian outback may prove appealing. Finally, I look at how indigenous resistance to “nuclearism”—i.e., a term referring to “various aspects of the nuclear chain like the production of nuclear energy, development and testing of nuclear weapons, storage of nuclear waste and so on” (Karlsson 49)—shows the Australia-India relationship to be slightly more equivocal than it seems at first glance. Indeed, realities on the ground complicate the popular conception of Australia as a raw material export country to a resources-hungry Asia (India and China in particular) in the twenty-first century.

While the South Australian project of a home-grown international nuclear waste repository sheds light on Australia’s import-based industry, the predicament and resilience of uranium-radiated Adivasi tribal communities (uranium set to come from Australia since its recent rapprochement with India) vividly highlights how the destiny of both countries is closely

linked. Run by Uranium Corporation of India Limited (UCIL), India's first and main uranium mining site, located in the remote, biodiverse and largely indigenous-populated state of Jharkhand's Jadugoda hills, continues to "wreak havoc" (Bhaduri) on Adivasi tribals living there (Adivasi meaning "earliest inhabitant" in Sanskrit). The documentary film *Buddha Weeps in Jadugoda* (1999) exposed the plight of Adivasi children born with deformities, cancerous, tumour-affected adults, and infertile women. Not only is Jadugoda a uranium mining site, it also became a dumping ground for disposing of highly radioactive nuclear waste from reactors hailing from other parts of the country. A proposal was even made to build a nuclear plant on-site.

As of today, most of the nuclear-related activities across the world take place on indigenous lands (Karlsson 44). In the United States, for instance, the Navajo peoples have had to bear the environmental and health-related costs of uranium mining on their reservation. In Australia, which holds almost forty per cent of world uranium reserves, there is a long, troubled historical relationship between Aboriginals and the nuclear industry. The British performed a series of nuclear weapons tests in the 1950s and 1960s in Maralinga, SA, on Aboriginal land. As the *Bulletin of the Atomic Scientists* spelled out the problem back in 1987, "at stake is the issue of who will pay to clean up a stretch of the central Australian outback where at least 23 kilograms of plutonium are buried in nuclear graveyards or scattered in fine particles on the ground" (Milliken 38). Despite the long-term trauma caused by the tests, Australia has at repeated intervals over the last twenty years considered the viability of welcoming the first "international high-level radioactive waste repository somewhere on the Australian continent" (Holland 283).

In his book *Slow Violence and the Environmentalism of the Poor*, Rob Nixon cogently reveals the devastating health consequences and insidiousness of long-term exposure to toxic elements. The communities affected are not only too marginalised both geographically and socially for their plight to be heard, the blight impacting them is also rendered invisible due to the slow, internal nature of carcinogenic substances. Referring to the increasing concentration of toxic elements within living tissues at all levels of the food chain, a phenomenon such as biomagnification spans generations, eventually entailing "the loss of the land and resources beneath ... a loss that leaves communities stranded in a place stripped of the very characteristics that made it inhabitable" (Nixon 19). While we are all, to a lesser or greater extent, "radiated bodies" (Hecht qtd. in Bhadra 242), ceaselessly traversed by invisible atomic particles deconstructing the uniqueness of the self and connecting us to others around (if only because radiation is a natural phenomenon; it is in the air we breathe, the light we get exposed to or the electronic devices we use), the fact remains that "the entire production cycle for a nuclear weapon—from uranium mining, to plutonium production, to weapons testing, to nuclear waste storage—produces human and environmental costs that are borne by *particular* bodies in *particular* places" (Masco 12, added emphasis). It is to these particular bodies and places—for the most part indigenous—that this article is dedicated.

Radioactive Racism and the Nuclear Industry: The Case of Australia

From its very inception in World War II and the horrendous dropping of two atomic bombs on the civilian populations of Nagasaki and Hiroshima in Japan by the US army, the nuclear industry has been tainted by, and tinged with, a colonial, racist ideology. Here, I deliberately make no distinction between civilian and military uses of nuclear power, just as the US did not discriminate between the two when they decided to "test" their nuclear arsenal on the

allegedly inferior “Asian races” rather than on Nazi Germany. In the words of East Asian historian Mark Selden:

American leaders, who had carefully distinguished throughout the war between Nazi leaders and the German people, made no such distinction between Japan’s leaders and the Japanese people. These judgments—with their racist overtones, embodied in four years of U.S. and Allied wartime propaganda presenting the Japanese as barbarous, subhuman creatures, madmen, and yellow vermin—precluded any morally grounded hesitation about dropping the bomb. (xxv)

Past and present imperial powers such as France or Britain have been guilty of what some antinuclear critics and activists describe as “radioactive racism” (Green, “Radioactive Racism”). A sub-branch of the concept of environmental racism, the term, as Laura Pulido argues, “refers primarily to the idea that people of colour and low-income groups are disproportionately exposed to pollution, but also includes biases in natural resource policy, the uneven enforcement of environmental regulations, and the exclusionary nature of mainstream environmentalism” (377). France, for example, infamously conducted a series of atomic tests on the atoll of Moruroa near Tahiti, its former colony, showering “a vast swath of Polynesia with radioactive fallout” (Chrisafis).

In Australia, this colonial frame of mind is obvious in the way big business, in collusion with state authorities, implicitly reactivated the white settler myth and Roman legal concept of *Terra Nullius* (“nobody’s land” in Latin) to justify developing nuclear projects on Aboriginal territory; namely, the idea of a remote, uninhabited, geologically ancient area lying fallow and waiting to be tapped into. Invisibility is here achieved through the “outsourcing of environmental crisis” (Nixon 22) to the global peripheries and through strategic greenwashing, as governments and multinationals ostensibly clean up their act by presenting such projects to the public as ecologically sustainable. Resource management in the postcolonial periphery shows a complete denial of life-species and disregard for local, “vernacular” ecosystems, “treating the landscape as if it were uninhabited by the living, the unborn, and the animate deceased” (Nixon 17). In the case of British nuclear tests in SA in the 1950s, radioactive racism was compounded by “the prevailing view ... that Aborigines were a declining race of only marginal consequence to Australia’s future,” and the fact that “Aborigines were not included in the census figures until 1967” (Suter 186). Not until the Native Title Act (1993) following the Mabo Case in 1992 recognising Aboriginal Australian land claims for the first time, did Aborigines and their connection to land really exist in the eyes of the law, though such an entitlement was not always respected, often clashing with farming and mining interests, as a quick review of uranium mining and nuclear waste management plans reveals.

One of the most emblematic of such plans was the Pangea proposal, laid out to the Australian government in the late 1990s, for an international high-level waste repository buried deep in the geological rock somewhere in the Western Australian or South Australian desert. The excessive, disproportionate nature of Pangea, as its name suggests, was captured in a promotional video leaked by the environmental organisation Friends of the Earth. As Ian Holland describes this, “waste would be transported by sea from source countries to a dedicated sea terminal, with rail transport from there to the repository. Pangea envisaged that this might take place on a custom-built rail link” (285). The aura of secrecy surrounding Pangea’s futuristic, yet highly hazardous vision is a constant feature of the nuclear industry.

Needless to say, neither non-indigenous nor indigenous communities had therefore ever been consulted and were left completely in the dark. Another iconic, if no less obscene example is the history of uranium mining and waste management in Kakadu National Park, in the Northern Territory. A major Aboriginal “sanctuary,” this park is one of Australia’s most visited locations because of its scenic beauty and the richness of its fauna and flora.

Despite being a UNESCO World Heritage site and falling under the purview of the Aboriginal Land Rights (Northern Territory) Act (1976) and Aboriginal Land Trusts guaranteeing indigenous communities a degree of territorial ownership, “in October 1997 the Howard government approved the development of the [Jabiluka uranium] mine, the latest move in a protracted struggle that dates back to at least the 1970s” (Katona 1). As Mirrar People leader Jacqui Katona observes in an interview with Suvendrini Perera and Joseph Pugliese, this move “flies in the face of Native Title rights, not just the act of mining but the processes that are put in place to secure that development going ahead” (8). Indeed, as Katona later explains: “All these administrative and legislative arrangements that were put in place for the so-called benefit of the Aboriginal community refuse to recognise that the Aboriginal community have any control over it. So Aboriginal people become an adjunct, a consultative arm” (10).

Mining in Kakadu has had devastating consequences for the environment and for the health of Aboriginal communities. This has to do with the way waste is managed and kept in highly radioactive open-air tailings ponds increasing the permanent risk of toxic spills and water contamination. According to a report by the pro-nuclear International Atomic Energy Agency (IAEA),

A minor incident at the Ranger mine during the 1999-2000 wet season resulted in the discharge of a small volume (estimated at 80 m³) of tailings water from the physical containment structures and, after passing through constructed wetland filters, the water reached the main water-course near the mine. The public reaction to this incident was intense, particularly among local Aboriginal people. (Johnston 288)

So-called minor incidents are in fact a constant fixture of the nuclear industry and over three hundred similar incidents have been reported over the years. However, lack of investigation by official authorities over the health impact of mining in Kakadu makes it a difficult task for future claimants. As noted elsewhere, “a 2006 paper by the Australian Institute of Aboriginal and Torres Strait Islander Studies showed that cancer cases doubled among Aborigines near Australia’s biggest uranium mine, the Ranger mine in Kakadu National Park” (Bryant).

The Northern Territory (NT) and its Top End in particular have by far the largest Aboriginal population in the country—30% living in the NT are Aboriginal whereas Aborigines only represent 3% of the total Australian population. It is also the poorest region in Australia, some communities facing Third World-like living conditions, with a largely non-indigenous, Darwin-based government of functionaries hailing from the nation’s capital Canberra. Unlike other states, the NT has no significant degree of legislative autonomy regarding its domestic affairs since its power is in the last instance delegated from the Australian Parliament, increasing the risks of bureaucratic opacity. An ICAC (Independent Commission Against Corruption) was proposed for the NT on the model of other states across Australia, to be up and running by 2018. Corruption is compounded by the fact that the NT is actually a rich—if not the richest—region in Australia in terms of mineral resources. As a governmental website

promoting potential investments and business ventures in the NT boasts, “the Northern Territory has a world-class resource endowment with some of Australia’s largest deposits of uranium, zinc-lead, bauxite, gold, phosphate and manganese, and numerous emerging projects for commodities such as copper, rare earths, tungsten, zircon sands and potash” (“Mineral Investment Opportunities”).

In 2007, the Howard government launched the Northern Territory National Emergency Response (known as the Intervention) under highly spurious, specious claims of high rates of sexual and physical violence and abuse towards Aboriginal women and children by Aboriginal men. Alleged reports over the existence of “paedophile rings” were proved to be bogus yet constituted the basis upon which the army was sent in to “secure” Aboriginal communities. Under the Intervention, which required the suspension of the Racial Discrimination Act (1975), welfare payments were quarantined, alcohol and drug consumption targeted and stigmatised, Aboriginal rural communities displaced into town camps on the outskirts of Alice Spring and their land forcibly leased over to mining companies. It is also believed that Aboriginal children have been removed from their families and placed in foster care at a faster rate than at the time of the “Stolen Generation” (Murphy). According to the Australian Bureau of Statistics in 2016, Indigenous Australians also have abnormally high incarceration rates, “13 times greater than the age standardised imprisonment rate for non-Indigenous persons” (“Imprisonment Rates”). The criminalisation of Aboriginal males re-enacts old colonial tropes to the effect that they are hardly responsible beings, are prone to violence and alcoholism, and are sexually deviant and debased creatures.

This demonization and dehumanisation of the “native” has a profit motive. As a white settler colony, Australia has an economy which has been, and remains to this day, based to a large extent on primitive accumulation and dispossession of Aboriginal land and its “economically unviable” remote communities. Australia’s protracted mining boom, which makes the country one of the few industrialised economies with annual growth rates around 3%, yearly budget surpluses and low unemployment (even after the 2008 Global Financial Crisis), has a dark side to it. As Diane Fieldes has argued,

The child abuse claims and the subsequent Intervention were a heaven-sent opportunity to build on the land grab already underway through amendments to the Land Rights Act in 2006—all the more so because of the increase in world mineral prices and the plan for a nuclear waste dump in the NT. With the largest uranium reserves in the world located on Aboriginal land in Central Australia, Aboriginal people themselves were just another obstacle to profits. Governments and mining companies are still required to seek agreements with traditional owners to get their land, but the demoralising effects of the Intervention, and the economic pressure it places on already marginalised, deprived communities, will increase the likelihood that desperate communities will strike deals with them, or look to other industries such as tourism, merely to survive. (Fieldes)

In 2015, the South Australian government established a Royal Commission on Nuclear Fuel Cycle to consider the possibility of a nuclear waste repository. The Royal Commission is only the latest in a series of intoxicated “trysts” between the state of SA and the nuclear industry, from the British atomic tests in Emu Field and Maralinga in the 1950s-60s, to an emblematic six-year battle that pushed the government in 2004 to abandon its plan for a nuclear waste dump in Coober Pedy (a mining town usually more famous for its opal), and to

“a successful legal battle to stop a federal plan to site a radioactive waste dump near the Woomera Prohibited Area in SA—the largest land-based weapons-testing range in the world” (Ogilvie-White 61). Such short-term victories are a testament to the resilience of the nuclear lobby, which appears relentless in its quest for new markets and territories. This is despite an overall mistrust and hostility on the part of the population (Ogilvie-White 62), and despite the growing popularity of renewable energies.

The “Asian Century” and the “Nuclear Age:” The Case of India

Put concisely, the terms “Asian century” and “nuclear age” refer to the fact that contemporary world politics is overdetermined by events taking place in the Asian region, as well as by nuclear-related considerations—the latest and most spectacular example being the North Korean missile crisis, which is likely to last and echoes the Cuban missile crisis of more than half a century ago. While it might sound strange to speak of another nuclear arms race in a post-Cold War era, new players have entered the field to fill the void of a crumbling USSR, new “enemies” have sprung up and the cards have been reshuffled. The re-emergence of the two colossi that are China and India in a globalised, yet increasingly flattened out world whereby spatio-temporal distances have been compressed, has contributed to reigniting tensions with the former imperial nation of Japan, not to mention India’s arch-rival Pakistan. These “crowded,” competing national histories helped justify and present India’s series of nuclear bomb tests in 1998 as a necessary display of patriotic strength and pride in highly unstable times. As the Indian writer-activist Arundhati Roy bitterly writes—albeit with a large grain of humour—in her antinuclear manifesto,

Reading the papers, it was often hard to tell when people were referring to Viagra (which was competing for second place on the front pages) and when they were talking about the bomb: “We have superior strength and potency.” (This was our Minister for Defence after Pakistan completed its tests.) “These are not just nuclear tests, they are nationalism tests,” we were repeatedly told. (A. Roy xxiv)

Yet the nuclear bomb is no laughable matter, for it signifies the end of imagination, the end of all of life-processes. This is what it means to live in the nuclear age, and, as Roy seems to grapple with, what should always be taken into consideration when hoping for and working toward utopian political and societal horizons, be it communism or socialism or women’s emancipation:

If only nuclear war was the kind of war in which countries battle countries, and men battle men. But it isn’t. If there is a nuclear war, our foes will not be China or America or even each other. Our foe will be the earth herself...The earth will be enveloped in darkness. There will be no day—only interminable night. (A. Roy xx)

In 2004, the Bharatiya Janata Party (BJP) launched its slogan, “India shining,” as part of its campaign for the Indian general elections. The formula was more than a catchphrase but corresponded to an overall feeling of optimism in India’s ability to become a major economic powerhouse in this new millennium. But to “shine” on the international stage required, quite literally so, cheap and clean access to energy production and electricity.

Nuclear power is often misleadingly construed as a sustainable alternative to fossil fuels. Today, nuclear-induced electricity is the fourth largest source of energy in India, and what

stands in the way of its becoming the top one is, arguably, India's uranium shortage problem. From around independence time and the birth of India's nuclear programme under the auspices of Prime Minister Jawaharlal Nehru, "India made giant leaps in technology development but was perennially subjected to the mercy of foreign suppliers and non-proliferation norms when it comes to acquiring uranium" (Kumar 44). The development of a three-stage nuclear programme uses thorium as a way of compensating for, and ultimately getting around, uranium dependency, but has yet to be proved to be fully conclusive. This technological strategy is part of the reason why India always refused to ratify the non-proliferation treaty (NPT), since it first needs to enrich its uranium by means of plutonium, used in the making of nuclear weapons, before it can, in the third and final stage, make full use of its vast thorium reserves.

The NPT, of which India is therefore not a signatory, has been a key hurdle in the advancement of India's nuclear capacity, as was the Nuclear Suppliers Group (NSG), founded in the wake of India's first atomic bomb tests in 1974 as a way for the West of preventing newcomers in the field like India from benefiting from transfers of technology. However, in 2005, India managed to strike a nuclear deal with the US that was to mark the beginning of cooperation between the two countries, thereby effectively waiving NSG restrictions. Until the Gillard government's decision in 2011 to lift the ban on uranium exports to India, Australia had always stuck to its credo of not trading with India as long as it does not abide to the NPT. A renewed nuclear partnership between Australia and India raises many thorny issues that have been largely brushed under the carpet. To quote at length from the NGO Friends of the Earth Australia:

There has been too little consideration of the practicalities and *realpolitik* of fuel leasing proposals. For example, if India was buying uranium from and returning waste/plutonium to Australia, would that arrangement have survived India's 1998 weapons tests and Australia's response (which included trade sanctions)? Would Australia's response to India's tests have been tempered and compromised in order to protect a nuclear fuel leasing arrangement? Would the arrangement "free up" other uranium sources for weapons production even if the leasing arrangement provided some confidence that Australian uranium (and its by-products) was not used directly in weapons? Would Australia allow India to reprocess Australian-obligated nuclear material under a leasing arrangement and would India be permitted to use the separated plutonium in its "advanced" plutonium/thorium nuclear power program (which is outside the scope of IAEA safeguards, strongly suggesting a military dimension)? ("Plan for an International Nuclear Waste Dump in Australia")

As many a critic such as Robin Gerster are right to recall, "the established nuclear power France was not a signatory to the [non-proliferation] treaty, either, in the 1980s, but that did not stop Australian governments selling it uranium" (443). In fact, what has changed is the way Australia perceives India, formerly seen as a threat in the Cold War era and now seen as an opportunity in the Asian Century, as an Australian government's White Paper published in 2012 and entitled "Australia in the Asian Century" attests to: "This White Paper is a plan to build on our strengths and shape our future. It details how, by 2025, Australia can be a winner in this Asian century by becoming more prosperous, more resilient, and sharing the new opportunities" (Gillard, Foreword).

In actuality this White Paper shows how Australia remains dependent on its mining exports industry and on the Asian region. With the global economic recession and slowdown, Australia's mining boom eventually risks being affected. Even as energy-hungry a country as China, which Australia has no qualms about selling uranium to, does not suffice any longer in order to sustain Australia's economic growth, and new markets must be explored in the region. India, with its demographics and economic challenges, such as Prime Minister Narendra Modi's "Power for All" scheme to ensure every Indian household will get access to electricity by 2019 (Avara), seems like a prime choice of target for Australian uranium. India's appetite for uranium and its search for new source countries seems equally insatiable, notwithstanding its reliance on a wide range of suppliers from Russia, Kazakhstan or African nations such as Namibia or Niger.

However, Australia has several distinct advantages over these countries. Besides holding more than a third of world uranium reserves, it is an economically advanced and politically stable democracy, like Canada. The latter also holds substantial reserves and agreed to strike nuclear trade deals with India within a month of Australia's own negotiations with India on nuclear partnership in late 2012. As Vinod Kumar thus inferred in his essay on India's nuclear energy "renaissance":

Two back-to-back breakthroughs on uranium sales from two difficult "fence-sitters" in two consecutive months is testament to a simple fact: India needs uranium and the world's biggest suppliers are ready to sell it. This intrinsically attested to the fact that India had begun to reap dividends from the [US-India] nuclear deal, and has resolved the most difficult constraint in its programme. With major nuclear suppliers on its side, India's power plants are assured of long-term supplies. (Kumar 49)

Antinuclear Indigenous Resistance: Australia and India in "Transnation"

The image of Australia as the "Lucky Country" exporting and disposing of its uranium abroad, on the one hand, and of India as an importing nation buying Australia's precious ore, on the other, in order to sustain its flourishing, "radiant" economy, must be problematized in view of the reality of the nuclear fuel cycle in general, and of the question of radioactive waste management in particular. It certainly is true that Australia, although not a "dependent" country as defined by postcolonial theorists, easily fits into "'the staples thesis', developed particularly by Canadian economists and historians, [which] suggests that an economy with a small population and a large natural resource endowment can best achieve internal development by exporting primary products" (Dilley 109). According to dependency theory, originating in Latin America in the 1960s, "development in the world's economic 'core' (effectively Europe and the US) depended upon the underdevelopment of the periphery" (Dilley 109). Although not entirely irrelevant, the core/periphery axis is blurred in a multipolar economy whereby core elements can be found within the periphery, and vice-versa, as the India-Australia relationship shows.

A quick look at a report published by the Australian government's Department of Foreign Affairs and Trade ("Trade and Investment") would seem to validate the "staples thesis." Indeed, as of 2017, more than 60% of Australia's total exports concerned primary products (17), including staple foods such as wheat or meat, as well as minerals (bauxite, coal, iron ore, or gold), with minerals and fuels alone accounting for over 45% of total exports (18), while imports of raw material and rural goods were virtually nonexistent (32). More than

60% of Australia's two-way trade went to Asia, a classification that here includes India (11). Thus we find in Australian folk culture the mythical and heroic figures of the farming "battler" and the mining gold digger. As Robin Gerster elaborated, "miners are almost as important to the national story as revered figures, such as soldiers and sportsmen; the Eureka Stockade, the armed rebellion of miners furious at government licensing on the Victorian goldfields in 1854, is widely seen as a pivotal moment in the development of Australian democracy" (445).

In actuality Australia's relationship with India is a lot less Manichean. Both countries can be seen as competitors and key bilateral trading partners in a decentralised economy at once bypassing and using the channels of the former British Empire (an example being the Anglo-Australian consortiums BHP Billiton and Rio Tinto, two of the largest mining companies in the world, both of them present in India). As Edmond Roy acknowledged in 2011, before Australia's nuclear deal with India, "trade between the two countries has also improved dramatically. India is likely to become Australia's third-largest export market behind China and Japan. Two-way trade stands at \$A22 billion, a 55 percent jump on the previous year, making India Australia's fastest-growing major trading partner" (126). Besides, both countries have explored and intervened at every stage of the nuclear fuel cycle.

Australia had for a long time stuck to its "three-mine policy" limiting the number of uranium mining sites across the country, only to abolish it under the Howard government in 1996. In spite of relying exclusively on natural gas and coal for its domestic energy, Australia possesses two nuclear research reactors in Lucas Heights in suburban Sydney, and the case for the construction of nuclear power plants in Australia regularly comes up. Former Prime Minister Tony Abbot recently stated that "nuclear power should be part of Australia's energy mix" (Brown). Part of the argument in favour of an international nuclear waste repository on Australian soil similarly rests on a holistic view of the nuclear fuel cycle, advancing that since Australia is a major uranium exporter, it seems only logical that it must at the same time be ready to take its share of responsibility and accept nuclear waste. As a pro-nuclear academic paper pointed out the contradiction, "Australia is a Janus-faced nuclear power. Australian governments oppose the development of domestic nuclear power. Yet they promote uranium mining" (Holland 283).

India also extracts uranium from its soil, despite having very few reserves. Rather than governmental concern for the well-being of Adivasis on whose land these reserves can be found, India's uranium shortage remains a chief impediment to the completion of India's three-stage nuclear programme that would lift up the nation to a first-rate status and place it on an equal footing with fully operational nuclear superpowers like the US. In Vinod Kumar's words: "The first fast reactor, Purnima-I was launched in 1972, but decommissioned a year later. ... The FBR [fast breeder reactor] plan has been the pivot of the second-stage of the nuclear programme, and the fact that it is still in advanced development symbolises the struggle of indigenisation" (45). As it stood in 2011 before former Australian Labour Prime Minister Julia Gillard's decision to renew negotiations with India on nuclear energy, India's energy mix was not that different from Australia's: "Fossil fuels alone account[ed] for 83 percent of India's carbon dioxide emissions. Nearly 70 percent of India's electricity supply comes from coal" (E. Roy 130-1).

Most importantly, both Australia and India have been the scene of vibrant, indigenous-led, antinuclear resistance movements. The fact that there exists grassroots resistance on *both*

sides of the spectrum allows us to think outside the narrow premises of national interests and intergovernmental negotiations, to consider what the Australian postcolonial theorist Bill Ashcroft called in the pages of this journal the “transnation”: “Given that we can never shake ourselves free of the nation, the idea of Transnation is built on the possibility of a national citizen being *at the same time* a transnational subject. The genuinely utopian possibility this presents is that of a “transnational citizen” (17; emphasis in the original). Ashcroft goes on to mention the diasporic subject as an exemplar of the idea of transnational citizenry, though he could have chosen instead to mention the indigenous community.

Indigenous identity is at once deeply rooted/localised (belonging to, and nourishing itself from, the land) and deterritorialised (by displacement and dispossession of the right to maintain a connection to that land). Commenting upon the British nuclear tests in Maralinga, Keith Suter insists upon the fact that “not only were Aborigines living in the area, but they literally lived closer to the land. For example, the children played in the dirt, people slept on the ground, they drank the ground water, and ate the local flora and fauna” (187). Indigenous identity is transnational not so much because indigenous peoples across the world share common interests or cultural practices (when in fact, the latter can and often do vary greatly from one place or group to another). Their struggle for survival addresses both environmental and economic issues that interrogate and ultimately challenge the capitalist mode of production. In the twenty-first century, “rear-guard,” isolated indigenous mobilisations for the safeguard of what Vivek Chibber (190) describes as basic universal needs (access to food, shelter, water, education, land) take centre stage as the privatisation of the commons and destruction of natural resources, including the air we breathe and the water we drink, are fast underway.

In India, Adivasis have woven links with the trade union and workers movements. As dispossessed Adivasis are turned into landless wage labourers, these alliances are in my view most relevant amongst the many antinuclear indigenous resistance struggles that have resurged in the wake of “opening Indian markets to investment from foreign nuclear energy corporations, beginning with the US–India nuclear deal of 2008” (Bhadra 238). As Tarun Kanti Bose highlights in an essay on the well-publicised movement against uranium mining in Jharkhand, “around 7000 people work at the Jaduguda mining complex. Hundred percent of the contract workers are tribal. Ninety-five percent of them are underground miners. At the top management level, tribals are not employed.” Yet Jharkhand has a long history of resistance against various forms of exploitation and oppressors (see Mishra and Kumar Paty), starting with the British East India Company and the 1857 Sepoy Mutiny, sometimes considered as India’s first war of independence.

In his essay Bose lists a number of organisations and actors from civil society involved in the fight against the uranium mining company UCIL and for the recognition of Adivasi workers’ grievances. These organisations include “the Indian Federation of Trade Union (IFTU), a labour wing of Communist Party of India (Marxist Leninist),” “Singhbhumi Ekta (Singhbhum’s Unity), a trade union engaged in AJSU activities,” the All Jharkhand Students Union (AJSU), the “Jharkhand Adivasi Berojgar Visthapit Sangh (JABVS) or the Jharkhand Tribal Unemployed Displaced Committee,” the Jharkhandis’ Organisation Against Radiation (JOAR), “NGOs, few journalists who were very professional in their approach, academicians, legal practitioners, scientists, film-makers etc” (Bose).

These multiple layers and forms of grassroots participatory democratic expression are also a feature of Australia's "radioactive wars" and include the literary and artistic fields. Warramungu/Warlmanpa indigenous hip hop musician Kylie Sambo's track "Muckaty" was part of a successful campaign (which concluded in 2014) against a new plan to build a nuclear waste dump in the Muckaty area in the NT. Indigenous Australian author Alexis Wright's novel *Carpentaria* (2006) won the prestigious Miles Franklin Award, in part for its critique of the mining industry. B. Wongar's photographic collection, alternatively entitled *Totem and Ore* or *Boomerang and Atom*, deals with the impact of British nuclear tests on indigenous lives. The photographic series, scheduled to be exhibited in Canberra, was banned in 1974. It was published as a book in 2006, and a documentary film is currently in the making (Flood).

The struggle led by Aboriginal women against a radioactive waste dump in Coober Pedy, most of whom were former victims of British nuclear tests, led to the publication in 2005 of an inspiring study of their successful mobilisation, *Talking Straight Out: Stories from the Irati Wanti Campaign*. Various Aboriginal community leaders would re-use their catchphrase slogan "irati wanti" ("the poison, leave it") in a joint statement opposing South Australia's 2015 Royal Commission over potential nuclear waste repository sites. As Edie Nyimpula King and Jeanie Minunga demand in their multilingual poem:

Irati Wanti!
The poison – Leave it!
Tjitji tjuta nganama kanyini – ngaltutjara
We're bringing up all our children – poor things.
Malu, kalaya nganana ngalkuni tjaku – kuka palya
We always eat kangaroo and emu – good meat.
Mukurinytja wiya Mukurinytja
We don't want it (the poison).
Ma-kati.
Take it away.
Kura! Kura!
Bad! Bad!
Irmang-irmangka, kampurara – mai wiru tjuta.
Bush medicine and desert raisins are beautiful food.
Nganana Anangu Tjuta mukurinytja wiya.
We – Anangu-tjuta Aboriginal people – don't want it.
Wanti!
Leave it! ("Statements from Aboriginal Traditional Owners")

The unconditional demand from indigenous communities to be kept out of reach of uranium, whether in the form of ore, waste or fallout, is paramount insofar as it calls into question uranium's toxicity at every stage of the nuclear fuel cycle. The poem suggests that while no new underground uranium deposit ought to be extracted, no nuclear waste should be buried either at the risk of threatening the physical and spiritual livelihood of future generations. The demand that sacred earth be left undisturbed echoes the words of Ghanshyam Beruli, a member of the Jharkhandi Organisation Against Radiation (JOAR) interviewed for the documentary film *Buddha Weeps in Jadugoda* about the uranium Jadugoda mine in India: "We want the uranium to be left where it was, buried under the earth. Like a snake... if you leave the snake alone... it will not harm you."

Conclusion

As Arundhati Roy reminds us, no one is spared from the destructive effects of radiation in the nuclear age: “The bomb isn’t in your backyard. It’s in your body. And mine. ... We’re radioactive already, and the war hasn’t even begun. ... Take it very personally” (xxii). My personal story begins in 1984, the year of my birth and, incidentally, the year of the Bhopal industrial disaster in the Indian state of Madhya Pradesh, in which thousands died and many more were exposed to highly toxic chemicals. Although the plant involved in Bhopal was in the business of pesticides rather than nuclear energy, it would not take more than two years for the Chernobyl accident to come about. Coincidentally, the initials of the company’s name running the Bhopal pesticide plant—UCIL, for Union Carbide India Limited—are identical to those of the company operating Jaduguda mine in India’s state of Jharkhand. Bhopal, Chernobyl, Jaduguda: in all of these cases, the slow violence inflicted upon local communities can only be measured “across environmental time” (Nixon 51). Considering the radioactivity of spent nuclear fuel can last millions of years, its deep geological burial in the Earth’s rock seems all the more hazardous, and poses the problem of memory. Who but indigenous people will carry the burden of remembering once waste is stored out of sight—they who bear its traces upon their body?

I was born and grew up in the petro-chemical port city of Le Havre. Depending on the wind’s direction, the early morning air would sometimes be filled with an acrid smell, and the cars’ windshields, covered with a thin film of black dust due to the presence of a thermal coal-running power plant. Le Havre is also not very far from La Hague on the Cotentin Peninsula, which is home to one of the biggest nuclear fuel reprocessing plants in the world, accused by Greenpeace of releasing liquid radioactive waste into the English Channel. The wind, usually blowing westwards from the Atlantic, pushes water currents eastwards in the direction of Le Havre, at whose beach I spent my childhood swimming, so there are high chances I was contaminated too. Le Havre is often mentioned as one of the top air-polluted, cancer-ridden cities in France. Of course, I do not wish to claim that my personal anecdote is in any way comparable to the stories of indigenous communities mentioned in this article.

There is a gradient in levels of radiation exposure, and the suffering of Jadugoda miners or Aboriginal victims of British nuclear tests is definitely not mine and will never be. However, as a radiated body like everyone else, I was “touched” beyond altruism and in a most intimate way by their stories of survival. This relates back to Arundhati Roy’s view of nuclear war and the nuclear industry more generally as the great equaliser (xxii). This statement is obviously, factually, not true, as there *is* such a thing as radioactive racism, which affects marginalised communities the hardest, and in particular indigenous women of colour such as the Kupa Piti Kungka Tjuta Aboriginal women elders of Coober Pedy in SA. Nonetheless, writer-activists like Arundhati Roy and others cited in this article “may play a mediating role in helping counter the layered invisibility that results from insidious threats, from temporal protractedness, and from the fact that the afflicted are people whose quality of life—and often whose very existence—is of indifferent interest to the corporate media” (Nixon 16).

The ideology portraying indigenous land as sparsely populated, economically unproductive, sufficiently remote and geologically stable for the nuclear “snake” to spread its venom is racist, with genocidal undertones not so different from the colonial belief that the “natives” were a dying race. Yet indigenous people across the planet are showing far more resilience than the mining companies would expect and their narratives of resistance matter. In India,

the biggest hurdle to nuclear expansion is not shortage of uranium supply but popular movements from below against it. In the wake of the Fukushima disaster in Japan,

violent protests have come up across the country, especially in areas where new nuclear projects are planned or are to be commissioned. The most demonstrative of this trend are the upheavals in Kudankulam and Jaitapur. Encouraged by these movements, villagers in other planned sites have also vowed to block the planned projects, raising serious questions on the future of India's nuclear energy expansion plans. (Kumar 54)

Australia-India relations may have reached a crossroad, as recent rapprochements in the nuclear field suggest, but it will ultimately be up to indigenous populations and their allies on the ground to decide which direction it will take.

Works Cited

- Ashcroft, Bill. "Beyond the Nation: Post-Colonial Hope." *The Journal of the European Association of Studies on Australia*, no. 1, 2009, pp. 12-22.
- Avara, Bhanvi. "PM Unveils 'Power For All By 2019' Scheme." *Bloomberg*, 25 Sept. 2017. Web.
- Bhadra, Monamie. "Fighting Nuclear Energy, Fighting for India's Democracy." *Science as Culture*, vol. 22, no. 2, 2013, pp. 238-46.
- Bhaduri, Amita. "Radiation from Uranium Mines Is Wreaking Havoc on Jharkhand's Jadugoda." *Your Story*, 14 Jul. 2017. Web.
- Bose, Tarun Kanti. "Challenging the Nuclear Heart: The Movement Against Uranium Mining in Jharkhand." *Dissent, Self-determination, and Resilience: Social Movements in India*, edited by Smitu Kothari, Savyasaachi, and P. T. George, Intercultural Resources, 2010. *Academia.edu*. Web.
- Brown, Greg. "Tony Abbott Says Nuclear Power Should Be Part of Australia's Energy Mix." *The Australian*, 4 Oct. 2017. Web.
- Bryant, Katerina. "Uranium Mining, Waste and Indigenous Australia." *Overland*, 15 Sept. 2014. Web.
- Buddha Weeps in Jadugoda*. Dir. by Shriprakash, 1999.
- Chibber, Vivek. *Postcolonial Theory and the Specter of Capital*. Verso, 2013.
- Chrisafis, Angelique. "French Nuclear Tests 'Showered Vast Area of Polynesia with Radioactivity'." *The Guardian*, 3 Jul. 2013. Web.
- Dilley, A. R. "The Economics of Empire." *The British Empire: Themes and Perspectives*, edited by Sarah Stockwell, Blackwell Publishing, 2008.
- Fieldes, Diane. "The Northern Territory Intervention and the Liberal Defence of Racism." *Marxist Left Review*, vol. 1, 2010. Web.
- Flood, Ben. "Maralinga: Stories That Need to Be Heard." *The Waikato Independent*, 21 July 2017. Web.
- Gillard, Julia. Foreword. *Australia in the Asian Century: White Paper*, Australia in the Asian Century Task Force, 2012. PDF. Web.
- Gerster, Robin. "Down the Yellowcake Road: The Minefield of Australian Uranium." *Journal of Australian Studies*, vol. 37, no. 4, 2013, pp. 438-50.
- Green, Jim. "Radioactive Racism." *Green Left Weekly*, 20 Jan. 1999. Web.
- . "Why Australia Should Not Become the World's Nuclear Waste Dump." *Green Left Weekly*, 8 Aug. 2014. Web.

- Holland, Ian. "Waste Not Want Not? Australia and the Politics of High-level Nuclear Waste." *Australian Journal of Political Science*, vol. 37, no. 2, 2002, pp. 283-301.
- "Imprisonment Rates." *Prisoners in Australia, 2016*. Australian Bureau of Statistics, 2016. Web.
- Johnston, A. "Environmental and Social Impact of Uranium Mining in Australia." International Symposium on the Uranium Production Cycle and the Environment, 2-6 Oct 2000, Vienna (Austria). International Atomic Energy Agency (IAEA), 2000, pp. 280-9. PDF.
- Karlsson, Bengt G. "Nuclear Lives: Uranium Mining, Indigenous Peoples, and Development in India." *Economic and Political Weekly*, vol. 44, no. 34, 2009, pp. 43-49.
- Katona, Jacqui. "'If Native Title Is Us, It's Inside Us': Jabiluka and the Politics of Intercultural Negotiation." Interview with Suvendrini Perera and Joseph Pugliese. *Australian Feminist Law Journal*, vol. 10, no. 1, 1998, pp. 1-31.
- Kumar, Vinod A. "India's Nuclear Energy Renaissance: Stuck in the middle?" *Journal of Risk Research*, vol. 17, no. 1, 2014, pp. 43-60.
- Kupa Piti Kungka Tjuta. *Talking Straight Out: Stories from the Irati Wanti Campaign*. Edited by Nina Brown, Alapalatja Press, 2005.
- Masco, Joseph. *The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico*. Princeton University Press, 2006.
- Milliken, Robert. "Australia's Nuclear Graveyard." *Bulletin of the Atomic Scientists*, vol. 43, no. 3, 1987, pp. 38-44.
- "Mineral Investment Opportunities." *InvestNT*, Northern Territory Government of Australia, 2015. Web.
- Mishra, Asha, and Chittaranjan Kumar Paty. *Tribal Movements in Jharkhand: 1857-2007*. Concept Publishing, 2010.
- Murphy, Katharina. "Indigenous Child Removal Rate Risks 'Second Stolen Generation', Kevin Rudd Warns." *The Guardian*, 13 Feb. 2017. Web.
- Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Harvard UP, 2011.
- Ogilvie-White, Tanya. "Australia's Rocky Nuclear Past and Uncertain Future." *Bulletin of the Atomic Scientists*, vol. 71, no. 5, 2015, pp. 59-66.
- "Plan for an International Nuclear Waste Dump in Australia." *Friends of the Earth Australia*. Web.
- "International Dump." *No Dump Alliance*. Web.
- Pulido, Laura. "Introduction: Environmental Racism." *Urban Geography*, vol. 17, no. 5, 1996, pp. 377-79.
- Roy, Arundhati. "The End of Imagination." *New Nukes: India, Pakistan, and Global Nuclear Disarmament*, edited by Praful Bidwai and Achin Vanaik, Signal Books, 2000, pp. xix-xxix.
- Roy, Edmond. "Australian Uranium and India: Ideology versus Pragmatism." *South Asia: Journal of South Asian Studies*, vol. 34, no. 1, 2011, pp. 113-40.
- Sambo, Kylie. "Muckaty." *YouTube*, uploaded by Polly Snowden, 19 Sep. 2010. Web.
- "Statements from Aboriginal Traditional Owners Regarding the Plan to Import High-level Nuclear Waste to South Australia." *Australian Nuclear Free Association (ANFA)*, 2016. Web.
- Selden, Mark. "Introduction: The United States, Japan, and the Atomic Bomb." *The Atomic Bomb: Voices from Hiroshima and Nagasaki*, edited by Kyoko and Mark Selden. 1989. Routledge, 2015, pp. xi-xxxvi.
- Suter, Keith. "Nuclear Archaeology and Australian Aborigines." *Peace Review*, vol. 7, no. 2, 1995, pp. 185-189.

“Trade and Investment at a Glance 2017.” Australian Government’s Department of Foreign Affairs and Trade. 27 Feb. 2018, pp. 1-60. PDF.

Wongar, B. *Totem and Ore: A Photographic Collection*. DingoBooks, 2006.

Wright, Alexis. *Carpentaria*. Giramondo, 2006.

Paul Giffard-Foret obtained his PhD from Monash University’s Centre for Postcolonial and Australian Writing in Melbourne on the topic of Southeast Asian Australian women's fiction. His research is concerned with postcolonial critical theory, Asian Australian studies, diasporic and multicultural literatures. He also developed a growing interest in Indian Dalit, anti-caste literatures in English, as well as in Indian social movements. His work has appeared in a number of international peer-reviewed academic journals, and he has been working on a full-length manuscript dealing with the question of aesthetics in postcolonial literature. He is a copyeditor for the refereed open access journal *Postcolonial Text* and is currently an adjunct lecturer at the University of Paris 13.

Email: giffardforet@yahoo.com.au