### **K---Radioactive colonialism**

#### **State-funded nuclear expansion is entrenched in genocide, rationalizing ecologies of death through the production of Indigenous sacrifice zones. This coloniality renders extraction synonymous with progress, legitimizing the elimination of marginalized lives in service of the capitalist white subject’s futurity.**

Ryan **Juskus 23**, [Ryan Juskus High Meadows Environmental Institute, Princeton University, USA RYAN JUSKUS is an Environmental Teaching Fellow at Princeton University’s High Meadows Environmental Institute where he researches the intersections of religion, ethics, politics, and the environment.], "Sacrifice Zones," Environmental Humanities, https://read.dukeupress.edu/environmental-humanities/article/15/1/3/343379/Sacrifice-ZonesA-Genealogy-and-Analysis-of-an, 3-1-2023, 3-13-2025// Ethan Chen + Bellaire AA [Brackets from original text]

EJ = Environmental Justice

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“I’m from Tennessee,” she replied. “I’ve worked in Appalachia. I’ve been to Ecuador and Guatemala. I’ve heard stories about India and China and Australia. **Environmental injustice** is everywhere. . . . It’s about being called and treated as expendable people, as sacrificeable communities. It’s about **sacrificing people for a greater good**. They’re treated as **sacrificeable communities**, but they’re not expendable people!”1 Recalling the sermon we had heard preached in a Black Baptist church a stone’s throw from a coal plant earlier that morning, she then spoke about Jesus dying on the cross to give life to those the world deemed expendable. Sarah was reasoning with the concept of a sacrifice zone in a manner of critique that was also creative and generative. Where did this concept of a sacrifice zone come from? Was Sarah doing something new with it? What does it mean to call the environs of MTR and coal plants sacrifice zones? Searching for answers in the scholarly literature, I was disappointed. Though “sacrifice zone” is a frequently used EJ concept, scholars tend to either cite short and often conflicting accounts of its origin and meaning or they simply use it without defining it. In what follows I provide a critical genealogy of this concept that is built on archival research and analysis of reports, news media, and scholarship. This genealogy illuminates the background of Sarah’s language by describing the material history of a concept that was forged at a particular historical moment, developed through social friction and cooperation in diverse geopolitical contexts, and eventually became a critical EJ concept in the United States and—increasingly—abroad. My task is to document how the concept of a **sacrifice zone emerged, developed**, and was **enriched** through encounters with **diverse populations** in various contexts over time, and then show how analysis of this concept enriches environmental thought by bringing EJ theory, which has primarily assumed a distributive justice framework, into critical and constructive engagement with culture and religion. This study, while rooted in my ethnographic research, is aimed at the more general goal of explaining what this concept’s emergence and **development** reveals about the diverse places that **activists, residents**, and **scholars** today call **sacrifice zones**. I identify four phases in the concept’s development and then analyze its meaning and features. I argue that the concept is a better way to theorize the places that disproportionately bear the environmental harms our economies produce than its alternatives, such as “**fenceline communities**” or “**dumping grounds**,” because of its potential as simultaneously a critical and a constructive concept with cultural and religious import. **Sacrifice** language is a **site of contestation** between competing **logics** and practices of **life and death.** As I will argue, so are sacrifice zones: they are sites of conflict between competing conceptions of sacrifice, love, and life. Exploring one entailment of this study, I conclude by offering an amendment to Rob Nixon’s influential theory of “**slow violence**”: “**slow sacrifice**,” a process in which the **securing** of one’s own **life** and **satisfying** one’s own **desires** produces **death** and **harms** that are disproportionately borne by other **people** and **places**. Sacrifice Areas—from Livestock to Energy **The sacrifice zone concept** originated in livestock management, where it concerned techniques for balancing economic and ecological costs and benefits. Its current range of meanings in environmental thought emerged in its transference from this realm, where it was a conservation concept, to that of energy and environmental issues, where, in the aftermath of the 1973 oil crisis, it became a **critical concept** for opposing the **human** and **environmental** costs of **abstract collective** projects like **development**, **consumerism**, and **militarism**. By the early 1970s land managers and animal agriculturalists in the United States and the United Kingdom referred to places destroyed by livestock as “sacrifice areas.” For instance, observing that the vegetation around water sources was often destroyed by heavy grazing, trampling, or dusting over, bureaucratic land managers in the American West called these places “sacrifice areas” in a 1970 report.2 Lacking vegetation, during rainy periods these areas turned to mud; during droughts to dust. Yet because successful livestock operations required green pastures, the sacrifice area concept developed to index different practices for different plots of land: some pastureland should be permanently destroyed to allow other pastureland to remain verdant over the long term. For instance, one **Bureau of Indian** Affairs report on the **resource potential of the Standing Rock Reservation** in 1973 specified that sacrifice areas “**reflect[ed] a conservation concept, not a maximum utilization concept**.”3 The goal was not to try to **eliminate sacrifices** but to **concentrate them** into as **small an area** as possible and so **conserve the** **rest of the pasture**. Observations about sacrifice zones were often paired with technological or managerial solutions to concentrate the damage in small areas or, as in the case of animal waste, send it elsewhere. In 1970, for instance, a scholar in a British farm journal defined a “sacrifice area” as a “geographic location” for concentrating waste, where farmers disposed of effluent.4 Like many conservation principles, the concept of a sacrifice area thus originated in nature management with the goal of sustaining long-term economic productivity. The concept retains this meaning in livestock management today. Farmers and ranchers use the phrases sacrifice area, sacrifice lot, and sacrifice paddock interchangeably to refer to a small area of land, usually a fenced-in paddock, for concentrating ecological damage from weather, waste, trampling, or overgrazing, thus protecting the rest of the pasture. According to one organization that promotes science-informed farming, “Sacrifice areas protect pastures. . . . It is called a sacrifice area because you are giving up land that could be used as a pasture in order to protect the remaining pasture area, which is saved.”5 Some land is destroyed to save other lands. In short, a sacrifice area was originally a concept and practice for scientifically managing land and animals to balance economic productivity and ecological sustainability. Because animals are incapable of regulating their own behavior, managers and farmers intervene with fences and other techniques to separate protected lands from sacrificed lands and therefore ensure the long-term good of the whole enterprise. This livestock concept became an energy concept in 1973, when an oil crisis exacerbated a complex confluence of forces summarized by the rallying cry “Don’t Appalachianize the West.”6 By that time, the United States had become dependent on foreign, largely Middle Eastern oil to meet its rising national energy demand. Within weeks of the oil embargo in October 1973, President Richard Nixon announced “Project Independence,” an initiative that entailed **expanding nuclear plants** and coal strip mines **into western areas** largely inhabited by **ranchers, agriculturalists**, and **Native** **Americans**. Coal and **nuclear companies** took their **industrial technologies** to states like **Colorado**, **Montana**, and **Wyoming**, where **ranchers**, **Native Americans**, and **environmentalists** discovered common cause in rejecting their “**Appalachianization**.” “Don’t Appalachianize the West” became “a rallying cry that [sought] to prevent the energy companies from ravaging with strip mines such coal-rich states as Montana and Wyoming,” writing them off as “**national sacrifice areas**” where “little of the **vast mineral wealth [is] returned to the citizens.”**7 A National Research Council report entitled Rehabilitation Potential of Western Coal Lands was the first document to make sacrifice areas an energy concept. The study committee began its work in January 1973, before the oil crisis, and published its report a year later, after the oil embargo had been launched. It acknowledged that with the westward movement of surface mining methods, there was a need for “rehabilitation techniques” to “prevent a repetition of the Appalachian experience in the western coal lands.”8 The authors foregrounded the matter of land rehabilitation after the life cycle of a strip-mining operation: Could land, after it was **mined**, be **rehabilitated** and **reused** for other **productive** **purposes**? Or would surface mining permanently waste the land beyond the possibility of any subsequent productive use? In an Orwellian turn of phrase, the report stated that if the goal was for post-mined lands to become “**National Sacrifice Areas** (**Abandon the Spoils)**,” then there was a high probability of success: “If surface mined lands are declared national sacrifice areas, all ecological zones have a high probability of being successfully rehabilitated.”9 Translation: the most **probable outcome** of surface mining would be a **permanent loss** of the **land’s productivity**. Though the report **did not provide** a **rationale** for using the **sacrifice areas** concept, it is likely that the study committee transferred it from livestock to energy. In the very same lands where bureaucrats promoted the use of sacrifice areas in livestock and pasture management, the authors adapted the concept to understand the effects of coal strip-mining. Though mentioned only twice in the report, spokespersons for both the Environmental Defense Fund and the National Coal Association referred to the controversial concept in their official comments on the report. The former affirmed the need for a deliberative federal policy for rehabilitation to prevent western lands from being turned into a “national sacrifice area.”10 He also showed the concept’s transferability beyond coal when, less than a month later, he used it in a hearing on nuclear matters before the Atomic Energy Commission.11 The coal spokesman, by contrast, contested the concept. In his judgment, the report “overplays repeatedly the idea of ‘national sacrifice areas,’ which are fuzzily defined . . . as areas where nothing would be done to the land after mining—the spoils would be abandoned and revegetation left to the wind and bird droppings.” He argued that even if this accurately described Appalachia’s experience, it was not likely to happen in the West. In fact, he argued, the use of this “spurious theme” and “false concept” cast doubt on the entire report. “It raises a suspicion that scientific objectivity, which is so essential to a meaningful dialogue, is somewhat lacking.”12 The environmentalist’s use of the concept and the coal industry spokesman’s critique of it are evidence that it was, at its very moment of transference from livestock to energy, meant to circumscribe the coal industry’s license to operate in the region. The way one Wyoming journalist combined energy independence and coal’s westward expansion in testimony before Congress in 1974 displays how the concept also communicated moral and theological connotations from its very moment of transference from livestock to energy. Journalist Bruce Hamilton welcomed the change from a “**laissez-faire energy policy**” that “left Appalachia in economic and ecological ruin” to a coordinated, national energy policy. However, he concluded, Project Independence would merely exacerbate laissez-faire’s negative impacts: it would “**condemn** future generations of Americans to live with **deadly** **radioactive wastes**, unreclaimable **coal strip mines**, mountains of **oil shale tailings**, and other national sacrifice areas; sacrifices to our greed and the god of conspicuous consumption.”13 Individuals like Hamilton who resisted **the industrial colonization of western lands** thus converted a conservationist management concept into a **morally** **infused**, **critical energy** concept that **inseparably bound** together the fates of both land and people: **sacrificing** particular lands for the nation is **tantamount** to **sacrificing the people** who dwell in them. A Washington Post journalist flagged the concept’s explosive connotations in a 1975 article: The panel that issued the cautious and scholarly National Academy of Sciences report unwittingly touched off a verbal bombshell. Certain sites, it said, must be given up as impossible to reclaim or even rehabilitate, and for these hopeless areas (“Abandon the Spoils”), it coined the term “National Sacrifice Area.” The words exploded in the Western press overnight. Seized upon by a people who felt themselves being served up as “national sacrifices,” they became a watchword and a rallying cry and the impression they left was supported by an unfortunate official utterance.14 Did this “unfortunate official utterance” explode across the West because it better represented what was at stake than a more objective term? A few months later, for instance, Colorado’s governor addressed an op-ed in the New York Times to the high energy consuming coastal elites who exercised disproportionate influence over federal energy policy. His message: Do not sacrifice us, our water, and our agricultural economy for your energy consumption during a time of crisis. He implied that the federal government, which owned large swaths of the West, was like a livestock manager who divides their land between verdant pasture and sacrifice lots. But, he pleaded, “The West, understandably, doesn’t want to become a ‘national sacrifice area.’” At a time when the federal government faced “a terrible temptation to override the interests of the states” for a quick fix to its crisis, “someone or some areas” were going to “pay too heavy a price.” Already familiar with the boom-and-bust cycles of extractive enterprises, the West knew the costs of refashioning entire economies around fickle international markets, and they refused to become victims of an “energy hurricane.”15 As the concept continued to move across social borders and geographic space, it was enriched. By 1976, Appalachian residents described Appalachia itself as a sacrifice area, and the Appalachian Alliance’s 1979 pamphlet National Sacrifice Area prefigured the concept’s expansion. Indigenous leaders in the West adapted the sacrifice area concept amid another oil crisis, in 1979, and another push, **in the name of energy independence**, to exploit **western** **states’ resources**. It was thought that approximately **60 percent** of the **United States’** energy resources—**coal**, **uranium**, and **shale oil**—were **located on reservations**. In that new situation, Native leaders vigorously debated what to do. Should they **use the instruments** of **white culture** to exploit their **energy** **resources** and thus **gain the economic power** necessary **to achieve** Tribal **sovereignty** and **self-determination**? Or, should they **eschew settler-colonial extractive capitalism** and **preserve the integrity of their Indigenous** **lifeways**, **traditions**, and **values**?18 Navajo activist John Redhouse, representing the latter, anti-extractive view, argued that “In a generation, the resource will be played out and you’ll have a few Native American sheiks and an impoverished mass.” In his view, the **government** and **energy companies** simply used **Tribal** **self-determination** to **legitimize** their plans to turn the **western reservations** into “**national sacrifice areas**.”19 The concept thus attained a tragic **socio-ecological dimension**: within a context of severe **constraint** and **injustice**, is the pursuit of **survival** and **liberation** best served by **sacrificing Indigenous land** and values or **prolonging** **Indigenous poverty** and **marginality**? During the 1980s Indigenous thinkers centered the **sacrifice** area concept around **uranium** and **nuclear** issues (though coal and oil were never far from view) to **critically assess** the ways **genocide** and **ecocide** were **intertwined**: both were **rooted** in **white settler-colonial** culture. One consequence of **nuclear’s** **unfathomable temporalities** was its potent **symbolism**; places destroyed for **nuclear development** were **gone forever**. The **Four Corners** region in the Southwest, **inhabited** largely by **Navajo and Hopi**, was a critical site of the concept’s development during this period. Soon after an Exxon chair suggested in 1980 that **the government declare** the area “**a national energy zone**,” where the “**normal rules”** governing **environmental protection** would **not apply**, a documentary film was released titled The Four Corners: A National Sacrifice Area? It claimed that there were more **cancers, birth defects**, **miscarriages**, and **infant deaths** in communities near **radioactive** **waste sites**. According to one reviewer, the film “raise[d] an important question: whether the **hidden costs** of **uranium mining**, coal strip-mining and oil-shale projects on the Colorado Plateau outweigh the short-term gains.”21 American Indian Movement leader Russell Means theoretically enriched the concept by linking it to the sacrifice of entire peoples. A close observer of Indigenous sovereignty movements, Means fought against an Indigenous alliance with **Marxists**, because **Marxism**, like **capitalism**, promoted **industrialization**. Though both were called “**revolutions**,” he argued, they are better understood as “**continuations**” of **European culture**.22 As evidence, he pointed to the USSR, China, and Vietnam, where **Marxists justified sacrificing Indigenous** peoples in the name of **industrialization**. **Industrial societies’** need for **abundant energy sources** would render places like his Pine Ridge “**uninhabitable forever**. This is considered by industry, and the **white society** which **created this industry**, to be an **‘acceptable’ price** to pay **for energy** resource **development**.” However, he continued, “we are **resisting** being turned into a **national sacrifice area**. We’re **resisting** being turned into a **national sacrifice people**. The costs of this industrial process are not acceptable to us. It is **genocide** to dig the **uranium** here and to **drain the water-table.”**23 In short, he said, **capitalism** is not “really **responsible for the situation** in which we have been declared a **national sacrifice**. No, **it is the European tradition;** European culture itself **is responsible**. **Marxism** is just the latest **continuation** of this tradition” that “**declare[s] us an acceptable ‘cost**.’”24 Other influential Indigenous thinkers, including Winona LaDuke, Ward Churchill, and George Tinker, embraced the sacrifice area concept as Means theorized it.25 Intensifying its critical thrust, they made it a critical **political-ecological** concept that cast doubt on the entire enterprise of **Euro-American** culture for its tendency to **instrumentalize** and **waste lands** and peoples to **feed its own development**. Osage scholar Tinker theorized the issue in theological terms when he juxtaposed theologies that construct American Indian territories as sacrifice zones with Indigenous rituals of self-sacrifice intended to reciprocate and restore the creation community after violent ruptures.26 In Tinker’s account, two contrasting logics of sacrifice constitute rival political ecologies. Traci Voyles’s more recent book Wastelanding continues this tradition of thought by arguing that wastelands, or “sacrifice zones,” are the “other” through which modern industrialism is established.27 Environmental Justice and Sacrifice The concept’s next major development phase occurred in the 1990s with the rise of the **EJ movement**, which began in the South in the early 1980s to **counter the siting of toxic** land uses in **economically poor** and **racially minoritized communities**. Nurtured by the Black church, the EJ movement emerged from the civil rights and Black Power movements through friction with mainstream environmentalism. In majority–African American Warren County, North Carolina, the EJ movement coalesced in opposition to the state’s decision to solve a statewide toxic PCB problem by collecting and dumping the PCBs in one place. Robert Bullard, the movement’s leading scholar, led the United Church of Christ’s study that documented similar cases across the country. That study concluded the **problem was systemic**: **toxic dumps** and other “**locally unwanted land uses**” were routinely sited in economically **poor communities** and **communities of color.** In conversation with Indigenous leaders at the First National People of Color Environmental Leadership Summit in 1991, Bullard adapted the **sacrifice area** concept, which he eventually referred to as “**environmental sacrifice zones**,” to describe **environmental** disparities in places, like Warren County, that **disproportionately** bear the **burdens of pollution**, **chemical exposure,** and **toxic waste**.28 In addition to carrying the sacrifice zone concept eastward and southward, the EJ movement expanded it in two consequential ways that facilitated its national and global expansion. First, EJ scholars and activists used it to name any geographical area that bore a disproportionate amount of industrial pollution, toxic chemical exposure, or other environmental harms associated with industry or national security. In short, it became synonymous with Bullard’s concept of a “dumping ground.”29 Steve Lerner stabilized the concept for EJ scholars: “**sacrifice zones**,” he argued, **are “semi-industrial areas**—largely **populated by African Americans,** Latinos, **Native Americans**, and **low-income whites**—where a dangerous and sometimes lethal brand of **racial** and **economic discrimination** persists.”30 He argued that in spite of the concept’s **origin in nuclear development** (which my genealogy suggests is only partly accurate) “the ‘sacrifice zones’ designation should be expanded to include a broader array of fenceline communities or hot spots of **chemical pollution** where residents live immediately adjacent to **heavily polluting industries** or **military bases.**”31 After canvassing various labels for these places, including “fenceline communities,” he settled on sacrifice zones “because it dramatizes the fact that low-income and minority populations . . . are required to make disproportionate health and economic sacrifices that more affluent people can avoid.” And this “pattern of **unequal exposures** constitutes a form of **environmental racism** that is being played out on a large scale **across the nation**.”32 The concept thus named for the EJ movement a much larger phenomenon than energy production and consumption. It named the intertwined **environmental** and human costs of national and **economic development** in general; those costs seem to make a **preferential** option for the **poor**. Second, as the concept was transferred from livestock management to energy and environmental justice, the fence imagery came full circle with the naming of “fenceline communities.” Whereas the original fence helped livestock managers contain the ecological damage animals might do to pastureland, the fence that separated industrial (or military) sites from residential areas upheld only the appearance of containment; unlike livestock, **toxins flowed**, **carried by wind, water**, and **soil, beyond** the (actual and metaphorical) **fences** intended to separate one land use (**industrial**) from another (**residential**). Though theorized as a general phenomenon by the EJ movement, this **inability to contain** **damage** was already **present** in **Indigenous thought**. “The ecological effects of **radioactive colonization** know **no boundaries**,” wrote Ward Churchill. Toxic particles, he continued, do not know they are intended to stop when they reach non-Indian territory. **Contaminated water** does not know it is supposed to pool itself only under **Indian wells.** **Irradiated flora** and **fauna** are unaware they are meant only for consumption by **indigenous “expendables**.” The effects of such things are just as fatal to non**-Indians** as they are to Indians. . . . Neither **genocide** nor **ecocide** can be “**contained**” when accomplished by **nuclear** means. **The radioactive colonization** of Native North America therefore **threatens** not only Indians, but the **survival** of the **human species** itself.33 Sacrifice zones thus became for Indigenous and EJ theorists a way to conceptualize the human inability to manage and contain the damages unleashed by industrial production. This is to say that political borders are porous to ecological flows. “Like it or not,” wrote Churchill, “we are all—Indian and non-Indian alike—finally in the same boat.”34 For him, though those who live along the fencelines are the first line of sacrifice, their experience signals the telos of a particular form of life that renders ecologies and communities expendable in the name of an abstract greater good. Later discourses about climate change and the Anthropocene would name similar dynamics at the planetary scale.35 Just as Indigenous thinkers and **libertarian** ranchers in the West incorporated the sacrifice area concept within thick worlds of symbolic meaning and practice, **EJ scholars and** activists also thickened the concept of a **sacrifice** zone with **racial, class**, and **gender** analysis. Bullard wrapped it into critiques of **institutional** and **systemic racism** upheld by **market** and **state** entities. “Environmental racism,” he argued, “combines with **public policies** and **industry practices** to provide benefits for whites while shifting costs to **people of color**.”36 Though rarely does an individual agent orchestrate this sacrificial pattern, the pattern itself implicates entities at every level, from local zoning boards and federal agencies to industry personnel, mainstream environmental organizations, and research institutions. Bullard and others drew on civil rights and Black Power strategies to make policy, legal, and political interventions to counteract the systemic forces that created unequal environments. The exchange of ideas and experiences that took place between Indigenous, African American, and other environmental leaders at the summit in 1991 also enriched the sacrifice zone concept’s religious meaning for the emerging **pluralistic EJ movement**. For instance, at the summit Indigenous presenter Mililani Trask refused to “allow desecration of sacred lands” that were slated to be set aside for the military “as a national sacrifice area.”37 Trask’s juxtaposition between **sacred** and **sacrificed** land resonated with the African American organizers whose **interpretations** of the landmark document “**Principles of Environmental** Justice,” produced at the summit, were published as part of its official proceedings. For them, the moral foundation for resisting the “sacrifice” of human communities and natural environments for “material greed” lay in affirming “the moral imperative underlying the created order”—that is, “that all life is sacred.”38 As it was used by diverse activists in the emerging EJ movement, the **sacrifice zone concept** was often **juxtaposed** with notions of **sacred life** and land in ways that invested with religious meaning their refusal to cede the power over life and death to unjust structures, systems, and institutions managed by people who claim for themselves the role of stewarding the common good. Since the first decade of the twenty-first century diverse groups beyond **North America** have **adapted** the concept **to critique** local and **global dynamics** related to **resource extractivism**. For example, “Mothers of the Sacrifice Zone in Resistance” in Chile adapted the concept in response to local experiences with extractive industries.39 According to Maristella Svampa, a leading Latin American theorist of extractivism, the proliferation of sacrifice zones under leftist regimes across Latin America points to a problem she calls the “Commodities Consensus”—a transideological consensus that natural resource **exploitation** and **industrialization** is the **pathway to progress**. At a global level, Naomi Klein’s theorization of the concept in relation to **climate change** and **extractivism** popularized it among scholars of planetary environmental change.41 For Klein, the proliferation of **sacrifice zones** reveals the **impoverishment** of a “colonial mind” that fuses **progress** and **fossil fuels** with a destructive vision of freedom. Echoing Svampa and Klein, the French report No More Sacrifice Zones critiqued our global extractivist economy and envisioned a global commons beyond extractivism.42 As used by scholars and activists beyond the United States, the concept retains the **Native critique** of **extractivist colonial cultures,** the EJ movement’s application of it beyond **energy production**, and both movements’ dual **critique of market and state entities**, which have often worked in tandem to produce bifurcated geographies of sacrifice and abundance. Though it has become a largely leftist critical concept, it nevertheless includes within it a critique of both **capitalist** and **socialist** models of resource-intensive progress.43 The evidence suggests that the sacrifice zone concept signifies more than empirical description. Scholars, activists, and journalists appear to prefer the concept of a sacrifice zone to other descriptive concepts because others fail to accurately name the phenomenon’s existential significance to those who live and assemble in the places it describes.44 It at once names a phenomenon in material history, judges and critiques it, and demands resistance, often with reference to an account of idolatry, ideology, justice, or the sacred. Sacrifice Zones and the Sacrificial After the earlier anti-strip-mining movement referred to Appalachia as a national sacrifice area in the late 1970s, the concept disappeared altogether from the region until it was revived by the anti-MTR movement in the late 1990s. In a 1997 article on the revival of activism in West Virginia, a journalist quoted a law professor saying that MTR is turning the state into “a national sacrifice area.”45 Shortly thereafter, sociologist Julia Fox published a pivotal journal article titled “Mountaintop Removal in West Virginia: An Environmental Sacrifice Zone.” Using Marxist analysis, Fox theorized MTR, arguing that because reformist and regulatory responses were inadequate, more fundamental changes in the character of social and environmental relations were necessary.46 Fox thus set the stage for the anti-MTR movement’s subsequent use of the concept. While the concept still largely retained its negative connotation, its complexity grew in Appalachia. In her 2009 article “Speak Your Piece: Making a ‘Sacred Zone,’” Robyn Kincaid, a white West Virginia radio host and activist with Coal River Mountain Watch, theorized the concept’s generative polysemy.47 A close examination of her argument suggests that sacrifice zones should be theorized as sites of tension between rival political ecologies of sacrifice.48 Kincaid opened with a line from Martin Luther King Jr.’s final speech: “When people get caught up with that which is right and they are willing to sacrifice for it, there is no stopping point short of victory.” Residents of Fayette County, West Virginia, Kincaid observed, were under attack by “a coal company willing to sacrifice us for a load of coal.” It was the same pattern of sacrifice she saw repeated across the region. Echoing King, she argued that it was time for preachers to pair talk of the New Jerusalem with that of a “New Appalachia.” The sacrifices made by anti-MTR activists were, like King’s, made in the name of an eschatological vision of social and economic justice derived from the biblical image of creation’s healing and renewal.49 Then she reflected on the words of Black Appalachian visionary Van Jones, who said, “‘We’re going to turn Appalachia from a Sacrifice Zone to a Sacred Zone.’” Kincaid held that a community-led wind farm proposal was a lamp to Appalachia in Mountain Removal’s endless night. It refutes Big Coal’s insulting premise that Appalachian people are good for nothing more than destroying their own homes and communities. . . . Part of making Appalachia a “Sacred Zone” lies in making Appalachia whole. That would require us to fix the land that has already been stripped. We can keep people working by doing the reclamation work the scofflaw coal companies evade once they’ve extracted the coal and the profit from these hills. In the meantime, while we’re putting Mountain Removal’s wrongs to right, we can be installing the components of the new, green economy in Appalachia.50 For her, making Appalachia a “sacred zone” would involve reclaiming the land for a new economy in a New Appalachia. That vision could only be achieved if Appalachian people participated in a different kind of sacrifice that would sustain their “sacred heritage” and transform their relationship to Appalachia’s “precious, well-watered soil.” She closed sounding this same note: “Generations of Appalachian folk have survived in nigh unsurvivable circumstances”; their “sacred energy of community . . . will be the foundation of the New Appalachia, and our anguished sacrifices will finally give way to victory.” Kincaid creatively adapted a theological distinction present within ancient Jewish and Christian conceptions of sacrifice, where the alternatives are not between sacrifice and no sacrifice but between false and true sacrifice. On the one hand, death-dealing sacrifice was being imposed by largely external agents on Appalachia through a combination of money power, state power, and false—though powerful—public narratives. On the other hand, Appalachian traditions of sacrifice could narrate its people and lands within an eschatological, future-oriented vision of a just and life-giving new creation, even if doing so might put individuals at risk. In other words, the falsely sacrificed should draw on their heritage of responding to false sacrifices with truer sacrifices to make Appalachia a “sacred zone.” The Concept’s Meaning and Features The foregoing genealogy demonstrates that while the concept of sacrifice zones has been adapted to different contexts, its semantic range is nevertheless stable enough to identify several meanings and features that derive from its historical usage. First, it is fundamentally a geographical concept about the production of space: environmental harms are concentrated in some places in order to protect the environmental health and sustainability of other places.51 Geographies of environmental sacrifice have been the necessary corollary of geographies of environmental abundance. The latter depend on and are constituted by the former. This is the fundamental meaning that made the concept transferable from livestock and land management to energy and environmental justice. Second, the geographic differentiation that the concept names is inextricably linked to an abstract conception of the “greater good.” While its earliest usage referred to sacrifices made for the greater good of livestock production or energy independence, it has included economic growth, national security, social progress, white cultural expansion, and historical-material development. The flexibility of the greater good against which particular lands and people are rendered an acceptable sacrifice may be the element that has allowed the concept to stick to very different social groups and contexts. The **greater good** is conceived as something **abstract**; it is an **idealized vision** that is so powerful that it **does not require the consent** of those who would **bear the bulk of its costs**. Third, it locates and dislocates conceptions of agency. Even though the **sacrifice zone concept** is fluid with regard to the **locus of agency**, it nevertheless implies that there is an **agent** (**individual**, **collective**, or **institutional**) that intervenes with **material**, **social**, or **conceptual** tools (**fences, regulations, laissez-faire policies**) to enact a separation between lands slated for **sacrifice** and lands destined for **abundance**. The sacrifice, in other words, is a human production; it is not natural. The concept denaturalizes the phenomenon it names, thus rendering it a contingent, changeable matter of human history. Fourth, as the concept was transferred from livestock to energy to the environment, it was inverted. What had been a managerial, conservationist concept paired with a material technology—a fence—instead became a concept to name the human inability to contain sacrifices within human-drawn borders designed to differentiate land uses. In effect, it shifted from a conservationist concept about containing sacrifices to a critical concept about unleashing uncontainable sacrifices. The critique is that if certain forms of **ecological** harm cannot **justly** be **distributed** or **metabolized**—if, in other words, **contemporary lifestyles** **require** **sacrifice** zones—then the systems that produce them either should not exist at all or, more realistically, they should be changed in order to **democratize** both costs and **benefits**.52 Fifth, the concept can carry implicit or explicit religious and theological connotations, interpreting social ecologies in terms of religious practices and beliefs. The sacrifice concept sometimes signals a generative polysemy associated with notions of the sacred, as in Kincaid’s distinction between a “sacrifice zone” and a “sacred zone,” a polysemy derived from sacrifice’s Latin roots (sacra, meaning “holy” or “sacred,” and facere, meaning “to make”). **Indigenous** theorists, and those like Klein who **use Indigenous concepts** to counter a **colonial mindset**, often juxtapose **sacrifice zones** with some notion of **sacred lands**, **bodies**, or **ecologies**. More often, however, the theological and religious connotations of the concept remain implicit, seemingly meant to provoke an affective response rather than suggest a precise theory of sacrificial rituals and beliefs. The kind of sacrifice that takes place in sacrifice zones is what Johannes Zachhuber has identified as sacrifice’s objective, victim-oriented dimension that is often understood in modern theory as scapegoating or victimization.53 Sixth, the **sacrifice zone** concept is **fundamentally relational**: it is intended to reveal that (**inhabited**) places of **extraction, production, consumption**, and **waste** are **linked** together by relationships of a **particular character** that can be **observed, analyzed**, and **evaluated**. It both makes these relationships visible and **morally ties** together **consumers** with the **lands** and peoples with whom they are connected through **chains of supply** and **disposal**. As such, it is intended to reveal the human and ecological costs that are often unnoticed, hidden, or even intentionally concealed by market mechanisms: the market price of a thing, such as coal, does not reflect its full costs.54 As a concept that reveals these hidden costs, it can be used in various ways to promote a more moral, equitable economy. Seventh, the concept draws together a fluid and diverse array of groups who simultaneously identify as an object of sacrifice even as they refuse to be sacrificed without resistance. In the 1970s the concept drew together agriculturalists, ranchers, and environmentalists into a story about the nonindustrial American West versus elite, cosmopolitan, coastal consumers.55 In the late 1970s and 1980s the concept helped the American Indian Movement develop a shared identity as “Indians,” rather than as members of particular Tribal councils, in opposition to settler-colonial culture. The concept similarly allowed the EJ movement to draw together racially minoritized groups into the politically powerful concept of “people of color” who share common experiences of environmental racism in rural and urban areas. It also wrapped into the pool of shared experiences other groups, including suburban white mothers and Appalachia’s rural coalfield residents. In short, the **sacrifice zone** concept **signals** a **“we”** who are singled out by some criteria as an **acceptable sacrifice** and **“they”** who use the powers of **state, market**, and **mindset** to do both the **rationalizing** and the **sacrificing**. Nevertheless, the lines between “us” and “them” are also blurred, especially when considering that, for instance, “we” who use or sell coal-sourced electricity might also be the “we” who are sacrificed for coal.56 Finally, the sacrifice zone concept is a “**boundary object”** moving between the different **social worlds** of **activists, scholars, politicians**, and **managers**.57 It remains a concept that is used as much by activists as by scholars. Even though scholars like Lerner have attempted to fix its definition, scholars have had no final authority over the concept or its usage, which remains responsive to the contexts to which various groups adopt and adapt it.58 Theorizing a Polysemous Concept To elucidate what the foregoing genealogy and analysis contribute to EJ theory, I return to my initial purpose, which was to understand the material and conceptual background history of Sarah’s movement from Appalachia to Birmingham. Of particular significance in Sarah’s southward movement is that while central Appalachia has been integral to the concept’s genealogy from the beginning, Birmingham has had no direct role in its development.59 Even today, residents and activists rarely refer to North Birmingham as a sacrifice zone. Why, then, did Sarah, an outsider to North Birmingham, name it as such? When Sarah used the concept to explain her reasons for moving from Appalachia to Birmingham, she reflected its usage by the anti-MTR movement. Though Restoring Eden, the group she worked with, never explicitly used the concept, the residents, organizations, and scientists they partnered with certainly did.60 Sarah drew on the anti-MTR movement’s concept of a sacrifice zone to reframe the projects as a response to unjust sacrifice, and her usage echoed the complexity manifested by Kincaid’s distinction between sacrifice zones and sacred zones. When Sarah called both Appalachians and Birminghamians “sacrificeable communities,” she indicted a **utilitarian** moral logic—x number of **premature deaths** and **degraded** lives in some places are **acceptable** so long as the aggregate number of lives saved and sustained (usually in other places) is **greater** than x—which, for her, was plainly false; that is, it was counter to the logic manifested in Christ’s life-giving actions toward those society renders vulnerable and expendable. For Sarah—echoing Kincaid and King—that utilitarian logic went against the grain of Jesus’s cross. Located “outside the gate” separating the dirt and defilement from the life of the city, its logic is “My life to enliven the dead and make the defiled sacred.”61 For her, the economy of Jesus refuses to justify or naturalize routinized, premature death by appealing to some “greater good.” When I asked Sarah one afternoon why she was so committed to the health studies amid seemingly insurmountable opposition, she referred me to a sermon by the pastor of a small Black Baptist church in the North Birmingham sacrifice zone. “Jesus had no throne but the cross,” the pastor had preached that morning. Turning, then, to reflect on the two thieves crucified beside Jesus, he pointed out that one’s heart was softened and the other’s hardened. “Which one really encountered Jesus?” he asked. For Sarah, that message spoke to her struggle to manage the health study. She had every reason to harden her heart: the project was underfunded and she was up against the most powerful interests in Alabama. However, “the best sermon you could ever preach is how you live your life,” said the pastor. The pastor’s call to identify with the unique character of Jesus’s sacrifice strengthened Sarah in her commitment to citizen science and environmental justice as a way to love her neighbor as Jesus loved her. Though they are ultimately irreconcilable, both ecologics of sacrifice—the utilitarian logic of “their lives for ours” and the Christo-logic of “my life for the dead, defiled, and expendable”—were operating in and upon North Birmingham and central Appalachia. Sarah went from one sacrifice zone to another because she believed that was where Jesus was; his love had taken him to a sacrifice zone outside the city gate, where his power of life defeated the hold of death. That was the ecology she inhabited. In short, sacrifice zones are places where rival political ecologies of sacrifice conflict with one another over the meaning and practices of life and death. Conclusion: Slow Sacrifices This study affirms Steve Lerner’s conclusion that the places where environmental harms are disproportionately concentrated vis-à-vis environmental benefits should be called sacrifice zones. For Lerner, this is because the sacrifice zone concept makes visible the political-economic relations between places of environmental harm and environmental benefit. I have given additional reasons. Chief among them is that in addition to accurately describing the material realities that comprise sacrifice zones and the political-ecological forces that produce them, the concept also draws attention to the moral and religious—even theological—meaning of our political ecologies.62 It suggests that even more fundamental than an inequitable distribution of harms and benefits, the social relations that **produce sacrifice zones** are the **material embodiment** of a largely implicit **sacrificial theology** that is deeply embedded in and **productive** of **contemporary** societies. This **sacrificial ecopolitical theology** binds some lives and lands to **ecologies** of **death** in **sacrifice zones** to free other lives and lands to sustain themselves and flourish in **greener pastures**: **some must die to save others**.63 This study also suggests that the concept of a sacrifice zone contains a seed of transformation. Sarah, Tinker, Kincaid, and Van Jones, in rejecting one logic of sacrifice, embraced another. They converged on receiving a life-affirming logic of sacrifice as a call to make sacred—to love and seek abundant life for—that which has been slated for a false kind of sacrifice. What stands to be gained from **theorizing** environmental injustice as an **ecopolitical theology** of false sacrifice? Most immediately, it exposes as **inadequate** **interpretations** that propose education and evolving **ecological** values as the primary responses to **environmental injustices**. Without denying a need to dispel ignorance with education and promote ecological values, the necessary changes go deeper than **cognition** and **values**; they must reach to the level of desire—that is, to questions about what we love and pursue with our lives. It suggests that the primary problems to be addressed are desire, the attraction of idols—good things pursued as if they were the highest good, the source and substance of life—and the very powerful temptation to **naturalize** and **rationalize ecologies of death** while securing what we perceive as our own life’s good. In short, it suggests that responses must go to the heart: What, who, and how do we love? It calls for a conversion of the heart, which, as Sarah’s story suggests, might involve discovering with those who live in sacrifice zones what costs are acceptable or not in pursuit of a good life. **Sacrifice zones** therefore also demand we interrogate the **conceptions** and practices of “life” that are implicated in the **intensification, expansion,** and **proliferation** of sacrifice zones. This is where Rob Nixon’s generative concept of “slow violence” might be amended.64 Nixon’s theory suggests that environmental injustice is primarily analogous to doing violence to one’s enemies, as in warfare or terrorism. Nixon’s genius is to conceptualize the dynamics of incremental, slow-developing environmental injustices and crystallize the challenge of representing them with an urgency that demands a **swift** and **resolute** response. However, my study suggests that the dynamics that create and intensify **sacrifice zones** do not have primarily to do with a personal hatred of enemies but with a pursuit of life—**sustainability** and **flourishing**—for one’s people and land. Mundane and often life-giving habits—decorating children’s birthday parties with single-use plastics, eating mangoes year-round, illuminating and heating classrooms, visiting friends in the hospital and powering their ventilators—make sacrifice zones. **Sacrifice zones** reveal that in a **political ecology** of false sacrifice our very practices of life (oftentimes unintentionally) produce unspeakable death, (usually intentionally) kept out of view. Drawing on theological conceptions of sin and idolatry, it could be said that even once unjust **environmental sacrifices** are made visible and we become aware of our **complicity** in them, we are experts at learning how to **rationalize, normalize**, and **naturalize them**, to make them appear to be the very source and basis of a good and full life. Perhaps more than “slow violence,” the dynamics that produce environmental injustices are better **theorized** as “**slow sacrifice**.” If so, an **adequate response** would seek not so much a cessation of **hostilities** as a **transformation** of what it means to be fully alive and who, how, and what we love. The counter-sacrifices of those who seek to transform sacrifice zones into sacred zones point in this direction. For Sarah, the model was Jesus Christ’s saving work on the cross. For Peter, Restoring Eden’s founder, it was “If you love the Creator, take care of creation.”65 For the Reverend Malcom, one of the Birmingham study’s coorganizers, it was a prophetic responsibility to seek racial justice. For the lead scientist overseeing the study design and analysis, it was a Stoic-like commitment to purifying scientific knowledge of the pollution of powerful interests. Though these examples emerged from my fieldwork, an **ecopolitical theology** of **sacrifice** need not be restricted to any of the commitments just named. Effectively responding to the desires and **political-economic** forces that produce and **intensify sacrifice zones** will require many different **sacrificial practices** of **life** and **death** that find common cause in **rejecting** a political ecology of false sacrifice that seeks to consign and **divert death** to your side of the **fence** in order to **sustain** and **enjoy** life on my side.

#### **Nuclear power is inextricably linked to its colonial logics, perpetuating systems of violence and dispossession that render Indigenous communities as fossilized.**

Sophia **Austin 21** [University of San Diego, Undergraduate in Environmental Studies], "Exposing Nuclear Power Plants," Digital USD, https://digital.sandiego.edu/library-research-award/8/, 2021, 3-13-2025//Ethan Chen + Bellaire AA

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Exposing Nuclear Power Plants This paper will begin by outlining the eco-justice topic of nuclear power and its resulting nuclear waste, and then move on to examining and making claims about the justice (distributive, procedural, and recognition-based), evidence, and process behind the development and decommissioning of these plants. Through this, we will discover historical and present ties to racism especially as we explore the relationship between **nuclear power** and the **white racial frame**, resulting in the **objectification, oppression**, and **suppression** of the voices of **Indigenous communities** and **people of color** throughout history and into the **present moment**. After addressing and reflecting on many of the harmful ways nuclear reactors affect us, our nonhuman counterparts, and our environment, we will analyze **Indigenous perspectives** on the **current state** and **future** of **nuclear power**. Finally, I will present a variety of solutions for changing an industry that does far more harm than good for the planet we call home. Nuclear power stations active, decommissioned, and at every stage in between are **environmentally** and **ethically unjust** because of the **direct** and **indirect** harm they inflict upon **humans, animals**, and our **shared environment**, and their **regulatory policies** need **reformation**. Introduction Where does our electricity come from? In the United States, about a fifth of all electricity produced comes from nuclear power plants. In fact, the US generates more nuclear power than any other country in the world, and by more than double. While statistical information like this is generally accessible to the public, what goes on **behind the scenes** at these nuclear power plants continues to be **intentionally well-hidden** from us, the **consumers**. Further, the effects of these underground operations and decisions made behind our backs are not only detrimental to communities within proximity of the plants, but to everyone, including the generations to come. In essence, this paper seeks to expose the truths behind nuclear power plants not only the harm 2 they unequally subject humans, nonhumans, and our shared environment to, but also the procedural injustices that form their backbone and that aren’t always made public. In this way, we will expose nuclear power plants for what they truly are, for all that they perpetrate, and for what they ultimately exemplify. Before diving into the injustices brought about by nuclear power plants, we first have to understand how these systems function. Energy comes in a variety of forms, each with associated advantages and disadvantages. One such form of energy prevalent in the world since the 1950s is known as nuclear energy, which is generated when heat is extracted from the process of nuclear fission, nuclear decay, or nuclear fusion, with the ability to perform work. Nuclear power plants, the main avenue through which nuclear energy is used to produce electricity in the world, typically utilize the heat released from the process of nuclear fission. Nuclear decay, on the other hand, is the process that nuclear waste (a product of nuclear power plants) undergoes as it loses energy in the form of radiation which when released is very harmful to all forms of life. Furthermore, used nuclear fuel materials, known as rods, have to be **properly contained** for years after they are spent a procedure that is **not usually honored,** and therefore **extremely detrimental** to surrounding **communities** upon **inevitable exposure**. While nuclear power plants do not produce greenhouse gases, they are dependent on the nonrenewable resource of Uranium (the mining of which is environmentally damaging), they produce **radioactive waste** which leads to significant **storage challenges** and poses serious **health risks** when exposed, and they require large amounts of water (also at a **demonstrated** risk of **pollution**) for cooling purposes. In order to fully understand the extent to which the development, implementation, and decommissioning of nuclear power plants affect us at this very moment and will continue to affect us throughout our lifetimes, we will first look at scientific and ecological evidence of their multifaceted destruction, and then explore several claims of injustice, corresponding documented evidence, and compare agreed upon versus followed processes at the plants themselves. Environmental Science Nuclear power plants generate **low-level radiation**, high-level **radioactive** **waste**, and are prone to causing **devastating** and **far-reaching contamination**. The disastrous potential of these 3 plants has already been demonstrated in the United States (the Three Mile Island in 1979), in Russia (Chernobyl in 1986), in Japan (Fukushima in 2011), and in various other countries worldwide. The primary concern, a **commonality** among all **nuclear reactor disasters**, is that **radioactive particles** escape from the plant’s containment devices and enter the environment. **European** studies indicate that “**elevated childhood leukemia** rates, among other diseases, are associated with **proximity** to **reactor sites**” (Kyne and Bolin). In fact, a German study discussed by Kyne and Bolin reported that children under five years old living within 3 miles of nuclear power plants are more than twice as likely to develop leukemia than those residing outside of this zone. However, the toxic elements released by these reactors do not only affect immediate communities. Following the Fukushima catastrophe, for example, “even miles away in the Tokyo metropolitan area, a citizens’ group found Cesium-137 hot spots in the soil, with radiation levels comparable to those in the Chernobyl exclusionary and radiation control areas” (Jenkins, Alvaraz, and Jordaan). This is **evidence** of **nuclear reactors** “operating outside their **approved licensing** parameters in an **unanalyzed, unlicensed** condition” (Gundersen). When considering the already **disadvantaged communities** (low income and **minority groups**) that these plants have been **purposefully** placed by and around, it is hard not to recognize the many **patterns of injustice** as well as powerful evidence of **environmental racism** (a term we will explore soon) that these **harmful systems perpetrate**. The pervasiveness and harm brought about by nuclear power plants does not stop where the land meets the ocean though, nor does it only affect those who currently reside on the land. Imagine swimming in the ocean when a large, crashing wave hurls towards you and forces you to dive underneath the whitewater in hopes of finding safety. Once under the wave, you feel a strong downward current pull you into the depths and darkness of the sea. Unable to see, and now trapped inside of a capped tube, you spend the remaining moments of your life decomposing into unidentifiable matter as radioactive particles penetrate your body. As described by Kuo Pao-Tsin, this exact process is what happens to sea turtles and other marine organisms living near nuclear reactors along the coast, which depend on the ocean water to cool their structures. Therefore, not only are the lives of humans put in severe harm’s way by nuclear power plants, but our **nonhuman counterparts** and the **environment** we share also pay a 4 significant price. This cost is **not evenly distributed though**, as the “**nuclear fuel** chain is connected to a longer history of **colonization** and the **environmental dispossession** of **Indigenous Peoples** from their **lands**” (Weatherdon). The Marshall Islands, for example, became a testing ground for the detonation of 67 nuclear weapons developed by the United States for use in World War II. Marshallese people, the vast majority of which identified themselves as members of an Indigenous community, were not warned that their land was going to be taken from them, and were instead told that the United States would protect them from any harm that might come their way. The **true intent** of the U.S. decision makers was clear though, after over **400,000 premature deaths** of **Indigenous** people and generations of **babies** **born without bones** or **skin** took place. A spatial expansion of colonialism, not only have the lands of **Indigenous communities** been **forcefully taken away** from them in order for **nuclear power** systems to **materialize**, but “in the United States, **Native-American uranium miners**, e.g. Navajos, face **14 times** the normal **lung-cancer** risk” (Alldred and Shrader-Frechette). Further, there is **no economic incentive** to deal with this issue because “**electricity generation** like any sector is a **money-making** game, whereas dealing with [**nuclear**] **waste is costly**” (Jenkins, Alvaraz, and Jordaan**). Nuclear colonialism** is a type of **environmental injustice** that perpetuates **environmental racism**, a term mentioned earlier that “‘combines with public policies and industry practices to provide **benefits** for **whites** while shifting **costs to people of color’**” (Endres, Local Environment). In order to further understand the many ways in which **nuclear power systems** are **racist** and the countless **environmental injustices** they uphold (as evidenced by the scientific data presented in this segment), let’s clarify our definition of racism and explore distributive, procedural, and recognition-based justice claims pertaining to nuclear reactors. Environmental Justice As we view justice from a few different perspectives, a shared pattern of **colonialism**, **oppression**, **suppression**, and **ultimately racism** reveals itself. In order to recognize the many ways in which racism is perpetuated by the **multidimensionality** of this pattern, and without inflating or deflating its meaning, it is important that we first add on to our understanding of environmental racism by establishing clear definitions for both **structural racism** and the white 5 racial frame (a dominant worldview that contributes to the denial of the reality of racism in the world). To begin, structural racism operates dynamically and can be described by the **institutionalized** **economic** and social **resource inequalities**, **institutionalized** **political marginalization**, and **institutionalized racial ideologies** (set of racialized stereotypes), all of which can be traced along racial lines (Carter). A **common perspective** in the **United States** that furthers not only **structural racism**, but all forms of racism, is known as the **white racial frame**. This term can be defined as “an overarching **white worldview** that encompasses a broad and persisting set of **racial stereotypes, prejudices**, ideologies, **images, interpretations** and **narratives, emotions**, and reactions to **language** accents, as well as **racialized inclinations** to **discriminate**” (Feagin). As we work on identifying and understanding the pervasiveness of this framework, it is important to simultaneously and actively avoid succumbing to racial exceptionalism, or believing that racism only exists outside of ourselves. With that said, nuclear power systems are not only forms and extensions of environmental racism and structural racism, but they themselves are racist. Now we will turn to three different, but interconnected, justice perspectives where the pattern of **colonialism, oppression**, and the further **suppression** of **marginalized** voices reveals itself. From a distributive point of view, justice can be defined in terms of how resources, as well as harm and risk, are shared. Not only are children, minority groups, **low-income communities**, and local marine life **disproportionately affected** by the placement of **nuclear** power **plants**, but the communities living on and near **land containing uranium** a material required by these reactors are also unjustly harmed. “Within the USA, approximately **66%** of the known **Uranium** deposits are on **reservation lands**, as much as **80%** are on **treaty-guaranteed land** and up to **90% of Uranium mining** and **milling** occurs on or adjacent to **Native American** land” (Endres, Local Environment). Additionally, land that is mined for **uranium** can never again be used to **grow crops** or raise animals because of **resultant** and **persisting nuclear radiation**. This means that once the decision is made to dedicate a piece of land to the colonial expansion of nuclear power, the area will not be able to return to its original condition within the same lifetime, or even several generations after it is closed. Even though **uranium** is considered **sacred** by many **Indigenous communities**, it is unjustly stolen from them as their **land is taken, stripped of nutrients**, and ultimately **destroyed** for them, their grandchildren, great grandchildren, and 6 beyond, **without their consent**. Therefore, both the placement of **nuclear power plants** and the **extraction of the materials** required for their operation are forms of **colonialism**, **environmental racism**, and **structural racism**. Another way to understand nuclear power plants as a form of injustice is from a procedural perspective, which describes justice as “the ways in which decisions are made, who is involved, and who has influence” (Walker). When studying the existing governmental practices and regulations on these reactors, it is important to pay attention to the wording of their presiding legal documents. One U.S. federal law that describes the process of renewing licenses for nuclear power plants is known as the Atomic Energy Act, which authorizes the Nuclear Regulatory Committee to issue and renew plant licenses. Meanwhile, the same law states that the public is merely “encouraged” to participate in the development and usage of atomic energy. Besides this vague statement, representation from those not in power is not stated anywhere else in the law, and is therefore not a requirement. Without any guidelines for participation, the “public” is left out of any and all important discussions about the future of these reactors, and ultimately is not invited to the conversation. As a result, over **95%** of U.S. **commercial nuclear** reactor licenses have been **renewed** at least once, repeating the **cycle of colonialism**. Further, out of every senior **nuclear policy position** in the U.S. government since the 1970s, only **twelve percent** have identified as **women**. Of that twelve percent, only two percent have identified as women of color. **A lack of representation from women** (specifically women of color), **people of color**, and **marginalized communities** when decisions are made is a serious injustice and form of racism **maintained** by **nuclear systems**. To further the idea that nuclear power systems serve as agents of racist colonialism, let’s bring in the concept of recognition-based justice. This approach identifies justice “in terms of who is given respect and who is and isn’t valued” (Walker). After being kicked off of their own land and unable to return, many **Indigenous** folks are forced to work as **uranium miners** **destroying** the land they once **cultivated** out of **economic necessity**. However, even working for the system that **actively oppresses** them **does not grant them a voice**, much less a seat at any table. Instead, “**US nuclear-facility** owners **legally** may expose workers to **annual radiation** doses up to **50 times higher** than those allowed for members of the public...yet **radiation workers** typically receive **no hazard pay** or **compensating** wage differential” (Alldred and Shrader-Frechette). Ultimately, justice in the **form of representation** (for marginalized groups) **is** almost **non-existent** when it comes to **nuclear power** systems because the **underlying goal** of those in power is to **maintain** their **dominant positionality**, to eliminate anyone and everyone that might stand in their way, and fundamentally, to further the agenda of the white racial frame. All of this evidence demonstrates that not only is the physical presence of those most directly affected by **colonial** efforts (in this case the **implementation** of **nuclear reactors**) not welcome to any of the tables where decisions are made, but their voices are also the least considered during the process. Further pushed to the margins of society, those most affected by nuclear colonialism are unjustly oppressed to the furthest extent of the law. Environmental Ethics The way in which **Indigenous spirituality** is treated in **public discourse**, **environmental management** settings, and in general, ought to be of **critical importance** to all people of faith because it is a central part of contemporary political movements (especially in North America), it can play an extensive role in addressing issues that affect the public at large, and it can compliment faith practices by facilitating even deeper connections with our shared environment. Critics of Indigenous spiritualities often argue that this form of religion is counteractive to (and less important than) other systems of faith because they believe that it is entirely an individualized and private practice, and therefore not a true religion at all. However, this approach is not only divisive, **dismissive**, and **disparaging**, it is also deeply **rooted** in **white supremacy** and **colonial efforts** such as **intersectional oppression**. Native Americans, a racially configured other, have historically been presented as a threat to settler-colonial projects due to their continued occupation of lands and claims to sovereignty. In essence, **Indigenous communities** are seen as standing in the way **between land and** **settler-colonial “conquerors**.” In order to challenge this **perception**, “we are called to the work of righting the **historical narrative** so that the suffering and trauma of **Indigenous** and **enslaved** peoples are not only acknowledged but respected…[we] must **engage** in a **sustained** process of **truth telling**” (Nessan). Further, these truths should come from those most impacted from the Indigenous Peoples themselves. 8 One truth that this paper has yet to explore concerns itself with nuclear waste management. Through listening to public statements made by Indigenous groups time and time again, we learn that the current approach to **nuclear waste management** “**conflicts** with **Indigenous** **spiritual principles** that command a more relational and **holistic appreciation** of lived reality...by **homogenizing** the **nuclear fuel chain** into one **national narrative**” (Weatherdon). By positioning Indigenous communities as just a part of the general “public,” entire groups of people are forced to give up their land “for the national interest…[which] deflects the sovereignty of American Indians and hails them as assimilated members of the US public” (Endres, Communication and Critical/Cultural Studies). As a result, the burden of opposing the **colonial** expansion of **nuclear power** is shifted onto the shoulders of the **Indigenous people** whose lands are being stolen, as they must “prove **that their concerns outweigh the national interest** as defined by the **federal government**...a nearly **impossible** task, especially when **American Indian** people are subsumed in the **national interest**” (Endres, Communication and Critical/Cultural Studies). As a result, not only have the truths told by Indigenous communities been dismissed as simply “public opposition,” but they have also been ignored without consequence. The very policies and legal documents permitting the operation of nuclear power plants to continue do not acknowledge these truths or hold accountable those with the power to make the necessary changes to them. In order for us to **break** the **cycle of colonialism** furthered by the **nuclear power industry** and shift over to a more **inclusive** process of **truth-telling**, we must recognize the role that **spirituality** can play. “Far from being an entirely private, asocial, and individualistic affair, [spirituality] can take on an expansive role in the public arena” (Weatherdon). An **eco-justice oriented** theology that values and respects the human **relationship** with nature, as described by **Indigenous spirituality practices**, also must incorporate **truth-telling** by the voices of those who have been **silenced** for far too long. Therefore, **spirituality** can and should play an integral role not only in the public sphere, but the political realm as well. This distinction is important because public participation is different from actually being in the rooms where the decisions are made. We must bring these truths into all aspects of the system’s process in order to begin to make the changes necessary for Indigenous voices and practices to be heard, valued, and actually considered. 9 Environmental Justice Solutions When thinking about our role in decarbonizing the energy sector without further **colonizing Indigenous** populations, we cannot simply blame **nuclear power plants** (and the like) for the situation we find ourselves in. While it is important to recognize and take appropriate action due to the role that **nuclear** power **systems** have played in further oppressing already **marginalized communities**, it is necessary that we look inwards to identify the many ways in which our actions (intentionally or not) colonize them as well. As we continue to move away from fossil fuel-based energy sources and transition to renewable energy alternatives in order to help address the climate emergency we are facing, the emphasis we place on listening to Indigenous voices is more important than ever. This is because “**Indigenous territories** host big **renewable energy projects** and other ‘clean energy’ such as large **hydro dams, windmill farms**, and **geothermal plants...**these projects have resulted in **conflicts, displacements, destruction of livelihoods**, and have **violated Indigenous Peoples’** rights and undermined their self-**determined development**” (Carling). Therefore, even though **moving away** from **fossil fuels** and towards **renewable** **energy** technologies is a step in the **right** direction for our **healing climate**, we are still **not centering** the voices of those most **impacted by our efforts**. If we aim to do more than recognize the inherent and unalienable rights of Indigenous communities within the energy sector and beyond, it is necessary that we look in the mirror (inwards) at who is doing the “innovating.” Three different innovation approaches, from most common to least common (but most needed), are described by Roberto Borrero as **pro-Indigenous** (for Indigenous Peoples), **para-Indigenous** (with Indigenous Peoples), and **per-Indigenous** (by Indigenous Peoples). “**Pro-Indigenous innovations** derive from outside of the targeted communities but are undertaken on behalf of Indigenous Peoples; para-Indigenous initiatives are **undertaken** alongside **Indigenous Peoples’** communities; and per-Indigenous efforts mark **innovations** around **processes, new products**, and **business** models that are **devised by Indigenous** Peoples with reference to their own self-defined needs and wants” (Borrero). Indigenous-led and community-based renewable energy projects have shown promising results around the world already: from the Cordillera region of the Philippines where a community-based **hydroelectric** 10 power system has flourished due to being sustainably financed through contributions from the local community, to the Northern Territory of Australia where a community-based solar project has allowed several Indigenous communities to return to their beloved land and re-establish **self-sufficiency**. Most importantly, not only does the climate and our shared environment benefit from these Indigenous-led renewable energy projects and efforts, but their voices can finally be at the **center** **heard** and **valued**. It is only by allowing **Indigenous Peoples** and other marginalized communities to determine for themselves what is best for them, and importantly, ensuring that they have all that they need to be able to **accomplish their goals**, that we can begin to see the changes we all hope for.

#### **Vote negative to un-learn the 1AC. Scholastic rewards structure the epistemic focus of academic sites which necessitates deconstructing colonial knowledge and elevating historically marginalized voices.**

**Kessi ’21** [Shose, Zoe Marks, and Elelwani Ramugondo; June 4; Dean of Humanities and Professor of Psychology @ U of Cape Town; Lecturer in Public Policy @ Harvard; Professor of Occupational Therapy @ U of Cape Town; Critical African Studies, “Decolonizing knowledge within and beyond the classroom,” vol. 13] smodi

Curricular transformation requires the **transformation** of teachers, students, and the **relationship** between them. It can be conceptualized concretely as a multidimensional project of **inclusion** and synergy or complementarity. As editors of this series, we propose that educators can ask themselves, their colleagues, and indeed their **students** the following questions to guide curricular expansion with the goal not to reach new orders of homogeneity, but rather greater representation of pluralistic ideas and rigorous knowledge:

Which authors and voices are represented on our syllabus or in our **class**room as knowers**?**

Which **methods** and **epistemologies** are we teaching; which are we **prioritizing?**

What **topics** and substantive issues are we treating as foundational, fully integrated, simply included, or left aside**?**

Which pedagogic tools or approaches are we using to meet students where they are and to help them grow; do learners have equivalent or differential outcomes?

Which indigenous or community knowledge systems are we listening to, **elevating**, or **letting redefine** our learning agenda**?** What is our purpose and whose future does our knowledge imagine?

Across all of these categories: where is racial or ethnic, regional, gender, class, religious or ideological, and linguistic diversity? How do we account for **historic hierarchies** and systems of exclusion and erasure?

Most university lecturers and professors have never been taught to ask these questions or follow decolonial principles to map or craft a syllabus – much less a broader curricular portfolio. Neither have most students been taught to think about their own knowledge acquisition in these terms. But, these simple questions can guide students and faculty alike in beginning to articulate their own goals and values for learning and research. Until such questions are taken up at scale, academic knowledge and broader knowledge economies will continue to be built on an apprenticeship system, where disciplinary knowledge is passed from one generation of scholars and supervisors to the next, over and over, rarely disrupting the historical asymmetries that birthed them.

Academic disciplines and intellectual property as norm enforcers

Academics are trained within academic disciplines, such that in even small ways we tend to reproduce knowledge value systems that maintain our positions (and vice versa). The networks of scholars, their predecessors, and ultimately, their students become **norm enforcers**, rewarding the epistemic, methodologic, and even substantive **standards** for **what is studied** and how it is packaged. Other norms – professional, social standards of behaviour – also shape academic disciplines and patterns of **bias and inequity** (Bernhard, Fehr, and Fischbacher Citation2006). In their contribution to this special issue, Lene Madsen and Hanne Adriansen examine how transnational collaborations aimed at research capacity building and mutual support can **reproduce** patterns of **Eurocentric** disciplinary knowledge economies. They trace how collaborative projects that take **scientific knowledge** and standards of excellence as **universal** often presume they are automatically “transferable without considering an African academic context” (2021). In concrete terms, **coloniality is reproduced** when colleagues meet in African universities for transnational collaboration – designed deliberately to be mutually beneficial and to strengthen local research – and the conversation rotates around, for example, which **European** doctoral **model** to follow. While Madsen and Adriansen offer concrete instances of colonial dynamics in research training within and beyond the disciplines, some researchers have sought to break free of disciplinary silos entirely.

Even as academic disciplines maintain their plural and contested standards of excellence, many scholars are turning toward interdisciplinarity or multidisciplinarity to further both theoretic and empirical knowledge. As a journal, Critical African Studies was developed to strengthen crossand multidisciplinary conversations in African Studies, itself a multidisciplinary field. Different academic systems and networks place variable value on such work, often not recognizing the audience, outlets, or impacts equivalently to those that travel within disciplines. Yet, some scholars are pushing further, into the realm of transdiciplinary knowledge creation and creative inquiry that is neither animated nor motivated by disciplinary debates, nor packaged for existing discursive norms. Rael Salley’s contribution to this special issue presents one such example to weave together visual culture and art criticism to examine Kemang Wa Lehulere’s art (2021). Salley argues that Wa Lehulere’s conceptual works defy categorization and facilitate perceptual learning oriented toward decoloniality and freedom (ibid.). Engaging with the implications of fiction, myths, and non-fiction in looking at art, Salley asks,

Is your looking the discrete act of a solitary individual, or does your look play a role in transforming the social worlds we inhabit together? Do you become ethically engaged with others as you look, and if so, what about afterward, when you stop looking? (2021)

While written as a meditation on the work of a specific South African artist, these questions resonate more broadly to the pursuit of research and knowledge creation. What is the appropriate role of researchers as “lookers” or knowers in transforming our social worlds? What purpose do disciplines serve in stifling or facilitating ethical engagement and decolonization?

#### **FRAMEWORK. Interpretation: evaluate competing international imaginaries; links to representations are sufficient to negate. Each one is a DA that outweighs---racism guts accessibility, which is a prerequisite for fairness and clash.**

#### **2. DEBATE SHAPES SUBJECTIVITY---violent rhetoric unconsciously molds our mental habitus which the ballot’s symbolic value disrupts.**

**Ingram 13,** [Dr. Brett Ingram (PhD in communication from UMass Amherst, Professor of Communication at UMass Amherst), “Critical Rhetoric in the Age of Neuroscience,” https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1696&context=open\_access\_dissertations, accessed 3-3-2023, 2013] suits

While we may be intellectually cognizant of the possibility of multiple perspectives on reality, we do not consciously weigh each perspective’s viability every time we encounter a new event or object, and then choose which one we wish to hold up to the influx of experience. Instead, our brain chooses **for us** according to **internalized** somatic markers, and delimits the parameters of the field of cognitive thought on which we will subsequently play. When **confronted** with **words** or **symbols** that have become deeply **entrenched** through **repetition** or emotion, reflexive memory takes over, draws on intuitions, and **bypasses** brain regions responsible for **reason** and critical thought. Science writer Chris Mooney explains how this influences political thought:

Memory, as embodied in the brain, is conceived of as a network, made up of nodes and linkages between them, and what occurs after an emotional reaction is called spreading activation. As you begin to **call** a subject to **mind** (like Sarah Palin) from your long-term memory, **nodes** associated with that subject (“woman,” “Republican,” “Bristol,” “death panels,” “Paul Revere”) are **activated** in a fanlike pattern—like a fire that races across a landscape but only burns a small fraction of the trees. And **subconscious** and automatic **emotion** starts the burn. It therefore determines what the **conscious mind** has available to work with—to **argue** with.

The (**brain** makes this determination based on which conclusion will deliver a jolt of **neurochemical stimulation**, or, in other words, which will **immediately** produce a satisfying **affective outcome**. Bruce Wexler writes, “**Consonance** between **internal** and **external** structure is experienced as **pleasurable**, while **dissonance** is an **unpleasant** source of psychophysiological tension” 144). The brain will often construct perceptions and interpretations of events that reinforce its preconceived notions, because doing triggers the release of neurochemicals it craves. This is often at odds with intellectual concerns, such as ethics, reason, or logic. We must here recall that what is “**satisfying**” to the brain is not synonymous with what makes us “happy” or “joyous,” nor is it necessarily connected to securing a happy future. Rather, it is the pure physiological arousal that comes from a flood of neurotransmitters such as dopamine, an arousal manifested in a mental state of reduced cognition—**mindlessness**.

With **repeated exposure** to a politics of mindlessness, the **brain** is **reconstituted**, via somatic markers, in such as a way as to automatically “**screen out**” alternative models of political **discourse**. This may explain why the emotional political rhetoric emanating from media outposts such as The O’Reilly Factor, Hannity, The Rush Limbaugh Show, Countdown with Keith Olbermann, and The Ed Show garner higher ratings and exert greater influence on the culture than more deliberative, thoughtful programs like The Jim Lehrer NewsHour and Charlie Rose.

One of the more “striking and unsettling conclusions derived from research into physiological and affective functioning in relation to politics” is that “automatic or even ‘**machinic’ processes**” in the brain and body “drive the **majority** of **political behavior**” (Pruchnic 2008: 171). For example, neurological studies of political partisanship indicate that the greater immersion one has in the political media, the less critical one becomes. Furthermore, after **repeated exposure** to affectively charged **political rhetoric**, the brain becomes **addicted** to the state of simplistic thinking, or **mindlessness**, that it achieves via the neurochemical flows this rhetoric **induces**. In order to feed its addiction, the brain actively rejects information that might prompt it to change its ways.

In a series of brain scans of political partisans who were asked to consider “obviously” contradictory statements by the politicians they supported, Dr. Drew Westen found that partisans’ brains reverted to the comfort zone of long-held biases—they could **easily identify** the contradictions in the statements made by the **opposition’s** candidate, or by neutral figures such as actors, but when it came to politicians they **supported**, they **failed** to perceive the contradiction. This result held true with both Republicans and Democrats. What was most surprising, though, was that these acts of willful ignorance gave people a neurochemical buzz. Westen writes

Once partisans had found a way to reason to false conclusions, not only did neural circuits involved in negative emotions turn off, but circuits involved in positive emotions turned on. The partisan brain didn’t seem satisfied in just feeling better. It worked overtime to feel good, activating reward circuits that give partisans a jolt of positive reinforcement for their biased “reasoning.” These reward circuits overlap substantially with those activated when drug addicts get their “fix,” giving new meaning to the term political junkie. (xiv, emphasis in original)

The “political junkie” is colloquial designation that, if taken literally instead of figuratively, offers insight into the ways in which ideological beliefs become embodied and intransigent.21 For the addict, the appeal of the substance to which he is **addicted** comes from the substance’s capacity to **reduce cognition** and critical thinking—this appears to be true whether the substance in question is **speed** or **speech**. As **addiction deepens**, the addict’s ability and **willingness** to be “**talked out of**” his compulsive behavior declines. An outside observer of the addict’s situation may inform him that certain drugs or ideas are bad for him, and present him with facts, figures, and case studies that testify to the veracity of this argument, but such efforts are likely to be in vain, because the addict does not suffer from confusion, he is in the thrall of certainty, and his certainty is reinforced each time he is exposed to the substance.

**Habituated engagement** with any substance, be it material or **symbolic**, can produce a state of **addiction** in which the user loses the **critical capacity** to make reasoned judgments concerning all matters related to the substance. The addict eventually develops a **tolerance** to the high it produces, and consequently he requires **increasingly elevated levels** of stimulation in order to maintain equilibrium, and experiences disorientation and agitation if the substance is withdrawn. Doidge explains that tolerance “can develop in happy lovers as they get used to each other” just as it develops in a drug user. This is because all addictions, be they to symbolic substances or material substances, are established by the brain’s **ever-increasing hunger** for the neurotransmitter **dopamine**, and “[D]opamine likes novelty” (Doidge 116). This means that the stakes must be constantly raised in order to stave off withdrawal—the addict needs more intense quantities or qualities of the substance. If the substance in question is emotional **political rhetoric**, the craving may be satisfied by **increasingly** hyperbolic and **incendiary** expressions of terror and rage. Rush Limbaugh and Glenn Beck, both recovering drug addicts, refashion themselves as drug dealers, ingeniously adept at feeding the cravings of conservative political junkies.

#### **3. CONSTITUTIVISM. Judges are ‘educators’ and their paradigms are ‘geared to an educational audience’, which is us.**

**Tabroom ’24** [Tabroom.com; debate hub site; “Your Paradigm,” https://www.tabroom.com/user/judge/paradigm.mhtml] etkin

This paradigm will be displayed publicly on the main Tabroom site, and will also be linked off pref/strike sheets for tournaments.

Please bear in mind that **paradigms** are public, geared to an **educational audience**, and have your **name attached**. For more on how to write a helpful paradigm, consult the NSDA judge paradigm guide.

Discriminatory, **hateful**, harmful and/or **profane language** is **forbidden**, and its use will result in your paradigm **being removed**. We might also lock or delete your Tabroom account. In other words, be **mature educators**, and **good people**.