## 1

**Interpretation – appropriation means claim of sovereignty. Affirmatives must only defend sovereign claims on outer space by private entities as unjust.**

**Violation: they “restrict all asteroid mining.” Mining for asteroids without claims of sovereignty is not appropriation**

**Private appropriation of extracted space resources is distinct from appropriation “of” outer space. Despite longstanding permission of appropriation of extracted resources, sovereign claims are still universally prohibited.**

Abigail D. **Pershing**, J.D. Candidate @ Yale, B.A. UChicago,**’19**, "Interpreting the Outer Space Treaty's Non-Appropriation Principle: Customary International Law from 1967 to Today," Yale Journal of International Law 44, no. 1

II. THE FIRST SHIFT IN CUSTOMARY INTERNATIONAL LAW’S INTERPRETATION OF THE NON-APPROPRIATION PRINCIPLE Since the drafting of the Outer Space Treaty, several States have chosen to reinterpret the non-appropriation principle as narrower in scope than its drafters originally intended. This reinterpretation has gone largely unchallenged and has in fact been widely adopted by space-faring nations. In turn, this has had the effect of changing customary international law relating to the non-appropriation principle. Shifting away from its **original blanket application** in 1967, States have carved out an exception to the non-appropriation principle, allowing appropriation of extracted space resources.53 This Part examines this shift in the context of the two branches of the United Nation’s customary international law standard: State practice and opinio juris. **A. State Practice** The earliest hint of a change in customary international law relating to the interpretation of the non-appropriation clause came in 1969, when the United States first sent astronauts to the moon. As part of his historic journey, astronaut Neil Armstrong collected moonrocks that he brought back with him to Earth and promptly handed off to the National Aeronautics and Space Administration (NASA) as U.S. property.54 Later, the USSR similarly claimed lunar material as government property, some of which was eventually sold to private citizens. 55 These first instances of space resource appropriation did not draw much attention, but they presented a distinct shift marking the beginning of a new period in State practice. Having previously been limited by their technological capabilities, States could now establish new practices with respect to celestial bodies. This was the beginning of a pattern of appropriation that slowly unfolded over the next few decades and has since solidified into the general and consistent State practice necessary to establish the existence of customary international law. Currently, the U.S. government owns 842 pounds of lunar material.56 There is little question that NASA and the U.S. government consider this material, as well as other space materials collected by American astronauts, to be government property.57 In fact, NASA explicitly endorses U.S. property rights over these moon rocks, stating that “[l]unar material retrieved from the Moon during the Apollo Program is U.S. government property.”5 The U.S. delegation’s reaction to the language of the 1979 Moon Agreement further cemented this interpretation that appropriation of extracted resources is a **permissible exception** to the non-appropriation clause of Article II. Although the United States is not a party to the Moon Agreement, it did participate in the negotiations.59 The Moon Agreement states in relevant part: Neither the surface nor the subsurface of the moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or nongovernmental organization, national organization or nongovernmental entity or of any natural person.60 In response to this language, the U.S. delegation made a statement laying out the American view that the words “in place” imply that private property rights apply to extracted resources61—a comment that went **completely unchallenged**. That **all States seemed to accept this point**, even those bound by the Moon Agreement, is further evidence of a shift in customary international law.62

#### Negate –

#### 1] Limits – their interp explodes the topic to include affs about using space for any single purpose, like space-based solar power, helium and REMs on the Moon, space tourism, and climate adaptation satellites – explodes limits – topic lit is concerned with sovereignty over space and space colonization broadly, privileges the aff by stretching pre-tournament neg prep too thin and precludes nuanced case negs that rigorously test the aff

#### 2] Precision – Justifies the aff arbitrarily doing away with words in the resolution which allows affs about anything from public appropriation affs to airspace and many more which decks predictability – prefer our interp for topic relevance, the OST is the most prominent space non-appropriation agreement and topic debates should be relevant to the real world.

**Drop the debater – their abusive advocacy skewed our 1NC construction, allowing 1AR restart doesn't solve**

**Competing interps on T – A] topicality is a yes/no question, you can’t be reasonably topical B] norm-setting -- reasonability is arbitrary and invites judge intervention C] reasonability causes a race to the bottom of questionable argumentation**

## 2

#### Settler colonialism is the permeating structure of the nation-state which requires the elimination of indigenous life and land via the occupation of settlers. The appropriation of land turns Natives into ghosts and chattel slaves into excess labor.

Tuck and Yang 12

(Eve Tuck, Unangax, State University of New York at New Paltz K. Wayne Yang University of California, San Diego, Decolonization is not a metaphor, Decolonization: Indigeneity, Education & Society Vol. 1, No. 1, 2012, pp. 1-40, JKS)

Our intention in this descriptive exercise is not be exhaustive, or even inarguable; instead, we wish to emphasize that (a) decolonization will take a different shape in each of these contexts - though they can overlap - and that (b) neither external nor internal colonialism adequately describe the form of colonialism which operates in the United States or other nation-states in which the colonizer comes to stay. Settler colonialism operates through internal/external colonial modes simultaneously because there is no spatial separation between metropole and colony. For example, in the United States, many Indigenous peoples have been forcibly removed from their homelands onto reservations, indentured, and abducted into state custody, signaling the form of colonization as simultaneously internal (via boarding schools and other biopolitical modes of control) and external (via uranium mining on Indigenous land in the US Southwest and oil extraction on Indigenous land in Alaska) with a frontier (the US military still nicknames all enemy territory “Indian Country”). The horizons of the settler colonial nation-state are total and require a mode of total appropriation of Indigenous life and land, rather than the selective expropriation of profit-producing fragments. Settler colonialism is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain. Thus, relying solely on postcolonial literatures or theories of coloniality that ignore settler colonialism will not help to envision the shape that decolonization must take in settler colonial contexts. Within settler colonialism, the most important concern is land/water/air/subterranean earth (land, for shorthand, in this article.) Land is what is most valuable, contested, required. This is both because the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation. This is why Patrick Wolfe (1999) emphasizes that settler colonialism is a structure and not an event. In the process of settler colonialism, land is remade into property and human relationships to land are restricted to the relationship of the owner to his property. Epistemological, ontological, and cosmological relationships to land are interred, indeed made pre-modern and backward. Made savage. In order for the settlers to make a place their home, they must destroy and disappear the Indigenous peoples that live there. Indigenous peoples are those who have creation stories, not colonization stories, about how we/they came to be in a particular place - indeed how we/they came to be a place. Our/their relationships to land comprise our/their epistemologies, ontologies, and cosmologies. For the settlers, Indigenous peoples are in the way and, in the destruction of Indigenous peoples, Indigenous communities, and over time and through law and policy, Indigenous peoples’ claims to land under settler regimes, land is recast as property and as a resource. Indigenous peoples must be erased, must be made into ghosts (Tuck and Ree, forthcoming). At the same time, settler colonialism involves the subjugation and forced labor of chattel slaves, whose bodies and lives become the property, and who are kept landless. Slavery in settler colonial contexts is distinct from other forms of indenture whereby excess labor is extracted from persons. First, chattels are commodities of labor and therefore it is the slave’s person that is the excess. Second, unlike workers who may aspire to own land, the slave’s very presence on the land is already an excess that must be dis-located. Thus, the slave is a desirable commodity but the person underneath is imprisonable, punishable, and murderable. The violence of keeping/killing the chattel slave makes them deathlike monsters in the settler imagination; they are reconfigured/disfigured as the threat, the razor’s edge of safety and terror. The settler, if known by his actions and how he justifies them, sees himself as holding dominion over the earth and its flora and fauna, as the anthropocentric normal, and as more developed, more human, more deserving than other groups or species. The settler is making a new "home" and that home is rooted in a homesteading worldview where the wild land and wild people were made for his benefit. He can only make his identity as a settler by making the land produce, and produce excessively, because "civilization" is defined as production in excess of the "natural" world (i.e. in excess of the sustainable production already present in the Indigenous world). In order for excess production, he needs excess labor, which he cannot provide himself. The chattel slave serves as that excess labor, labor that can never be paid because payment would have to be in the form of property (land). The settler's wealth is land, or a fungible version of it, and so payment for labor is impossible.6 The settler positions himself as both superior and normal; the settler is natural, whereas the Indigenous inhabitant and the chattel slave are unnatural, even supernatural. Settlers are not immigrants. Immigrants are beholden to the Indigenous laws and epistemologies of the lands they migrate to. Settlers become the law, supplanting Indigenous laws and epistemologies. Therefore, settler nations are not immigrant nations (See also A.J. Barker, 2009). Not unique, the United States, as a settler colonial nation-state, also operates as an empire - utilizing external forms and internal forms of colonization simultaneous to the settler colonial project. This means, and this is perplexing to some, that dispossessed people are brought onto seized Indigenous land through other colonial projects. Other colonial projects include enslavement, as discussed, but also military recruitment, low-wage and high-wage labor recruitment (such as agricultural workers and overseas-trained engineers), and displacement/migration (such as the coerced immigration from nations torn by U.S. wars or devastated by U.S. economic policy). In this set of settler colonial relations, colonial subjects who are displaced by external colonialism, as well as racialized and minoritized by internal colonialism, still occupy and settle stolen Indigenous land. Settlers are diverse, not just of white European descent, and include people of color, even from other colonial contexts. This tightly wound set of conditions and racialized, globalized relations exponentially complicates what is meant by decolonization, and by solidarity, against settler colonial forces. Decolonization in exploitative colonial situations could involve the seizing of imperial wealth by the postcolonial subject. In settler colonial situations, seizing imperial wealth is inextricably tied to settlement and re-invasion. Likewise, the promise of integration and civil rights is predicated on securing a share of a settler-appropriated wealth (as well as expropriated ‘third-world’ wealth). Decolonization in a settler context is fraught because empire, settlement, and internal colony have no spatial separation. Each of these features of settler colonialism in the US context - empire, settlement, and internal colony - make it a site of contradictory decolonial desires7. Decolonization as metaphor allows people to equivocate these contradictory decolonial desires because it turns decolonization into an empty signifier to be filled by any track towards liberation. In reality, the tracks walk all over land/people in settler contexts. Though the details are not fixed or agreed upon, in our view, decolonization in the settler colonial context must involve the repatriation of land simultaneous to the recognition of how land and relations to land have always already been differently understood and enacted; that is, all of the land, and not just symbolically. This is precisely why decolonization is necessarily unsettling, especially across lines of solidarity. “Decolonization never takes place unnoticed” (Fanon, 1963, p. 36). Settler colonialism and its decolonization implicates and unsettles everyone.

#### The aff is a misdirect for settler control – their advantage scenarios describe why one group of settlers is more destined to manage territory than another, silencing debate about colonization – turns case – they proliferate settler myths that are crucial tenets of capitalist ideology.

Lister, 18

[Majerle, Marxist Diné Scholar: "‘The Only Way to Save the Land is to Give It Back’: A Critique of Settler Conservationism," Red Nation, published 7-23-2018. https://therednation.org/the-only-way-to-save-the-land-is-to-give-it-back-a-critique-of-settler-conservationism/]//AD

The history of the US conservation movement is a history settler colonialism.Settler colonialism operates on certain myths so that it can reproduce itself. One of those myths is that Indigenous people of the U.S. were unproductive with the land therefore white settlers were entitled to the land. There are two main points in this myth, the capitalistic characteristic of productivity and the notion of white supremacy. When settlers came over, they deemed the land unproductive despite the complex use of the land by Indigenous people. Following this, they believed they were entitled to the land because they thought themselves superior to manage land and labor. This white supremacy ideology initiated the Indigenous genocide, Indigenous land dispossession, and the enslavement of the African people. Settler land management operates on this notion that indigenous people cannot management their lands themselves despite the romanticism of the “ecological” Indian. If Indigenous people cannot manage the land, who should be in charge? The discussion of control of stolen land shifts to a discussion of the public vs the private.Indigenous people are quick to recognize the land grabs by the Federal government, or any other government, as the continuation of colonial land accumulation. Yet on the other end, conservationists see it [is seen] as consolidating lands for the public. The conservationists rally around the term “Public lands” harkening to the spirit of Wood Guthrie’s, “This Land is Your Land.” This shifts the narrative away from Indigenous land claims and dispossession towards a discussion of the public good. Indigenous lands become the public’s land and “the public” — which excludes the original owners of the land — should be the ones who manage and control the land. Examples demonstrating the shift away from Indigenous land control are seen by corporations and non-profits, such as Sierra Club and Patagonia. [IMAGE OMITTED -- TEXT READS:] The President Stole Your Land In an illegal move, the president just reduced the size of Bears Ears and Grand Staircase Escalante National Monuments. This is the largest elimination of protected land in American history. [END OMMITTED IMAGE TEXT]The photo above was spread throughout social media and many individuals rallied behind it not fully recognizing the harm it does for indigenous people whose land the public claimed was theirs. Patagonia called it an illegal move because it was an affront to the settler public but the corporation would not recognized the determinate factor behind the foundation of the U.S., Indigenous land dispossession. Furthermore, Sierra Club posted an image of a white woman wearing a shirt that said “hands off our lands” intended to sell the shirt, and it included #PublicLands in the post. The irony behind a white person wearing a shirt is part of the settler context. These are small ways in which Indigenous land claims are threatened by the way conservation groups and pro-conservation businesses advance settler colonialism. Many conservationists can argue that Indigenous people are part of the public therefore it is inclusive. Due to mass genocide, Indigenous people are a small fraction of the settler public and it becomes apparent that indigenous people are rarely invited to the table let alone given much decision-making power — but that doesn’t make their concerns less important. Tribal consultation is usually unilateral or ignored when it comes to use of lands. It is obvious why the notion of public control is questionable from the standpoint of Indigenous people: they are a minority within the public. The oppression of Indigenous people, via land dispossession, will be not be hidden by putting the sticker “environmentalism” on it. Trump’s attack on Indigenous lands is a clear manifestation of settler colonialism; but conservationism’s shift towards public lands rather than returning Indigenous lands to Indigenous people is little more than theft. (Also, Trump, a violent racist and nationalist, has more in common with Teddy Roosevelt than most conservationists care to admit.) Conservation must be seen for what it is and how it operates in settler-colonialism. The land does not belong to “the public.” It is necessary that it be returned to the management and control of Indigenous people. The only way to “save” the land is to return it to its rightful caretakers — Indigenous people.

#### Cooperation assumes that space is a unique area that can transcend Earthly politics. This naïve assumption ignores the settler power dynamics that shape the process of cooperation.

Genovese 16

(Genovese, Taylor R. Doctoral student in the Human and Social Dimensions of Science and Technology (HSD) program at Arizona State University, where he is pursuing his interest in the social imaginaries of human futures on Earth and in outer space. 2016. “Fear and Loathing in Truth or Consequences: Neoliberalism, Colonialism and the Lineage of the Frontier at Spaceport America.” Space+Anthropology, JKS)

“This isn’t the government space age,” the tour guide continues. “This is the commercial space age. As a space corporation, you have two choices: cede the business and die...or innovate. There will be no more government hand-outs and that forces innovation.” I knew that I would be confronted with the neoliberal, capitalist mythos eventually; the NewSpace mantra of “pull yourself up by the spaceboot-straps.” However, what the tour guide said is not entirely true, considering the New Mexico General Fund Plus Special Appropriation is slated to give Spaceport America $2,262,000 in the 2017 budget. That means that 35% of the spaceport’s operating budget next year will be taxpayer money—“government hand-outs,” if you will. However, this is not a novel situation, corporate subsidies are an important tradition within the capitalist system. “Movement of people and goods is a natural progression,” preaches the tour guide. “The goal of humanity is to make the world a smaller place. Space travel can do that. For example, take what happened at Benghazi. Imagine we could deploy a SEAL team on rocket planes anywhere in the world within minutes!” I can barely take it. This is my first time visiting any NewSpace facility and—as an anthropologist—I want to remain a fly-on-the-wall for this initial visit. But the activist in me begins screaming and clawing its way up my throat. I was about to burst when a voice calls out from behind me. “OK, but wouldn’t it be great if we all worked together in space? Shouldn’t space be without a military application?” I breathe a sigh of relief as my activist personality begins to settle down. The tour guide begins with the double-speak that continues throughout the remainder of the tour. “That’s the good thing about space,” he says, floundering slightly at the tourist’s audacity to challenge corporate policy. “It transcends politics. The good thing about space is it’s a Trump- free zone. A Hillary-free zone.” Except that is obviously not true; and not just in the Foucauldian “everything is political” sense (i.e. that power dynamics exist in every facet of human interaction). Abu Dhabi’s Aabar Investments has a 37.8% stake in Virgin Galactic. SpaceX has put in unsolicited bids to launch American spy satellites. The metaphysical ideal of outer space may be a place beyond politics, but the reality in this “second space age” is that globalized capitalism—and all the politics that are inherently intertwined within it—are alive and well in the commercial space industry. The tour guide turns to the launching capabilities of the Boeing 747, especially as it pertains to Virgin Galactic’s LauncherOne program which hopes to strap a rocket to one of the wings of a 747, fly up to around 50,000 feet, and release the rocket to be launched the rest of the way to space. “Does anyone else see a problem with this photograph?” asks the tour guide—holding his iPad out for us to see— referencing the fact that there exists only one missile on one of the wings. “What about a 747 carrying missiles on both wings? What about bomb bay doors? There’s a lot of volume inside of a 747! It carried the Space Shuttle on its back, it seems like a waste to only carry a single missile.” He holds his hand flat and horizontal to us, as if his fingers are a 747 and then uses the index finger of his other hand to simulate spacecraft dropping from the belly of the aircraft—his palm. Almost a neoliberal haiku. I begin to feel sick. The tour guide continues with the double- speak. “But it’s not about spaceports. It’s not about spaceships. It’s about how can space better humanity?” We finally disembark the shuttle and head to the visitor exhibits inside of the terminal and hanger facility. A large mural—titled The Journey Upward—is adorned on one of the walls. This mural served as a summation of the NewSpace worldview and ideology. A natural, inescapable, linear progression toward human beings spreading into the cosmos: from dinosaurs (?) to Anglo-looking Paleo Indians to settler-colonists to space migration. This romanticized “lineage of the frontier” is tied to the capitalist dream—and mythology—of untold profits and constantly expanding markets. Of course, the capitalist mythology also likes to ignore the horrendous inequality and violence that tends to attach itself to the frontier mentality. When frontiers are seen as limitless, uninhabited and uncivilized, it encourages doctrines like slavery and Manifest Destiny. Yet NewSpace corporations seem to be overlooking the bigger picture and instead focus on the “glory of the frontier” as endless profit potential and romantic adventure.

#### The notion of the “commons” has historically been weaponized to build a state-sanctioned trust in white humanity – extending that trust to the stars does not make it less white supremacist, and doing it in the name of “pragmatism” does not make it less colonialist.

Goldstein, 18

[Alyosha, Prof. American Studies @ UNewMexico, PhD @ NYU: “By Force of Expectation: Colonization, Public Lands, and the Property Relation,” published by UCLA Law Review on 3-1-2018. https://www.uclalawreview.org/by-force-of-expectation/]//AD

Over the course of the long nineteenth century, land policy was increasingly deployed as a means of encourages western settlement, while also being symptomatic of the tensions among federal administration, private speculators, and extra-legal settler encroachment.13 As is often noted in scholarship on the public domain—but infrequently emphasized in discussions of the United States more generally—almost one-third of all land in the United States is administered by the federal government. This land is disproportionately concentrated in the western states, with federal acreage totaling nearly 80 percent of Nevada, 63 percent of Utah, and 53 percent of Oregon.14 Considered a revenue source for federal war debt during the early national era, public land policy operated initially to survey, secure, and dispose collateral in the service of national solvency in accordance with the Land Ordinance of 1785.15 Enormous giveaways and preferential lease arrangements for railroad corporations and extractive industries accompanied the aftermath of the Civil War. The Taylor Grazing Act of 1934 inaugurated a new era in federal management of public lands by instituting grazing fees for use of the public domain and effectively ending homesteading.16 In 1976, the Federal Land Policy and Management Act mandated multiple-use standards—including environmental protections aligned with the 1969 National Environmental Policy Act—that continue to govern Bureau of Land Management oversight.17 It was in the context of increased federal management and conservationist legislation that ranchers such as the Bundys increasingly cast themselves as victims of government overreach, as the true embodiment of the American people oppressed by governmental tyranny. Moreover, as has been the case in other settler uprisings in the west, the Bundys displayed no interest whatsoever in the actual and still-present Native peoples whose land they occupied as anything other than a historical metaphor for contemporary white injury. As Ryan Bundy remarked during the 2016 occupation of the Malheur National Wildlife Refuge in Oregon, the militia “recognize that the Native Americans had the claim to the land . . . but they lost that claim. . . . There are things to learn from cultures of the past, but the current culture is the most important.”18 In fact, a variety of claims to land are made in the name of “the public” and “the people” as a collective interest in opposition to the federal government, the extractive industries, or the supposedly special interests of Native American tribes.19 Here, generalized claims to representing “the public” and “the people” obscure the particular and often antagonistic positions that galvanize such claims, as well as casts tribes as a single interest group that fraudulently make claims in the name of sovereignty and treaty rights. The spectrum of debate on public lands today tends to naturalize the white nationalism espoused by the Bundys—even when ostensibly criticizing the occupations as extremist or without merit—by recourse to conceptions of the national public and natural resources as national commons.20 The notion of the commons itself is a logic of apparent universal access and public good that is used to justify indigenous dispossession, depicting the particular and historical belonging of Native peoples as an overly self-interested obstacle to the greater good of the commons.At the same time, recourse to an exceptionalist discourse that casts public lands as “the common birthright of all Americans” has become a frequent rejoinder to either plans for the large-scale transfer of federal lands to states and private industry. For instance, Utah Congressman Jason Chaffetz’s proposed Disposal of Excess Federal Lands Act in January 2017 was abruptly withdrawn after criticism from groups such as Backcountry Hunters and Anglers proclaimed: “It seems the politicians on Capitol Hill have forgotten to whom the land actually belongs. You, me and every other citizen of this country.”21 The substance of the bill echoed both Utah’s 2012 Transfer of Public Lands Act (which demanded that the U.S. Congress convey federal public lands to the state) and the 2016 Republican Party campaign platform (which likewise called for the devolution of public lands to states), even as it remained out of step with public statements by Donald Trump and Montana representative Ryan Zinke, then Trump’s likely nominee on his way to becoming the Secretary of the Interior, who sought to maintain federal control while increasing deregulation to allow for expanded access for private industry.22 Yet both proponents of the populist “to whom the land actually belongs” and legislators espouse a defensive nationalism and incontrovertible possession contingent upon the presumed comprehensive dispossession of indigenous peoples.The pattern of settler trespass and land claims over and against indigenous peoples in excess of imperial or state sanction led to the British colonial government’s Proclamation of 1763. Although the proclamation ultimately served as a justification for the U.S. War of Independence because of its supposedly unjust limitation on territorial expansion by the colonies, it also provided a model for the subsequent U.S. federal government’s authority over constituent states and settlers.23 During the early national period when the federal government administered public lands primarily as a source of revenue, legal and military action sought to curb and control widespread settler trespass and unlawful habitation. In the wake of the Louisiana Purchase, Congress authorized the army to forcibly eject squatters. The 1807 Unlawful Intrusions Act increased criminal sanctions and penalties for settling or occupying public lands without legal claim, but ultimately did little to limit the expectations and incursions of settlers west of the Mississippi River. These expectations and settler claims were first given legal endorsement following the War of 1812 when Congress conferred partial preemption rights to squatters in Louisiana and the Illinois and Missouri Territories. The right of preemption—the preferential right granted to squatters to purchase the lands they occupied prior to public sale at a minimum price per acre—essentially authorized settler illegality and theft as a means of further consolidating colonization. Legislative debates over the regulation of settler trespass intensified throughout the 1820s, eventually resulting in a series of expansive preemption acts between 1830 and 1841.24 In 1862, Congress passed the first of the Homestead Acts, which gave federal land to settlers for farming as a means to encourage westward migration over and against the sovereign territorial claims of indigenous peoples. It similarly encouraged the western settlement of European immigrants as a palliative means of economic mobility intended to defuse full blown class war among the settler population in the east.25 At the same time, the lackluster and minimally implemented Southern Homestead Act of 1866—intended to support landownership by formerly enslaved African Americans—makes clear the unevenly racialized and white nationalist terms of settlement.26 II. The White Republic of Cliven Bundy The historical imaginary expressed in the Bundy occupations is predicated on claiming to defend the true legacy of the American Revolution, the principles of the U.S. Constitution, and the heritage of conquest in the U.S. West. The “Sagebrush Rebellion” of the 1970s restaged the possessive expectations of settlers and western ranchers manifest in reaction to Progressive-era conservationist legislation during the 1890s, including the Forest Reserve Act of 1891 and the Forest Service Organic Administration Act of 1897, which allowed the federal agency to designate areas to be reserved and protected from development. Statements by the Bundys on the illegitimacy of federal authority deliberately align them with this reactionary moment, as well as with historical lineage of white supremacist Posse Comitatus during the 1970s and 1980s, the militia and “county supremacist” movements of the 1990s, and the more recent “sovereign citizen” movement. Distinct in many ways, each of these movements nonetheless claimed to defend private property against federal tyranny.27 For the Bundys and other Western ranchers, these three themes—the American Revolution, the U.S. Constitution, and the so-called frontier—converge most saliently on the issue of land held in the public domain.28 Ignoring not only the ongoing and genocidal history of indigenous displacement, but also the historical consolidation of cattle baron monopolies through their brutal reign of terror and class war against impoverished homesteaders, the Bundy narrative highlights claims of rancher oppression and dispossession. Similar claims were reignited in opposition to the environmental movement in the 1960s and 1970s and legislation such as the National Environmental Policy Act of 1969, which encouraged federal agencies such as the Bureau of Land Management and the National Forest Service to manage natural resources for purposes other than grazing, mining, and logging.29 The county supremacy, wise use, and white nationalist movements share the idea that the U.S. Constitution does not allow federal ownership of public lands within the borders of a state.30 They argue that federal lands should have been relinquished to the states upon their admission to the Union under the so-called “equal footing doctrine.” Originating with the state land cessions negotiated on behalf of the Articles of Confederation as a means of securing the political unification of the states, and further articulated in the expansionist terms of the 1787 Northwest Ordinance, the equal footing doctrine requires that new states be admitted to the Union as political equals of the existing states. Although all of the continental western states had clauses in their admissions acts disclaiming any right to unappropriated public lands within their borders, these groups contend that such clauses are unconstitutional under the equal footing doctrine, and therefore invalid.31 As empirically spurious as such assertions are, they link claims to public land, such as those made by the Bundys, to state’s rights agendas and the terms of continental colonization negotiated among settlers, states, and the federal government. In April 2014, Cliven Bundy’s confrontation with the Bureau of Land Management in the aptly named Bunkerville, Nevada—an unincorporated town founded by Mormons in 1877 and 82 miles northeast of Las Vegas—gained widespread news coverage. Since 1989, Bundy had accumulated more than $1.2 million in unpaid grazing fees for use of public lands. When in 2014, as a response to Bundy’s refusal to pay these fees, the BLM began confiscating Bundy’s cattle, he issued a call to militia across the country to come to his ranch and take up arms against the federal government.32 Although the Bundy family only purchased their ranch land in 1948 and did not begin grazing cattle until 1954, Bundy insisted on his ancestral and preemption-derived rights: “My forefathers . . . have been up and down the Virgin Valley here since 1877. All these rights I claim have been created through pre-emptive rights and beneficial use of the forage and the water and the access and range improvements.”33 At no point has Bundy substantively addressed the Moapa Band of Paiutes, whose homeland was appropriated as the public domain to which he claimed to have rights by virtue of ancestry, preemption, and American citizenship. Nor did Bundy’s advocates make the comparison between the federal government’s treatment of the Nevada rancher and its considerably more severe, violent, and illegal actions toward the nearby Western Shoshone and the Dann sisters.34 Although Bundy had little to say regarding the Southern Paiute he did have thoughts to share on the place of African Americans in the United States. “I want to tell you one . . . thing I know about the Negro,” he said. Referring to a public-housing project in North Las Vegas, he decried “government subsidy” as leading to immoral abortion and crime. He concluded with a nostalgic gloss on slavery by remarking that he’d “often wondered, are they better off as slaves, picking cotton and having a family life and doing things, or are they better off under government subsidy?”35 Indeed, he contended that African Americans taking government assistance were less free than slaves. Las Vegas as a site of escalating racialized struggle over housing and displacement was of little concern for Bundy. Likewise, his criticism of federal land policy omitted any mention of how the 1998 Southern Nevada Land Management Act opened up federal lands for rapid development, and paved the way for the real estate boom in the Las Vegas Valley. During the 1990s, Nevada had the fastest growing population in the country and was subsequently among the state’s most impacted by the 2008 foreclosure crisis.36 Especially relevant for the frame of expectation as property, Cliven Bundy’s racial imaginary and racialization of the state articulate familiar reactionary tropes in response to the gains of the civil rights movement and grudging expansion of the semi-welfare state during the 1960s. These have historically accompanied the assertion of states’ rights and the burgeoning white hostility to federal authority—manifest in struggles such as those against taxation and school integration—and advanced the further devolution and downsizing of government. Likewise, the reactionary 1970s “taxpayer revolt” and successive antiwelfare campaigns disputed what they characterized as the inordinate tax burden placed on them by the state.37 More recently the link between states’ rights claims and efforts to dismantle civil rights legislation such as the Voting Rights Act has been evident in such conservative jurisprudence as the U.S. Supreme Court’s 2013 decision in Shelby County v. Holder.38 Acknowledging the ways in such hostility to federal authority is articulated in terms of declarations of patriotism and claims to represent fundamental constitutionally based American values suggests the importance of understanding how antiwelfare discourse evokes American exceptionalist conceptions of the nation. Underwritten by Lockean notions of property and proper possession, as well as the “doctrine of discovery,” the settler construct of the independent and rugged individualist pioneer that has long served as foundational to the mythology of white nationalism remains predicated upon not only indigenous dispossession and its disavowal, but on the attributions of dependency and devaluation to racialized others more broadly. This is where the white republic of Cliven Bundy is an aspiration to a racially specific national belonging that evokes its own vision of common inheritance and birthright. Bundy’s white republic is at once exclusive, possessory, and an expansive claim to be and to defend America that denies its own dependence on lands and labor taken by attributing reprehensible dependency to those who have been dispossessed and racialized as socially expendable. III. A Certain Public The case of Gold Butte is useful to briefly consider in this regard. Gold Butte is land formation with numerous petroglyphs, historical artifacts, and sacred sites that is part of the traditional territory of the Moapa Band of Paiutes to the south of Bunkerville and on which Bundy had been grazing his cattle.39 In the wake of Mormon-led colonization efforts in the region that began during the mid-nineteenth century and through which settlers seized the most arable Southern Paiute land, the federal government established the Moapa River Indian Reservation in 1873. Initially 2.5 million acres—including much of present-day Moapa, Logandale, Overton, Virgin Valley, and the Gold Butte area—the reservation was reduced to a mere 1,000 acres two years later to make way for mining industry interests. A claim filed with the Indian Claims Commission by the Moapa Paiute in 1951 provided limited compensation for lands taken and legislation in 1980 returned 70,000 acres to the tribe.40 Legislation introduced in 2014 that would have further reinstated land to the tribe failed in committee, but provoked criticism from various settler factions. Real estate developers in the area complained that this would be a “negative economic legacy to the state of Nevada in perpetuity,” and a spokesperson for the organization Partners in Conservation expressed concerns about lack access for non-tribal members and “families that have traditional, historic, and cultural ties to that area . . . . We have lost a lot in the past years with all the various restrictions on federal lands.”41 In addition to such acquisitive hostilities, the Moapa and the Las Vegas Paiute have also fought against the toxic consequences of military test sites and extractive energy projects throughout the region, such as the Yucca Mountain Repository for nuclear waste and the Reid Gardner coal plant.42 Facing resistance to regaining stolen lands, the Moapa worked with the environmentalist group Friends of Gold Butte and Sierra Club, and successfully lobbied outgoing President Obama to establish the Gold Butte National Monument. Former tribal council member Vernon Lee observed: “We want to protect the lands, we want to protect the animals and we want our sacred sites protected . . . . Right now, the best thing we can think of is to go on the side of this creation of a monument.”43 This protection required the Moapa to strategically partner with environmentalists so as to advocate on behalf of the public interest and lobby for a national monument to be established under the Antiquities Act for a nation other than itself and antiquities that would symbolically be conserved as an inheritance for the people of the United States generally. This general public is always already a particular settler public—itself composed of specific antagonisms and divisions—that strives to secure national certainty and capacity through indigenous dispossession.It is instructive to compare Lee’s statement with Nevada Senator Harry Reid, who championed the initiative to set aside Gold Butte as a national monument. Reid declared: “Threats to our public lands are threats to our economy, our environment, and our culture. When we preserve our lands, we preserve America.”44 The force of colonial dispossession and disavowal as settler common sense obscures the gap between the strategic pragmatism of “right now, the best thing we can think of” espoused by Lee—a pragmatism I take to be ultimately in the service of tribal sovereignty—and the national purpose invoked by Reid, that “we preserve America.” Where Lee speaks to the limited options for asserting Moapa relations to place and Moapa authority in relation to lands taken under colonization, Reid’s remarks suggest the ways in which the past and futurity of the United States are at stake in preserving a uniquely American heritage and landscape. To ignore the racial and colonial constitution of the property relation threatens not only to perpetuate, but also to intensify the ways in which property itself as a historical and material relation is predicated upon racial and colonial dispossession. Nor, is it possible to simply substitute a supposedly colorblind ethic—such as ending de jure racist property exclusions or redlining in real estate markets—that renders the property relation more equitable. Colonization and the differential devaluation of racialized peoples remain constitutive. This is not to say that property is exclusively a manifestation of these historical relations of power, but it is to suggest that it remains in significant ways enmeshed with and disposed by these relations. In prevailing conceptions of possession and property, as Eva Mackey points out, “jurisprudence has legally entrenched and attempted to materialize the fantasy of certainty and stability for settlers”—precisely the certainty and stability upon which expectation depends.45 Taking seriously the notion that property is a social relation requires looking at the specificity of that relation as it is continuously remade in the broader social circumstances in which it is situated and social struggles of which it is part. This perpetual need for its remaking and reiteration, in effect, conveys in part how the property relation as a colonial relation remains uncertain, unstable, and open to contestation. The genealogy of white supremacy in the United States is made in shifting material relations of colonial and racial dispossession. Both white supremacy and what Mark Rifkin calls “settler common sense” are used to mediate inequalities among white people over and against indigenous peoples, people of color, and migrants.46 The Bundy claims provide an example of these ideologies, which assert a particular conception of collective belonging and nationalist imaginary. This is a settler nation that gains a semblance of coherence over and against indigenous and racialized others. To challenge this claim by asserting a more inclusive national public and the celebration of national commons may provide a seemingly effective counter-discourse, but it does so only by further inscribing settler prerogative and naturalizing colonial and racialized dispossession. Putatively antigovernment white supremacy in the United States conjoins colonial and racial dispossession in its attacks on the U.S. state. Rather than simply being anti-statist, such maneuvers are attempts to capture and redeploy state power in particular ways, while at the same time categorically denying the historical co-constitution of colonial and racial dispossession and how this remains crucial in the current conjuncture. These are the ideational and material sources of expectation as property.

#### Regardless of if US heg is good on earth, any western power based in space would result in global apartheid against Indigenous sovereignty.

Duvall, Poly Sci @ UMinnesota, and Havercroft, Poly Sci @ UOklahoma, 9

[Dr. Robert D., PhD, and Dr. Jonathan, PhD, “Critical Astropolitics: The Geopolitics of Space Control and the Transformation of State Sovereignty,” N Bormann & M Sheehan (eds), Securing Outer Space: International Relations Theory and the Politics of. Routledge, pp. 42-58.]//AD

In his Astropolitik Dolman calls upon U.S. defense policy-makers to weaponize orbital space so as to enhance U.S. hegemony over the planet. He does not address the astropolitical issues we have discussed here about what impact a space-based hegemony would have on the structure of the international system. Dolman, however, is confident that America would be responsible in using this awesome power to promote democracy and global capitalism. Setting aside the very contentious issues of whether or not America should be involved in “promoting” democracy and capitalism and whether or not current U.S. hegemony has been beneficial for the Earth’s population, the moral and political implications of a space-based empire are not nearly as clear-cut as Dolman makes them out to be. One of the fundamental principles of classical geopolitics was that sea-based empires (such as Athens, Britain, and America) tended to be more democratic than land-based empires (such as Sparta, China, and Rome). The reason for this is that sea-based empires needed to disperse their forces away from the imperial center to exert control, whereas land-based empires exercised power through occupation. Military occupations made it increasingly likely that the army would seize power whenever it came into conflict with the government. Classical geopolitical theorist Otto Hintze argued that land powers tended toward dictatorships (Hintze 1975; see also Deudney 2007). Dolman builds upon these classical geopolitical insights by arguing that because space-based empires would not be able to occupy states, military coups would be less likely and democracy would be more likely (Dolman 2002a: 29). There is, however, a significant difference between space power and sea power. While neither is capable of occupying territory on its own, space power is capable of controlling territory from above through surveillance and precise projection of force – control without occupation. While space power may not result in the dictatorships normally associated with land power, it would be a useful tool in establishing a disciplinary society over all the Earth. A second obstacle to the benevolent space-based empire that Dolman imagines is the lack of counterbalancing powers. Under the two other modes of protection/security we have considered here – the real-statist and the federal-republican – there are checks that prevent even the most powerful states in the system from dominating all the other units. In real-statism, the sovereignty of states means that any potential hegemon would have to pay a significant cost in blood and treasure to conquer other states. While this cost may not be enough to dissuade a superpower from conquering one or two states, the cumulative cost of conquest and occupation makes total domination over the Earth unlikely. In the federal-republican model, the collective security regime of the entire system should act as a sufficient deterrent to prevent one state from dominating the others. Conversely, in a space-based empire the entire world is placed under direct surveillance from above. There is no point on Earth where the imperial center cannot project force on very short notice. So long as the space-based empire can deny access to space to rival powers through missile defense and anti-satellite technologies, there is no possibility that other states can directly counteract this force. As such, the space-based empire erases all boundaries and places the Earth under its control. While the possibility to resist such an empire will exist, the dynamics of resistance will be considerably altered. Traditional insurgencies rely on physical occupation of territory by the conquering forces to provide targets of opportunity to the resistance. Because space weapons would orbit several hundred to several thousands of miles above the Earth, they would not be vulnerable to attack by anything except weapons systems possessed by the most advanced space powers, such as ballistic missiles and advanced laser systems. Even such counter-measures, however, would only raise the financial cost of space-based empire, not the cost in human lives that insurgencies rely upon to diminish domestic support for imperial occupations. Consequently a space-based empire would be freer to dominate the Earth from above than a traditional land-power occupation would be. Without obvious counterpowers or effective means of resistance, the space-based empire would be able to exercise complete bio-political control over the entire planet, turning all of Earth’s inhabitants into “bare life.” Under such a political arrangement the likelihood that the imperial center would be a benevolent one, uncorrupted by its total domination of the Earth, is very slim indeed.

#### This debate is not private space good/bad, but instead a question of Native sovereignty and the power to invoke the plan. The 1AC eclipses the authority of Native nations, so in response we affirm the long tradition of Indigenous internationalism across colonial borders.

Estes 19

(Nick Estes is a citizen of the Lower Brule Sioux Tribe. He is an Assistant Professor in the American Studies Department at the University of New Mexico. In 2014, he co-founded The Red Nation, an Indigenous resistance organization. For 2017-2018, Estes was the American Democracy Fellow at the Charles Warren Center for Studies in American History at Harvard University. Chapter 6: Internationalism, Our History Is the Future: STANDING ROCK VERSUS THE DAKOTA ACCESS PIPELINE, AND THE LONG TRADITION OF INDIGENOUS RESISTANCE, 2019, hardback, JKS)

The Treaty Council, however, was not the first or only version of what historian Daniel Cobb calls a “global Indigenous identity.” Rather, it belonged to and drew from a long tradition of Indigenous internationalism.5 Prior to European contact, Indigenous nations had often entered into relations with each other for alliance, kinship, war, peace, or trade. As shown in previous chapters, agreements were made not solely between human nations, but also among nonhuman nations as well, such as the buffalo and the land. Such treaties were, and continue to be, the basis of diplomacy and the evidence of a prior and continuing status of Indigenous nationhood. Sovereign nations do not enter into international relations or treaties with domestic or “internal” populations. On the contrary, the very basis of sovereignty is the power to negotiate relationships between those who are seen as different— between other sovereigns and nations. But concepts of “sovereignty” and “nation” possess different meanings for Indigenous peoples than for their European-derived counterparts. And they are not entirely consistent, either, with the aspirations for a nation-state that came to define decolonization movements in the Third World. While doing important defensive work, on face value these Western and Third World concepts only partially reflect traditions of Indigenous resistance. Far beyond the project of seeking equality within the colonial state, the tradition of radical Indigenous internationalism imagined a world altogether free of colonial hierarchies of race, class, and nation. This vision allowed revolutionary Indigenous organizations such as the Treaty Council to make relatives, so to speak, with those they saw as different, imagining themselves as part of Third World struggles and ideologies, and entirely renouncing the imperialism and exceptionalism of the First World (while still living in it). They were in the First World but not of it—much like American Indians are in, but not entirely of, the United States. Indigenous peoples across North America and the world have fought, died, and struggled to reclaim, restore, and redefine these powerful ideas. Their goal has been to take their proper place in the family of nations. Radical Indigenous internationalism, however, predates AIM and the Treaty Council. Contemporary pan-Indigenous movements were a result of more than a decade of Red Power organizing that began in the early 1960s, nearly a decade before the creation of AIM. Earlier, in the 1950s, Flathead scholar and writer D’Arcy McNickle and the National Congress of American Indians had explored a similar intellectual and political terrain of internationalism. And before that, the Society of American Indians advocated for a seat at the table during the 1919 Paris peace talks and representation at the League of Nations. Each distinct instance posed a similar question: If Indigenous peoples are nations, why are they not afforded the right to self-determination? Two strands of thinking about self-determination for the colonial world prevailed following the First World War. In the first, US President Woodrow Wilson argued for self-determination with a limited set of rights that would not radically upset the colonial order. Such liberal internationalism, however, glaringly omitted Indigenous peoples, as they understood themselves as nations that existed prior to the formation of settler states. Rarely were Wilson’s principles applied to North America or the United States; nor were they ever intended to extend to Indigenous peoples. A second, more radical vision put forward by Communist revolutionary V. I. Lenin argued for the right of colonized nations to secede and declare independence from their colonial masters. This view was echoed by the Third World decolonization movement, as part of a global Socialist and Communist revolution, and it has frequently been applied in the Asian, African, and South American contexts. But this view remained almost entirely absent in North America, except among radical Indigenous, Black, Asian, Caribbean, and Chicanx national liberation movements. The Treaty Council advocated Indigenous nationhood as part of this global anti-colonial movement and in line with Third World liberation movements. After decades of experiencing land loss, enduring bare survival, attempting to work with federal programs, filing court cases, defeating termination legislation, and facing mass relocation, an assertion of Oceti Sakowin sovereignty went from ambition to prescription. Few avenues remained other than the pursuit of international treaty rights. Treaties made with the United States were proof of nationhood. But what legal institution would uphold this position if the United States refused to? If the goal was to reverse the unjust occupation of an entire continent, the advancement of Indigenous rights through the very legal and political systems that justified that occupation in the first place had proven limited in some instances, and hopeless in others. To survive, AIM and the Treaty Council therefore had to look elsewhere to make their case—beyond the confines of the most powerful political construct in world history, the nation-state. Prior to and during colonization, Indigenous nations had self-organized into deliberate confederacies, alliances, and governments. The Nation of the Seven Council Fires (the Oceti Sakowin), for instance, is a confederacy of seven different nations of Lakota-, Dakota-, and Nakota-speaking peoples in the Northern Plains and Western Great Lakes. They are hardly unique; in North America alone there are the Creek Confederacy in the Southeast, the Haudenosaunee Confederacy of Six Nations in the Northeast, the Council of Three Fires (made up of Ojibwes, Odawas, and Potawatomis) in the Great Lakes region, the United Indian Nations in the Ohio River valley (under the Shawnee leadership of Tecumseh), the All Indian Pueblo Council of the Southwest, and the Iron Confederacy of the Northern Plains. Many other political confederacies also flourished prior to, alongside, and in spite of settler states in North America. And their legacies are hardly relegated to the primordial past. Modern Oceti Sakowin internationalism, for instance, traces its origins to the early twentieth century, an era generally viewed as a low point for Indigenous activism and resistance. In North America alone, an estimated precolonial population of tens of millions of Indigenous peoples had been reduced to about 300,000, and for Flathead historian D’Arcy McNickle, writing in 1949, two processes contributed greatly to this decimation: the institution of private property and the destruction of Indigenous governance that once held land in common. Indigenous nations at the time also possessed little in the way of either collective property or political power, as Indigenous territory had been drastically diminished, and the reservation system had overthrown or almost entirely dissolved customary governments. If Indigenous peoples once constituted the tree of the Americas, whose roots deeply entwined in the land, the cultivation of “growth from the severed stump,” McNickle argued, was the pivotal challenge of the twentieth century.7 Physical extermination and the repression of Indigenous political power verified the United States’ genocidal intent, but these had not accomplished their purpose. And despite otherwise stating pluralistic claims to inclusion, McNickle concluded that the United States simply “can not tolerate a nation within a nation.” If Natives were to be assimilated, they would be assimilated as individuals and not as nations. In the popular imaginary, Natives disappeared into the wilderness of history, were never truly nations, and had been overpowered by a superior civilization. If they were nations, they were eclipsed and replaced by the real nation—the United States. Such erasure notwithstanding, vibrant Indigenous political traditions persisted. But to the untrained eye, nothing was awry. From the severed stump began to regrow the tree of life—the tree of resistance that would blossom into revolt decades later.

#### The process and agents of political change matter. Indigenous internationalism must be asserted through Native sovereignty and organizing. We preempt the perm and the plan- they still collude with settlerism, which trades off with meaningful resistance.

Simpson 16

(Leanne Betasamosake Simpson, renowned Michi Saagiig Nishnaabeg scholar. She holds a PhD from the University of Manitoba, and teaches at the Dechinta Centre for Research & Learning in Denendeh. An Interview with Eve Tuck (Unangax̂), Indigenous Resurgence and Co-resistance, Critical Ethnic Studies, Vol. 2, No. 2 (Fall 2016), pp. 19-34, JKS)

PLACE-BASED INTERNATIONALISM

Eve: One idea that Wayne and I floated in our call for papers is that how a person or community understands the roots or source of injustice will have implications for how they go about undoing that injustice. Does this make sense to you? Might it be too simplistic or problematic?

Leanne: I think we need to be a bit careful here, particularly in the academy. I think Indigenous peoples understand pretty well injustice in their own lives whether or not they can articulate it using the language of colonialism or decolonization. I think movements that link social realities with political systems and focus on creating real-world-on-the-ground alternatives are powerful. I worry that too much of our energy goes into trying to influence the system rather than creating the alternatives. It matters to me how change is achieved. Change achieved through struggle, organizing, and creating the alternatives produces profoundly different outcomes than change achieved through recognition-focused protest, and pressuring the state to make the changes for us. That is a recipe for co-option. I think it is important to understand root causes of injustice, but it is also important to understand think strategically and intelligently about approaches to undoing that injustice. I think that diagnosis and strategic action must be done within grounded normativity. Indigenous thought has a tradition of place-based internationalism that I think is this beautifully fertile spot because it links place-based thinking and struggle with the same decolonial pockets of thinking throughout the world. Nishnaa- beg have been linking ourselves to the rest of the world since the beginning of time, and throughout our resistance to colonialism we have our people traveling throughout the world to link with other communities of resistors. Grassy Narrows First Nation comes to mind in their nearly four- decade fight against mercury poisoning in their river system and the relationship they have made with the Japanese community in Mnimata.6 We need to use our experiences in the past to think critically about how we respond to injustice today. Right now, Indigenous peoples in Canada need to be thinking critically about the implications of seeking recogni- tion within the colonial state because we have a government that is very good at neoliberalism and seducing our hope for their purposes. Again, Glen Sean Coulthard, in Red Skin, White Masks, using the Dene nation’s experience in the 1970s, provides a blistering critique of the pitfalls of seeking political recognition within state structures. He makes the point that continually seeking recognition with the settler-colonial state is a process of co-option and neutralization, and is a way of bringing Indigenous peoples into the systems that guts our resistance movements, for instance, and we get very little in return.7 In fact, in terms of dispossession—that is, the removal, murdering, displacement, and destruction of the relation- ship between Indigenous bodies and Indigenous land—this serves only to facilitate land loss, not improve things. Engagement with the system changes Indigenous peoples more than it changes the system. This can be destructive in terms of resurgence because resurgent movements are trying to do the opposite—we are trying to center Indigenous practices and thoughts in our lives as everyday acts of resistance, and grow those actions and processes into a mass mobilization. I think it is useful to apply this same critique of recognition to orga- nizing and mobilizing with the purpose of making a switch from mobi- lizing around victim-based narratives—that is, publically demonstrating the pain of loss as a mechanism to appeal to the moral and ethical fabric of Canadian society (which has over and over again proven to be morally bankrupt when it comes to Indigenous peoples)—to using that same pain and anger to fuel resurgent actions. This organizing from within grounded normativity has always fueled Indigenous resistance and continues to happen all the time in Indigenous communities—it is just often misread by others. The community of Hollow Water First Nation created the Community Holistic Circle of Healing as a Nishnaabeg restoration of relationships, or a restorative justice model to address sexual violence in their community.8 Christi Belcourt’s Walking with Our Sisters exhibit has created a traveling display of 1,800 moccasin vamps as a way of honoring and commemorating missing and murdered Indigenous women and children in Canada and the United States. The exhibit does not rely on state funding.9 Thousands of volunteers made the vamps. The exhibit works with local communities and their cultural and spiritual practices to install the exhibit and do the necessary ceremony and community processes. Walking with Our Sisters works with local organizers a year in advance of installation, using Indigenous processes to embed the art in community on the terms of the local community. There is also the work of countless urban Indigenous organizations supporting the families of MMIWG2S people. The Native Youth Sexual Health Network provides on-the-ground, community-embedded, peer-to-peer support around sex- ual health and addiction for youth.10 The Akwesasne Freedom School provides Mohawk education for Mohawk children.11 The Iroquois national and Haudenosaunee women’s lacrosse teams travel using Haudenosau- nee passports instead of American or Canadian ones.12 The Unist’ot’en Camp pursues land protection resurgent action and the reclamation of the original name of Mount Douglas, PKOLS, in the city of Victoria, British Columbia.13

**Interpretation: The 1AC is an object of research. The role of the neg should be to disprove the various meanings of that object.**

**1] Plan focus restricts the debate to a ten second statement and leaves the rest of the aff unquestioned. They should be responsible for the way their knowledge is constructed and used because that produces the best model for activism and ethics in the context of the topic which is a unique education net benefit to our interpretation**

**2] Debate doesn't pass policies but it does alter the way we think about the world and about systems of power – turns their policy research standards because it's a question of how their research is oriented and whether it's for an ethical purpose – only our model of engagement accesses that education**

**3] Begs the question – if we win their justifications are repugnant that necessarily implicates the conclusion which means defense of their research model is a prior question to weighing the material consequences of the aff – also solves plan focus because the links necessarily implicate aff solvency**

## Case

#### International mining regimes are inefficient, corrupt, and enable exploitation/private development as much as they claim to prevent it

Roach 11-8-21

Anna Bianca Roach (she/they, degree in conflict studies from munk school of global affairs), 11-8-2021, "The Obscure Organization Powering a Race to Mine the Bottom of the Seas," PassBlue, https://www.passblue.com/2021/11/08/the-obscure-organization-powering-a-race-to-mine-the-bottom-of-the-seas/, // HW AW

On the seafloor, anemones with eight-foot-long tentacles live alongside [blind crabs](https://www.mbari.org/discovery-of-yeti-crab/) that cultivate food in their arm hair, sharks with glow-in-the-dark bellies and [glass sponges](https://www.mpg.de/5595233/climate_archive_deep-sea_sponge#:~:text=Researchers%20at%20the%20Max%20Planck,living%20animal%20species%20existing%20today.) that have been thriving since before the invention of the wheel. “Because of the lack of light and the fact that creatures do need to see each other to eat each other, you get these amazing photoluminescent animals down there,” said Helen Rosenbaum, the coordinator of the [Deep Sea Mining Campaign,](http://www.deepseaminingoutofourdepth.org/) an association of nongovernmental organizations located in Australia, Canada, the United States and the Pacific Islands. “We’re just starting to discover them!” The emerging industry of deep-sea mining is eyeing these otherworldly creatures’ home with keen financial interest: the potato-shaped rocks that provide a foothold for many of these animals in the otherwise silty, slippery environment of the ocean floor contain myriad metals that miners say are needed for a global eco-transition. At the heart of primary decision-making on deep-sea mining ventures is the [International Seabed Authority](https://www.isa.org.jm/), an autonomous organization based in Jamaica that critics say has little public oversight. “Our journey is to drive humankind through a wonderful adventure, which is to go very deep in the ocean to extract some minerals that are necessary for human activity on earth,” says Marie Bourrel-McKinnon, a special assistant to the secretary-general of the Authority, in one of its promotional [videos](https://www.youtube.com/watch?v=tzP-WqTJR_w&t=55s). The ISA, which was established through the 1982 [United Nations Convention on the Law of the Sea](https://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm#:~:text=by%20%22*%22.-,The%20United%20Nations%20Convention%20on%20the%20Law%20of%20the%20Sea,the%20oceans%20and%20their%20resources.&text=The%20Convention%20also%20provided%20the,the%20law%20of%20the%20sea.), is led by the idea of a “common heritage of mankind,” a phrase that is used to explain that the wealth of the ocean floor should belong to all of humanity. Michael Lodge, the Authority’s secretary-general, says in the same video that the ISA’s focus on equity and common resources is what makes the organization special. “This is something that has never been done before,” he says. “It’s actually a unique experiment in human civilization.” **Critics balk at the organization’s lack of transparency and worry that the humanitarian intentions behind the Law of the Sea treaty aren’t enough to ensure that the monetary benefits of the minerals on the seafloor will reach everyone**. Some critics see an inherent contradiction in the Authority’s dual mandate to promote the development of deep-sea minerals while also protecting the environment. King among the coveted metals is cobalt, a mineral used for batteries in phones, electric cars and other electronics. Other minerals include nickel, manganese and copper. On land, these minerals — particularly cobalt — are shrouded in [controversy](https://www.youtube.com/watch?v=tzP-WqTJR_w&t=55s) related to child slavery and the environmental impacts of terrestrial mining, but they’re also in high demand. Large companies like the Canadian-based Metals Company and the American-based Lockheed Martin see these metals as the key to transitioning away from fossil fuels and contend that procuring these metals from the deep sea is a cleaner, more ethical alternative to digging them on land. “We’re on a quest for a more sustainable future, and we need metals to get there,” says [Gerard Barron](https://www.linkedin.com/in/gerardbarron), chief executive of the Metals Company, in an [advertisement](https://vimeo.com/286936275) for what was then called DeepGreen. “I don’t want to see more deforestation. I don’t want to see child labor. And I want to see us access the most sustainable supply of these important metals.” But scientists warn that disturbing these slow-moving ecosystems could hurt the biological pump — a process through which the ocean sequesters a substantial amount of carbon — in ways that can’t be remedied within generations. With the COP26 climate conference underway in Glasgow, Scotland, until Nov. 12, and the UN classifying the 2020s as the “Decade of Oceans,” leaders have been turning their eyes to the health of the seas and to the human activities that damage them. Peter Thomson, a Fijian diplomat and former president of the UN General Assembly who was president of the International Seabed Authority’s decision-making body twice, wrote an [open letter](https://ocean.economist.com/governance/articles/cop26-and-the-ocean-climate-nexus) calling for COP26 to devote attention to sustainability in the blue economy. “What the ocean gives, it can take away,” Thomson writes. “While our understanding of the ocean’s properties is still limited, we know it is the planet’s largest carbon sink, so that closely protecting the special places within it has become urgent work at hand.” Thomson is also the [UN’s envoy for the ocean.](https://sdgs.un.org/topics/oceans-and-seas/SpecialEnvoy) Other diplomats and advocates have spoken to similar concerns, including Monaco’s Prince Albert II. “We still need to avoid overexploitation of the ocean’s natural resources and the ocean floor,” he says in an [interview](https://people.com/royals/prince-albert-urges-bold-action-cop26-united-nations-climate-change-conference/) right before launching the most recent [Because the Ocean initiative](https://www.fpa2.org/en/initiatives/because-the-ocean-005) at COP26. “We cannot allow countries or large corporations to jump on every opportunity they see to exploit oil, gas or precious metal nodules protruding from the seabed without strict regulation.” Some experts and scientists who have worked with the ISA warn that harvesting metals from the mostly untouched ecosystems in the seafloor holds as much potential for global ecological devastation as it does for profit. The Authority has so far sold 31 licenses for companies and governments to explore the bottom of the high seas and is being [pressured](https://news.mongabay.com/2021/07/canadian-miner-looms-large-as-nauru-expedites-key-deep-sea-mining-rules/#:~:text=Nauru%2C%20which%20sponsors%20a%20company,whether%20regulations%20have%20been%20written.) by the small Pacific island nation of Nauru to authorize the beginning of mining operations within two years. Observers, civil society members and former employees of the ISA are raising alarms about **potential conflicts of interest in the organization and a lack of transparency surrounding funding for and profits from mining**. PassBlue’s investigation into the ISA’s operations has involved interviewing eight scientists, researchers and lawyers familiar with deep-sea mining as well as four former ISA employees and scouring documents from the Authority, embassy cables, civil society reports, academic papers and from the UN Appeals Tribunal, which is hearing [disputes](https://www.un.org/en/internaljustice/files/unat/orders/order-unat-2018-328.pdf) from employees who have left the organization. **The portrait that emerges is of an organization with a vested interest in promoting the work of the underwater mining industry, a consistent habit of alienating international marine scientists whose findings favor a more cautious approach to exploiting the ocean floor and a lack of good-faith engagement with civil society.** “If you guys are the first to mine, the first to extract nodules from international waters, it’s opening oceans earthwide,” Adrian Hellman, an Australian environmental scientist, says in an [ad](https://vimeo.com/user79094991) for the Metals Company. “What happens initially is going to affect everything down the track.” Although the push to speed up the start of undersea mining has been triggered by a two-year clause initiated by Nauru, it doesn’t mean that the Authority has to finalize the necessary legislation within two years, Duncan Currie of the [Deep Sea Conservation Coalition](http://www.savethehighseas.org/) says. The group consists of more than 80 international organizations that promote the conservation of biodiversity in the high seas. “**Once regulations are adopted, the voting requirements make it extremely difficult to disapprove a mining application, so it’s likely numerous 30 year contracts will be approved,**” Currie added in an email, noting that the contracts cannot be amended or canceled without the consent of the mining contractor. “Under the two-year rule, contracts can even be approved without regulations being in place. And it is likely they cannot be cancelled or amended without the contractor’s agreement.” PassBlue [published the first of its two-part investigation](https://www.passblue.com/2021/09/29/pressure-builds-to-mine-international-waters-amid-questions-about-ecosystems-and-profit-sharing/) on the ISA on Sept. 29, focusing on the efforts by Nauru to trigger deep-sea mining licenses. A spokesperson for the ISA declined an interview on the topic after repeated requests from PassBlue. A delegate of Nauru, Margo Deiye, attending the 26th session of the ISA, Feb. 18, 2020. The small Pacific island nation has triggered a clause at the ISA giving its member states the ability to demand that the process of granting mining permits to begin soon, possibly jeopardizing the delicate ecosystems of the oceans. ISA Navigating with good intentions? “A lot of idealists go into the International Seabed Authority thinking, ‘Oh wow, this is a place where there’s actually a statement about ensuring effective protection of the marine environment from harmful effects of seabed mining, and making sure that all states can participate in these activities,'” says Kristina Gjerde, who represents the [International Union for Conservation of Nature](https://www.iucn.org/) at ISA meetings. But she says that **the Authority is led more by corporate interests** than for “the benefit of all mankind,” the Authority’s stated goal. “It’s difficult for states to put on their hats as representing the global community interests, as opposed to one particular economic sector or another,” Gjerde told PassBlue. “Now that interest in seabed minerals is rising, this gives rise to very serious concerns about potential conflicts of interest.” The members of the ISA consist of 167 countries and the European Union. Formally, the organization is made up of five bodies: the Secretariat; the Assembly, where member countries are represented; the Council, elected by the Assembly; the Finance Committee; and the Legal and Technical Committee. The latter is tasked with making recommendations to the Council about approving legislation; together with the Secretariat, this committee is the most influential of the Authority’s organs. Longtime observers say that the Legal and Technical Committee has also never turned down an application for an exploration license. Critics of the ISA, including former employees who spoke to PassBlue confidentially, point to its leadership and revenue structure as the source of many of its problems. When deep-sea mining may actually begin, the ISA plans to receive a cut of the profits from the mining operations to cover its operating expenses. Until then, the organization receives money in two ways: through sales of exploration licenses and member states’ voluntary donations or assessed contributions. The ISA collects a $500,000 application fee for each exploration license that it grants as well as a yearly administrative fee of $47,000 per contractor doing the exploring, according to a 2019 [presentation](https://isa.org.jm/files/files/documents/dec-analysis_0.pdf) on the ISA’s payment regime. A [2020 report](https://isa.org.jm/files/files/documents/ISBA_26_FC_4-2006697E.pdf) by the Finance Committee to the Authority’s Secretary-General Lodge expressed concern that many member states haven’t been paying their assessed contributions. Outstanding contributions currently total just over $1.1 million, representing more than a month of the organization’s yearly budget. According to a former finance officer, who spoke to PassBlue but asked to remain anonymous because of the sensitivity of the information, the ISA depends heavily on the exploration license fees for its roughly $10 million annual operating budget. PassBlue has been unable to verify how much of the budget comes from contractor fees, as the Authority did not share audited financial statements after repeated requests to do so. The ISA also has a track record of dismissing scientists or employees who raise concerns about the speed at which decisions surrounding deep-sea mining are being taken, several former employees and longtime observers to the organization said. “I decided to speak out about the fact that, you know, we didn’t have enough science to be making informed decisions about how to manage this activity, unless the decision was not to proceed,” says Diva Amon, a marine biologist who [received](https://www.isa.org.jm/news/isa-secretary-general-presents-inaugural-edition-award-excellence-deep-sea-research-dr-diva) the ISA’s Award for Excellence in Deep Sea Research in 2018, referring to the writing of the Authority’s regulations around deep-sea mining. “That was when the relationship [with the Authority] switched.” Amon says she no longer gets invitations to the workshops that the ISA hosts on environmental management. The workshops are one way that the ISA consults scientists to inform members of the Legal and Technical Committee on policy decision-making. But some scientists who attend the workshops question whether their advice is being heeded. [Pradeep Singh](https://de.linkedin.com/in/pradeeparjansingh), a researcher at the University of Bremen, in Germany, who specializes in the Law of the Sea treaty, said that the reports on the workshops have gotten less substantive and sometimes fail to include the recommendations made by scientists at the gatherings. “If all this scientific input is not included in the workshop report,” he told PassBlue, “it won’t come to the attention of the Legal and Technical Committee.” Singh also said the organization’s selection of scientists attending the meetings isn’t transparent. Sabine Christiansen, a senior researcher at the German-based Potsdam Institute for Advanced Sustainability Studies, agreed. She has been studying the ISA since 2001 and attending the organization’s meetings since 2009, and says that it has a tendency to invite mostly “like-minded” scientists, a sentiment that other observers have also echoed. Who’s steering the ship? The relationship between Lodge, the secretary-general of the Authority, and the Metals Company, the Canadian company that holds three of the 31 current exploration licenses, especially concerns critics of the ISA. Lodge sparked controversy when he [tweeted](https://twitter.com/mwlodge/status/984626856384221185) a photo of himself in 2018, wearing a hard-hat branded DeepGreen, the previous name of the Metals Company, on one of its exploration cruises. Lodge also represented the ISA in an [ad](https://vimeo.com/286936275) for DeepGreen, where he said that mineral resources on Earth are dwindling and becoming more expensive and environmentally damaging to mine. [Baron Divavesi Waqa,](https://en.wikipedia.org/wiki/Baron_Waqa) the president of Nauru from 2013 until 2019, is also featured in the ad as well as in Lodge’s tweeted photos of the deep-sea cruise. [Lodge](https://www.isa.org.jm/secretary-general) is a British lawyer with a background in ocean law and fisheries management and has worked extensively in the South Pacific, where he was a lead negotiator for the 1995 [Fish Stocks Agreement](https://www.un.org/depts/los/convention_agreements/convention_overview_fish_stocks.htm), part of the Law of the Sea treaty. He has been with the ISA as a legal counsel since 1996 and was elected secretary-general in 2016. He did not respond to repeated requests for an interview from PassBlue. Christiansen of the Potsdam Institute says the climate at the ISA has become “less open” since Lodge’s election, citing less-thorough public reports. The Metals Company has been the most active corporation pushing for deep-sea mining to begin. It holds an exploration contract sponsored by Nauru through a local subsidiary. Gerard Barron, chief executive of DeepGreen (and now heading its renamed Metals Company), [represented](https://enb.iisd.org/events/1st-part-25th-annual-session-international-seabed-authority-isa/highlights-and-images-main-1) Nauru at the ISA’s Assembly meeting in 2019. In March 2021, the Metals Company [released](https://metals.co/deepgreen-combines-to-form-the-metals-company/) a $2.9 billion initial public offering stating that it would begin producing metals — and mining the ocean — as soon as 2024. Today, the company appears to be struggling, however, with one major investor [suddenly pulling out](https://www.ft.com/content/6675ac1e-a9a0-48d8-b4e9-aee2ef27c7be) his capital and a [class-action lawsuit](https://www.businesswire.com/news/home/20211028005874/en/EQUITY-ALERT-Rosen-Law-Firm-Files-Securities-Class-Action-Lawsuit-Against-TMC-the-metals-company-Inc.-fka-Sustainable-Opportunities-Acquisition-Corp.-%E2%80%93-TMC-TMCWW-SOAC-SOAC.U-SOACWS) accusing the company of misleading information in documents for investors. Lodge’s public statements on mining also raise questions about his commitment to protecting the environment when that work contradicts the interests of mining companies. Scientists, including the ISA awardee Diva Amon, have for years been calling for a moratorium on deep-sea mining to give scientists and miners more time to understand its potential consequences and devise mitigation strategies. During a [June 2020 hearing](http://www.dekamer.be/media/index.html?sid=55U0739) in Belgium’s parliament, Lodge said he had not heard a “powerful” call for a moratorium and called such an initiative “anti-science, anti-knowledge, anti-development and anti-international law.” In September 2021, 81 governments, more than 500 civil society organizations and several multinational companies, including Google, [jointly called](https://www.iucncongress2020.org/motion/069) for the moratorium. They also called on the ISA to improve its transparency and accountability. A deep-sea jellyfish collected by a remotely operated vehicle from a depth of at least 4,920 feet in the Celebes Sea of the western Pacific Ocean. The red color is common among deep-sea medusas, as it is invisible in the perpetual darkness and at the same time masks any bioluminescence of prey in the jelly’s gut. NOAA-OFFICE OF OCEAN EXPLORATION AND RESEARCH Sharing the profits The ISA was established “with this amazing principle as its fundamental legal basis to act on behalf of humankind,” Gjerde of the International Union for the Conservation of Nature says. The ISA contends that it is committed to prioritizing the interests of developing nations through the financial and economic frameworks that it writes for the exploitation of the riches that lie at the ocean floor. Though the US is not a party to the Law of the Sea treaty, American organizations still have influence over the ISA. Through subsidiaries, the weapons manufacturer Lockheed Martin holds two exploration contracts. The ISA also relies heavily on research by the Massachusetts Institute of Technology for its economic predictions. A [leaked US embassy cable](https://wikileaks.org/plusd/cables/05KINGSTON2220_a.html) from 2005 describes the involvement of the US in the Authority’s meetings, noting that the choice of an “acceptable” candidate to succeed then-secretary-general Satya Nandan would be an issue that the US would “want to address in the near future.” The 31 exploration licenses that the Authority has sold so far are held by a total of 23 governments, nationally owned entities and private companies. Seven of the contracts are set aside as “reserved areas,” which are donated by wealthy countries and meant to benefit developing countries. A closer look at the complex web of the parties involved with the exploration licenses, however, raises questions as to whether the mechanism is working as intended. “Sponsoring states need to think carefully, because if they fail to exercise due diligence and the company causes environmental damage because of that, they can be held liable,” Gjerde says, paraphrasing an [advisory opinion](https://www.asil.org/insights/volume/15/issue/7/advisory-opinion-seabed-disputes-chamber-international-tribunal-law-sea-) of the International Tribunal for the Law of the Sea. Of the contracts reserved for developing countries, three are owned by the Metals Company; one is a Chinese state company; one is a joint venture among Lockheed Martin, the Singaporean conglomerate Keppel and an investment company whose ownership is unknown; one is a joint venture between the Cooks Islands government and the Belgian dredging company DEME; and one is Blue Minerals Jamaica, of which little is known except its association with Peter Henrik Jantzen, a Dane. Indeed, as pressure increases for the Authority to speed up the process of allowing the mining of the deep sea, it remains an obscure body with little public oversight. The next meetings for the ISA Council and the Assembly, postponed last year due to the Covid crisis, are planned for December. “We have all these other activities in the high seas,” Christiansen of the Potsdam institute says. “The ISA is adding new pressures on the ocean, and nobody’s looking.”

#### We’re still lightyears away from lunar mining — even Elon acknowledges the immense difficulties that we’re nowhere near solving

Mining Technology 17

Mining Technology (mining news and in-depth feature articles on the latest mining company deals and projects covering trends in mineral exploration); “Mining the Moon”; *Mining Technology*; December 4, 2017; <https://www.mining-technology.com/features/mining-the-moon/>; HW-EMJ

The concept of mining on the Moon has been around for decades, and while political and scientific endeavour has ebbed and flowed, it has never gone away. Almost all current space exploration programmes – American plans to go back to the Moon and Elon Musk’s SpaceX programme included – factor in mining resources in some way or another. “The basic idea is to extract materials from the Moon that create new capabilities in space,” says lunar scientist Paul Spudis. “To this end, people have envisioned a wide variety of mining and resource utilisation activities on the Moon. Broadly, most plans involve the collection of granular material, running it through some type of processing, e.g. thermal, chemical – the extraction of useful stuff and the discarding of the waste.” Scientific advances are bringing commercial space travel ever closer. At the same time, terrestrial resources are beginning to wane and dreams of making use of the 7.3 x 1022kg of material circling the Earth that make up the Moon have gained greater traction. So, realistically, how close are we to mining the Moon? Water, metals and REMs The Moon’s resources could be put to a number of uses, such as a source of fuel for farther flung journeys through space, or providing an alternate source of rare metals and minerals for use on Earth. “There is a hierarchy of material resources, arranged according to their ease of acquisition and their utility,” says Spudis. “The easiest stuff is bulk regolith (lunar soil), which can be used to backfill installations on the moon and to make shielding to protect habitats thermally and from radiation.” Regolith would not be transported to Earth, but for missions such as SpaceX’s, which include building a lunar base, it could be very beneficial. When, in 2008, samples from the 1970s Apollo 15 and 17 missions were re-examined, the presence of water brought greater hope of establishing lunar habitations. Since then, multiple studies have confirmed that the Moon has water in abundance. “Water ice (and other volatile substances) is found in the dark areas near the poles and have many uses, including life support and rocket propellant,” says Spudis. For any future mining activities water will be necessary, both for operations and for sustaining a crew. “Water is the oil of the solar system and those companies who are able to harvest and harness extraterrestrial deposits of water will make Exxon look like a lemonade stand,” says founder and CEO of Moon Express, Robert Richards. Along with water, the Moon has a number of other materials which would be useful for space exploration. “Metals can be extracted from the oxides in the soil by chemical reduction – iron, titanium and aluminium are the principal useful metals to be manufactured on the Moon,” says Spudis. But like regolith, it wouldn’t be profitable to bring these metals back to Earth where they can be mined far more easily. Currently, China produces more than 90% of the rare earth metals (REM) we need for electronics. But reserves are running out fast with some elements, including dysprosium, neodymium and lanthanum, expected to be depleted within the next 20 years. In order to feed the world’s seemingly insatiable appetite for technology, new sources of REMs must be found, as recycling alone will be unable to meet demand. “Rare and unusual elements and isotopes (rare earths, thorium, helium-3) may be accessed and mined,” says Spudis. “Some of these uncommon materials may be of such high value as to merit their importation back to Earth for sale in terrestrial markets. But these are in very low concentrations and will likely be the targets for mining in the future, after a long-term presence on the Moon has been established.” It is these which provide the greatest hope for profitable mining companies and shipping to Earth. There and back again Many hurdles remain before mining the Moon can happen, not least getting there. In all of human history only 12 people have ever walked on the Moon. This is, in part, due to the colossal expense of such a venture, so the cost must come down before industry can proceed. Conventional thinking is to create reusable rockets, something SpaceX is currently working on with its Dragon craft. “If one can figure out how to effectively reuse rockets just like airplanes, the cost of access to space will be reduced by as much as a factor of a hundred,” says SpaceX founder and CEO Elon Musk. “A fully reusable vehicle has never been done before. That really is the fundamental breakthrough needed to revolutionise access to space.” Once commercially affordable lunar transport has been developed and the Moon reached, then the challenges intensify. Crews working in the hostile environment of the Moon will have to endure living in “a vacuum with extremes of heat and cold, hard radiation and the ubiquitous presence of abrasive, angular dust grains”, explains Spudis. The temperature on the Moon varies from 123°C to -233°C because there is no atmosphere, making human habitation and activities very difficult. Furthermore, there is only about a sixth of the gravity on the Moon that we experience on Earth, complicating mining operations substantially. Bases will need to be established, probably with the use of 3D printing, which would enable the construction of infrastructure on the Moon. Mining lunar material will also require self-sufficient and reliable robotics to minimise human exposure to the Moon’s environment. “Mining machines could be automated for simple tasks and teleoperated for complex tasks requiring human supervision, but complex machines will require self-maintenance, high reliability and long lifetimes,” says Spudis. “The exposure of humans to the harsh environment must be minimised.” Furthermore, raw materials harvested will need to be processed on the Moon. Transferring lunar soil to Earth for processing is simply impractical, and much of the materials would be required for activities taking place on the Moon itself, such as those necessary for building and maintaining the moon base. For elements worth transporting back, there is a third phase of complications: returning to Earth. This particular challenge could be resolved by way of reusable space crafts, which would have to be capable of not only withstanding the immense heat and pressure of re-entering Earth’s atmosphere with enough control to land safely in a specific location, but to do all of this whilst carrying an extremely heavy cargo of REM.

#### Kessler syndrome is media hype – no risk

Von Fange 17

Daniel von Fange (systems engineer. Fond of charts), 5-21-2017, "Kessler Syndrome is Over Hyped," braino, http://braino.org/essays/kessler\_syndrome\_is\_over\_hyped/, // HW AW

Kessler Syndrome is overhyped. A chorus of online commenters greet any news of upcoming low earth orbit satellites with worry that humanity will to lose access to space. I now think they are wrong. What is Kessler Syndrome? Here’s the popular view on Kessler Syndrome. Every once in a while, a piece of junk in space hits a satellite. This single impact destroys the satellite, and breaks off several thousand additional pieces. These new pieces now fly around space looking for other satellites to hit, and so exponentially multiply themselves over time, like a nuclear reaction, until a sphere of man-made debris surrounds the earth, and humanity no longer has access to space nor the benefits of satellites. It is a dark picture. Is Kessler Syndrome likely to happen? I had to stop everything and spend an afternoon doing back-of-the-napkin math to know how big the threat is. To estimate, we need to know where the stuff in space is, how much mass is there, and how long it would take to deorbit. The orbital area around earth can be broken down into four regions. Low LEO - Up to about 400km. Things that orbit here burn up in the earth’s atmosphere quickly - between a few months to two years. The space station operates at the high end of this range. It loses about a kilometer of altitude a month and if not pushed higher every few months, would soon burn up. For all practical purposes, Low LEO doesn’t matter for Kessler Syndrome. If Low LEO was ever full of space junk, we’d just wait a year and a half, and the problem would be over. High LEO - 400km to 2000km. This where most heavy satellites and most space junk orbits. The air is thin enough here that satellites only go down slowly, and they have a much farther distance to fall. It can take 50 years for stuff here to get down. This is where Kessler Syndrome could be an issue. Mid Orbit - GPS satellites and other navigation satellites travel here in lonely, long lives. The volume of space is so huge, and the number of satellites so few, that we don’t need to worry about Kessler here. GEO - If you put a satellite far enough out from earth, the speed that the satellite travels around the earth will match the speed of the surface of the earth rotating under it. From the ground, the satellite will appear to hang motionless. Usually the geostationary orbit is used by big weather satellites and big TV broadcasting satellites. (This apparent motionlessness is why satellite TV dishes can be mounted pointing in a fixed direction. You can find approximate south just by looking around at the dishes in your northern hemisphere neighborhood.) For Kessler purposes, GEO orbit is roughly a ring 384,400 km around. However, all the satellites here are moving the same direction at the same speed - debris doesn’t get free velocity from the speed of the satellites. Also, it’s quite expensive to get a satellite here, and so there aren’t many, only about one satellite per 1000km of the ring. Kessler is not a problem here. How bad could Kessler Syndrome in High LEO be? Let’s imagine a worst case scenario. **An evil alien intelligence chops up everything in High LEO, turning it into 1cm cubes of death orbiting at 1000km, spread as evenly across the surface of this sphere as orbital mechanics would allow. Is humanity cut off from space? I’m guessing the world has launched about 10,000 tons of satellites total.** For guessing purposes, I’ll assume 2,500 tons of satellites and junk currently in High LEO. If satellites are made of aluminum, with a density of 2.70 g/cm3, then that’s 839,985,870 1cm cubes. A sphere for an orbit of 1,000km has a surface area of 682,752,000 square KM. So there would be one cube of junk per .81 square KM. If a rocket traveled through that, **its odds of hitting that cube are tiny - less than 1 in 10,000**. **So even in the worst case, we don’t lose access to space.** Now though you can travel through the debris, you couldn’t keep a satellite alive for long in this orbit of death. Kessler Syndrome at its worst just prevents us from putting satellites in certain orbits. In real life, there’s a lot of factors that make Kessler syndrome even less of a problem than our worst case though experiment. Debris would be spread over a volume of space, not a single orbital surface, making collisions orders of magnitudes less likely. Most impact debris will have a slower orbital velocity than either of its original pieces - this makes it deorbit much sooner. Any collision will create large and small objects. **Small objects are much more affected by atmospheric drag and deorbit faster**, even in a few months from high LEO. Larger objects can be tracked by earth based radar and avoided. The planned big new constellations are not in High LEO, but in Low LEO for faster communications with the earth. They aren’t an issue for Kessler. Most importantly, all new satellite launches since the 1990’s are required to include a plan to get rid of the satellite at the end of its useful life (usually by deorbiting) So the realistic worst case is that insurance premiums on satellites go up a bit. Given the current trend toward much smaller, cheaper micro satellites, this wouldn’t even have a huge effect. **I’m removing Kessler Syndrome from my list of things to worry about.**

#### No impact: space war is unlikely as USAF focuses on space diplomacy over warfare

Hirsch 18

(Steve Hirsch, editor, Voice of America and AFMag; There is no “War in Space”; Canadian Forces College, Minister of National Defense of Canada; May 29, 2018; <https://www.airforcemag.com/article/there-is-no-war-in-space/>; // HW EJ)

There is no “War in Space” Addressing a dinner audience, Wilson said now is the time to expand national security space relations with allies and partners because the US faces “a more competitive and dangerous international security environment than we have seen in decades.” As America’s great power rivals, “Russia and China are developing capabilities to disable our satellites,” she added. She announced the Air Force would, starting next year, increase the availability of Air Force space training for allies and partners by adding two more courses to the National Security Space Institute, including one on space situational awareness. USAF would also open more of the existing advanced national security space courses to members of allied nation militaries, including those of France, Germany, Japan, New Zealand, and possibly others—Australia, Canada, and the United Kingdom were already in. “Countries with allies thrive and those without allies” do not, she told reporters before her speech. “We will strengthen our alliances and attract new partners,” Wilson said, “Not just by sharing data from monitoring, but by training and working closely with each other in space operations.” She said an increasing number of countries are establishing space interests or launching satellites, adding, “there are more countries that are allies of ours that we probably want to train together.” “One of the key lines of effort in the National Defense Strategy is to deepen our alliances and partnerships. This is just one of the ways we’re going to be doing this in the space domain,” she said. Raymond also pointed to the importance of international partnerships. “We’re increasing our training with an international coalition of allies and partners,” he said, for example, having added France, Germany, and now Japan to the Air Force Space Command Schriever Wargame series.

**Even though the OST doesn’t bind private entities, governments still already restrict and regulate them to ensure just compliance in the squo**

**Eijk 20** [Cristian van Eijk is finishing an accelerated BA in Law at the University of Cambridge. He holds a BA cum laude in International Justice and an LLM in Public International Law from Leiden University, and has previously worked at the T.M.C. Asser Institute and the International Commission on Missing Persons. “Sorry, Elon: Mars is not a legal vacuum – and it’s not yours, either.” Voelkerrechtsblog. May 11, 2020. <https://voelkerrechtsblog.org/sorry-elon-mars-is-not-a-legal-vacuum-and-its-not-yours-either/>] HW AL

Two provisions of the Outer Space Treaty (OST), both also customary, are particularly relevant here. OST article II: “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.” OST article III: “States... shall carry on activities in the exploration and use of outer space, including (...) celestial bodies, in accordance with international law”. SpaceX is a private entity, and is not bound by the Outer Space Treaty – but that does not mean it can opt out. Its actions in space could have consequences for the United States in three ways. First, the US, as SpaceX’s launch state, bears fault-based liability for injury or damage SpaceX’s space objects cause to other states’ persons or property (OST article VII, Liability Convention articles I, III). Second, the US, as SpaceX’s state of registry, is the sole state that retains jurisdiction and control over SpaceX objects (OST article VIII, Registration Convention article II). Both refer to objects in space and are irrelevant. According to article VI OST, States “bear international responsibility for national activities in outer space”, including Mars, including those by “non-governmental entities”. The US, as SpaceX’s state of incorporation, must authorise and continuously supervise SpaceX’s actions in space to ensure compliance with the OST (OST article VI) and international law (OST article III). In practice, this task is done by the US Federal Communications Commission, which licenses and regulates SpaceX. Article VI OST sets a specific rule of attribution, supplementing the customary rules of state responsibility (Stubbe 2017, pp. 85-104). SpaceX acts with US authorisation, and its conduct in space within and beyond that authorisation is attributable to the US (ARSIWA articles 5, 7). In the absence of circumstances precluding wrongfulness, the result is straightforward. If SpaceX breaches a US obligation under international law, the US bears responsibility for an internationally wrongful act.