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# Infrastructural Closure, Rupture, and Insurgency in Lidia Yuknavitch's *The Book of Joan*

William Taylor 

School of Critical Studies, University of Glasgow, Glasgow, UK

## ABSTRACT

This essay addresses the problem of how to formally differentiate between oppressive and emancipatory infrastructures. In doing so, it develops an analysis of speculative science-fiction novel *The Book of Joan* (2017) to explore how infrastructure is characterized in its vertical-fascist, insurgent, and horizontal-egalitarian modes. I will make and explore three central claims. Firstly, the material infrastructure of patriarchal white supremacy is intimately bound up with semiotic infrastructure in ways that are extremely difficult to untangle. Secondly, vertical-fascist infrastructure functions as a means of capturing, appropriating, and homogenizing human and nonhuman life, while insurgent infrastructures that give rise to horizontal formations are characterized by a reversal of this process insofar as they seek to maximize living diversity and bodily autonomy. Finally, and relatedly, the difference between vertical-fascist and horizontal-egalitarian synthetic infrastructures must be understood in relation to the nonhuman-natural infrastructures into which they intervene, and which they can either synthesize with or overwrite.

## KEYWORDS

Speculative fiction; critical race theory; posthumanism; environmental humanities; Indigenous studies; queer theory; somatechnics

## Introduction

As infrastructure is increasingly adopted as a conceptual frame for understanding how power operates under conditions of patriarchal and racial capitalism, the question of how to formally differentiate between oppressive and emancipatory infrastructure becomes vital. Darin Barney has argued that infrastructure is a “non-discursive” (Barney 2021: 225) and “material form of politics” (ibid.: 234) that can bypass dialogical argument to materially enforce exploitative social relations. However, he demonstrates that recent infrastructure scholarship is concerned with how infrastructure can become the vehicle of an emancipatory politics and therefore be dissociated from “capitalist, extractive, colonial, and settler colonial modernity” (ibid.: 232). This essay addresses the problem of how to distinguish competing modes of infrastructure. Specifically, it seeks to parse the difference between infrastructure’s vertical-fascist, insurgent, and horizontal-egalitarian modes.

I define vertical-fascist infrastructure as infrastructure that is both produced by and designed to maintain a hierarchical, top-down power structure. In the context of colonial-capitalism, this involves a state that is closely allied with corporate interests imposing infrastructure – and a dependence on this infrastructure – on colonized and/or disenfranchised populations through coercion and violence. The essential relationship between verticality (hierarchy) and centralization is captured by Italian collective Gruppo di Nun, whose work opposes an “organizational and hierarchical force aimed at establishing a pyramid with Man on top, be it an absolute monarchy legitimized by God, a Nazi-fascist dictatorship, a white ethnostate, or a meritocratic society dominated by the figure of the cisgender heterosexual white male” (Gruppo di Nun: 22). Horizontal-egalitarian infrastructures are those that do not

**CONTACT** William Taylor  [w.stewart.taylor@outlook.com](mailto:w.stewart.taylor@outlook.com)  School of Critical Studies, University of Glasgow, Glasgow, UK

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derive from or serve this hierarchical power relation between a privileged, possessing, instrumentalizing class and minoritized, subordinated populations.

With the aid of Lidia Yuknavitch's speculative science-fiction novel *The Book of Joan* (2017), I will make and evidence three central claims. Firstly, the material infrastructure of patriarchal white supremacy is intimately bound up with semiotic infrastructure in ways that are difficult to untangle, complicating the notion of infrastructure as a nondiscursive form of politics. Secondly, vertical-fascist infrastructure functions as a means of capturing, appropriating, and homogenizing human and nonhuman life, while insurgent infrastructures that give rise to horizontal formations are characterized by a reversal of this process insofar as they seek to maximize living diversity and bodily autonomy. Finally, and relatedly, the difference between vertical-fascist and horizontal-egalitarian infrastructure must be understood in relation to the degrees of anthropocentrism and detachment from nonhuman nature by which these infrastructures are characterized. I propose that the different modes of human-synthetic infrastructure can be productively assessed in terms of their relation to the nonhuman-natural infrastructures into which they intervene, and which they can either synthesize with or overwrite.

This essay will draw on a broad range of theorists in developing certain core ideas. Philosopher Georges Bataille and aforementioned collective Gruppo di Nun contribute to a conception of nonhuman nature as it exists outside of human appropriation, functioning as a radically autonomous intelligence and thus possessing an agency distinct from humanity's own. While this matter functions from one angle as the alien *outside* of human systems, authors such as Leanne Betasamosake Simpson, Deborah Cowen and Winona LaDuke discuss how human infrastructures can coexist and be allied with this nonhuman agency instead of capturing and destroying it. They also aid in examining how Indigenous and other minoritized communities are simultaneously dehumanized and naturalized by white-patriarchal ideology, which associates these communities with the perceived threat of autonomous nature on the grounds that they too threaten to disrupt its privileged model of the human subject and project of (white-)human supremacy over nature.

The work of Sylvia Wynter and others will further help in describing a white-supremacist infrastructure that seeks to appropriate or destroy what it designates as Other. I will use the term *interiorization* to describe the infrastructural capture by which nonhuman nature and human bodies are stripped of their agency and incorporated by the dominant infrastructure, or *inside*, as tightly-controlled commodities or infrastructural components. Relatedly, I will be guided by Audre Lorde and M. Jacqui Alexander's theories of desire in examining how the colonial and patriarchal suppression of autonomous nonhuman nature is tied to the suppression of autonomous desire and creativity in human bodies.

In the context of political critique and insurgence, speculative fiction serves two functions. The first is to allegorically crystallize the infrastructural and social dynamics at work in our lived present, and the second is to diagram possible lines of subversion and escape. *The Book of Joan* presents a future in which colonial-capitalist ideology and practice has been pursued to the outer limit of ecological devastation. Following a breakdown in geopolitical order brought about by environmental crisis, which triggers a series of wars and famines, a wealthy elite have escaped the increasingly uninhabitable Earth by means of a "suborbital complex" (Yuknavitch 2017: 5) called CIEL: an artificial environment that continues to extract resources from the world below by means of invisible channels called "Skylines" (ibid.: 6). The bodies of this elite class have mutated, losing their sexual organs and acquiring a uniformly white complexion, transforming them into a sterilized, subdued homogeneity that bars all forms of threatening otherness and exists simply to reflect the ideal identity of fascist ruler Jean de Men. The chaotic, dangerous netherworld that Earth has become is inhabited by those members of the poor and dispossessed who have managed to survive "geocataclysm" (ibid.: 4).

The novel's core narrative considers how an ecocidal Western culture, dominated by the Enlightenment-humanist ideal of the white, wealthy male, has situated itself as a globally-transcendent governing force. CIEL concludes this culture's metanarrative of progress, where progress is conceived as being directly proportional to culture's instrumentalization of, and corresponding

detachment from, nature. While the destabilization of extractivist infrastructures functions simultaneously as a window of escape from the notionally progressive time and hegemonic narrative of patriarchal humanism, CIEL attempts to thwart the possibility of escape by splitting its (infra) structural *inside* as far as possible from the insubordinate *outsideness* of nature, admitting nature only as commoditized object to appropriate from at a distance. Furthermore, CIEL's attempted elimination of autonomous, uncommodified matter includes the bodies of those who cannot be assimilated by Jean de Men's model of the ideal human: racialized, gendered, and queer bodies that find themselves outside of a privileged, wealthy social class. If infrastructure is the organization of space and time in service of sociopolitical ends, CIEL is the product of a colonial-capitalist infrastructure that seeks to capture and either contain or destroy everything that exists outside of itself, progressively enclosing and homogenizing human and nonhuman life.

Crucially, however, material infrastructures are allied with and extended through semiotic (neurolinguistic) infrastructures. Describing infrastructure as "the enabling condition for transitivity" (Wenzel: 169), Jennifer Wenzel writes that grammar and syntax are "*infrastructural*: in Bourdieu's terms, a 'structuring structure' for the circulation of thought; a structure that, as the modal hinge between intransitive and transitive, *allows things to happen*" (ibid.: 172). Language and narrative constitute infrastructures of imagination that organize spacetime and "allow things to happen" at the level of perception. Western humanism's eradication of meaningful difference is enacted through both material and semiotic infrastructure, operating just as powerfully through absence and capture in the realm of representation as it does through exclusion from, or imprisonment within, physical spaces.

Postcolonial and critical-posthumanist scholars have outlined the close relation between humanism and colonial ideology. Gayatri Chakravorty Spivak writes that "There is an affinity between the imperialist subject and the subject of humanism" (Spivak: 202), while Rosi Braidotti affirms that humanism extends "imperial tendencies" (Braidotti: 16) which converge on the image of its white, male, and nondisabled ideal subject (ibid.: 24). Thus, as Sylvia Wynter argues, Western "monohumanism" (Wynter and McKittrick: 11) conceives the category *human* as white and essentially driven by both compulsive accumulation and mastery over nature: "*homo oeconomicus*" (ibid.: 21). By using technology to police representation and eradicate physical difference, CIEL's infrastructure is one in which all life is referred to, and continually reproduces, the notionally transcendent sign, or figure, of white-patriarchal identity and power. Thus, CIEL has not only materially ascended but has attempted to divorce the semiotic structures of humanist universalism from the radical heterogeneity of living humans who are aligned with the complex diversity of nature. Real nature and real humanity oppose the abstract, symbolic forms distilled by CIEL: domesticated, instrumentalized, passive Mother Nature, and the privileged identity of the white, accumulative male qua notionally universal Man.

However, Yuknavitch moves beyond the infrastructural impasse encapsulated in the figure of CIEL, modeling the ways in which this organization of life might be subverted by those who fall within its parameters and those it excludes. While certain CIEL inhabitants initiate a semiotic insurgency, beneath the barren surface of Earth a resistance movement develops in a subterranean network of caves. This network primarily includes a complex array of nonhuman life, but it also houses a band of human survivors who coalesce around the military fighter and alleged "eco-terrorist" (Yuknavitch 2017: 181) Joan. The novel thus opposes CIEL to the world below, Jean de Men to "Joan of Dirt" (ibid.: 34). Joan is on the side of heterogeneous, autonomous nature, and a humanity that could function as an embedded component and extension of this nature.

The following analysis will proceed in three phases. I will firstly give a full account of the fascist mode of infrastructure epitomized by CIEL. Secondly, I will examine how CIEL's infrastructure is challenged by those who exist within and through it. Having analyzed their uniquely semiotic insurgency, I will consider the forms of material insurgency carried out by those excluded from CIEL. I will determine to what extent these insurgencies are not merely *against* infrastructure, but also enact new modes of infrastructure through both a reappropriation of existing human structures and the generation of new infrastructural formations that seek to integrate with uncommodified nonhuman-natural spaces.

## CIEL: The Apex of Hyperhumanist Universalism

CIEL takes its name from the French word for “sky” (*ciel*). *Sky* is typically intuited as a pure expanse, and an opening onto the vast, estranging *outsideness* and alterity of space. CIEL fuses the linguistic designation of this expanse with an infrastructure that bars autonomous nature, difference, and desire while presenting itself as a liberation from human, organic, earthly constraints. CIEL seemingly designates a posthuman transition: “an immortal future, one in which humanity sacrificed itself for an evolutionary leap” (Yuknavitch 2017: 208). This indicates the dangers of certain strands of posthumanist thought, for which the *outside* is not simply autonomous nonhuman matter. Instead, in the work of David Roden and Nick Land respectively, the *outside* is accessed through, and produced as, a technologically-mediated “*disconnection*” (Roden: 105) or “*exit*” (Land: 301) from humanity, as some synthetic or synthetically-modified entity breaks away from the human systems in which it was embedded. Thus, these authors conceive modernity’s technological infrastructure as the path to what is beyond or “*outside*” (Roden: 167; Land: 305) the human.

CIEL problematizes this approach to *outsideness* by displaying how technological systems can produce a simulacrum of posthuman disconnection while bolstering a colonial and xenocidal infrastructure that aims to standardize human culture and eliminate that which is outside the control of *homo oeconomicus*. Having established his pro-capitalist, technophilic theory of posthuman exit, Land would revealingly go on to combine it with anti-egalitarian and racist ideas in reactionary tract “The Dark Enlightenment” (2013), which elaborates the kind of ideological framework upon which CIEL is based. CIEL is not truly disruptive, but works to minimize disruption to the structures of identity and power that define the patriarchal-(mono)humanist tradition. CIEL ultimately represents a hyperhumanism that uses advanced technological infrastructure to violently intensify the humanist project and its anthropocentric, racial-supremacist and ecocidal trajectories.

In the first instance, humanism involves a secularization of heteropatriarchal dominance that dispenses with God as an avatar of Man’s power while maintaining the underlying cultural hegemony globalized through colonial violence. Wynter affirms that “All the peoples of the world [. . .] are drawn into the homogenizing global structures” (Wynter and McKittrick: 21) that “[enact] a uniquely secular liberal monohumanist *conception* of the human – Man-as-*homo oeconomicus*” (ibid.). This conceptually ideal Man replaces God, and is situated above and against the heterogeneity of human bodies and cultures, demanding either conformity or submission. The basic structure persists, positing a self-evidently natural universalism that invests the white patriarch with absolute authority.

If human activity is progressively referred to, governed by, and made to reproduce the homogenizing social form of patriarchal whiteness, this is enforced through legal frameworks and colonial-capitalist infrastructures that work to eliminate nonconforming difference and noncompliant desire. Infrastructure becomes a means of absorbing human cultures, and nonhuman nature, into a globalized web of exploitative, hierarchical relations. Winona LaDuke and Deborah Cowen describe how “settler governments and corporations are [. . .] not only doing violence *to* Indigenous people, but also *through* Indigenous people” (LaDuke and Cowen: 253). They elaborate that, “in a context of profoundly constrained options forged by dispossession, Indigenous people are ‘invited’ to become project proponents and owners” (ibid.) of settler-colonial infrastructure. Physical violence and enforced dispossession act as precursors to interiorization, as coercion is used not only to supplant the social order of Indigenous land, but to absorb Indigenous populations into the invading infrastructure through exploitative contracts and legal obligations.

The brutality of this process is captured by LaDuke and Cowen’s conception of colonial-capitalist infrastructure as “*Wiindigo infrastructure*” (ibid.: 244), which “[invokes] the cannibal monster of Anishinaabe legend” (ibid.). Devouring, combustive, ecologically-ruinous *Wiindigo* infrastructure is opposed to the values outlined by Mississauga Nishnaabeg theorist Leanne Betasamosake Simpson, who writes: “Our knowledge system, the education system, the economic system, and the political system of the Michi Saagiig Nishnaabeg were designed to promote more life” (Simpson: 3). The

various systems Simpson refers to contribute to an ecologically-generative mode of infrastructure that has physical and semiotic components.

Correspondingly, however, settler-colonial infrastructures enact the atomization and verticalization of Indigenous community through a combination of physical and semiotic-ideological systems. Glen Coulthard notes the Canadian state's "goal of indoctrinating the Indigenous population to the principles of private property, possessive individualism, and menial wage work" (Coulthard: 12). This involves remolding Indigenous community as a patriarchal-vertical social formation, with Simpson elaborating that "Hierarchy had to be infiltrated into Indigenous constructions of family so that men were agents of heteropatriarchy and could therefore exert colonial control from within" (Simpson: 109). Here, the allocation of symbolic roles and relations directly secures and maintains the dominance of settler-colonialism's material structures.

Elaborating on the semiotic dimension of Indigenous communities' capture and subsumption by settler society, Carol Edelman Warrior proposes that "*definition* as a discursive act – even if the group 'defines' itself – uses one of the most effective strategies of colonization because the act of definition fixes the object of definition" (Warrior: 386). Anticipating LaDuke and Cowen's account of how dispossession facilitates incorporation, Warrior compares settler-colonial institutions and discourses to the slime mold *D. caveatum*, whose consumption of other amoebae is preceded by their "immobilization" (ibid.: 385) or "*freezing*" (ibid.). The comparison serves to emphasize that the displacement of Indigenous community and culture works in tandem with the metabolic conversion of both into components that are useful to the functioning and growth of colonial-capitalism.

The aggregate result of these processes is a global and vertical-hierarchical system of control in which the dominant social code, law, or form is situated at the summit and wraps like a net around everything below through an infrastructural assimilation involving both material and semiotic components. This core model of top-down and center-out power extends from patriarchal monotheism and Christian-fronted colonialism, through Enlightenment (mono)humanism, and into present-day capitalist hyperhumanism as a technological amplification of humanist ideology and ambition.

Situated in this context, CIEL can be read as the infrastructural end-point of a distinctly white and patriarchal project of closure, control, and conformity. The complex is described from the perspective of Christine, a CIEL inhabitant who expresses antipathy for Jean de Men and the society he presides over. On CIEL, the body is integrated as a component of a rigorously formalized biotechnological system. Inhabitants have "data points" (Yuknavitch 2017: 9) implanted in their bodies, through which they "interact with technology" (ibid.) but are also monitored by it. There is therefore no escape from a "closed system" (ibid.: 34) in which "there is no place to hide or run" (ibid.), and the very notion of autonomy and meaningful difference or deviation is almost impossible.

If CIEL is designed to mediate all life through the ideal form of patriarchal authority, this form is delineated by a prohibitive law. CIEL permits no representation, thought or action that violates the will of its absolute ruler, including those relating to dissent, while unpredictable, destabilizing desire is also blocked: "acts resembling the act of sex, the idea of sex" (ibid.) are forbidden. As a fascist state whose power is incarnated in its infrastructure, CIEL moves beyond standard varieties of surveillance through holding cells that are "AV-sensitive" (ibid.: 33): "A person's heart rate and biologic status, and even thoughts and dreams are recorded and assessed" (ibid.). By eliminating autonomous, unregulated matter at the bodily and environmental level, technology renders power automatic and immediate: "Political power, in the conventional sense, had by then been replaced by digitalized matrices and algorithm systems" (ibid.: 44-45) that aim to cover, assimilate and technocratically govern every square inch of physical and psychological space. The state has conducted a comprehensive interiorization of mind and matter, through an act of infrastructural capture that maps all life onto its diagram of permissible thought and action.

As body and mind are strictly formalized through their separation from autonomous matter and integration with CIEL's machinery, this formalization extends beyond the regulation of thought and action to include a homogenization of bodily appearance. Christine declares:

No one on Earth was ever literally white. But that construct kept race and class wars and myths alive. Up here we are truly, dully white. (ibid.: 11)

While humanity was subject to devolutionary processes as a result of geocataclysm, this is only responsible for CIEL inhabitants' lack of sexual organs and hair. The uniformly white skin tone is uniquely theirs. Thus, while Christine notes that they have been "told" (ibid.: 6) that this mutation was also the result of atmospheric changes, it was conceivably enacted by Jean de Men, and literalizes the notional whiteness underpinning (mono)humanist universalism. More specifically, the principle underlying the representation of whiteness has been made explicit, since the idea of whiteness as a genetic type has become literal, embodied fidelity to a standardized form of humanness. This intensifies what Katherine McKittrick, in reference to skin bleaching and cosmetic surgery, calls the "law-like normalization of the corporeal features of Western Europeans in their now ethno-class bourgeois aesthetic configuration" (Wynter and McKittrick: 18). However, CIEL intensifies this programmatic normalization insofar as it enforces adherence, not to a preexisting morphological standard, but to an abstract sign of whiteness, corresponding to an ideal of purity and sameness that has no referential, biological basis.<sup>1</sup>

While I have distinguished between material and semiotic infrastructure, CIEL's use of technology to regulate physical form makes it increasingly hard to differentiate between the physical and semiotic. "We've become signs" (Yuknavitch 2017: 191), Christine affirms. However, they have not become "signs of [their] former selves" (ibid.) as Christine might think, but reproductions of the abstract sign of whiteness. CIEL thus attempts to materially actualize a semiotic reality by artificially purging complex difference. White supremacy orients itself toward an ideal of nondifference (the ethnostate) since, as Joseph Pugliese and Susan Stryker note, whiteness is typically made to function as "(racial) invisibility" (Pugliese and Stryker: 4): a "category that at once insists on objectifying and rendering its others in racialized terms, even as it effaces its own racial status" (ibid.). This category is simultaneously sustained and threatened by the racialization it imposes on its designated-Others. The conceptualization of racial difference threatens to become reflexive, relativizing the notionally universal category. However, far from securing the ideal of a nonracial, abstract universalism, whiteness is distilled as race, which is to say as concept and social privilege, on CIEL.

At this point, it is clear that CIEL distills a white-supremacist model of human exceptionalism, concluding Western humanism's suppression of human diversity and progressive erasure of nonhuman nature. This involves an infrastructural containment that seeks to become total, eradicating the very notion of an independent, unsubordinated *outside* and the heterogeneity that belongs to this domain. Otherness is crushed under the sign of the ideal form-identity which the dominant infrastructure privileges and designs itself around. Before examining how such infrastructures might be subverted from within, I will address the ideology of infrastructural *decoupling* that drives the discourse surrounding technological solutions to climate breakdown, since CIEL is a speculative product of this discourse.

*An Ecomodernist Manifesto* declares that "Intensifying many human activities – particularly farming, energy extraction, forestry, and settlement – so that they use less land and interfere less with the natural world is the key to decoupling human development from environmental impacts" (Asafu-Adjaye et al: 7). While the expressed aim of decoupling is to protect nature, a possible danger is that it would simply reinforce the trend toward a progressive elimination of wild, uncommodified matter. Less dependency, proportional to the sophistication of the technological innovation and the extent of the decoupling enacted, arguably means less need to preserve the natural world, rendering it even more vulnerable to commoditization. As opposed to promoting the preservation of wild spaces, decoupling could have the simple effect of purging autonomous matter entirely by nullifying the dependence of capitalism (the infrastructural *inside*) on its natural *outside*, or other.

These criticisms are elaborated by Rhys Williams in his analysis of precision fermentation: a method of decoupling whereby existing farming is superseded by a system that generates protein through the controlled reproduction of microorganisms. Williams writes that "The shift to

domestication of microorganisms is driven by the desire to reduce mediation and render smooth the structural disagreement that was manifest between the nonhuman world and the infrastructure of industrial agriculture” (Williams: 153). He elaborates that “The mechanism for this desire is to create a temporary mirage of liberation through containment” (ibid.: 154), by presenting solutions that are “cut off from ecosystems, forming a closed loop of their own” (ibid.: 155). Decoupling of *inside* and *outside* becomes a definitive barring of those aspects of nature which capitalist infrastructure cannot fully assimilate and control, enabling an intensified destruction of this excessive materiality. This is a response to the rupture and destabilization of infrastructural hegemony that does not admit the irrupting *outside* but instead doubles down on the self-enclosure of the *inside*.

As a closed containment and security system that seeks to banish autonomous matter, CIEL enacts a (partial) material decoupling from nature. Furthermore, its enforcement of a uniform whiteness corresponds to a technologically-enacted decoupling of monohumanist *semiotic* infrastructure from the complex heterogeneity of nature and real humanity. Consisting of “Simulacral animated figurines” (Yuknavitch 2017: 63) and “armies of marble-white sculptures” (ibid.: 11), the augmented bodies on CIEL are copies of the ideal Self incarnated in the image of the white patriarch as the dominant figure of human exceptionalism.

The question of representation acquires additional complexities in light of CIEL inhabitants’ practice of scarification to burn symbols and narratives into their flesh. The novel opens with Christine recording a demonstration of this “grafting” (ibid.: 9) process, where she explains: “if what you want involves intricate design, ornate shapes, the curves and dips of lines, syntax, diction, electrocautery is the obvious choice” (ibid.: 10). She elaborates that the grafts are “a distant descendant of tattoos, an inbred cousin of Braille” (ibid.: 16). In the “de-sexualized” (ibid. 15) context of CIEL, references to the “texture” (ibid.: 16) of the modified skin, which results from the “protrusions and ridges” (ibid.: 17) of keloid scarring, indicate that the grafts are as much about the reactivation of tactility and sensuousness as symbolic content. Christine affirms this by declaring “The faint burn of the astringent reminds me that I still have nerve endings” (ibid.: 9). In this regard, the ritual of scarification is as important as the result.

Christine is known for authoring erotic grafts (ibid.: 17), and her description of scarification on CIEL invokes the history of anti-assimilationist queer body modification in North American subcultures, as surveyed by Victoria Pitts. I will later address the way in which Christine’s grafts extend these subcultures’ reinforcement of a homogenizing West-Other binary. For now, it is important to note that scarification and piercing has been used to “fix queer identity literally onto the body as a gesture of rebellion” (Pitts: 114). The material body becomes a vector of semiotic insurgence by performing and brandishing “a symbolic affront to mainstream authority” (ibid.: 104). On CIEL, similarly, scarification afforded the possibility of rejecting a standardized white identity that is expressly designed to buttress authoritarian patriarchy. This disrupts the formal assimilation whereby the abstract sign of whiteness has been radically materialized and now dominates corporeality. The body opens up as a site of resistance, no longer a homogenized component of CIEL’s infrastructural closure.

However, it becomes apparent that the subversive potential of body art has been suppressed, since the grafting process has been appropriated and standardized by Jean de Men. His dictatorial power means that the grafts he authors – stories of sadistic male violence – are considered the “gold standard” (Yuknavitch 2017: 20), and are the most widely adopted. Furthermore, the grafts now function as a status system, with the number and placement of grafts indicating degrees of wealth (ibid.: 18, 183). Status is also conferred insofar as the individual resembles Jean de Men, whose “overflowing robes of grafted flesh hang from his head like an old French aristocratic wig” (ibid.: 182). Expressions of deviance from fascist authority have been absorbed into the idealized image of power and normative identity. They are thereby converted into expressions of conformity.

Jean de Men’s cooptation of the grafting system is central to the maintenance of a state that can openly, materially reject the autonomy of subjects inhabiting AFAB bodies (bodies assigned female at birth). Christine describes how “all the women in [Jean de Men’s] work demanded to be raped” (ibid.:



20), using “language and actions designed to sanction, validate, and accelerate that act” (ibid.). These grafts form a narrative infrastructure that has physical effects, normalizing and legitimizing violence against women. They pave the way for de Men to perform invasive, nonconsensual experiments on bodies that carry female-assigned reproductive systems. Specifically, he attempts to restore fertility on CIEL by strapping these bodies to a table and surgically excavating their reproductive organs. Christine explains that “he meant to breed them [...] by binding ‘women’ to an ever-producing gender and forcing sexual reproduction through their bodies” (ibid.: 189). The condition of being gendered is transformed from a continuum of complex difference into one half of an essentialist binary in which “Woman” is defined by its biological, reproductive utility from the perspective of the patriarch. The novel thus dramatizes far-right and religious “pro-life” conceptions of AFAB bodies as non-autonomous vehicles of reproduction.

These conceptions extend what M. Jacqui Alexander describes as the colonial and heteropatriarchal suppression of “Women’s sexual agency and erotic autonomy” (Alexander: 22). Describing how the Bahamian state has inherited a colonial ideology of heteropatriarchal nationalism, Alexander writes that erotic-bodily autonomy incurs fear at the level of a nation-state premised on the perpetuation of a “colonial inheritance” (ibid.: 24) in which bodies are objectified as assets to be deployed in service of “nation-building” (ibid.: 11). Insofar as the state views itself as owning bodies as infrastructural assets, nonreproductive and radically autonomous sexuality, epitomized for Alexander by lesbian sexuality, is perceived to carry the ultimate threat of subversion since it evades reproductive regulation and functionality altogether (ibid.: 23). The system de Men envisions represents the ultimate implication and aim of the patriarchal-colonial war on bodily autonomy. Within this system, “Woman” will be “ever-producing” since no nonfunctional, libidinal expenditure of the body is permitted. The body is stripped of desire, conceived as a desexualized object that is integrated within and powered solely by CIEL’s technological machinery.

The ground for these tortures is prepared by CIEL inhabitants’ regulated use of skin grafts, which de Men has attempted to divorce from creative autonomy and libidinal power. However, the conditions are ripe for an insurgency that breaks CIEL’s semiotic infrastructure open from the inside-out, tapping into the repressed history of radical body art as an expression of autonomous, nonnormative identity and desire.

### **Semiotic Insurgency: Representation and the Outside**

On CIEL, infrastructural closure and decoupling from autonomous matter is challenged by Christine, who desires to narrate the outlawed story of Joan of Dirt: a resistance fighter on the world below who was branded an “eco-terrorist” (Yuknavitch 2017: 181) and declared dead by Jean de Men. Christine plans to tell Joan’s story through illicit skin grafts, offering an alternative to stories that are “not only man-made, but man-centered” (ibid.: 99). Lara Feigel discusses the parallel between Joan of Dirt and Joan of Arc, who was the subject of an epic poem by “proto-feminist writer” (Feigel 2018: para 2 of 10) Christine de Pizan. However, if Joan of Arc functions as a feminist protagonist, she is also a nationalist figure situated in the Abrahamic-monotheist tradition. Joan of Dirt, alternatively, is a metonym for nature. Christine will write of and simultaneously constitute “A body tethered, not to god or some pinnacle of thought or faith, but to energy and matter” (Yuknavitch 2017: 99). This project opposes the closed system of anthropocentric narration, including its secular-humanist and monotheist incarnations.

To conceive “energy and matter” outside of god(s) or intellectual ideals is to apprehend what Gruppo di Nun calls “*matter without us*” (Gruppo di Nun: 75). *Matter without us* is matter that is alien to human projects and values. Georges Bataille’s name for “autonomous” (Bataille 1985: 47) and formally-deviant nature was “base matter” (ibid.: 51): something anarchic, “external and foreign to ideal human aspirations, and [...] the great ontological machines resulting from these aspirations” (ibid.). The ontological machines Bataille refers to can be read as corresponding to the material and semiotic infrastructures of monohumanism,

which is analogous to what Bataille describes as a formal “homogeneity” (ibid.: 96) in relation to which base matter is “completely other” (ibid.: 102). If Joan – as a material body and sign – is “tethered” to base nature, her story functions as a bridge between semiotic infrastructure and the autonomous *outside*. To narrate the story of Joan and her resistance is to recouple these dimensions.

However, recoupling representation with autonomous nature is not simply a matter of content; it is a question of desire. On CIEL, Christine declares: “I suspect what has taken the place of drives and sensory pleasure is a kind of streamlined consciousness that does not require thinking or feeling” (Yuknavitch 2017: 63). The notion of a streamlined, dematerialized consciousness evokes fantasies of a hive mind in which individual consciousness is uploaded to a virtually-instantiated, collective brain: literally contained within a technological infrastructure that transcends material constraints and contingencies. Indeed, the literal sterilization of CIEL inhabitants plays into the complex’s aim of transcending not only nonhuman nature, but the libidino-energetic materiality and intractability of the human body.

Audre Lorde affirms that racist and patriarchal society is also an “anti-erotic society” (Lorde: 59), defining the erotic as an embodied orientation toward and “sharing of joy” (ibid.: 56): the ecstasy of communication, empathic love, and self-expression. For Lorde, the magnetic pull of the erotic is the affective precondition and consequence of impassioned, impactful, and deeply social creativity. Since it provides the required “energy for change” (ibid.: 53), erotic power is suppressed by systems of control that prescribe “suffering and self-negation” (ibid.: 58) or “numbness” (ibid.) as alternatives. On CIEL, Christine resists this demand for desensitization and withdrawal, sensing that the path to agency is through a re-libidization of the body.

Through the story of Joan, Christine plans to use CIEL’s semiotic infrastructure to tap into the excluded materiality of nature and “raise [...] base corporeal drives” (Yuknavitch 2017: 63). This description suggests that Christine aims to revive the libidinal expression of autonomous (base) matter in the body: anarchic, insubordinate drives that exceed the boundaries of CIEL’s infrastructural containment. Her illicit grafts resurrect these drives within and through the body by semiotically channeling the stimulation and dynamism of the radically other, or that which is beyond the homogenized sterility of life on CIEL.

The desire that Christine seeks to harness is, as Lorde writes of the erotic, associated with “the chaos of our strongest feelings” (Lorde: 54). If the erotic is a vehicle of change, this is because social transformation necessitates creative destruction, or what Christine describes as a marriage of “Eros with Thanatos” (Yuknavitch 2017: 21). In its autonomy, the erotic power of “base corporeal drives” is inherently revolutionary, turning bodies into what Christine terms “desiring abysses” (ibid.: 21). As a figure, the abyss of spacetime is reality itself as it extends beyond the bounds of human appropriation and governance. Full of alien contingencies, it comprises an unassimilable, unknown vastness that consumes and ruins, having the capacity to demolish even the most seemingly absolute and necessary of structures. If autonomous desire is a trace of this abyssal base nature within the human body, it has the power to rupture and break beyond the disempowering capture and commodification of the body.

Contributing to her account of revolutionary desire is Christine’s remark that the erotic “creation and destruction” (ibid.) she describes is “Like space” (ibid.). *Space* provides a popular designation and intuition of the autonomous, abyssal *outside*, and CIEL uses it to terrorize criminals into a state of submission. In holding cells, Christine notes that “the sounds of space are piped in on a permanent basis [...] like a cross between distressed whalesong, or my memory of whalesong, and irregular high-pitched tinnitus, interrupted by low vibrating moans” (ibid.: 35). A continuity is established between the alien frequencies of space and nonhuman life in the organic realm, invoked through the reference to “whalesong.” The expression and communication of whale vocalization is esoteric and inaccessible, or at least irreducible, to the human subject’s perception and understanding of it. It is the transmission of an otherness, and a consciousness, that is alien to humanity. Fear of space and fear

of nature are one and the same: fear of autonomous, ungoverned matter. By playing on this fear, CIEL secures acceptance of the (infra)structural *inside* that works to convert autonomous matter into an appropriated series of objects and resources.

However, the question of appropriation illuminates the central problem with Christine's anti-assimilationist grafts. Beyond the story of Joan or *matter without us*, Christine attempts to disrupt the cultural hegemony of Western humanism by drawing on alternative human cultures that are othered from her perspective. While filming her demonstration of the scarification process, Christine declares: "I hold up my arms to show the variety of symbols: Hebrew, Native American, Arab, Sanskrit, Asian" (ibid.: 10-11). Christine perhaps intends to invoke the non-Western histories, concepts, and futures repressed by the history of colonial power. However, there is no single, homogenous "Native American" or "Asian" language, or culture, that such labels would correspond to. Relatedly, Classical and Modern Hebrew operate in various cultural contexts, Sanskrit informs numerous Indian cultures, while Classical Arabic is the basis for multiple dialectics and cultural offshoots. If Joan functions as a metonym for (base) nature, the symbols and labels in question here are treated more problematically as conflated metonyms for otherness.

Since Christine fails to engage meaningfully with the cultures she claims to be drawing from, it is at this juncture that her status as a member of CIEL's privileged class stymies the revolutionary impulse she is seeking to channel. Her superficial reference to Indigenous and non-Western categorizations enacts the same problematic gesture that has historically undermined the radicality of queer body modification. As Pitts notes, these modifications have been associated with the banner New Primitivism, which fetishized racial stereotypes related to piercing and scarification, drawing on "historical imaginaries of the eroticized 'primitive' body that are the legacy of colonial racism" (Pitts: 117). Here, the white subject claims historically-uncontextualized tropes of abstract Otherness, reinforcing the homogenizing West-Other binary they claim to disrupt.

New Primitivism illustrates how semiotic infrastructures can wield a certain aesthetic and aura of subversion while concealing the reproduction of existing relations of capture and domination. Pitts elaborates that "this new use of symbols of Otherness by white queers affirms not only gay body modifiers' outsidership, but also the privileged position they *share* with all white Westerners and the dominant culture to define cultural and ethnic others" (ibid.). Relatedly, aspects of Christine's ostensibly anti-assimilationist body art represent and reaffirm the semiotic capture of otherness as an abstract, immobilized Other. The reader never learns what the "symbols" she refers to mean, or precisely where they come from. Both within the narrative and at a metatextual level, symbolic *gesture* overwrites and prevents engagement with the alternative narratives, values, and realities that constitute the true substance of what is designated Other by Western epistemologies. This undermines Christine's claim that her grafts have the power to rupture and reach beyond "so-called history" (Yuknavitch 2017: 10): the monolithic-universal history contained and enforced by CIEL's xenophobic and xenocidal infrastructures. Her homogenizing conception of human otherness is very much complicit with and bound by this history.

Ultimately, Christine's semiotic insurgence provides a necessary but insufficient opening beyond the semiotic and narrative infrastructure of white-supremacist universalism. While she successfully disrupts CIEL's anthropocentrism and the patriarchal suppression of erotic power, the limits of her perspective are encountered in her generalized allusions to non-Western "symbols." This is where she fails to cut through the image of white patriarchy reproduced by the CIEL body, accessing the worlds – the histories, cultures, and futures – that had to be repressed for this image's notional supremacy to come into being. Nevertheless, Christine begins to hatch the illicit *outside* from within CIEL's homogenizing structures of containment. Specifically, she converts CIEL's semiotic infrastructure from an apparatus of repression and conformity into a conductor of erotic power and an expression of ungovernable nature.

## Material Insurgency: Exploitable Dependence and Subterranean Networks

If CIEL's material and semiotic infrastructure cannot filter out autonomous matter-energy within its borders, it also fails to successfully decouple from the planet below. This can be seen at the level of the "Skylines" (Yuknavitch 2017: 6): channels that connect CIEL to Earth and allow it to continue extracting resources. The invisibility of the Skylines should be read as more than a practical way of concealing them from those who remain on Earth, and instead as a deeper infrastructural deception that relates to CIEL's own state of denial. Specifically, the rendering-invisible of the Skylines is the masking of CIEL's inability to transcend its own materiality and gain independence from nature.

The duality of imaginary independence and real dependence is evoked through two contrasting representations of CIEL's relationship to Earth. Early in the novel, Christine remarks: "I've not seen CIEL from the outside for a long time, but I remember it looking like too many fingers on a ghost-white hand" (ibid.: 5). This would figure the Skylines as puppet strings, positioning CIEL as the possessor and animator of a wholly objectified commodity-Nature. However, the very existence of the Skylines is evidence of dependency. This is intuited by resistance fighter Joan, who provides an alternative figuration of the Skylines from her perspective on Earth, describing them as "invisible technological tethers dangling down to Earth like umbilical cords" (ibid.: 130). The reader is informed that the Skylines function as the means "through which all manner of things – food, water, weapons, oil, coal, gas – could be transported between Earth's surface and the [CIEL] platforms" (ibid.: 135). CIEL remains reliant on nature despite its technological sophistication. As "umbilical cords," the Skylines are "tethers" that do not manipulate but instead bind CIEL to nature, completely undermining its notional independence by revealing the irreducible materiality and corresponding vulnerability of the complex.

Since CIEL lacks the capacity to definitively detach from Earth and become self-sustaining, its artificial, technologized environment cannot interiorize (and thereby eradicate) autonomous matter entirely. The necessity of maintaining an opening onto the outside renders CIEL vulnerable to attacks from resistance fighters, specifically Joan and her partner Leone, who regularly destroy individual Skylines. While the Skylines certainly act as a method of infrastructural closure – filtering nature only as a commodified, appropriated resource – they simultaneously function as an opening that cannot be closed, and thereby become a means of infrastructural insurgency. In this case, the insurgency at work is absolutely material. However, it also involves a symbolic reconfiguration of the way in which channels of extraction are perceived, from tendrils of control to lines of exploitable dependency and weakness. Furthermore, this material insurgency bears an affinity with Christine's rebellion in that it similarly operates through a redirection of CIEL's own infrastructure.

Ultimately, while the CIEL body proves to be irreducible to totalizing command and control, so does the world below that CIEL must remain partially connected to. This world includes a plethora of human and nonhuman lives evolving underground in the aftermath of geocataclysm. The surviving humans have had to adapt to a nature that is both unfiltered by capitalist infrastructure and relatively hostile as a result of climate breakdown. If nature only exists on CIEL as the image of a dominated, subdued Mother Nature, autonomous and insubordinate base nature is still out there, and is represented by Joan of Dirt. Despite apparently being burned at the stake by Jean de Men, Joan is still alive, persisting beyond the representation of her death.

Joan's status as a metonym for nature relates to her uniquely visceral relationship to matter. She carries a mutation that "has resulted in a kind of human-matter interface" (ibid.: 94). While the precise cause is unclear, it allows her to organically harness matter for restorative and destructive ends, such as resurrecting people for a limited time or causing matter to spontaneously combust on cue. She describes having a song repeating in her mind that communicates "Something about humanity returning to matter" (ibid.: 137). As an avatar of autonomous nature, she plays a crucial role in accelerating this return by actively seeking to destroy the infrastructure of extractivist hyperhumanism while forging an alternative infrastructure in the depths of Earth.

The reader learns that, during the wars precipitated by climatic and geopolitical collapse, and in the face of a global state of unbreakable suffering, Joan used her abilities to intensify the material force of ecological breakdown. Her “summoning of the earth and all its calderas” (ibid.: 112) depletes the structures of oppression and cruelty coiled around the surface of Earth. However, her act is one of great destruction. In the aftermath, Joan reflects on the planet’s desolate surface:

Was it possible that entire armies, populations, had truly been atomized by geocatastrophic waves? Or had they gone forever subterranean, like Joan and Leone? (ibid.: 131)

It is helpful to think about Joan’s status as a “human-matter interface,” and her corresponding actions, in an allegorical mode. As Joan “[marries] creation and destruction” (ibid.: 105), she embodies and enacts the force of base nature cutting into the infrastructural order and universalized timeline of white-supremacist humanism. Her actions invoke and intensify the state of contingency embodied in ecological collapse, in which an uncommodifiable, intractable materiality relativizes the dominant capitalist order and reveals that no socioeconomic structure is *necessary*.

While Joan carries out her material destruction at the extreme end of climatic and geopolitical disaster, she nevertheless succeeds in generating a temporal rift or “breach to history” (ibid.: 112) in which two distinct timelines diverge. The first corresponds to the narrative of progressive, hyperhumanist ascendance, which reaches its sterile conclusion on CIEL, while the second corresponds to the development of an autonomous, uncommodified nature (and human population) that extends beneath the surface of Earth – beyond-beneath the spatiotemporal order of hyperhumanism.

Joan and Leone are initially unaware of the other survivors. They travel alone, mapping underground territories and destroying Skylines. Their bond is a romantic one, and in a letter to be read after her death, Joan tells Leone:

*You deserve whatever comes after human progress and its puny failures. You deserve the word “love,” [...] untethered from prior lexicons, an erotic and unbound universe* (ibid.: 265)

Eroticism is again associated with a cosmic vastness that exists beyond and unbinds the material and psycho-semiotic repression enacted by the history of “human progress.” Joan asks “How deep did Leone’s love and loyalty go?” (ibid.: 176), before answering: “Deeper than caves, than black holes in space” (ibid.). While these comparisons reaffirm a continuity between the immense *outsideness* of “space” and the autonomous depths of nature on Earth, it also presents Joan and Leone’s love as an alternative portal and passage to this ungoverned nature (“an erotic and unbound universe”). Subverting the reactionary denigration of queer relations as unnatural, queerness is radically naturalized insofar as it is depicted as corresponding to and expressing a (base) nature that is more primary than the instrumentalized, commodified (Mother) Nature and oppressive “natural law” appealed to in heteronormative, patriarchal discourse.

If queer desire is represented as having the power to recouple the body with the *outside*, or that which is beyond repressive human governance, this is because it exists in defiance of the infrastructural closure and appropriation of body and mind imposed by patriarchal systems. Thus, Joan and Leone’s erotic autonomy is paralleled with the “base corporeal drives” that Christine seeks to engage, since both are presented as libidinal expressions of unpossessed nature within the body. As Alexander writes of lesbian sexuality, the desire and relationality at play here “[operates] outside the boundaries of law” (Alexander: 23). Joan and Leone’s relationship is not bound by the heteropatriarchal state, religious, and familial frameworks that are designed to perpetuate the treatment of Black and AFAB bodies as non-agentic objects, to be deployed in service of Man and his nation through reproduction and other forms of labor.

Joan and Leone’s “subterranean life” (Yuknavitch 2017: 138) sees them exploring numerous underground networks, and Joan “sometimes wonders if they are evolving into a new species, like the thousands they come across underground” (ibid.). At one point, the third-person narrator declares: “This cave is a mouth, a throat, a gullet – and Joan alone knows the perfect passage down, tuning in to the earth’s pulse and rhythm” (ibid.: 139). This echoes an image

provided by Christine, who, reflecting on “the cosmos” (ibid.: 14) surrounding CIEL, sometimes imagines they are living in a “giant mouth or throat” (ibid.). Once again, space provides an abyssal figuration of the nonhuman *outside*. In these different contexts, the recurring figure of the mouth and throat personifies, or animalizes, the *outside*. Whether it leads into the depths of Earth or the depths of “the cosmos,” it designates an opening onto the *outside* qua autonomous matter, and is therefore a passage beyond the material and semiotic-narrative infrastructure of anthropocentric humanism. If consumption equates to interiorization in the context of cannibalistic, assimilative Wiindigo infrastructure, the novel begins to conceive nonhuman nature as the devourer, gesturing toward the fact that all human-synthetic inter-iorities are contingent.

However, the notional mouth and throat of base nature is also the possible entrance to an infrastructure that is no longer premised on enclosure and homogenization. Such an infrastructure would not suppress or subsume nonhuman nature, but would seek to become radically synthesized with it, allowing humanity to access and embody the condition of wild, uncommodified matter. The dwelling that Joan and Leone settle in is a particularly complex underground cave:

five miles of underground life thriving beyond imagination. [...] A jungle, a river, a lake; countless old and new species of plant and animal life; [...] A whole verdant underworld defying the decay of the world above it. (ibid.: 140-141)

The reference to an underground jungle brings the allegorical dimension of the narrative to the fore. Capitalism’s suppression of autonomous, unappropriated nature includes the destruction of entire organic habitats which are depicted here as buried. They dwell, subterranean, within the earth, waiting to be excavated – resurrected – from the ruins of Wiindigo infrastructure.

There is also a literal component to what is described. There is, of course, a complex diversity of life underground that typically exists beyond-beneath human awareness: “Multicellular life-forms adapting and evolving at fantastic rates” (ibid. 148-149). Earth is revealed to be something far different from the notion of a homogeneous whole or object-Earth, as it is viewed from the decoupled CIEL. Earth contains a plethora of distinct yet interlinked, and interdependent, realities. Underground, multiple non-human temporalities are enacted and embodied by various evolving species of plant, bacteria, and fungi:

here they are, surviving forty billion years without notice. [...] We always look up. What if everything that mattered was always *down*? Where things are base and lowly. (ibid.: 147)

In the context of hyperhumanism, to move upwards is the diagram of imagined transcendence in which the spectacle of apparent transformation and exit belies a process of intensified enclosure, as the infrastructural *inside* fortifies its boundaries. Alternatively, Joan and the other survivors on Earth escape into the nonhuman *outsideness* of base nature. This is the plane, not of homogeneous form and macroscopic, universalized reality, but that of dynamic multiplicity: alien *worlds* within Earth. If CIEL is the culmination of a refusal to synthesize with nature, becoming decoupled and ascendent, the Earth-bound survivors’ movement underground renders them continuous with ungoverned, undomesticated forms of nonhuman life.

What role might human infrastructure play in the process of becoming intimately recoupled with nature in a sustainable way? One small-scale yet informative example is provided by Joan’s modification of a sump found by the entrance of the cave in which they live:

When Joan first found this sump – a pit collecting undesirable liquids from the cave’s walls – she modified it into a filtration basin to manage surface runoff water and recharge underground aquifers. Clean water. Irrigation for plants and fungi. A mini ecological weather system. (ibid.: 139)

The modification Joan enacts is a microcosmic model of infrastructural installation in which infrastructure enables detoxification and the thriving of diverse lifeforms. This recalls Simpson’s description of Mississauga Nishnaabeg values: “Our way of living was designed to

generate life – not just human life but the life of all living things” (Simpson: 3). Similar values inform what LaDuke and Cowen propose as an alternative to Wiindigo infrastructure: “*alimentary infrastructure* [...] that is life-giving in its design, finance, and effects” (LaDuke and Cowen: 245). This designates an approach to modifying nature – or modifying the given – that aims to ensure the health of the environment and its habitability for human and nonhuman life.

As illustrated in Yuknavitch’s novel, when maximizing living diversity is the aim of infrastructure, it employs strategies that follow nature’s lead instead of overwriting it. The system Joan crafts feeds into and harnesses the capabilities of “underground aquifers:” naturally-occurring layers of permeable rock that in themselves enable the filtration of water. This moment encourages the reader to see nature as always already infrastructural in a way that is abstracted from, or enhanced through, synthetic materials and processes. In turn, this gestures toward a remedying of the rift between infrastructure and base, uncommodified nature, opposing a model in which infrastructure is sharply distinct from wild spaces and seeks to commodify, absorb, and destroy them.

While CIEL remains dependent on a fossil regime, extracting oil and coal from Earth, Joan and Leone’s development exceeds this order:

When the fuel began to deteriorate and run out, it became absurd to try to replenish it. It became absurd to maintain the old travel routes. (Yuknavitch 2017: 131)

Theirs is a truly alternative economy of energy and movement, with Joan noting of the cave that “Former geographies and nation-borders had overlooked the place – a biodiversity so rich and secret it was nearly its own world” (ibid.: 140). The world map diagrams the order by which the matter of Earth is organized into the discreet forms of centralized nation-states, including the oil-powered (settler-) colonial states that dominate and displace native cultures and communities. The underground world Joan discovers opens the possibility of an alternative map that might diagram a network of decentralized, multi-temporal, multi-cultural and multi-species life.

The life constellated by such a map would exceed and escape Western humanism and anthropocentric culture more widely, consisting not only of nonhierarchical relations between human individuals and communities, but also of a horizontal relationship between humanity and the nonhuman nature that sustains it. As Joan says of her underground dwelling: “They’d made a life here. No. Life made itself here. They merely coexisted” (ibid.: 141). In this context, nature is not conceptualized as a possession or an instrument, governed in accordance with a hierarchical human-nonhuman binary in which “life” is synonymous with *human*. Instead, nature is recognized as living independently and in accordance with explicitly nonhuman objectives and infrastructural formations.

Eventually, Joan and Leone become aware of other subterranean survivors who were barred from CIEL and left for dead on Earth. Along with base nature, they are not legitimized as life by the hegemonic CIEL and its taxonomy of recognition. Patricia MacCormack notes the subversive potential of community-assemblages formed by those excluded from the dominant model of human exceptionalism. Specifically, she envisions queer alliances whereby the marginalized “*unlike but like* [...] form a collective sharing connection” (MacCormack) whose intersectional and multivalent plasticity is absolutely opposed to the “majoritarian anthropocentrism” (ibid.) dominated by the patriarchal figure of white supremacy. In this context, queer alliances cut across social divides without homogenizing those they unite.

*The Book of Joan* opposes this potential community to the oppressive, anthropocentric-ecocidal culture enabled by white-supremacist and extractivist infrastructure. The deviant implosion of subterranean becoming enacted by those excluded from CIEL proceeds from the narrative “breach” produced by Joan’s assault on its totalizing hyperhumanist apparatus. This opens a space for new, undetermined connections between humanity and nature, and between non-homogenous yet allied and interdependent humans.

## Conclusion: Recoupling Human-Synthetic and Nonhuman-Natural Infrastructure

This article has elaborated an account of infrastructural insurgency that explores both how infrastructure enacts oppression and how this might be challenged through methods that work just as much through infrastructure as against it. I initially explored how dominant infrastructures seek to aggregate, interiorize, and homogenize life, progressively eradicating the complex diversity of human-kind and nonhuman nature. I then considered how the semiotic and physical infrastructure of hyper (–mono)humanism, as distilled in the figure of CIEL, might be subverted from both within and without.

For her part, Christine redirects CIEL’s semiotic infrastructure, deploying it as a conductor of explosive, noncompliant creativity. Her use of the grafting system begins to recover erotic autonomy and resurrects the story of Joan as a metonym for the nonhuman *outside*. Joan’s story provides an alternative, non-anthropocentric narrative infrastructure that disrupts and decenters the fascist extractivism of CIEL while engaging the revolutionary power of “base corporeal drives,” which respond to and intensify the invocation of base nature. However, the limitations of Christine’s project and perspective are encountered in her failure to engage meaningfully with the non-Western cultures, temporalities, and narratives repressed by the governing signs of white supremacy.

Alternatively, Joan and Leone undertake a material resistance that exploits CIEL’s irrepressible dependence on nature. As with Christine, they weaponize the dominant infrastructure against itself while modeling entirely new formations. As they turn CIEL’s channels of appropriation into lines of attack, they simultaneously forge infrastructures that are guided by the existing structures of “transitivity” (Wenzel: 169) generated by nonhuman matter.

At this juncture, it remains to consider in ever-greater imaginative detail what life-giving infrastructures can look like and accomplish: what communities of “the unlike but like” they can forge and hold together. These would be communities of minoritarian thriving that are simultaneously united and internally-heterogeneous. What mechanisms could infrastructure deploy to synthesize with and liberate – instead of subsuming and eradicating – autonomous nature, difference, and desire? Destruction of hyperhumanist infrastructure must feed directly into the production of new models of non-homogenizing connectivity. Creation and destruction are married in a process of transformation in which egalitarian and non-anthropocentric infrastructures offer decentralized, horizontal alternatives to an increasingly contested regime.

### Note

1. That race has no genetic basis or reality (Rutherford 2022) does not diminish the significance of its cultural reality or the self-authored racial identities of minority groups.

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### Notes on Contributor

*William Taylor* is a doctoral researcher at the University of Glasgow, exploring the infrastructural politics of queer bio- and eco-horror.

### ORCID

William Taylor  <http://orcid.org/0009-0002-9814-7184>



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