

Reclaiming Infrastructure: A Native Feminist Critique and Vision for Alternatives

Tristin Diaz¹

¹*Henry Samueli School of Engineering Undergraduate, UCLA, Los Angeles, CA 90095, USA*
**tristindiaz@g.ucla.edu*

Abstract: Infrastructure is often seen as neutral, yet it reinforces settler colonialism, racial capitalism, and heteropatriarchy. This paper applies a Native Feminist lens to critique how these systems shape infrastructure and perpetuate systemic inequities

INTRODUCTION

Infrastructure is central to modern economies, facilitating transportation, energy production, and urban development. However, its construction and maintenance are rarely neutral. Throughout history, engineering and architectural regulations have been used to control land use, dictate ownership models, and determine whose interests are prioritized in urban planning. From redlining policies that codified racial segregation to zoning laws that enforce economic stratification, these technical standards have often served as tools of systemic exclusion. For Indigenous communities, infrastructure development has facilitated displacement and resource extraction, reinforcing settler-colonial control over land. By examining the historical and contemporary impacts of these standards, this paper investigates how engineering codes have functioned as mechanisms of power and exclusion in urban and infrastructural development. In doing so, I explore how alternative approaches might challenge these exclusionary frameworks and promote more just and inclusive models of land use and ownership.

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METHODS

This study employs Native Feminism as a theoretical framework to examine how colonial infrastructure reinforces settler control, racial capitalism, and heteropatriarchy. Native Feminism is particularly useful for this analysis because it does not simply advocate for inclusion within existing systems but instead seeks to fundamentally reimagine power structures. It highlights how race, gender, class, and disability shape who benefits from and who is harmed by infrastructure projects. This approach also emphasizes the importance of Indigenous sovereignty, traditional ecological knowledge (TEK), and relational governance in envisioning alternatives to colonial infrastructure.

To apply this framework, this study uses three methodological approaches: case study analysis, intersectional analysis, and a comparative framework. These methods allow for a structured examination of how engineering standards and building codes reflect historical biases and how they shape access to space, property, and ownership in urban and infrastructural development.

Examining real-world examples of colonial infrastructure and Indigenous-led alternatives provides a critical lens through which to understand the systemic inequities embedded in development projects. The Dakota Access Pipeline (DAPL) serves as a case study in settler infrastructure, land dispossession, and environmental racism. The DAPL was constructed in

order to transport oil from North Dakota to Illinois. The route passes under the Missouri river near the Standing Rock Sioux Reservation, which raised concerns about the potential for water contamination and the violation of sacred Indigenous lands. Despite widespread protests led by the Standing Rock Sioux Tribe and allies, the pipeline became operational in 2017. This case highlights how colonial infrastructure projects prioritize corporate and state interests over Indigenous sovereignty and environmental protection.

In contrast, Indigenous-led water sovereignty projects present alternative models for sustainable and community-driven infrastructure. For instance, the Mni Wiconi water project at Standing Rock emerged as a grassroots response to the threats posed by DAPL. This initiative reflects a commitment to water as a sacred resource, managed through Indigenous governance structures rather than corporate control.

This study employs intersectional analysis to assess how infrastructure projects disproportionately impact marginalized communities. Specifically, it considers how Settler infrastructure overwhelmingly benefits corporations, extractive industries, and predominantly white settler communities, while disproportionately harming Indigenous, Black, and other marginalized populations. Additionally, Indigenous women are at the forefront of resistance movements but also experience heightened risks of violence and criminalization, such as the increased rates of missing and murdered Indigenous women (MMIW) linked to infrastructure projects like oil pipelines. Disabled individuals in marginalized communities face further barriers due to pollution, inaccessible infrastructure, and healthcare disparities. Additionally, pollution from extractive industries disproportionately impacts Indigenous communities, exacerbating chronic illnesses and disabilities while simultaneously restricting access to culturally relevant medical care. By incorporating an intersectional approach, this study highlights how infrastructure planning reinforces multiple, overlapping systems of oppression.

A comparative framework is used to contrast colonial infrastructure models with Indigenous infrastructure paradigms. This approach identifies key differences in priorities: While colonial infrastructure models prioritize extraction, profit, and corporate-state control, Indigenous infrastructure paradigms emphasize sustainability, relationality, and community-led governance.

This study examines how Indigenous nations have long practiced land stewardship and relational governance, providing alternative frameworks for infrastructure development that prioritize ecological balance and intergenerational responsibility. The comparative analysis helps situate Indigenous-led projects as viable and necessary alternatives rather than as marginal or exceptional cases.

RESULTS AND INTERPRETATION

Applying a Native Feminist and intersectional analysis to infrastructure development reveals how settler colonialism, racial capitalism, and heteropatriarchy shape the design and impact of large-scale projects. The case of the Dakota Access Pipeline (DAPL) illustrates how infrastructure serves as a tool for land dispossession, environmental harm, and corporate-state control. Despite widespread resistance from the Standing Rock Sioux Tribe and their allies, the U.S. federal government and private corporations prioritized economic interests over Indigenous sovereignty. The DAPL's construction and continued operation exemplify the ongoing disregard for treaty rights, Indigenous governance structures, and environmental stewardship.

Infrastructure development has long been a tool of settler colonialism, reinforcing systems of land dispossession and treaty violations. Projects such as pipelines, highways, and dams frequently displace Indigenous communities, prioritizing corporate and state interests over Indigenous sovereignty [7]. Infrastructure is not merely a neutral or technical development but a mechanism for land commodification, causing a shift in Indigenous relationships with land from stewardship to capitalist resource extraction [5]. This transformation disrupts Indigenous governance systems and ecological knowledge, privileging short-term economic gain over long-term sustainability.

Colonial infrastructure is also deeply embedded in racial capitalism, which exploits racialized labor while concentrating wealth and resources in settler hands. Many large-scale infrastructure projects disproportionately rely on Indigenous and Black workers for hazardous, low-wage labor while simultaneously erasing Indigenous sovereignty over land and resources [6]. The construction of pipelines and other extractive projects not only profits from Indigenous land but also disregards Indigenous governance structures and decision-making processes, reinforcing historical patterns of economic and political disenfranchisement.

Furthermore, an intersectional approach highlights how gender and disability shape the consequences of infrastructure projects. Large-scale projects, particularly those related to resource extraction, have been directly linked to increased violence against Indigenous women and girls. Temporary labor settlements known as "man camps," established near pipeline construction sites, have been identified as significant contributors to the Missing and Murdered Indigenous Women (MMIW) crisis [4]. The presence of transient, predominantly male workforces in these regions exacerbates risks of gender-based violence, human trafficking, and community destabilization. Additionally, disabled individuals in Indigenous communities experience heightened vulnerability due to infrastructure-related pollution, inaccessibility, and disruptions to traditional food and medicine sources. The extractive infrastructure model, therefore, reinforces systemic violence while undermining Indigenous community well-being.

CONCLUSIONS

Colonial infrastructure is far from neutral. Rather, it operates as a tool of settler control, racial capitalism, and heteropatriarchy. The historical and ongoing displacement of Indigenous communities, the exploitation of land and labor, and the systemic erasure of Indigenous governance demonstrate that infrastructure development is deeply political. By prioritizing corporate interests and state expansion, colonial infrastructure perpetuates environmental destruction and social harm, disproportionately affecting Indigenous peoples.

Native Feminism provides a critical framework for analyzing these injustices while envisioning alternative models rooted in Indigenous sovereignty and sustainability. This perspective challenges the assumption that infrastructure must adhere to capitalist and extractive paradigms, and instead advocates for systems that honor Indigenous ways of knowing, relational accountability, and ecological responsibility. While colonial infrastructure reinforces exclusionary systems, Indigenous-led approaches demonstrate that infrastructure can be designed with reciprocity, sovereignty, and collective well-being at its core.

Decolonizing infrastructure requires centering Indigenous knowledge systems, challenging exclusionary policies, and reimagining engineering and planning frameworks to align with Indigenous governance structures. Future research should examine how legal, policy, and engineering standards can meaningfully integrate Indigenous ecological principles and decision-making. By doing so, infrastructure can become a tool for healing rather than harm,

fostering Indigenous sovereignty, environmental stewardship, and social justice while navigating systemic constraints.

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