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Technologies of Territoriality: Indigeneity, Surveillance, and the State

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TECHNOLOGIES OF TERRITORIALITY:

INDIGENEITY, SURVEILLANCE, AND THE STATE

by

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ABSTRACT

This dissertation examines the global spatial surveillance of Indigenous peoples, nations, and territories in the twenty-first century through a multi-site relational analysis of colonial surveillance and Indigenous cartography in the United States, India, and Palestine. Analyzing Indigenous graphic novels, video games, virtual reality, performance protests, and visual art, I demonstrate how air and the aerial perspective actively shape what happens on and below the ground. I argue that Indigenous experiences of and responses to colonial and counterinsurgent surveillance are not limited by the geographic and legal bounds of nation-states but are rather linked through global histories of militarization and colonialism. Furthermore, Indigenous cartographic expressions of sovereignty and self-determination challenge both the immutability of settler states and colonial ways of seeing. This project intervenes in cultural studies and Indigenous geography to consider the volume of Indigenous territory above, below, and on the surface of the earth.

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I.   INTRODUCTION

INTRODUCTION

All of humanity emerged from a rock on my family's rice field. This is what I was taught. The field, though small, boasts a perennial spring that comes out from below the rock that is the source of all of humanity, keeping the field permanently flooded and amenable for growing rice. The first time I descended the stone terraces from the village to the field, my aunties and uncles showed me where to place my hands on the rock to feel the polished grooves where, they say, the first people stepped and climbed up into the world, in what is now our small rice field.

Our rice field and village are in Nagaland, an Indigenous territory at the junction of India, Myanmar, and China, which is simultaneously a state of India within India's most northeast boundary, and a nation that declared its independence from British rule before India, Pakistan, or Myanmar declared their independence. Nagaland is often unknown, in India or elsewhere, and deeply connected to Indigenous internationalist movements since the early twentieth century. Rice is grown in terraced fields below the village, built into hillside slopes. Natural springs emerge on the surface where groundwater is underlaid by an impermeable rock layer, causing the water to flow out to the surface instead of down through the stratigraphic layers. On the surface, water flows from one terrace to the next, keeping all the rice fields irrigated simultaneously, as any overflow in higher terraces naturally flows to lower terraces. Narrow rock walls between terraces create breaks so that water can pool, and people can navigate between terraces and fields. Expansion of rice plots in this part of the village is impossible, as these ancestral fields are built into the hillside and are bounded on either side by steep slopes. Thus, each terraced rice field is not just a node in a network of connection, but the production of rice in these fields is dependent on ongoing relations between people,

water, land, and rice. These are inherently spatial relations that extend below and above the surface into three-dimensional space.

I begin this dissertation with the rock, stream, and rice field in order to suggest a mode through which we might consider Indigenous space, place, and territorial sovereignty. Indigenous territory is not a bounded two-dimensional space. Instead, Indigenous territory is markedly volumetric space in which the aerial, surficial, and subterranean are interconnected and inseparable. How do these categories of volumetric space resonate within the context of contemporary colonialism and counterinsurgency globally? If Indigenous territory is volumetric, how might we understand Indigenous sovereignty as volumetric? How do relationships between the aerial, surficial, and subterranean figure in Indigenous visual representations of territory, sovereignty, and nationhood? The landscape representations analyzed in this dissertation provide ways of thinking about sovereignty through relationality and kinship beyond Westphalian notions of sovereignty. These representations push back against the policing of normative understandings of territory and sovereignty.

I ask: How has the aerial perspective been normalized as way of seeing Indigenous territory? What does this remote mode of seeing reveal about how we relate to colonial state violence? How do militarized modes of seeing generate a structure of feeling such that we can sense from a distance? How do militarized spatial technologies shape not only how we look, but what we look for? In this study of the impact of surveillance technologies on the ongoing colonization of Indigenous nations, I argue that everyday practices of surveillance have become integral to contemporary Indigenous experiences of colonialism. Furthermore, I contend that geospatial surveillance

technologies enable colonial practices of territoriality to transit the globe smoothly and with speed, thereby creating a methodological template for how imperial and colonial forces attempt to police and control Indigenous peoples in the current moment. Ultimately, my research asks: Are Indigenous politics geopolitics?

I examine India, Palestine, and the United States, three former colonies of the British empire, linked in the twenty-first century through a shared network of training facilities, weapons, and techniques of counterinsurgent warfare. I use a comparative framework to consider how these nation-states use geospatial surveillance methods to further colonial occupation and governance. In each chapter, I examine the volume of territory and how colonial nations represent territory in order to lay claim to and control it and, in contrast, how Indigenous nations represent themselves and their territories in methods that challenge colonial ways of seeing.

In section one, I examine the realm of the aerial. Focusing on environmental and counterinsurgent surveillance in India-occupied Nagaland, I consider how the aerial perspective operates as a means to know and claim Indigenous and occupied territories. Here, I investigate Indian constitutional categories which limit claims to Indigeneity and sovereignty. I then look at contemporary practices of geospatial surveillance and control, such as environmental data collection and internet blackouts, which enforce those legal and constitutional categories, even when they are in opposition to international human rights law. In section two, I consider the earth's surface through crowd sourced data and the production of digital interactive maps in Palestine and traditional embroidery processes integrated with digital design that imagine Palestinian landscape futures. In this section, I examine the use of geospatial technologies such as GPS, GIS, and public map

resources like Google Maps, as well as political dialogue around these technologies. I consider the 7amleh Arab Center for Social Media Advancement's investigation into Google Maps' representation of Palestine and what 7amleh proposes in opposition to the perspective represented by Google Maps. Here, I consider how the aerial perspective flattens and simplifies the political topography of territory and in so doing creates conditions of danger and fear in some populations, while protecting others. In section three, I examine the subterranean. I consider Indigenous movements for environmental justice in the U.S. to query how cultural production pushes back against the colonial idea that the subterranean can be claimed independently from the earth's surface. I examine activism against pipelines and mining through cultural production that addresses both two- and three-dimensional conceptions of Indigenous territory, including analysis of the Zuni Map Art Project, video game *Thunderbird Strike*, and virtual reality *Poise/end*.

This project is in conversation with work in transnational American studies on violence and visual culture. My research applies visual analysis to examine geospatial surveillance of Indigenous territories as a technique of ongoing colonization in the twenty-first century. As a method of cultural studies, visual analysis informs how I interpret representations of Indigenous territory within a legal, geopolitical context, from visualizations of quantitative data made with Geographic Information Systems (GIS) to Indigenous-created video games. I seek to understand not only what these examples of visual culture appear to do, but also what arguments and claims they make or reinforce and how those claims are enacted geopolitically. As I will summarize in this introduction, scholars of visual culture assert that visuality is not merely a reflection of war and violence, it is an active player in war and violence. Thus, I examine visual evidence in

this project as agents maintaining, growing, surviving, or resisting colonial power. This engagement of visual culture makes space to consider how the aerial perspective shapes colonial and imperial practices of domination.

While I focus in large part on geospatial technologies used to surveil, police, and terrorize Indigenous peoples, this projects also takes seriously the ways in which these technologies and the theories that undergird them intermingle in quotidian life of domesticity, work, and pleasure. For example, in chapter two, I examine GPS tagging of birds as a mechanism to surveil Indigenous peoples. However, I am interested here in how these technologies allow non-military personnel to participate in the practice of surveilling Indigenous peoples through a seemingly innocent activity: armchair bird watching. Similarly, in chapter three, I examine how seemingly open-access maps increase the risk of arrest and detainment or limit the movement of subaltern others. Building on the work of scholars who demonstrate how geospatial technologies are used to mark and kill precision targets, collect intel, and sense remotely, I seek to demonstrate how these technologies insidiously infiltrate social and political life.

Indigeneity is inseparable from territory, whether in definitions used by United Nations or at the local scale. Likewise, land is the defining element and object of settler colonialism. Drawing on Stuart Elden's challenge to consider the volume of territory, this project intervenes in contemporary scholarship in Indigenous studies, transnational American studies, and critical political geography to reimagine the volumetric

sovereignty of Indigenous nations, thereby understanding Indigenous politics as geopolitics.[1]

India, Israel, and the United States

India, Israel, and the United States are linked in the twenty-first century through a shared network of training facilities, weapons, and techniques of counterinsurgent warfare. Overt military connections are strengthened by economic and technological relationships. Since 9/11, these three countries have increased their network of connections via shared anti-terror efforts, making the war on terror a global project of multiple collaborating imperialisms, not just a project of the United States.[2] In 2020, the U.S., India, and Israel announced a collaboration to develop and share an interoperable 5G communication network that will allow them to collect and share data between nation-states, a development they celebrate as an act of "transparency."[3] This collaboration further imbricates these three imperial powers, making digital and distant the sharing of counterinsurgent knowledge and practices already in place between these three states.

While the defense and technological relationships between the U.S. and Israel have been well documented, India's role in this triangle of relations is less well known. In 2005, India brokered a deal to purchase radar and surveillance systems from Israel,

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[1] Stuart Elden, "Secure the Volume: Vertical Geopolitics and the Depth of Power," *Political Geography* 34 (2013): 35-51.

[2] Oza, Rupal, "Contrapuntal Geographies of Threat and Security: The United States, India, and Israel," *Environment and Planning D: Society and Space* 25, no. 1 (2007): 9-32.

[3] "India, US, Israel Collaborating in 5G Tech: Official," *The Economic Times* September 8, 2020, https://m.economictimes.com/industry/telecom/telecom-news/india-us-israel-collaborating-in-5g-tech-official/articleshow/77989265.cms

followed by subsequent purchase of rifles and other weapons for use by India's

counterinsurgency forces.[4] India soon became the top export target of Israel's defense

industry.[5] Since Narendra Modi was elected prime minister, India has accelerated its

relationships with Israel and the U.S. to develop and import defense technologies.[6] In

addition to importing drones, radar trackers, missiles, and trained dogs, in 2014 India and

Israel signed an intelligence-sharing agreement to collaborate in their counter-terrorism

efforts.[7] The trilateral relationship to develop defense technology was formalized in

2020.[8]

While scholars speculated that India had the most to gain, this formal agreement

also secures Israel and the U.S. an ally in south Asia in a state bordering both Pakistan

and China. In addition, India's primary site of export of defense technologies is Africa, so

a relationship with India provides a route for the U.S. to reach the African defense

market.[9] In India, this formal relationship marks a dramatic shift of India's geopolitical

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[4] Aman Sharma, "CRPF gets Israeli assault rifles to combat Maoists," *India Today,* November 7, 2011, accessed April 19, 2022, https://www.indiatoday.in/india/north/story/crpf-gets-israeli-made-assault-rifles-to-fight-maoists-145079-2011-11-07

[5] N.C. Bipindra and Natalie Obiko Pearson, "Modi Revives India-Israel Ties as Terrorism Threat Grows," *Bloomberg*, November 19 2014. https://www.bloomberg.com/news/articles/2014-11-19/modi-revives-india-s-ties-with-israel-as-terrorism-threat-grows

[6] "India, US, Israel Collaborating," 2020.

[7] Ibid.

[8] "India, Israel, and US Cooperating on Digital Leadership and Innovation," *Financial Express,* September 8, 2020, accessed April 19, 2022, https://www.financialexpress.com/industry/technology/india-us-israel-collaborating-in-5g-tech-official/2077544/ ; Sameer Patil, "Inserting India into U.S.-Israel Defense Technology Cooperation," *Gateway House*, April 15, 2021, accessed April 19, 2022, https://www.gatewayhouse.in/inserting-india-into-us-israel-defence-technology-cooperation/

[9] Elizabeth Roche, "India, Israel, US Can Carve Out Trilateral Cooperation on Defense Technology: Report," *LiveMint* April 18, 2021,

relations with Israel in particular. Historically, India expressed solidarity with Palestine.

India voted against the inclusion of Israel in the United Nations, prohibited travel to

Israel and South Africa on Indian passports, voted in support of UN resolution 3379

which marked Zionism as a form of racism, produced a postage stamp with Indian and

Palestinian flags and the caption "India supports the inalienable rights of the Palestinian

people." India was the first country to recognize the state of Palestine. [10]

A relationship with India secures the U.S. and Israel a major ally in what is

increasingly being referred to as the "Indo-Pacific." This term began to pick up traction

in the late 2010s and is used broadly to refer to the Asia-Pacific and the Indian ocean as a

single interconnected region, linking South and Southeast Asia to Africa, Australia, and

other Pacific Island nations.[11] U.S. interest in this formulation has led to critiques that

this conceptualization of the Indo-Pacific is a geopolitical strategy to sideline China and

enable a greater U.S. presence in the region. The Association of Southeast Asian Nations

2019 statement "ASEAN Outlook on the Indo-Pacific" refutes this critique, asserting that

the Indo-Pacific is a linking of two regions to enable greater cooperation and shared

economic development.[12] The Indo-Pacific, ASEAN argues, is "a perspective of viewing

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https://www.livemint.com/news/india/india-israel-us-can-carve-out-trilateral-cooperation-on-defence-technology-11618753859087.html

[10] Rupal Oza, "Tracing a Tectonic Shift: India's Relations with Israel and Palestine," *Society and Space,* September 18, 2014, accessed April 19, 2022, https://www.societyandspace.org/articles/tracing-a-tectonic-shift-indias-relations-with-israel-and-palestine

[11] Rory Medcalf, "Reimagining Asia: From Asia-Pacific to Indo-Pacific," in *International Relations and Asia's Southern Tier: ASEAN, Australia, and India*, eds. Gilbert Rozman and Joseph Chinyong Liow (Springer, Singapore, 2018): 9-28.

[12] "ASEAN Outlook on the Indo-Pacific," Association of Southeast Asian Nations, accessed April 18, 2022, https://asean.org/wp-content/uploads/2019/06/ASEAN-Outlook-on-the-Indo-Pacific_FINAL_22062019.pdf

the Asia-Pacific and Indian Ocean regions not as contiguous territorial spaces but as a

closely integrated and interconnected region, with ASEAN playing a central and strategic

role."[13] However, the U.S. State Department's official statements on the Indo-Pacific do

exactly what critics say they do. The first statement regarding the Indo-Pacific issued by

the U.S. State Department in 2019, "A Free and Open Indo-Pacific: Advancing a Shared

Vision," builds on former President Donald Trump's 2017 priority of U.S. engagement in

the Indo-Pacific. It begins with a claim that centers the United States: "The United States

is and always will be an Indo-Pacific nation. From our first trading ships that departed for

Canton just after the American Revolution to our first consular presence in Kolkata in

1794, U.S. engagement in the Indo-Pacific is a story of trade, exchange, shared sacrifice,

and mutual benefit."[14] Later that year, the U.S. Department of Defense published a

strategy report that unequivocally stated "The Indo-Pacific is the Department of

Defense's priority theater."[15] President Biden has further developed the concept of a "free

and open Indo-Pacific." The February 2022 update "Indo-Pacific Strategy of the United

States" published by the White House begins with an even stronger claim than that of the

previous administration: "The United States is an Indo-Pacific power."[16] This publication

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[13] Ibid., 2.

[14] "A Free and Open Indo-Pacific: Advancing a Shared Vision," U.S. Department of State, 2019, 5, accessed April 18, 2022, https://www.state.gov/wp-content/uploads/2019/11/Free-and-Open-Indo-Pacific-4Nov2019.pdf

[15] "Indo-Pacific Strategy Report: Preparedness, Partnerships, and Promoting a Networked Region," U.S. Department of Defense, 2019, 4, accessed April 18, 2022, https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF

[16] "Indo-Pacific Strategy of the United States," White House, 2022, 4, accessed April 18, 2022, https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf

defines the Indo-Pacific as "stretching from our Pacific coastline to the Indian Ocean."[17] This spatial claim attempts to naturalize U.S. presence in Asia through references to physical geomorphology. If the U.S. borders the Pacific, it must be part of the Indo-Pacific. This vision of the region effectively gives license to the U.S. to engage in trade, development, and geopolitical relations with nearly the entire global south.

The terms counterinsurgent and counterterror refer to an overlapping set of strategies and tools of low intensity warfare. The use of the word counterinsurgency in printed media has peaked three times in the past 60 years, first increasing dramatically in the 1960s, then again in the mid-1980s, exceeding the peak in usage of the 1960s, and increasing exponentially after 9/11. Counterterror came into usage in the 1940s, increased in the 1980s, and increased in usage exponentially after 9/11. Both terms were at their highest usage level from 2008-2012.[18] While both terms refer to political and military actions taken against people who have been deemed a threat to the state, counterterrorism conveys a certain urgency and legitimacy in popular understanding. It functions as a sort of post-9/11 rebranding of counterinsurgency to ignite public imagination.

Counterterrorism evokes the U.S. war on terror and the associated surveillance efforts domestically that people in the U.S. experience when, for example, we remove our shoes and pose with our hands above our heads in an Advanced Image Technology (AIT)

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[17] "Indo-Pacific Strategy of the United States," 2022.

[18] This data comes from Google Books Ngram Viewer. Google Book Ngram Viewer generates graphs based on the number of times the word or words a user provides appear in a corpus of books over a selected period of time. For my analysis, I searched for data from all books published in English from 1800 to 2019. See: https://books.google.com/ngrams/graph?content=counterinsurgency%2C+counterterror&year_start=1800&year_end=2019&corpus=26&smoothing=3&direct_url=t1%3B%2Cco unterinsurgency%3B%2Cc0%3B.t1%3B%2Ccounterterror%3B%2Cc0

scanner at the airport for Transportation Security Administration. The U.S. context for counterterrorism is tied to 9/11 and U.S. Islamophobic projects domestically and abroad. These strategies and tools of the post-9/11 counterterrorism efforts are increasingly also applied against Black and Indigenous political movements within the borders of the U.S. state, most notably in the use of tanks at 2014 Ferguson protests over the police shooting of Michael Brown and in the surveillance tactics against water protectors at Standing Rock by TigerSwan, a security firm that contracts with the U.S. military for its counterinsurgency efforts in the Middle East and in the borders of the U.S. and Mexico with the Border Patrol Tactical Unit.[19]

This proliferation of counterinsurgency tactics is part of what scholars such as Nikhil Pal Singh, Alex Lubin, and Ronak Kapadia refer to as the "global war on terror" or the "forever war," an ongoing war by nation-states against those they deem to be threats to state authority.[20] This approach understands the war on terror within a historical context of imperial and colonial warfare against Indigenous and land-based peoples and sees it as transmogrifying between places and times. If the opponent fought in the war on terror is "terror," and terror is defined by the state, then the war on terror can indeed be understood as a forever war and any group can be targeted by the state as the source of

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[19] Steven M. Radil, Raymond J. Dezzani, and Lanny D. McAden, "Geographies of U.S. Police Militarization and the Role of the 1033 Program," *The Professional Geographer* 69, no. 2 (2017): 203-213; Alleen Brown, Will Parrish, and Alice Speri, *The Intercept,* May 27, 2017, accessed April 19, 2022, https://theintercept.com/2017/05/27/leaked-documents-reveal-security-firms-counterterrorism-tactics-at-standing-rock-to-defeat-pipeline-insurgencies/
[20] Nikhil Pal Singh, *Race and America's Long War* (Berkeley: University of California Press, 2017); Alex Lubin, *Never-Ending War on Terror* (Berkeley: University of California Press, 2020); Ronak K. Kapadia, *Insurgent Aesthetics*, (Durham: Duke University Press, 2019).

terror. Similarly, the war on terror is so abstract as to be placeless; it can be fought both domestically and abroad, by the United States and other nation-states. Israeli discourse about Palestine represents Palestinians as terrorists and Israeli occupation as a defense against terrorism. Similarly, the intensification of Hindu nationalism in India and global Hindutva can be read as an imperial reinforcement and proliferation of the war on terror, in which proponents of Hindutva take up the language of the U.S. war on terror to serve their own interests in a project of global Islamophobia.[21]

The U.S. is not the only state to conflate its Islamophobic and anti-Indigenous agendas. Israel and India have taken up the language of the war on terror to describe both Palestinian movements and Kashmiri movements, respectively, while simultaneously enacting settler colonial policies on Palestinian and Kashmiri lands. India refers to Adivasi and tribal peoples in India alternately as insurgent, terrorist, Maoist, and secessionist, and continues to dispossess Adivasis of their lands by expelling them from forest areas "protected" for environmental conservation efforts and accusing tribal people in northeast India of poaching protected species.[22] In India, mechanisms such as the 2020 Citizenship Amendment Act create a pathway to Indian citizenship for "illegal immigrants" of five religions, but this act excludes Muslim immigrants. Protests erupted in states in northeast India, which is home both to many Indigenous peoples as well as

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[21] Shaista Patel, "Dismantling Hindutva with Islamophobia?" *Pulse* February 19, 2022, https://pulsemedia.org/2022/02/19/dismantling-hindutva-with-islamophobia/

[22] Adivasi is a term used to refer to aboriginal inhabitants of India. I describe understandings of "Adivasi," "tribal," "Scheduled Tribe," and "Indigenous" in the Indian context in chapter one.
Sanjay Barbora, "Riding the Rhino: Conservation, Conflicts, and Militarisation of Kaziranga National Park in Assam," *Antipode: A Journal of Radical Geography* 49, no. 5 (2017): 1145-1163.

many migrants from neighboring countries. Muslim migrants protested their exclusion from the CAA, while Indigenous peoples in Assam protested the act for fear that granting citizenship to migrants of any religion would make Indigenous peoples minorities in their own lands.[23] Islamophobic and anti-Indigenous projects are intertwined.

The U.S.-Israel-India project of multiple imperialisms in collaborative counterinsurgent warfare is an anti-Indigenous colonial project as much as it an Islamophobic project. In fact, Islamophobia and anti-Indigenous counterinsurgency are overlapping and mutually reinforcing imperial epistemologies that must be considered in relationship to each other. While scholars from Transnational American studies, political science, and critical ethnic studies have examined connections between these sites via analyses of Islamophobia and U.S. imperialism, I am interested in how imperial and colonial practices take meaning through control and surveillance of Indigenous territory. The purpose of this dissertation is to examine this trilateral techno-imperial coalition as a fundamentally colonial project of Indigenous land theft, displacement, exclusion, and genocide. Furthermore, I argue that while these imperial projects coexist in the contemporary moment, anti-Indigenous colonial projects undergird and serve as testing grounds for counterinsurgent war domestically and abroad.

Indigeneity

Indigeneity is defined and taken up unevenly as a category across these three states. In later chapters, I will discuss in detail how the state polices and surveils

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[23] Abu Sufian, "Geopolitics of the NRC-CAA in Assam: Impact on Bangladesh–India Relations," *Asian Ethnicity* (2020): 1-31.

Indigeneity towards its own security as well as how Indigeneity is taken up (or not) and mobilized against the settler state. For the purpose of foregrounding this conversation, I will briefly discuss here how Indigeneity as a subject position is defined and put in to play both by the states of interest in this dissertation and by the land-based peoples whom these states surveil. Rather than assume that Indigeneity is clearly defined within first world Anglo settler states and tenuous elsewhere, I assert that Indigeneity is complex, contested, and continually reexamined globally. There need not be agreement within a particular land-based community on the definition of Indigeneity, or on a singular route to take to assert sovereignty, self-determination, or nationhood, in order for Indigeneity to be taken up as an analytic to understand the complex creation and severing of relations through colonialism.

I follow Taiaiake Alfred and Jeff Corntassel in understanding Indigenous peoples as those who are "Indigenous to the lands they inhabit, in contrast to and in contention with the colonial societies and states that have spread out from Europe and other centers of empire."[24] Indigeneity is marked both by a political relationship to the colonial nation-state and by a cultural identity marked by a community's shared language, polity, spiritual practices, and other characteristics that are distinct from those of the occupying state. Both these political and cultural identifiers, however, are based on Indigenous peoples' historic and ongoing relationships to the lands they inhabit, which Alfred and Corntassel call an "oppositional, place-based-existence."[25] The oppositional politics

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[24] Taiaiake Alfred and Jeff Corntassel, "Being Indigenous: Resurgences Against Contemporary Colonialism," *Government and Opposition: An International Journal of Comparative Politics* 40, no. 4 (2005): 597-614, 597.
[25] Ibid., 597.

operating in their definition is at the core of George Manuel's 1974 articulation of the

"Fourth World," a global movement of and for Indigenous nations who were excluded

from the formal process of decolonization in the mid twentieth century.[26] Manuel

explicitly articulated the Fourth World as a global project:

> Our celebration will embrace the aboriginal peoples of the world: The
> Indians of the Americas, the Lapps of Northern Scandinavia, the
> Polynesian and Pacific Basin peoples, the Basques of Spain, the Welsh
> and Celts of Great Britain, the Maori and Australian aborigines. These are
> the peoples whom we know, but there are more. Within the Soviet Union,
> China, Japan, and Ceylon are numerous peoples unknown in the Western
> world who share the status and perhaps the fate of the Western
> aborigines.[27]

Geographer Bernard Nietschmann elaborated on this notion of the Fourth World in an

examination of the relationship between the Third World and the Fourth World. While

Third World countries emerged from former European colonies, Nietschmann argues, the

development of the Third World is "achieved by the invasion and forced annexation" of

the Fourth World.[28] Nietschmann distinguishes between what he terms "nation peoples"

and "state peoples." While a *nation* is made up of a common people who share a

geographically bounded territory, a *state* "is a centralized political system, recognized by

other states, that uses a civilian and military bureaucracy to enforce one set of

institutions, laws and sometimes language and religion within its claimed boundaries."[29]

The Indigenous Fourth World, then, is made up of "nation peoples" with their

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[26] Glen Sean Coulthard, "Introduction: A Fourth World Resurgent," in *The Fourth World: An Indian Reality,* George Manuel and Michael Posluns. (Minneapolis: University of Minnesota Press, 2019): 4.

[27] George Manuel and Michael Posluns, "The Indian World and the Fourth World," *Current History*, 67, no. 400 (1974): 263-279, 266.

[28] Bernard Neitschmann, "The Third World War," *Cultural Survival Quarterly* 11, no. 3 (1987): 1-16, 3.

[29] Ibid., 1.

relationships to their land at the core of their identity as nations, and the war on the

Fourth World is fundamentally a geographic, territorial war to annex Indigenous lands.

Nietschmann describes how "nation peoples" are rarely identified on their own terms, but

are instead referred to by terms that attempt to depoliticize, such as peasants, minorities,

or ethnic groups, or by terms that erase their identities as nations in order to represent

them as a violent threats to the state, such as terrorists, insurgents, and separatists.[30] To

identify as Indigenous, then, is a fundamentally political stance as well as a geographic

and spatial stance.

Settler colonial studies frames first world Anglo nation-states, including the

United States, Canada, Australia, and New Zealand, as different from other nation-states

with regards to Indigeneity due to their formation as imperial colonies that became

independent states on the territories Britain colonized. These states stand in contrast to

other nation-states which were formed in the period of decolonization when imperial

powers withdrew from the territories they colonized.[31] While the United States

acknowledges the presence of Indigenous peoples within its borders, it resists

identification as a colonizing entity. The Salt Water Thesis, promoted by the United

Nations General Assembly in 1960 in the "Declaration on the Granting of Independence

to Colonial Countries and Peoples," asserted that only colonized territories that were

separated from the colonizing power by ocean were eligible for decolonization and self-

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[30] Ibid., 4.
[31] Aileen Moreton-Robinson, ed. *Critical Indigenous Studies: Engagements in First World Locations* (Tucson: University of Arizona Press, 2016).

determination.[32] This made Indigenous nations in places like the United States ineligible for decolonization through the rubrics of the United Nations.

The boundaries of the category of Indigenous remain troubled and unsettled. In addition to sovereign-to-sovereign treaties between Native nations and the state, tribal sovereignty in the United States is defined through a number of federal acts and supreme court cases such as the Marshall trilogy, three Supreme Court cases which affirmed that private citizens could not purchase land from Native nations, established Native nations as domestic dependents of the U.S., and determined that only the federal government could deal with Native nations, excluding state governments from these dealings. Today, the U.S. federal government recognizes 574 tribes within the 48 contiguous states. These tribes are recognized to have tribal sovereignty, however limited, and entitled to specific benefits and protections based on their relationship to the federal government.[33] Defining Indigeneity within the United States is heavily influenced by the federal government's definition of the "tribe" and reliant on formal processes of recognition by the federal government.[34] In this way, treaty-based tribes are ascribed validity by the federal government as Indigenous, while the Indigeneity of non-treaty-based tribes, such as Indigenous peoples from Latin America or the U.S./Mexico borderlands, is often erased

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[32] Sheryl Lightfoot and David B. MacDonald, "The United Nations as Both Foe and Friend to Indigenous Peoples and Self-Determination," in *The United Nations*: *Friend or Foe of Self-Determination?* ed. Jakob R. Augustin, (Bristol: E-International Relations Publishing, 2020): 32-46; "Declaration on the Granting of Independence to Colonial Countries and Peoples," United Nations General Assembly, Fifteenth Session, accessed April 19, 2022, https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/1514(XV)

[33] "Federally recognized Indian Tribes and Resources for Native Americans," USA.gov, accessed May 13, 2022, https://www.usa.gov/tribes

[34] Joanne Barker, *Native Acts: Law, Recognition, and Cultural Authenticity* (Durham: Duke University Press, 2011)

or called into question in the U.S. context. Joanne Barker argues that "the erasure of Indigeneity from Indigenous Africans, Central and South Americans, and people from the rest of the world when they are in the U.S. and Canada is another means by which the state claims its jurisdictional authority to identify who is or is not Indigenous."[35] As in the 1960 General Assembly of the UN, the United States continues to have an outsize influence on how Indigeneity and Indigenous rights are defined globally.

India simultaneously claims that all Indian citizens are Indigenous and that no one in India is Indigenous. After India voted in favor of the United Nations Declaration on the Rights of Indigenous Peoples in 2007, it later presented a statement on India's position regarding the report of the 9th Session of the Permanent Forum on Indigenous Issues to the Economic and Social Council of the United Nations. The representative of India reiterated the definition of Indigeneity used in ILO Convention No. 169 of 1989, concluding: "Consistent with this definition, we regard the entire population of India at the time of our Independence, and their successors, to be indigenous."[36] The representative went on to contest the use of the term "Indigenous" to be synonymous with "tribals," as was done in two reports submitted to the Permanent Forum that year. "We would like to reiterate that we have a clear understanding on the distinction between the two terminologies," India's representative said, but did not further clarify this distinction. Furthermore, he asserted that the use of the term Indigenous by so-called "minority

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[35] Joanne Barker, *Red Scare: The State's Indigenous Terrorist* (Berkeley: University of California Press, 2021).

[36] Explanation by Mr. Randhir Jaiswal, First Secretary, of Position of India on the report of the 9th Session of the Permanent Forum of Indigenous Issues to the ECOSOC, during the General Segment on 22 July 2010.

groups" was in fact diverting attention and resources from "indigenous issues."[37] These claims echoed India's position in 2007 when it signed UNDRIP. At that time, India expressed that it supported Indigenous peoples' rights and asserted that Indigenous peoples could only be those under "foreign domination" and could not apply to "sovereign Independent states or to a section of a people or a nation."[38] In this statement, India effectively reiterated the Salt Water Thesis of the 1960s to distance itself from any notion of Indigeneity within India's borders.

The distinction between "tribal" and "Indigenous" is also troubled within Indian law. India's constitution establishes a category that distinguishes Scheduled Tribes from other citizens of India. Scheduled Tribes, while not explicitly defined with the Indian constitution, are identified by characteristics of difference from Indian society writ large. This category is used to "mark out a group of people different in physical features, language, religion, custom, social organization and so on." Scheduled Tribes are often described by the lands they inhabit as "hill and forest tribes."[39] Since at least the 1980s, members of Scheduled Tribes have increasingly identified as Indigenous and used the term to express a specific subject position in relation to the Indian state. Furthermore, many scholars argue that "while India is understood as "postcolonial" …the Indian state

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[37] Ibid.

[38] "General Assembly Adopts Declaration on the Rights of Indigenous Peoples; 'Major Step Forward' Towards Human Rights for All, Says President." United Nations Press Release, September 13, 2007, accessed April 19, 2022, http://www.un.org/press/en/2007/ga10612.doc.htm

[39] Jagannath Ambagudia, "Scheduled Tribes and the Politics of Inclusion in India." *Asian Social Work and Policy Review* 5, no. 1 (2011): 33-43.

functions like an imperial, colonizing entity in its tribal and borderland territories."[40]

These scholars engage theories from critical Indigenous studies, Native American and

First Nations studies, and global Indigenous studies to examine the politics of Indigeneity

and Scheduled Tribes in India.[41]

      While scholarly discourse recognizes Israel as a settler colonial state, Indigeneity

in Palestine/Israel is a fraught question. The ambiguity of defining Indigeneity and its

multiple iterations mean that both Zionists and Palestinians have made claims to

Indigeneity, not to mention the colonial imaginary of Palestine/Israel as a homeland and

rightful place for American Christian Zionists. Scholars and activists engage in

comparative and relational discourse linking Native experiences in the United States to

those of Palestinians, making their individual experiences of colonialism legible on a

global scale.[42] This also marks Palestinian experiences as part of global and historical

practices of colonization rather than as ahistorical, individual, and isolated circumstances.

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[40] Mabel Denzin Gergan and Andrew Curley, "Indigenous Youth and Decolonial Futures: Energy and Environmentalism among the Diné in the Navajo Nation and the Lepchas of Sikkim, India," *Antipode* (2021): 2.

[41] For example, see: Charlotte Eubanks and Pasang Yangjee Sherpa, "We Are (Are We?) All Indigenous Here, and Other Claims about Space, Place, and Belonging in Asia." *Verge: Studies in Global Asias* 4, no. 2 (2018): vi-xiv; Gergan and Curley, 2021; Mabel D. Gergan, and Sara H. Smith. "Theorizing Racialization through India's "Mongolian Fringe,"" *Ethnic and Racial Studies* 45, no. 2 (2022): 361-382.

[42] Ahmad Amara and Yara Hawari, "Using Indigeneity in the Struggle for Palestinian Liberation," *Al-Shabaka: The Palestinian Policy Network*, August 8, 2019, accessed May 8, 2022, https://al-shabaka.org/commentaries/using-indigeneity-in-the-struggle-for-palestinian-liberation/Rana Barakat, "Writing/Righting Palestine Studies: Settler Colonialism, Indigenous Sovereignty and Resisting the Ghost(s) of History,*" Settler Colonial Studies*. 8, no. 3 (2018): 349-363; J. Kehaulani Kauanui, "'A Structure, Not an Event.': Settler Colonialism and Enduring Indigeneity," *Lateral: Journal of the Cultural Studies Association* 5, no. 1 (2016). Steven Salaita, "Inter/Nationalism from the Holy Land to the New World," *Native American and Indigenous Studies* 1, no. 2 (2014): 125-44; Mark Rifkin, "Indigeneity, Apartheid, Palestine: On the Transit of Political Metaphors," *Cultural Critique* 95 (2017): 25-70.

This relational discourse refers to a historicized understanding of spatial occupation of territory, such as Sa'ed Adel Atshan's critique of Joy Harjo's acceptance of a residency in Tel Aviv in which he referred to "our shared history as indigenous peoples who have faced ethnic cleansing by European colonists."[43] Mark Rifkin examines how apartheid and settler colonialism are taken up as descriptors of Israel and considers what work these framings do in scholarship and political movements for Palestine. Rifkin argues that both framings overshadow Indigenous self-determination and suggests that Indigeneity as an analytic exposes Zionist exceptionalism and puts Palestine studies in conversation with global scholarly work about settler colonialism.[44] In these relational approaches, Palestinian Indigeneity is defined through shared experiences of ongoing colonialism and a political relationship to an occupying state.

Within the recognition frameworks of international bodies such as the United Nations, Palestinian Bedouin of the Naqab are recognized as Indigenous peoples. As such, Palestinian Bedouins have attended meetings of the UN Permanent Forum on Indigenous Issues and the UN Expert Mechanism on the Rights of Indigenous Peoples.[45] The UN does not have an absolute definition of Indigeneity, but rather, the UNDRIP expresses a number of characteristics from which Indigeneity is often defined. Palestinian Bedouins were recognized as Indigenous on the basis of cultural distinctiveness,

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[43] Sa'ed Adel Atshan, "Palestinian Trail of Tears: Joy Harjo's Missed Opportunity for Indigenous Solidarity," *Indian Country Today,* September 12, 2018, accessed April 20, 2022, https://indiancountrytoday.com/archive/palestinian-trail-of-tears-joy-harjos-missed-opportunity-for-indigenous-solidarity

[44] Mark Rifkin, "Indigeneity, Apartheid, Palestine: On the Transit of Political Metaphors," *Cultural Critique* 95 (2017): 25-70, 56.

[45] Lana Tatour, "Recognizing Indigeneity, Erasing Palestine," *As-Safir Al-Arabi,* May 18, 2019, accessed April 20, 2022, https://assafirarabi.com/en/25757/2019/05/18/the-naqb-bedouin-as-indigenous-people/

continuity of cultural practices, and inhabitance of the Naqab prior to the formation of the

state of Israel. Scholars such as Lana Tatour argue that the emphasis on cultural

distinctiveness and continuity of cultural practices reduces Indigeneity to an assessment

of cultural authenticity and erases the political claims of Indigenous peoples. In the

process, non-Bedouin Palestinian identification as Indigenous is ignored as not culturally

distinct enough to be legitimate. Tatour writes:

> As Palestinians, our right to land is political, not cultural. So is our
> indigeneity. Our understanding of indigeneity stands in contrast to the
> ways in which indigeneity is defined under international law. As
> Palestinians, we know that we are indigenous and we do not need
> international law to confirm this. We know that we are the natives of this
> land. And we know that we are the rightful owners of the land. Our
> indigeneity is not a product of our culture. It is the result of our encounter
> with the Zionist movement as a settler colonial enterprise.[46]

Tatour critiques the rubrics of international law for recognizing Indigeneity based on

cultural aspects. Instead, Tatour defines Indigeneity as an identity that emerges from

political relationship between prior inhabitants of a place and a colonizing, occupying

state.

In summary: The United States recognizes Indigenous peoples within its borders,

but closely polices who is included within its definition of Indigeneity. The U.S. has

limited and continues to limit the extent of tribal sovereignty through multiple

mechanisms including recognition, assimilation, genocide, blood quantum, and the

installation of western governance systems as tribal government.[47] India rejects the

notion of Indigenous peoples within its territorial borders while simultaneously

recognizing Scheduled Tribes which are differentiated from the general population of

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[46] Ibid.
[47] Barker, 2011.

India by the distinctiveness of their history, culture, language, religion, polities, governance, and relation to land. India marks this difference as an indication of "backwardness" and has created both the category of Scheduled Tribe and policy "reservations" for these peoples who are seen as in need of improvement. Within Israel, Palestinian Bedouins are recognized by the United Nations as Indigenous based on cultural distinctness. However, glossing over territorial claims and experiences of colonization in favor of cultural difference erases Palestinian assertions of sovereignty and peoplehood. While Indigeneity is not taken up uniformly in scholarship about Palestine or by Palestinian scholars, Indigeneity has increasing momentum as an analytic through which to understand Palestinian experiences of settler colonialism.

Indigenous Cartographies

In this dissertation, I understand Indigenous mapping as a process of visualizing space, place, and relation, a mode through which Indigenous peoples mark their historic, contemporary, and ongoing relations to space and place, other-than-human species, landscapes, water, air, and volumetric territory. While normative Western cartography arguably also marks relationships between places, the use of the aerial perspective is designed to conceal the relation of the mapmaker to the places, territories, and routes represented on the map. Map projections are designed to privilege some aspects of real space and place at the expense of distorting others. For example, the familiar Mercator project is a cylindrical projection that preserves the angles and shapes of objects on the map but distorts the size of the objects at latitudes further from the equator. At its extreme north and south edges, the Mercator projection drastically exaggerates the size of the Arctic and Antarctic. Visually, this means that northern regions, such as western and

northern Europe, falsely appear to have greater areas relative to other regions. Map projections are subjective expressions of spatial relationships but they are used as if they are objective representations of the world as it is. They conceal the cultural epistemologies and ontologies that undergird the maps. Indigenous mapping not only generates and strengthens relations to space and place, but it makes explicit the relationship of the mapmakers to the spaces and places mapped and often requires the viewers to attempt to situate themselves in relation to the spaces and places depicted.

I engage scholarship on space, place, and mapping in order to theorize the relationship between colonial territoriality and counterinsurgency. The literature on maps, mapping, and imperial and colonial practices of claiming land and creating borders is wide ranging, varied, and applied across disciplines. Critical scholarship is extensive within the field of geography, including critical approaches to cartography and Geographic Information Systems. With regards to mapping and Indigenous politics, there has been an increase in scholarship and debate around the role of geographers and geographic methods in the past ten years.[48] Following the recent Bowen expeditions scandal, in which the U.S. Department of Defense funded community mapping projects in Indigenous communities in Mexico and used the data collected as counterinsurgency intel, members of the American Association of Geographers erupted in debate over the role of geographers in Indigenous research. This led to a resurgence of interest in Indigenous geographies, Indigenous mapping, and Indigenous research methods within

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[48] Joe Bryan and Denis Wood, Weaponizing Maps: Indigenous Peoples and Counterinsurgency in the Americas (New York: Guilford Publications, 2015); Joel Wainwright, Geopiracy: Oaxaca, Militant Empiricism, and Geographical Thought (London: Palgrave Macmillan, 2012).

geography, resulting in the formation of Indigenous geographies as a recognized subfield within the field of geography.[49]

To a colonial imaginary, "empty" territory is free for the taking. The concept of terra nullius, or empty land, was first articulated in the Americas through the Doctrine of Discovery, a European legal principle used to facilitate European colonization throughout the world. The Doctrine of Discovery gave Europeans the right to claim ownership of lands they "discovered" and establish political sovereignty and economic systems in those territories.[50] Under this doctrine, Indigenous people in these places had no claims to sovereignty, territory, or even presence.[51] Thus, European-discovered lands were considered to be terra nullius, regardless of the presence of Indigenous peoples. Even when Europeans acknowledged Indigenous presence, they questioned Indigenous ownership of the land in order to justify colonization and European territorial claims.[52] In cases where there was land that was unoccupied, many of these places had previously been inhabited by Indigenous peoples who died as a result of European disease or conquest.[53] Terra nullius remains an operating principle of the settler state. In this dissertation, I suggest that contemporary practices of surveillance not only operate under the assumption of terra nullius, but also strip territory from the space above and below it,

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[49] Ibid.

[50] Sherene Razack, ed. Race, Space, and the Law: Unmapping a White Settler Society (Auburn: Between the Lines, 2002): 3.

[51] Robert J. Miller and Jacinta Ruru, "An Indigenous Lens into Comparative Law: The Doctrine of Discovery in the United States and New Zealand," *West Virginia Law Review,* 111 (2008): 850.

[52] Meredith Alberta Palmer, "Rendering Settler Sovereign Landscapes: Race and Property in the Empire State," *Environment and Planning D: Society and Space* 38, no. 5 (2020): 793-810, 795.

[53] Ibid.

such as that the air and the subterranean are not only empty and free for the taking but are also completely divorced from the surface that separates them.

In contrast to European ways of conceiving of Indigenous space and place as alternately empty, savage, and unclaimed, scholars of Indigenous studies articulate Indigenous space and place as a contemporary lived experience and process which asserts Indigenous presence, sovereignty, resistance, and resurgence.[54] For some scholars, Indigenous space and place are articulated through cosmologies. Johnson argues that a sense of place stemming from cosmology is key to Indigenous ontologies and identities.[55] Akana illustrates Indigenous cartographic representations of Indigenous space through performance and place names.[56] For others, Indigenous space and place take form through political and legal struggles. Razack articulates how Indigenous place becomes racialized space through the law of the settler state.[57] Biolsi follows Indigenous space and place through Indigenous sovereignties, complicating dominant notions of Indigenous political space to articulate Indigenous sovereignty beyond the confines of the reservation.[58] Some authors see space and place as integral to Indigenous resistance and resurgence. For Simpson, Indigenous space and place are the material from which

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[54] Razack, 2002; Miller and Ruru, 2008; Echo-Hawk, 2018.
[55] Jay T. Johnson and Brian Murton, "Re/placing Native Science: Indigenous Voices in Contemporary Constructions of Nature," *Geographical Research* 45, no. 2 (2007): 121-129.
[56] Kalani Akana, "Hawaiian Performance Cartography of Kaua'i.," *Educational Perspectives* 45 (2013): 17-27.
[57] Razack, 2002.
[58] Thomas Biolsi, "Imagined Geographies: Sovereignty, Indigenous Space, and American Indian Struggle," *American Ethnologist* 32, no. 2 (2005): 239-259.

Indigenous epistemology, resistance, and resurgence emerge.[59] For Hunt, Indigenous

spaces are those spaces in which Indigenous peoples assert Indigenous ontologies,

whether that be a potlatch or an academic conference.[60]

Indigenous space and place are not limited by strict binary boundaries articulated

through points, lines, and polygons on a Cartesian map. Rather, Indigenous space and

place are continually articulated and shaped through Indigenous ontologies and

epistemologies.[61] Indigenous spaces and places are made known in a variety of ways

including through cosmologies, stories about place, sovereignties, land uses, and both

Western and Indigenous mapping practices and processes.[62] Indigenous spaces include

both rural and urban spaces and take into account time, fluid boundaries, and

subjectivities.[63] Indigenous space and place cannot be separated from Indigenous politics.

Instead, they are intimately linked to Indigenous sovereignties that look beyond Western

notions of sovereignty delimited by strict boundaries and within specific bounds of time

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[59] Leanne Betasamosake Simpson, "Land as Pedagogy: Nishnaabeg Intelligence and Rebellious Transformation," *Decolonization: Indigeneity, Education & Society* 3, no. 3 (2014): 1-25.
[60] Sarah Hunt, "Ontologies of Indigeneity: The Politics of Embodying a Concept," *cultural geographies* 21, no. 1 (2014): 27-32.
[61] Simpson, 2014; Hunt, 2014.
[62] Johnson and Murton, 2007: 121-129; Roth, Robin. "The Challenges of Mapping Complex Indigenous Spatiality: From Abstract Space to Dwelling Space," *cultural geographies* 16, no. 2 (2009): 207-227; Margaret Pearce and Renee Pualani Louis, "Mapping Indigenous Depth of Place," *American Indian Culture and Research Journal* 32, no. 3 (2008): 107-126; Robert Rundstrom, "Mapping, Postmodernism, Indigenous People and the Changing Direction of North American Cartography," *Cartographica: The International Journal for Geographic Information and Geovisualization* 28, no. 2 (1991): 1-12.
[63] Roth, 2009.

and space.[64] Indeed, Indigenous space and place are integral to Indigenous ontologies and epistemologies and shape Indigenous political action.[65]

I understand Indigenous mapping as including and participating in the history of counter-mapping or counter-cartography, but Indigenous mapping is not exclusively made up of these projects. Counter-cartography is often conceived of as "mapping-up," in which the direction "up" indicates a hierarchical relationship between mapper and those being mapped. Mapping-down is the realm of traditional cartography, for example mapping down would be the realm of a map made by Columbus of the lands he claimed to have discovered in 1492. Mapping-up indicates that those who have the greater amount of power are being mapped by those with less power: for example, a map of eviction notices in San Francisco by the *Anti-Eviction Mapping Project*.[66] However, mapping-up is at risk of continuing to center normative relations of power, continually re-centering the colonial state as the subject or primary actor and reinforcing the binary between colonizer and colonized. Indigenous geographies, attuned to sovereignty, self-determination, and nationhood, offer cartographic practices that neither center the colonizing state nor work solely within its logics.

In quantitative spatial theory, scale on a map illustrates the mathematical relationship between space-on-the-map and space-on-the ground. The greater the scale, the greater the margin of incompleteness. In visual terms, the more space-on-the-ground

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[64] Biolsi, 2005.

[65] Simpson, 2014; Hunt, 2014.

[66] For example, see: Manissa M. Maharawal and Erin McElroy. "The Anti-Eviction Mapping Project: Counter Mapping and Oral History Toward Bay Area Housing Justice." *Annals of the American Association of Geographers* 108, no. 2 (2018): 380-389.

that is condensed into a small space-on-the-map, the more information that must be left out of the map. Scale tells us something about the relationship between two objects or subjects. Centering a map on one place makes representations of distance, scale, shape, and size most accurate for that place. But this throws everything else out of proportion, grossly exaggerating some aspects of a map, while shrinking other aspects to oblivion. This is a map's projection. Every projection, then, is a geographic imaginary, marking space as the map maker sees it or wants others to see it.

Digital approaches to cartography, called Geographic Information Systems (GIS), allow cartographers to jump between different projections and scales, attempting to rectify what one map leaves out by stacking many map layers on top of each other and bringing one to the top or bottom of the stack to highlight its contents. None of the layers offers a complete, accurate, and precise landscape representation on its own, but together these layers attempt to give a more complete view of the subject.

Through reliance on both the aerial perspective and on militarized ground patrol, counterinsurgent efforts claim that the space-on-the-map (e.g. the aerial perspective) is equal to the space-on-the-ground (e.g. militarized occupation). This is physically impossible. The aerial perspective is important to counterinsurgent efforts because it represents the ability to see all. But the further elevated the observer is from the subject, the less detail and accuracy the perspective preserves. The aerial perspective provides only a momentary snapshot view of the surface. Central to colonial spatial representations of Indigenous territory is the ability to visualize and therefore presume to know that space. In this chapters that follow, I draw on scholars within and outside of

transnational American studies who write about the aerial perspective,[67] visual culture of

war,[68] technologies of surveillance,[69] counterinsurgency,[70] and terror.[71]

Decentering the State

To understand the techno-imperial collaborations of the U.S., India, and Israel, I

engage Edward Said's notion of contrapuntalism to examine the imbrication of culture

and politics across space and time. Contrapuntalism is a methodology to study relational

histories without privileging one history over another, but rather by uncovering the

connections and disruptions between histories that are often seen as separate and

unrelated. Contrapuntalism requires reading across archives that are not often read

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[67] For recent work on the aerial perspective, see: Caren Kaplan, "Precision Targets: GPS and the Militarization of US Consumer Identity," *American Quarterly* 58, no. 3 (2006): 693-713; Caren Kaplan,. *Aerial aftermaths: Wartime from above*. (Durham: Duke University Press, 2017).

[68] For work on the visual culture of war, see: Lisa Parks and Caren Kaplan, eds. *Life in the Age of Drone Warfare. (*Durham, NC: Duke University Press, 2017); Anjali Nath, "Beyond the Public Eye: On FOIA Documents and the Visual Politics of Redaction," *Cultural Studies? Critical Methodologies* 14, no. 1 (2014): 21-28.

[69] The following scholars focus on the technologies of surveillance: Lisa Parks, "Drones, Vertical Mediation, and the Targeted Class," *Feminist Studies* 42, no. 1 (2016): 227-35; Derek McCormack, "Aerostatic Spacing: On Things Becoming Lighter Than Air," *Transactions of the Institute of British Geographers,* 34 (2009):25-41; Derek McCormack, "Remotely Sensing Affective Afterlives: The Spectral Geographies of Material Remains." *Annals of the Association of American Geographers* 100, no. 3 (2010): 640-654.

[70] See: Laleh Khalili, *Time in the Shadows: Confinement in Counterinsurgencies* (Redwood City, Stanford University Press, 2012); Patricia Owens, *Economy of Force: Counterinsurgency and the Historical Rise of the Social* (Cambridge: Cambridge University Press, 2015). Shiri Pasternak, *Grounded Authority: The Algonquins of Barriere Lake Against the State* (Minneapolis: University of Minnesota Press, 2017); Andres C. Crosby and Jeffrey Monaghan, *Policing Indigenous Movements: Dissent and the Security State* (Nova Scotia: Fernwood Publishing, 2018).

[71] For scholarship on terror, space, and place, see: Stuart Elden, *Terror and Territory: The Spatial Extent of Sovereignty* (Minneapolis: University of Minnesota Press, 2009); Stuart Elden, *The Birth of Territory* (Chicago, IL: University of Chicago Press. 2013). Jasbir K. Puar, *Terrorist assemblages: Homonationalism in Queer Times* (Durham: Duke University Press, 2017).

together and reading against the grain of archives to find the interstices at which seemingly disparate histories convene and intersect.

Edward Said develops the concept of contrapuntalism as a methodological and reading approach in his 1993 monograph *Culture and Imperialism.* Said argues that Western literature carries a trace of imperial and colonial conditions, revealing how important imperialism is to notions of modernity and cultural identity formation. For Said, a contrapuntal analysis reveals the connection between, for example, English coronation rituals and nineteenth century Indian durbars.[72] Such an analysis highlights the connection between "the experiences of domination and being dominated," making possible new emancipatory visions through what Said calls a nomadic, migratory, and anti-narrative energy."[73] Said borrows the idea of contrapuntalism from music theory, writing:

> In the counterpoint of Western classical music, various themes play off one another, with only a provisional privilege being given to any particular one; yet in the resulting polyphony there is concert and order, an organized interplay that derives from the theses, not from a rigorous melodic or formal principle outside the work. In the same way, I believe we can read and interpret English novels, for example, whose engagement (usually suppressed for the most part) with the West Indies or India, say, is shaped and perhaps even determined by the specific history of colonization, resistance, and finally native nationalism. At this point alternative or new narratives emerge, and they become institutionalized or discursively stable entities.[74]

Said developed this concept from his previous work on pianist Glenn Gould's recordings of Bach's Goldberg Variations.[75] These fugues are based on a counterpoint in

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[72] Edward Said, *Culture and Imperialism* (London: Chatto and Windus, 1993): 43.
[73] Said, 1993, 259.
[74] Said, 1993, 51, 279.
[75] Said, Edward. "The music itself: Glenn Gould's contrapuntal vision." *Music at the Limits* (1983): 3-10.

which the pianist's hands move simultaneously along at least two separate melodic lines. While seemingly independent, these melodic lines frequently converge on a shared note, cross to enter the other's register as the pianist's hands cross along the keyboard, and, even when the melodic lines seem to diverge, create harmonies. Composed for a 2-manual harpsichord with two parallel keyboards stacked on top of each other, the independent melodies of Bach's counterpoint are spatially separated on the instrument, even when they play in melodic unison. Moments of dissonance resolve into unexpected harmonies which reveal relationship or even imitation between the hands. The melodic lines are independent in rhythm and contour (or time and space) but are harmonically interdependent, such that each independent melodic line converges into a polyphonic whole. The melodic contour of the fugue as a whole is different from the two melodies that form it even as it is dependent on those independent melodies. For Said, the interplay between culture (as read in literature) and imperialism (as read in international geopolitics) forms a contrapuntal relationship like the hands on the keyboard. According to Keith Feldman, Said also saw contrapuntalism as a method of studying relational histories or "thinking together" of seemingly disparate histories.[76]

Contrapuntalism provides a means through which scholars can decenter the U.S. and American exceptionalism by examining U.S. culture, history, and imperialism as one thread of a polyphonic arrangement of histories, cultures, exceptionalisms, colonialisms, and imperialisms. Said's theory of contrapuntalism helps scholars of American studies see transnationalism as a method, in addition to transnationalism as subject, object, or

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[76]Feldman, Keith P. *A Shadow over Palestine: The Imperial Life of Race in America*. (Minneapolis: University of Minnesota Press, 2015), 157.

political aim.[77] Contrapuntalism as method highlights the links, relations, overlapping, and conflicts that transnational American studies seeks to uncover. While the transnational turn in American studies generates approaches that go against a more comparative, state-oriented internationalist scholarship, contrapuntalism as a method enables scholars to further decenter America in American studies, such that one might *do* American studies within a project that is not strictly Americanist. Contrapuntalism can be operationalized in hemispheric approaches or can be used to develop a critique of American exceptionalism, but it also provides an opportunity to zoom out, as it were, and examine the transnational impulses and oscillations that reverberate whether or not our focus is on "America." Here, the goal is not just to critique American exceptionalism, thereby re-centering America through its critique, but to decenter America and American exceptionalism through examining them in relation to, or in counterpoint with, other global narratives. In this project, I highlight the imperial projects that link together Indigenous experiences of colonial surveillance across continents.

This project uses interdisciplinary methods, drawing from archival, visual, and geographic methods. Like many scholars within American studies, I conceive of my archive broadly, extending from legal documents and transcripts, to letters and writings, to cultural production such as graphic novels and film. Legal documents provide a window into the colonial processes at work and the formal ways in which analogous claims between nations, peoples, and contexts are made. These legal documents allow me to consider how colonial law attempts to supersede an Indigenous polity by policing

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[77] Elspeth Iralu, "Transnational American Studies as Contrapuntal Methodology," *The New Americanist* 1, no. 1 (2018): 51-70.

Indigenous peoples through the politics of recognition or the creation of political and spatial imaginaries to attempt to limit Indigenous sovereignty and territory. I draw on informal texts that circulate as community archives to illuminate how Indigenous peoples work within or subvert global systems of power and inequality in service to transnational Indigenous struggles for decolonization. Cultural production reveals how anti-colonial politics are taken up within the imaginations and everyday lives of Indigenous peoples. This broadly conceived archive enables me to consider the formal and informal ways in which Indigenous peoples confront ongoing colonialism and how the concept of Indigeneity transits internationally.

Aerial Perspective

Inspired by scholarship on ocean and archipelago as a method of querying colonial and imperial transit, I take up the concept of air as method. Considering air's materiality, I examine how, though commonly conceived to be empty, air is full, inhabited, and moving. Air is not stagnant. It has currents and takes shapes informed by the landscape and climate with which it interacts. Air can cross human borders but is still affected by the conditions of life in different places (e.g. pollution). Air circulates and distributes qualities, so that people and places can be affected by conditions of life far removed from them geographically. This is an aerial take on Said's notion of contrapuntalism - seemingly disparate places and experiences may be linked through the air they breathe, affected by movements and currents, and may catch drifts across fields, however unseen. Air circulates, flows through currents, and is transnational. It is not empty, but active. It is not simply full, but moving, its constituents in a given place changing and moving over time. Air is also shaped by the conditions on and below the

ground. Landforms affect wind currents, limiting both their horizontal and vertical movement. Meanwhile, what happens underground, such as mining, drilling, and fracking, can change the load of particulate matter in the air or deplete ozone. Taking up air as a material through which to understand contrapuntal relationships of colonialism, I seek to demonstrate how the aerial perspective actively shapes what happens on and below the ground.

Caren Kaplan asserts that the aerial perspective is reified as the "ultimate objective representation."[78] Today, phrases like the "30,000-foot view" are invoked to insinuate a big picture perspective of an issue or situation, suggesting that this view, from the cruising elevation of a commercial jet, provides one with the perspective to see all elements involved and enabling one to critically assess and strategize based on this view. Christopher Schaberg challenges this figure of speech. Contrary to assumptions of the aerial view as a data-rich emblem of planning and oversight that is imbued with a sense of awe consistent with aerial perspective as God View, Schaberg asserts that the 30,000-foot view is, in fact, quite limited and subjective. The view out of a passenger window on a commercial jet is a narrow, oblique view of a small fraction of the surface below, if that surface is not obscured by clouds. Even the flight tracker on the screen in the back of the seat of a commercial jet provides limited information, showing only the plane's latitude and longitude in relation to the major cities and borders over which it passes. This is not the all-seeing, all-knowing perspective it purports to be.[79]

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[78] Kaplan, 2017.

[79] Christopher Schaberg, *Grounded: Perpetual Flight... and Then the Pandemic* (Minneapolis: University of Minnesota Press, 2020); Chris Welch, "Uber will Pay

The ascendance and persistence of the aerial view as a means through which to understand the world indicates the centrality of the aerial perspective to both contemporary colonial governance and fears of insurgency. In fact, colonial and imperial investments in technologies based on the aerial perspective seek to gain a monopoly on surveillance via the view-from-above. Scholarship on the aerial perspective and the visual culture of war examines the figure of drone as an imperial investment that attempts to combine the omniscient view of the aerial perspective with the precision and intimacy of first-person experience on the ground.[80] In recent years the U.S. has increased regulation to meet the rapid increase of commercial and hobby drones held by private individuals. For example, on August 3, 2021, Los Alamos National Laboratory (LANL), the birthplace of the atomic bomb in northern New Mexico, issued a press release to remind the "drone flying public" that the LANL is a "No Drone Zone." LANL's press release stated that unauthorized drone flights had been detected over LANL which is designated restricted airspace by both the Federal Aviation Administration and the National Nuclear Security Administration. The August 3 press release issued a warning, emphasizing its use of Counter Unmanned Aircraft Systems (CUAS) to detect, intercept, and destroy

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$20,000 Fine in Settlement Over 'God View' Tracking" *The Verge,* January 6, 2016, https://www.theverge.com/2016/1/6/10726004/uber-god-mode-settlement-fine
[80] See: Matt Delmont, "Drone Encounters: Noor Behram, Omer Fast, and Visual Critiques of Drone Warfare." *American Quarterly* 65, no. 1 (2013): 193-202; Daniel Greene, "Drone Vision." *Surveillance & Society* 13, no. 2 (2015): 233-249; Kaplan, 2017; Parks and Kaplan, 2017; J. D. Schnepf, "Domestic Aerial Photography in the Era of Drone Warfare" *Modern Fiction Studies* 63, no. 2 (2017): 270-287; Roger Stahl, *Through the Crosshairs: War, Visual Culture, and the Weaponized Gaze* (New Brunswick: Rutgers University Press, 2018); Madiha Tahir. "Bombing Pakistan: How Colonial Legacy Sustains American Drones." *Costs of War* (2015): 1-7.

unauthorized unmanned aerial vehicles within the territorial boundaries of Los Alamos

National Laboratory:

> "The drone flying public should be reminded that all airspace over the
> Laboratory is protected against unauthorized drone or UAS flights…We
> can detect and track a UAS, and if it poses a threat, we have the ability to
> disrupt control of the system, seize or exercise control, confiscate, or use
> reasonable force to disable, damage or destroy the UAS."[81]

By invoking a "drone flying public," the press release sets the public against the best

interests of the nation, making anyone a potential security threat. Colonial anxieties about

aerial counter-surveillance are made evident in this policing of hobby drones, treating any

unmanned aerial vehicle as a potential threat to the nation-state and every drone pilot as a

possible insurgent. This tension about who can use the aerial perspective is repeated in

many sites and at many scales, including at Standing Rock (discussed in chapter five) and

in Palestine (discussed in chapter 4). By using the aerial perspective and technologies

built around the aerial perspective, Indigenous artists, activists, creators, and

cartographers are identified as insurgent operators and threats to the state. In the

following chapters, I examine how Indigenous artists and cartographers take up the aerial

perspective on their own terms or subvert it with oblique, cross-sectional, three-

dimensional, and ephemeral, time-based perspectives.

Volumetric

This understanding of the aerial is in conversation with the volumetric. In a 2013

paper published in *Political Geography* titled "Secure the Volume: Vertical Geopolitics

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[81] "Unauthorized drone flights are prohibited in Laboratory restricted airspace, including
additional No Drone Zone." Los Alamos National Laboratory press release,
https://discover.lanl.gov/news/releases/no-drone-fly-zone

and the Depth of Power," Stuart Elden plays on the military and police phrase "secure the area" to argue that our understandings of state control and geopolitics are often limited to a two-dimensional understanding of territory.[82] Elden asks how our understanding of geopolitics might shift if we understood territory as volumetric. Drawing on the work of Paul Virilio and photographs of the West Bank and the Israel/Lebanon border, Elden takes cues from the verticality of Israeli infrastructure and architecture to argue that "geo-metrics" must be taken into account in the study of geopolitics.[83] Elden's argument builds on the work of Israeli architect and theorist Eyal Weizman who argues that a consideration of the vertical is essential to understand territorial governance in Palestine/Israel. Weizman calls this the "politics of verticality," which he says "requires an Escher-like representation of space, a territorial hologram in which political acts of manipulation and multiplication of the territory transform a two-dimensional surface in a three-dimensional volume."[84] For both Elden and Weizman, considering the vertical necessitates a volumetric understanding of territory. Colonial, imperial, and counterinsurgent violence is enacted volumetrically, through aerial drone strikes, bombings (both at the surface and dropped from the air), and even below the surface, through investment in bunkers, submarines, and other technologies that hide the tools of war.

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[82] Elden, 2013, 35-51.

[83] Ibid., 49.

[84] Eyal Weizman, "The Politics of Verticality: The West Bank as an Architectural Construction," in Anselm Franke and Eyal Weizman, (eds.), *Territories: Islands, camps, and other states of Utopia*. (Köln: Walther König, 2003). See also: Eyal Weizman, "Strategic Points, Flexible Lines, Tense Surfaces, and Political Volumes," in Stephen Graham (ed.), Cities, War and Terrorism: Towards an Urban Geopolitics (Oxford: Wiley-Blackwell, 2004): 172-191.

In the chapters that follow, I ask how our understanding of Indigenous sovereignty shifts if we understand territory as having volume. I argue that Indigenous peoples already understand territory as volumetric, and that this conceptualization of volumetric territory allows Indigenous nations to assert sovereignty and self-determination that is not limited by the spatial and legal bounds of the states that occupy them.

Atmospheric

To be atmospheric is to be constant and to be enveloped. Eric Stanley theorizes "atmospheres of violence" as state processes of inclusion that, rather than making safe what was unsafe, enable the violent expansion of the state at the expense of those it forcibly includes.[85] This violent expansion of the state is multisensorial, such that the use of tear gas and sound deployment, for example, become practices of what Anna Feigenbaum and Anja Kanngieser term "atmospheric policing."[86] These violent atmospheres become known affectively when we are enveloped in them. Derek McCormack expands on scholarship on the aerial and the volumetric to emphasis the voluminous qualities of the volumetric, or what McCormack calls the "intensive spaciousness of atmosphere."[87] McCormack considers the envelopment of atmospheres in the figure of the balloon, arguing that the condition of being enveloped enables

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[85] Eric Stanley, *Atmospheres of Violence: Structuring Antagonism and the Trans/Queer Ungovernable* (Durham: Duke University Press, 2021).
[86] Anna Feigenbaum and Anja Kanngieser, "For a Politics of Atmospheric Governance," *Dialogues in Human Geography*. 5, vol. 1 (2015): 80-84.
[87] McCormack, 2018, 106.

humans and others, including living being and non-living entities and agencies, to sense the atmospheric conditions in which they are enveloped.[88] McCormack writes:

> Envelopment is a process for sensing a condition; it is a process through which atmospheric things emerge whose form, shape, and duration depends upon their capacity to sense and respond to the atmospheres in which they are immersed. It is the process by which entities emerge within a milieu from which they differ without becoming discontinuous, in the same way that a cloud is a process of differentiation within an atmosphere without necessarily being discontinuous with it.[89]

In the context of this dissertation, I am interested in McCormack's formulation of atmospheric things as conditions and states of being that can be sensed through envelopment. Colonial surveillance is simultaneously atmospheric, in that it surrounds and provides context for everything within its viewfinder, and is also moving and flowing, in that it only need shift perspective to change the atmospheric conditions of those who are enveloped by it.

Overview of the Dissertation

Fanon asks: "But how do we pass from the atmospheres of violence to violence in action?"[90] This dissertation is about the relationship between counterinsurgent violence in action and atmospheres of violence through colonial surveillance. The dissertation contains three sections. Each section focuses on a different aspect of the volume of Indigenous territory: air, surface, and subterranean. Each section is made up of two chapters; the first chapter of the section focuses on digital cartographic projects; the second chapter focuses on analog cartographic projects.

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[88] McCormack, 2018, 4.
[89] McCormack, 2018, 5.
[90] Frantz Fanon, The Wretched of the Earth (New York: Grove, 2005), 71.

In section one titled "Air," I examine the politics of Indigeneity in India, arguing that surveillance and territorial abstractions of Indigenous land as a "disturbed area" shapes Indigenous experiences of and relationships to colonialism. In chapter one, "Birds Eye View: Aerial Surveillance and Producing the Indigenous Subject in India," I consider the legal categories designed to surveil Indigenous identity and claims to land. I examine two maps produced by the Nagaland State GIS and Remote Sensing Centre that situate Nagaland within an Asia-Pacific and Global South context and challenge the Indian central government-administered boundaries within Naga territories. I place these spatial contestations in the context of the politics of Indigeneity in India, as India both disavows Indigeneity and surveils it through legal frameworks of recognition. I examine how Indigeneity is taken up in Indian political discourse, including categories of Indigenous, aboriginal, and Adivasi. While dominant discourse engages with Indigeneity in India primarily through the development and uplift of so-called backwards peoples, Nagas and other Indigenous peoples in the Himalayan border region of India articulate an Indigeneity that looks beyond the borders of India to international forums and solidarities with other Indigenous peoples.

In chapter two, "What Nagas Eat: Sovereignty and Kinship Under Lockdown," I consider the surveillance and policing of Naga eating in India and how what Nagas eat informs Naga theorizations of sovereignty and territory. I focus on geospatial data collection for environmental surveillance as a site of political contestation which works to further the colonial project in Nagaland, even when the data is not originally intended to do so. I place the territorial imaginary of the Armed Forces Special Power Act in conversation with a graphic short story to illustrate how the categorization of the

"disturbed area" is challenged by Indigenous peoples "on the ground." I engage with emerging theorizations of Naga sovereignty that deemphasize Westphalian, recognition-based sovereignty and move away from dominant rights-based frameworks towards a historical and embodied framework of Indigenous Naga sovereignty.

In section two, I consider the earth's surface. Chapter three, "Ground Truth in Palestine: Open Maps in Occupied Territories," examines the use of geospatial technologies such as GPS, GIS, and public map resources such as Google Maps and OpenStreetMap in Palestine, as well as political dialogue around these technologies by groups like 7amleh, the Arab Center for Social Media Advancement. Routes determined by Google Maps, 7amleh argues, are safe for Israeli citizens, but put Palestinian travelers at risk, as they pass through Israeli military zones, checkpoints, and settlements. 7amleh also draws attention to the inconsistencies in labelling on Google Maps, where Israeli settlements are marked, but Palestinian villages are not recognized. In this chapter on the surface, I consider how the aerial perspective flattens and simplifies the political topography of territory and in so doing creates conditions of danger and fear in some populations, while protecting others.

Even the satellite imagery obscures. Where most of publicly available satellite imagery of the Arab world has an average resolution of 0.5 meters, aerial imagery of Palestine has a resolution of 2 meters. It is 16 times less detailed. While major land cover can be observed at this resolution, the encroachment of small-scale developments is obscured. In chapter four, "Palestine Pixelated: Imagined Geographic Futures in the Landscapes of Jordan Nassar," I consider these questions of resolution, transparency, and opaqueness in relation to speculative representations of Palestinian landscapes. I analyze

the work of Jordan Nassar, a Palestinian-American artist who integrates traditional embroidery processes with digital design to imagine Palestinian landscape futures. Nassar plays with pixilation in digital design and traditional embroidery patterns, then overlays embroidered maps of Palestinian landscapes as he imagines them, as they could be. In Nassar's zines, photocopies blur both traditional Palestinian embroidery designs as well as pixelated images of Arab landscapes.

In section three, titled "Subterranean," I analyze visual culture associated with Indigenous movements for environmental justice in the U.S. I consider how cultural production pushes back against the colonial idea that the subterranean can be claimed independently from the earth's surface and examine activism against pipelines and mining through cultural production that addresses both two- and three-dimensional conceptions of Indigenous territory. In chapter five, "Sensing Remotely: Indigenous Landscapes in 360˚," I analyze digital territorial representations that offer alternatives to the aerial perspective to make what is underground visible and re-orient viewers to the relationships between areas above, below, and on the surface of the earth. I analyze the video game Thunderbird Strike, which uses a cross-sectional view to trace the connections between what is above, below, and on the surface of the earth, and virtual reality piece "Poise/end," which invites the viewer to experience the effects of uranium mining in multi-dimensional space-time.

In chapter six, "Putting Indian Country on the Map: Indigenous Practices of Spatial Justice," I examine the Zuni Map Art Project, which encodes cultural information in images so that only those initiated can interpret what is visible to all, and performance cartography of the Zuni Salt Lake Coalition, which uses Zuni spatial practices to

represent Zuni territorial sovereignty. These representations of Indigenous space and place challenge colonial understandings of territory as bordered, two-dimensional, time-bound, and divisible into discrete units.

In the conclusion, I reflect on the spaces of Indigenous insurgence that contribute to Indigenous community strength while marking Indigenous peoples as targets of the state. Indigenous peoples navigate the hurdles the state places upon them, such as assimilation, genocide, bureaucratic entanglements. While the state leads us to believe that some paths will lift the target off the backs of Indigenous peoples, there is no way to avoid being seen as insurgent. Even those most cooperative with the state are always seen as at risk of becoming instruments of insurgency. Drawing on stories of my family's participation in the Naga sovereignty movement, I consider sites of Indigenous spatial knowledge production where the colonial state's territoriality is questioned and revealed to be tenuous and instable. I close with a reflection on the role of theory building in Indigenous movements as a process of making real the dreams we enact in everyday life.

American studies includes a growing undercurrent of scholarship that examines empire and colony transnationally, looking at everyday practices of militarism that shape the globe, within and beyond the Americas. I draw on this genealogy to examine how everyday militarism, enacted transnationally, shapes global colonial relations. My research agenda intervenes in this transnational turn through an examination of how Indigeneity is defined and taken up within geopolitics, linking seemingly disparate nation-states in a shared rubric for domination of Indigenous territory while simultaneously creating the conditions of possibility for transnational Indigenous solidarity.

This project examines representations of Indigenous territory volumetrically to consider how Indigenous territory is claimed and represented aerially, on the surface, and below ground. Through a multi-site approach to comparative colonialisms, I seek to demonstrate how local struggles over Indigenous territory are struggles of global, geopolitical import. I expect this research to contribute to debates around surveillance and contemporary experiences of colonialism within cultural studies, political geography, and Indigenous studies. Using visual culture methods, I locate technologies of territoriality through which counterinsurgent and colonial forces establish, represent, and reify their power, contrasting with the methods Indigenous nations use to challenge those colonial claims. While the map remains the most well-documented technology of territoriality, this project decenters the map as the primary interlocutor of territorial power, instead examining how the aerial view, applied more broadly, is taken up as extension of imperial and colonial culture. Counterinsurgency practices today span from drone to social media surveillance, from map-less geospatial data collection to boots-on-the-ground militarized traffic checkpoints. I argue that these forms of counterinsurgent data collection ground a colonial spatial imaginary that claims to see and record all.

II.   AIR

Chapter One

Birds Eye View: Aerial Surveillance and Producing the Indigenous Subject in India

On January 19, 2017, images of a small drone went viral on social media in Kohima, Nagaland. The drone was seen flying over the city of Kohima during a bandh, a public strike and shutdown of roads, and the drone was shot down using a slingshot. After photos of the drone and images taken by the drone were shared on social media, it was said that officers from the Indian paramilitary force the Assam Rifles came to collect it. While the origin of the drone was never confirmed, the incident alludes to fears around surveillance and the aerial in Naga territories. Technological aerial surveillance is assumed to be the realm of the state, while Indigenous interception of the aerial perspective threatens the state's power.

This chapter examines two key formations of colonial control of Naga territory through modes of spatial surveillance and the policing of recognition and identity. Here, I consider how normative cartographic practices compound with racialized assumptions about Indigenous peoples, leading to assumptions of Naga territory as an inherently violent space. First, I examine how Indigenous peoples contest state modes of spatial surveillance by problematizing and making tenuous the state's claims to spatial fact. Second, I consider the politics of Indigeneity in India more broadly and in India's northeastern Himalayan borderlands. I demonstrate how Indigeneity functions as a shifting category that is continually redefined to suit the political goals of both the colonized and the colonizer. I argue that both Naga claims to and rejections of Indigeneity are used strategically to further Naga self-determination and sovereignty. Simultaneously, India's category of the "Scheduled Tribe" is used to legitimize the Indian state's control of territory in areas that never sought inclusion into the Indian

nation-state. In so doing, India attempts to limit the applicability of the United Nations Declaration on the Rights of Indigenous Peoples within India's borders. Both cartographic and recognition-based practices of surveillance enable the state of India to police Indigenous populations and their territories without requiring direct counterinsurgent boots-on-the-ground. In the process, surveillance of space, place, and identity become a primary site at which Indigenous peoples confront the colonial state.

The Naga territory of collective experience cannot be seen from the air. As you zoom into my family's village from outer space via aerial imagery on Google Earth, Naga territory emerges as part of a dark green fringe of folded mountains across northern and eastern India, contrasting with the tans and light green of the plains on either side of the Himalayas. A solid white line denotes the national boundary between India and Myanmar and, as you zoom in further, dotted white lines indicate first the state boundaries within northeast India and then the state boundaries within Myanmar. The jungle leaf cover is dense, so that small villages look like they are on the verge of encroachment by the jungle; villages are visible at the tops of ridges and terraced rice paddy fields can be seen built into the natural slope of the mountains. Zooming in to the maximum resolution of the aerial image, I can make out the contours of the roof of my family's house and the tight u-curve of their driveway which requires a five-point turn in order to extricate a car from the car port. But whole aspects of life are invisible from above. From here, we cannot see the garden where the neighbor grows vegetables, the network of tubing that transfers water from an uphill stream to each house's cistern, or the paths walked to harvest wild jungle vegetables. The whole village appears like this, red or tin roofs barely visible through the surrounding jungle except for the occasional

brown clearing for the high school's football field or the painted lines of a concrete basketball court visible from space. The largest clearing in the village belongs to the Assam Rifles, an Indian paramilitary force with bases throughout Naga territory.

Aerial surveillance and the state bureaucratic creation of territorial boundaries are reinforced and informed by boots-on-the-ground counterinsurgent forces. Nagas and frequent visitors to Nagaland are accustomed to the everyday presence of multiple military and paramilitary forces throughout the state, as well as the bureaucratic and quotidian disruptions that entails, from registering travel plans with the police upon arrival to unannounced checkpoints along the highway. Despite the 1997 ceasefire between the government of India and a Naga national political group, India's counterinsurgent forces and the associated displays of potential violence are an everyday expression of India's power in Nagaland.

The Indigenous Question

Over a cup of green tea, I tell my grandfather's cousin about my dissertation research. Atsa[91] Adino Phizo is the president of the Naga National Council (NNC), a Naga political group that emerged before Indian independence and became the political arm of the Federal Government of Nagaland.[92] Since then, several groups have splintered off from the NNC, but many of these groups share NNC's long commitment to working towards a sovereignty recognized by the United Nations as a nation-state that includes all of Naga territory.[93] As I tell her what I study, Phizo stops me, "Ah," she says. Nagas are

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[91] Abbreviated title for grandparent in Tenyidie, language spoken by Angami Naga.
[92] Arkotong Longkumer, "Bible, Guns, and Land: Sovereignty and Nationalism Amongst the Nagas of India," *Nations and Nationalism* 24, no. 4 (2018): 1097-1116, 1100.
[93] Ibid., 1102.

not Indigenous. We are a nation." She begins recounting Naga twentieth century political history and I settle in, appreciating the familiarity of the story, with twists and turns I know and have heard recounted many times since I was a small child. She recounts that Nagas had our own way of living, our own cultures and languages, our own systems of political governance, our own relationships between clans, villages, and tribes. Then the British invaded. When Britain left the subcontinent in the late 1940s, Nagas declared independence, but then India claimed Naga territory as its own. The Indo-Naga political events of the twentieth century led to the formation of the state of Nagaland, an ongoing war between India and the Naga people, and our current moment of negotiation for "shared sovereignty."[94] "Urra Uvie," she concludes, a common slogan of the Naga National Council and Naga national movement more generally: "Our land is ours." "But Atsa," I ask, "if our identity is tied to our land, our cultures, languages, and political systems, and if India has a colonial relationship with Nagas, then what?" "We are a nation," Phizo responds.

Phizo's assertion that to be Indigenous is incommensurable with nationhood spotlights the tension around how Indigeneity is taken up in the Indian national context and globally. While many Nagas and other "tribals" in northeast India identify as Indigenous, participate in transnational organizations focused on protecting Indigenous rights, such as the Asia Indigenous Peoples Pact or the United Nations Permanent Forum on Indigenous Issues, the politics of Indigeneity in India constrain the legal consequence

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[94] For a selection of texts that examine this history, see: Kanato G. Chophy, "Gandhi and the Nagas," *Journal of the Anthropological Survey of India* 68, no. 2 (2019): 158-174; Jelle Wouters, *In the Shadows of Naga Insurgency: Tribes, State, and Violence in Northeast India*. (New Delhi: Oxford University Press, 2018);

of such assertions. Because India does not recognize Indigeneity of any people within its borders, the fight for recognition by the Indian government of Naga nationhood has necessarily avoided the language of Indigeneity and focused instead on nationhood and sovereignty in a Westphalian sense. However, whether or not Indigeneity and rights as Indigenous peoples are invoked, Naga claims to sovereignty and nationhood get collapsed into a single phrase: "The Naga question." This tenuous position of Indigeneity within India means that Indigeneity as a political strategy is easily coopted by the state as a category of backwardness or dependency and therefore Indigenous peoples are prescribed an inevitable assimilation into the state. To be legible to the occupying state, Indigeneity must conform to the state's rubrics and definitions of Indigeneity, resulting in an understanding of Indigeneity that likely does not match an Indigenous nation's own sense of identity and belonging. Furthermore, adhering to the state's definitions of Indigeneity means navigating Indigenous territorial sovereignty within the colonial state's frameworks and on colonial grounds. This perceived contrast between Naga nationhood and Indigeneity manifests in territorial claims both against the state and within state-sponsored mapping projects.

Making Official Maps

Tensions around Indigeneity in India are spatialized, evident in the politics of mapping in India's borderlands, even within the official cartography of the Indian state. Agrawal and Kumar attribute cartographic conflicts and discrepancies between maps of Naga territory to unstable notions of Naga identity in terms of both nation and territory.[95]

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[95] Ankush Agrawal and Vikas Kumar, "Cartographic Conflicts within a Union: Finding land for Nagaland in India," *Political Geography* 61 (2017): 123-147.

Conflicts about the border between the states of Nagaland and Assam are compounded by differing views of what Naga lands should be counted as Naga land. Advocates for full integration of all Naga territories refer to this integrated territory as "Greater Nagaland," which Agarwal and Kumar argue "is itself an object of spatial-statistical dispute as it represents a spatial *unit of measurement* different from that adopted by the government."[96] One cannot definitively map Nagaland, they say, without settling the multiple territorial disputes between the states of Nagaland and Assam, the governments of India and Myanmar, or determining the territorial bounds of the Naga political imaginary.[97]

The foyer of the Nagaland State GIS and Remote Sensing Centre is quiet, the only sound soft footsteps on marble floor and natural light from a recessed window shining on a wall featuring two large maps of the state of Nagaland. One, a map of the physical topography of Nagaland, indicates topographic relief via color, corresponding to an aerial photograph. High, forested areas are indicated by a deep green, plains by a tan, and areas with exposed ground are a rust red. The state districts are labelled with text. The boundary between Nagaland and neighboring Indian states of Assam, Manipur, and Arunachal is marked by a thin gray line that is so understated relative to the colors of the map as to be almost imperceptible. A hard rust red line following the topography marks the India-Myanmar boundary. At the bottom of the map, next to the list of data sources and key, is an inset that appears to be aerial imagery such as that you might see scrolling through Google Earth. The inset includes almost the entirety of Asia as well as vast

[96] Ibid., 142.
[97] Ibid., 142.

sections of the Indian and Pacific oceans. Just above the center of the map is a bright red polygon, the state of Nagaland.

In the second map, titled "Nagaland Political," the state stands in greater contrast to the surrounding states and countries. Here, each state district is shaded a transparent color to differentiate it from the surrounding states. Like the physical map, the India-Myanmar boundary is indicated by a thicker line, more prominent than Indian state boundaries. The inset of this political map takes up almost the entire bottom of the map poster. Again, Nagaland state is indicated by a bright red polygon slightly off center on the map. However, this time the context provided by the inset map extends as far west as Southwest Asia and North Africa, and as far east as Japan.

The insets of both the physical and political maps break the mold of classic cartography. Nagaland State GIS And Remote Sensing Centre is the GIS department for the state of Nagaland and is therefore connected to the central government. Norms of cartography would lead us to expect the inset to simply mark the state of Nagaland relative to the rest of India, perhaps a small map of India, with Nagaland highlighted. Instead, the physical map inset locates Nagaland within a greater Asia-Pacific region in which half of the space in the inset is ocean and islands. The political map of the state expands Nagaland's political context even further than the inset of the physical map. Via this inset, Nagaland's political context includes the entirety of Asia and North Africa, as well the Indian and Pacific oceans.

Both maps feature two sentences that are included on all Nagaland state maps created by this center: "This map is without prejudice to the claims of Nagaland for re-drawing the Assam-Nagaland boundary on the basis of historical and traditional factor"

and "The boundaries of Nagaland as shown on this map are subject to revision as provided in the 1960 Delhi Agreement." The first sentence holds both a disavowal and an affirmation. First, the map gestures to Naga claims to territory that is currently part of the Indian state of Assam. Being "without prejudice" asserts that the map is not representative of contested territorial claims but is delimited by the official boundaries of the states as recognized by the government of India. Simultaneously, the first sentence nods to the legitimacy of the territorial claims from which it disassociates by nodding to the "historical and traditional" nature of those claims. The second sentence builds on this tension, stating that the boundaries formalized in these maps are not necessarily the permanent boundaries of the state. This statement backs up this assertion with a reference to the 1960 Delhi agreement, commonly referred to as the 16-point agreement, which led to the formation of the state of Nagaland.[98] Points 13 and 14 of the 1960 agreement focus on consolidation of forest areas and "contiguous Naga areas," stating a desire on the part of the Nagas to include forest reserves and in the new state of Nagaland and enable the boundaries of the state to expand to include other Naga-inhabited areas not included in the formal state boundaries. The state boundaries did not then – and do not now – reflect this stated desire. However, the inclusion of this caveat in the state GIS maps emphasizes that the state boundaries are recent, impermanent, instable, and with a legal right to shift. Furthermore, the inclusion of these two sentences challenges the primacy of the state of

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[98] The 16-point agreement was a legal agreement between the Government of India and the Naga People's Convention, a political group in Nagaland which became a powerful political party after the formation of the state of Nagaland. A copy of the agreement can be found on the website of the UN Department of Political and Peacebuilding Affairs (UN DPPA). https://peacemaker.un.org/node/1641

Nagaland, alluding to historical and traditional formations of territory, polity, and relation that predate the state of Nagaland and the boundaries represented on these maps.

"Post" Colonial Policies

The notion of Indigeneity is highly contested in Indian law and scholarship. India has claimed both that there are no Indigenous peoples in India and that all inhabitants of the country are Indigenous.[99] This section engages with the politics of Indigeneity through examinations of Indigenous struggle in India. Conducting a legal analysis of transcripts from the United Nations and drawing on recent Indian scholarship, I argue that "post" colonial Indian law disappears Indigeneity. Indigenous identity is transformed into a marker of the past, left behind in a process towards development and assimilation. Simultaneously, India's disavowal of Indigenous identity conflates historical and ongoing territorial dispossession with class difference, rendering Indigenous peoples poor, not dispossessed, and as temporarily backwards Indian citizens, not colonized peoples. I seek to make a case for an engagement of Indigeneity within Indian scholarship, calling into question India's identity as postcolonial and decolonized. I argue that transnational discourses of Indigeneity must be taken into account to understand Indian Indigenous politics. Considering Indigeneity is crucial to understanding what is obscured in the archive of contemporary Indian politics and engagement with international law. In addition, I argue that subalternity is an incomplete and inadequate framework for understanding Indian Indigeneity. Finally, I assert that an engagement of critical

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[99] Bengt G.Karlsson, "Asian Indigenousness: The Case of India," *Indigenous Affairs* 3, no. 4 (2008): 24-30.

Indigenous studies within a site such as India marks the relations of imperialism that entangle continents, colonialisms, and perhaps, solidarities for decolonization.

In this section, I seek to address three questions: How does South Asian postcolonial scholarship take up the notion of Indigeneity? How are ideas of Indigeneity operationalized in South Asian politics and scholarship? How do South Asian scholars theorize the connection between Indigeneity and subalternity?

Subalternity has been championed by South Asian postcolonial scholars who took up Gramsci's notion of the subaltern as those who have been disenfranchised due to "uneven national development".[100] In the 2012 essay "After Subaltern Studies," Partha Chatterjee reflects on the development of subaltern studies and proposes a shift to new scholarly formations. Chatterjee argues that the insurgent peasant championed by subaltern studies is no longer relevant: "This figure of the mass-political subject in India needs to be redrawn."[101] While subaltern studies has been widely heralded in Indian postcolonial scholarship, in recent years, some scholars have begun to consider Indigeneity, not as a category of subalternity, but as a political identity that challenges dominant narratives of India's identity as postcolonial. Speaking of Indigenous peoples in India, Gayatri Chakravorty Spivak and Mahasweta Devi asserted that "The tribals, then paid the price for decolonization[.] They have not been part of the decolonization of India[.]"[102] The texts discussed here are perhaps a partial answer to the question posed in

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[100] Jodi A. Byrd and Michael Rothberg, "Between Subalternity and Indigeneity: Critical Categories for Postcolonial Studies," *interventions* 13, no. 1 (2011): 1-12, 2.

[101] Chatterjee, Partha. "After subaltern studies." *Economic and Political Weekly* (2012): 44-49, 46.

[102] Mahasweta Devi, *Imaginary Maps: Three stories by Mahasweta Devi,* Translated by Gayatri Chakravorty Spivak, (New York: Routledge, 1995).

the afterword to Spivak's translation of *Imaginary Maps: Three Stories by Mahasweta Devi*: "A conflation of Eurocentric migrancy with post-coloniality lets drop the vicissitudes of decolonization and ignores the question: Who decolonizes?" [103]

Indian contestation of Indigenous presence is highlighted by overlapping and contradictory terms used to describe Indigenous peoples within India's borders. During the British colonial period, Indigenous peoples in India were frequently referred to as "aboriginals" and the original draft constitution of India included this term. In the final constitution of India, "aboriginals" was changed to "Scheduled Tribes," referring to a schedule, or list, of legally recognized tribes. Indigenous peoples identified as Scheduled Tribes were considered to be "backward" and in need of development and assimilation into mainstream Indian society.[104] Recognition of Scheduled Tribes and identification of individuals as members of a Scheduled Tribe is decided upon by the Indian government. In addition, the economic, educational, and development projects for "uplift" of Scheduled Tribes are chosen and funded by the Indian government with little to no input from the Indigenous peoples these projects are meant to assist.[105] Members of recognized Scheduled Tribes make up 8.2% of the Indian population and they are considered to be some of the "most marginalized and vulnerable communities" in India.[106] However, members of many Scheduled Tribes do not necessarily associate with the term beyond its

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[103] Devi, 1995, 202.
[104] Pooja Parmar, *Indigeneity and Legal Pluralism in India: Claims, Histories, Meanings*. (Cambridge: Cambridge University Press, 2015), 4.
[105] Karlsson, 2008, 28.
[106] Parmar, 2015, 5.

legal utility, preferring the term Adivasi or terms that denote belonging to specific community.

At the drafting of the Indian constitution, the sole Indigenous representative on the committee advocated for the use of the word "Adivasi" instead of the newly crafted term "Scheduled Tribe" as he felt that "Adivasi" was more precise and historically accurate. However, his proposal was rejected and, to this day, the term Adivasi holds no legal standing in Indian law.[107] Adivasi is frequently translated into English as "original inhabitants."[108] While not legally recognized, this term is used widely across India. Adivasi denotes historical and political relations marked by dispossession of land and resources, distinguishing Adivasis from other disenfranchised groups in India such as Dalits, the "untouchable" lowest caste in the Hindu caste system. Adivasis live throughout India with the highest concentration of Adivasis in east India. Many Adivasis from east India were displaced during British colonial rule when they were sent to work as coolies in the northeast tea plantations of Darjeeling and Assam.[109] Descendants of Adivasi coolies still live and work on tea plantations in northeast India, but unlike other Adivasis in mainland India, these dispossessed peoples have not been recognized by the Indian government as Scheduled Tribes, in part due to their forced detribalization during British colonial rule.[110] Colloquially in northeast India, Adivasi refers specifically to these dispossessed or "landless" groups who remain in the tea-growing areas of northeast

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[107] Parmar, 2015, 5.

[108] Parmar, 2015, 5.

[109] Lisa Lowe, *The Intimacies of Four Fontinents*. (Durham: Duke University Press, 2015).

[110] Sriram Ananthanarayanan, "Scheduled Tribe Status for Adivasis in Assam," *South Asia: Journal of South Asian Studies* 33, no. 2 (2010): 290-303.

India, distinguishing them from the Scheduled Tribes who lands are included in northeast India, whereas in other parts of India, Adivasi and Scheduled Tribe may be used synonymously. The use of the term Indigenous, while not as common as Adivasi, is increasingly used to make claims to Indigenous rights, territory, and resources.[111]

India and UNDRIP

India's public position on the rights of Indigenous peoples and interpretation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) reveals a discomfort in its relationships to Indigenous peoples within its borders. At the signing of UNDRIP, Ajai Malhotra, Deputy Permanent Representative of India to the United Nations, described India's agreement with the principles of UNDRIP. However, Malhotra's elaboration highlighted India's attempt to separate itself from any responsibility of upholding UNDRIP. Malhotra stated that he understood that "the right to self-determination applied only to peoples under foreign domination and that the concept did not apply to sovereign independent States or to a section of people or a nation."[112] In other words, India did not consider the right to self-determination to apply to Indigenous peoples within its borders. Furthermore, Malhotra underlined that UNDRIP only afforded Indigenous peoples self-determination with regards to "internal and local affairs," suggesting that Indigenous claims to sovereignty were not covered by UNDRIP on an international scale.[113] Malhotra's assertions on behalf of India directly

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[111] Alpa Shah, *In the Shadows of the State: Indigenous Politics, Environmentalism, and Insurgency in Jharkhand, India*, (Durham: Duke University Press, 2010).
[112] "General Assembly Adopts Declaration on Rights of Indigenous Peoples; 'Major Step Forward' Towards Human Rights For All, Says President," United Nations, September 13, 2007, http://www.un.org/press/en/2007/ga10612.doc.htm
[113] Ibid.

contradicted the framework provided by UNDRIP which asserts Indigenous peoples' rights to self-determination.

Three years later, India reiterated its position on the rights of Indigenous peoples to the Economic and Social Council of the United Nations at the 9th Session of the Permanent Forum of Indigenous Issues. At this meeting, Randhir Jaiswal expressed concern that two reports submitted to the Economic and Social Council by groups from within India used the term "Indigenous" interchangeably with the term "tribals." Jaiswal argued that these terms were not synonymous, saying that "'so called' Indigenous groups" were making claims through rights laid out in UNDRIP when instead these are actually "various other minority groups."[114] Jaiswal argued that not only were these claims to Indigeneity unfounded, but that they diverted "the attention of the Forum from its core concerns of indigenous issues." Jaiswal asserted that it was inappropriate for any of these "various other minority groups" to make claims to Indigenous rights as the position of the state of India is that "we regard the entire population of India at the time of our independence, and their successors, to be indigenous."[115] In fact, India's nativist legal imaginary of the indigenizing power of national independence reveals the necessity and urgency of scholarship that engages Indigeneity in India and South Asia more broadly.

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[114] A copy of the "Explanation by Mr. Randhir Jaiswal, First Secretary, of Position of India on the Report of the 9th Session of the Permanent Forum of Indigenous Issues to the ECOSOC, During the General Segment on 22 July 2010 can be viewed here: https://www.pminewyork.gov.in/pdf/uploadpdf/33472ind1714.pdf
[115] Ibid.

Adivasi Indigeneity in India's Tribal Belt

Indigeneity in India is monitored and limited through bureaucratic and processes, legal recognition, and assimilationist development practices. In *We Were Adivasis: Aspiration in an Indian Scheduled Tribe*, anthropologist Megan Moodie explores the politics of Adivasi assimilation in Western India, focusing on the gendered effects of urbanism among urban Dhanka, a Scheduled Tribe. Moodie argues that Dhanka upward mobility is predicated on embracing an identity as "ST", or Scheduled Tribe, and participating in associated affirmative action policies meant to help assimilate Adivasis to mainstream Indian society. However, this embracing of "ST" status requires urban Dhankas to relegate their Indigenous, or Adivasi, identity to the past - "We *were* Adivasis" - in order to achieve upward mobility.[116] In this sense, to be Adivasi is a past-tense identity, representing the impossibility of Indigenous presence in the so-called postcolonial Indian context. While Moodie engages with scholarship about global Indigenous politics, she argues that not all Indigenous peoples in India "take oppositional stances to the state and not all seek indigenous identities."[117]

One tactic of assimilation of Indigenous peoples in India is the creation of new states in areas populated by Indigenous peoples, granting Indigenous peoples legal rights as a state and recasting Indigenous claims as legal and bureaucratic domestic politics, rather than assertions of sovereignty. Anthropologist Alpa Shah explores Adivasi land claims, migrancy, and politics in an Adivasi region in eastern India. Shah's extensive

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[116] Megan Moodie, *We Were Adivasis: Aspiration in an Indian Scheduled Tribe*. (Chicago: University of Chicago Press, 2015), 4.
[117] Moodie, 2015, 33.

ethnography in Jharkhand, India, explores the politics that led up to and followed official

recognition of Jharkhand as a state of India in 2000, separating Jharkhand from its

previous designation as part of the state of Bihar. Shah argues that while the formation of

an independent Jharkhand was initiated by Adivasis and was brought about through

transnational activism for the rights of Indigenous peoples in Jharkhand, the political

process to achieve an independent state only served to further disenfranchise Indigenous

peoples of Jharkhand. Those who stood to gain access to resources and greater control

over markets were actually non-Adivasi settlers of Jharkhand. Shah asserts that what

started as an Adivasi movement quickly became subsumed by a movement of

environmentalists and urban, middle class Indigenous rights activists, flattening out

Adivasi claims to make the political movement legible to the Indian state while

simultaneously erasing the specificities of Jharkhand Adivasi struggle. For Shah, the

activists' engagement with global discourses of Indigeneity may have led to recognition

of Adivasi territory by the nation-state of India, but it also opened the gates to further

marginalization and exploitation of Adivasi inhabitants of Jharkhand.[118]

Indigenous rights, epistemologies, and ontologies are not legible to the law in

India, but the complexity of many contemporary territorial conflicts in India cannot be

understood unless Indigenous rights, epistemologies, and ontologies are taken seriously

by the law.[119] Legal scholar Pooja Parmar combines ethnographic and archival work to

decipher the multiplicity of claims surrounding a controversial case of a Coca-Cola

bottling facility in the state of Kerala in south India. The legal case and political activism

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[118] Shah, 2010.
[119] Parmar, 2015.

revolved around land and water claims related to water pollution and depletion by the bottling facility. Parmar's analysis reveals the violence of Indian law against Adivasi peoples. In this case, Adivasi voices were absent from both legal and media narratives about the conflict. Environmentalist and Indigenous rights activists' narratives eclipsed those of the Adivasis they claimed to represent, erasing Adivasi presence and leadership. Parmar argues that the concept of Indigeneity is critical to understanding Indian politics.

Indian law makes Indigeneity illegible, present yet invisible, acting as an obfuscating tension within the law. Indigeneity is obscured as a colonial legacy, rather than a present lived experience of Indigenous dispossession and disenfranchisement. For Parmar, the absence of Adivasis in legal and media accounts of the Coco-Cola dispute reveals India's rejection of claims to Indigenous rights. Focus on colonialism as a legacy, as opposed to a presence, relegates Indigeneity to the past and makes Indigenous politics purely focused on "uplift" and "development" of Scheduled Tribes, precluding any possibility of self-determination and sovereignty for Indigenous peoples.

Since Indigeneity is rendered impossible under Indian law, Indigenous resistance is therefore misconstrued in legal and media accounts of Indigenous politics. In an account of the formation of the Indian state of Jharkhand, Shah shows how Indigenous identity and resistance are not only denied by the Indian government but are also re-cast by those who claim to speak and advocate for Indigenous peoples. These activists use Indigenous resistance as a backdrop to achieve their own ends. In turn, the Indian government represents Indigenous peoples as insurgents or terrorists in order to justify violence against Adivasis. Shah uses the example of Maoist insurgency in many Indigenous territories in India to exemplify this appropriation of Indigenous struggle.

While media accounts conflate Maoist insurgency with Adivasi social movements and claim that Maoists guerilla groups are primarily made up of India's Indigenous peoples, the relationship between these movements is more complex than it first seems. In Jharkhand, Maoist guerillas protest bourgeois state oppression and claim to advocate on behalf of the Indigenous poor. They offer "protection" to Adivasis, a commodity which Adivasis are expected to pay for, and do, at the threat of violence through extortion by the guerillas. Despite promises of protection on both sides, Adivasis remain the target of both the guerillas and the government. The conflation of Adivasi with terrorist allows the Indian government to legitimize violence against Indigenous peoples. Meanwhile, Adivasi resistance to the state is lost in the conflict between government and insurgency.[120]

Not all self-proclaimed representatives of Indigenous peoples enact direct violence towards Adivasis. However, non-Adivasi settlers and environmentalists who claim to advocate for Indigenous rights silence Adivasi voices and re-represent Adivasis as backward, primitive, and close to nature. In doing so, they relegate Adivasis to a mythical past and render Adivasi political presence impossible. Shah argues that Indigenous rights activists in Jharkhand represented Adivasis as "eco-savages" with a deep ecological knowledge of their territory.[121] These activists also advocated an essentialized image of Jharkhand Adivasi religion as nature worshipping.[122] These representations of Adivasis as close to nature and natural environmentalists paved the way for the creation of nature preserves within Jharkhand to confine wild elephants. This

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[120] Shah, 2010, 73-82.
[121] Shah, 2010, 107.
[122] Shah, 2010, 109.

kept wild elephants within Jharkhand, and therefore out of neighboring states, but placed the elephants directly on Adivasi territory, as the forest which the elephants were supposed to inhabit was occupied by Adivasi villages and farmland. When wild elephants in Jharkhand attacked Adivasi villages, destroying crops and homes and even killing Adivasi villagers, Adivasi protests fell on deaf ears. Environmental activists' representation of Adivasis communing with nature not only threatened Adivasi lives by relegating elephants to the "forest" of inhabited Adivasi villages, but it required Adivasis to conform to the activists' representation of Indigenous peoples in order to be recognized by the state.[123]

Adivasi identity only becomes legible through its disavowal. Moodie argues that the claiming of Adivasi identity is only legible to the state through individuals' participation in government programs for Scheduled Tribes which are designed specifically for Adivasi assimilation. Moodie identifies a distinction in Adivasi identity claims in which Adivasi identity is spoken about in the past tense while identification as ST, or Scheduled Tribe, is spoken in the present tense. She illustrates how some urban Adivasis engage in government programs for Scheduled Tribes and achieve the intended results of these programs: new identities as urban, educated, and upwardly mobile. As a result of this government incentive for assimilation, Indigenous peoples in urban areas only identify as Adivasis in the past tense. Here, Adivasi is a temporary identification which is merely a steppingstone to assimilation.[124]

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[123] Shah, 2010, 125-127.
[124] Moodie, 2015.

The past temporality of Adivasi identity is amplified by the impossibility of being an authentic Adivasi. Adivasis must be "traditional", "tribal", and "with the correct origin, relationship to land, and cultural uniqueness" expected by the category of Scheduled Tribe.[125] Becoming urban and upwardly mobile means shedding Indigenous identity. Meeting expectations of Adivasi authenticity also poses problems for activists who seek to represent Adivasis. Adivasi migrancy disrupts Indian nationalist discourse about an essentialized Adivasi connection to place. This essentialized rhetoric is common not just in India, but in international struggles for Indigenous territorial rights. Shah argues that the reality of Adivasi migrancy and urban Adivasi presence is "inconvenient for the activists" who rely on dominant international discourses of Indigeneity and expect Adivasis to conform to these essentialized notions of Indigeneity.[126] This tension looms large for non-Adivasi settlers in conflict with Adivasis. Parmar illustrates how non-Adivasis call into question Adivasi claims to Indigeneity when they ask: "Are these Adivasis real Adivasis?"[127] Yet, in the face of silencing of Adivasi resistance, recognition of Indigenous peoples is not a panacea. Recognition of Adivasis does not necessarily lead to justice or granting of rights. Instead, formal recognition by India – on the state's terms – leads to exploitation.

In her explication of the disenfranchisement of Adivasis by Indigenous rights activists, Shah nods to Gayatri Chakravorty Spivak, drawing on Spivak's assertion that even those postcolonial intellectuals who seek to reclaim subaltern voices are complicit in imperialism. Shah links Spivak's claims about subalternity to her own claims about

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[125] Moodie, 2015, 10.
[126] Shah, 2010, 136
[127] Parmar, 2015, 91.

Indigeneity: "In the case of those speaking for indigenous populations, the danger is that the political project of this identity politics, this 'culture-making,' flattens a vast diversity of agendas and interests that are in fact affected by the complex inter-relations of, for example, gender, class, and caste, which undercut people's identity."[128] In contrast, Moodie juxtaposes Indigenous Dhanka narratives with subaltern narratives through a distinction between Indigenous aspiration and subaltern resistance, suggesting a political distinction between Indigeneity and subalternity. While Parmar cites numerous scholars who engage with subalternity, the notion of the subaltern is tellingly absent from Parmar's narrative. Here, Adivasis are represented as Indigenous peoples – nothing else.

Whereas Indigeneity is sometimes defined as emerging from experience of settler colonialism, a consideration of Indigeneity in India challenges this conflation. Parmar suggests that she seeks to intervene in Indigenous studies and colonial studies work on Indigeneity: "These stories also help us understand Indigeneity in a broader context than the one offered by scholarship on states identified as settler-colonial and point to the urgent need for an interdisciplinary engagement with issues of access to justice raised by indigenous mobilization against ongoing appropriation of lands and resources."[129] Though this sentence seems to distance Parmar's work in Kerala from settler colonial studies while maintaining an association with postcolonial studies, perhaps the key word in this sentence is "identified." As Parmar describes, the majority of non-Adivasis in Kerala are called "settlers," suggesting a stark contrast between Indigenous and non-Indigenous inhabitants. [130] Similarly, Parmar narrates the history of Adivasi dispossession

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[128] Shah, 2010, 25.
[129] Parmar, 2010, 3-4.
[130] Parmar, 2010, 43

as a "systematic invasion of tribal lands.[131] Parmar does not directly dispute the notion of India as postcolonial or decolonized, but her narrative suggests a tension with regards to the level to which India embodies these labels.

As illustrated in the Indian proclamation to the United Nations, Indian law disappears Indigeneity and confines it to the past, remaking Indigeneity in the glorification of "postcolonial" India to signify all descendants of inhabitants of India in 1947 as Indigenous. In doing so, Adivasi identity is transformed into a marker of the past, left behind in a process towards "uplift," development, and assimilation. India's rejection of Indigeneity recasts territorial dispossession as class difference in which economic disparity and "backwardness" justifies India's expansion into Indigenous territories.

Indigeneity in India's Himalayan Borderlands

Within the northeast region of India which includes the eight states Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, the language of Adivasi and Dalit movements is not embraced unilaterally. While there are solidarities and similarities between tribal peoples in the northeast and in the tribal belt of mainland India, Indigenous peoples in the northeast boundary of India do not generally identify with the Sanskrit-derived term Adivasi and also resist collectivist categories such as Dalit-Bahujan-Adivasi (DBA) which they feel erase their particular histories, collapsing diverse Indigenous experiences in India into a dominant framing that locates Indigenous peoples within a caste system, a relatively recent incursion into northeast

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[131] Parmar 2010, 87.

India.[132] Popular culture highlights this tension through social media accounts such as *Decolonial Indigenous Memes*, which challenge DBA categories as an attempt to "Indianize" communities in northeast India.[133] While settler colonial discourse is peripheral at best within scholarly literature on Indigeneity in northeast India, popular culture takes up these terms directly, interpreting India's northeastern boundary as a settler incursion into sovereign Indigenous nations: "Mainstream DBA discourse often misses a lot of issues that are at the heart of Indigenous politics in the [North East Region] centering around our relationship with land (which is intimately tied to our Indigeneity), the issue of "sovereignty" & "nationality," militarization, settler colonialism, extractive colonialism, and institutional racism, etc."[134] These cultural producers advocate for solidarity between those marginalized by caste and Indigeneity without subsuming distinct identities, histories, and politics.

Indigeneity is policed in India not only at the scale of the community via the formal legal recognition of Scheduled Tribes, but India also manages individuals via a series of bureaucratic policies that categorize people and territories. Through government entities like the Ministry for Tribal Affairs, members of a constitutionally recognized tribe can apply for a Scheduled Tribe certificate, which secures eligibility for programs, school placements, and government jobs reserved for members of Scheduled Castes and

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[132] Dalit-Bahujan-Adivasi (BDA) refers to Scheduled Castes, Scheduled Tribes, and peasant castes. While this category suggests solidarities between the most marginalized groups in India who have been and continue to be discriminated against based on caste, ethnicity, culture, language, and geography.
[133] These memes circulate widely. https://www.instagram.com/p/CSUfQm1IZKD/
[134] Ibid.

Scheduled Tribes.[135] This close monitoring of Indigenous peoples extends to Indigenous

territories as well. Nagaland and other states in northeast India are subject to a territorial

"protected area" claim such that Indians and foreign nationals visiting these Indigenous

territories are required to apply for an Inner Line Permit (ILP), administered by the

central government of India. Originally instated in 1873 under British India to protect

British interests in tea, oil, and elephant trade in northeast India, the ILP remained written

into law after Indian independence and was revised in 1950, ostensibly to "protect tribal

cultures in northeastern India."[136] To distinguish permanent residents from other Indian

citizens and foreign nationals, the state of Nagaland created an additional identification

process. Within Nagaland, residents can apply for an Indigenous Inhabitant certificate.

While intended to mark members of the eighteen tribes in Nagaland, fourteen Naga tribes

and four non-Naga Scheduled Tribes, in practice, this certificate identifies as Indigenous

any residents of Nagaland who personally, or whose immediate family, lived in Nagaland

prior to November 1979.[137] This complicates claims to Indigeneity in Nagaland, as many

people who are not members of the eighteen recognized Scheduled Tribes of Nagaland

are able to obtain Indigenous Inhabitant certificates. In 2019, a commission consulted

with tribal organizations, communities, and NGOs and submitted a report to the Nagaland

state government, recommending revision of the eligibility criteria for the Indigenous

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[135] See the website of the Government of India Ministry of Tribal Affairs:
https://tribal.nic.in/
[136] Government websites describing the Inner Line Permit argue that the ILP is a vestige
of a permit in British India that prevent British subjects from establishing businesses in
the areas in which the Crown held interests in the tea, oil, and elephant trades. Today,
India says that the ILP is in place to protect "tribal cultures." See the ILP website:
https://eastsiang.nic.in/service/inner-line-permit-eilp/
[137] A template version of this certificate can be viewed here:
https://dpar.nagaland.gov.in/indigenous-inhabitant-certificate/

Inhabitant certificate. They recommended shifting the date of family residence to December 1, 1963, the formation of the state of Nagaland and to engage traditional tribal governance structures into the process of identifying who is Indigenous, asking family, clan, khel, and village council to certify the application document before submission to the state government.[138] In addition, the commission recommended the creation of a Register of Indigenous Inhabitants of Nagaland (RIIN). These changes would mean that people who currently hold Indigenous Inhabitant certificates would not be included on the RIIN; the commission recommends that those who settled in Naga territory prior to the formation of the state of Nagaland could be considered permanent residents, allowing them to move freely in Nagaland without an Inner Line Permit, but preventing them from obtaining benefits intended for members of Scheduled Tribes. [139]

While India is commonly understood to be postcolonial, emerging scholarship theorizes the Indian state as an imperial and colonizing entity in tribal and borderland territories, particularly in Indian's northeastern boundary. Communities and individuals may identify as Indigenous, but this self-identification is not always recognized by the nation-state, not only in India as described here, but in neighboring countries and elsewhere in Asia, including Myanmar, China, Thailand, and Nepal. In a special issue of *Verge: Studies in Global Asias* on Asian Indigeneity, Charlotte Eubanks and Pasang

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[138] Angami villages are divided into khels based on clan belonging. A khel is a physical space in a village made up of multiple khels. See: Jelle J.P. Wouters, "Difficult Decolonization: Debates, Divisions, and Deaths *Within* the Naga Uprising, 1944-1963," *Journal of North East India Studies* 9, no. 1 (2019) 1-28, 3.

[139] Alice Yhoshü, "Nagaland: Commission on Register of Indigenous Inhabitants Submits Recommendations," *Hindustan Times,* August 12, 2021, accessed April 26, 2022, https://www.hindustantimes.com/cities/others/nagaland-commission-on-register-of-indigenous-inhabitants-submits-recommendations-101628757634007.html

Yangjee Sherpa assert that dominant global notions of Indigeneity are grounded in issues

of recognition, whether for securing of rights within a nation-state or at the scale of

international law. Eubanks and Sherpa attribute this orientation around recognition to the

strong influence of Indigenous movements from settler colonial states such as the United

States and Canada: "Deeply influenced by the legal apologetics of settler colonial states

toward displaced Native, First Nations, and Aboriginal peoples, however, this notion of

Indigeneity – at once largely modern, Western, and neoliberal, meshes imperfectly with

autochthonous conceptions of Indigeneity as articulated in a variety of Asian

contexts."[140] Recognition oriented Indigenous claims fall short in Asian nation-states

such as India where governments claim that there are no Indigenous peoples, that all

people within the state are Indigenous, or label Indigenous nations as ethno-nationalists

or minority nationalists, such as in China.[141] Further complicating the utility of

recognition based frameworks for Indigeneity in Asia is Asian governments' articulation

of Indigeneity as being confined to states settled by people of white, European ancestry.

Eubanks and Sherpa state that "while any number of Asian governments may accept the

rights-based concept of Indigeneity as comprehensible and even defensible for groups

displaced by European settler colonialism, few political leaders in Asia consider it

applicable to their own countries – one important exception being Taiwan, which does

recognize various Aboriginal peoples and their rights to land restoration."[142] Since the

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[140] Charlotte Eubanks and Pasang Yangjee Sherpa, "We Are (Are We?) All Indigenous Here, and Other Claims about Space, Place, and Belonging in Asia," *Verge: Studies in Global Asias* 4, no. 2 (2018): vi-xiv, vi.
[141] Ibid., viii.
[142] Ibid., viii. See also: Ian G. Baird, "Indigeneity in Asia: An Emerging but Contested Concept," *Asian Ethnicity* 17, no. 4 (2016): 501-505.

publication of this special issue, in February 2019, the government of Japan passed a bill recognizing the Ainu as Indigenous people and banning discrimination by race.[143] An understanding of Indigeneity as being limited to peoples and territories occupied by commonly recognized settler states (such as the United States, Canada, Australia, and New Zealand) not only excludes many Indigenous nations and millions of self-identifying Indigenous peoples in the Global South, but it simultaneously ties Indigeneity to whiteness, such that whiteness is a contrasting prerequisite to Indigeneity. For nation-states in Asia, defining Indigeneity as contingent on domination of an aboriginal people by a white, European-origin, settler state enables Asian nation-states to participate in modern, western, and neoliberal politics of recognition elsewhere, outside of their own territorial claims. Thus, the politics of recognition serves to promote Asian nation-states as sympathetic to the rights of Indigenous peoples while simultaneously rejecting claims by Indigenous peoples within Asia.

Rather than siloing Asian and Anglo settler states' engagement of Indigeneity, centering global critiques of recognition-based frameworks in theorizations of Indigeneity enables scholars of Indigeneity to better theorize beyond the politics of recognition. Scholars of Indigenous studies within the commonly recognized settler states of the United States, Canada, Australia, and New Zealand critique the politics of

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[143] Eléonore Komai, "The Ainu and Indigenous Politics in Japan: Negotiating Agency, Institutional Stability, and Change." *Journal of Race, Ethnicity, and Politics* 1, no. 24 (2021); Yuko Osakada, "An Examination of Arguments Over the Ainu Policy Promotion Act of Japan Based on the UN Declaration on the Rights of Indigenous Peoples," *The International Journal of Human Rights* 25, no. 6 (2021): 1053-1069.

recognition as a dead-end that results in inclusion into a colonial state, rather than

decolonization or liberation from the nation-state.[144] A politics of recognition reifies the

settler state via Indigenous appeals to the state, further entrenching colonial power and

shifting understandings of Indigenous sovereignty from being inherent, legitimate,

historical fact to be seen instead as a gift from the colonial state.[145] Critiquing the politics

of recognition creates new possibilities for transnational Indigenous political organizing,

refusing to be contained to the scales generated by nation-state governments as domestic

dependents, ethno- or minority-nationalists, or insurgents.

Emerging research engages theorizations of Indigeneity and racialization within

the "Mongolian fringe" through which solidarities and mutual recognition occur between

tribal peoples in northeast India and Kashmir. Drawing on Goldberg's understanding of

racialization as key to the organization of the modern nation-state and on Byrd's

theorization of how Indigeneity is the medium through which colonizing projects transit,

Gergan and Smith argue that "tribals" as racialized minorities "are central to the

construction of Indian nation-identity."[146] While emphasizing that they make this

association between U.S. and India colonizing projects cautiously, Gergan and Smith

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[144] Glen Sean Coulthard, Red Skin, White Masks: Rejecting the Colonial Politics of Recognition. (Minneapolis: University of Minnesota Press, 2014); Audra Simpson, Mohawk interruptus: Political Life Across the Borders of Settler States (Durham: Duke University Press, 2014).

[145] Kevin Bruyneel, The Third Space of Sovereignty: The Postcolonial Politics of US-Indigenous Relations. (Minneapolis: University of Minnesota Press, 2007).

[146] Mabel D. Gergan and Sara H. Smith, "Theorizing Racialization Through India's 'Mongolian Fringe,'" *Ethnic and Racial Studies* 45, no. 2, (2021): 361-382. See also: Jodi A. Byrd*, The Transit of Empire: Indigenous Critiques of Colonialism* (Minneapolis: University of Minnesota Press, 2011); David Theo Goldberg, "Racial Comparisons, Relational Racisms: Some Thoughts on Method." *Ethnic and Racial Studies* 32, no. 7 (2009): 1271–1282.

effectively center an understanding of Indigeneity and Indigenous relationship to colonialism that is not predicated on whiteness, but is rather a political formation in relation to colonizing state power.

Comparative or relational analysis of Indigenous politics eschews the politics of recognition in favor of articulation of a future-oriented politics. Through a comparative analysis of environmental activism by Indigenous youth in India and the United States, Gergan and Curly argue that Indigenous youth in both sites express "youthful decolonial futurity" that pushes back against both colonial and tribal government approaches to articulate a global Indigenous decolonial politics.[147] This youthful decolonial futurity rejects the politics of recognition that makes possible recognition of tribal governments such as the Navajo Nation in the United States and the formation of assimilationist states such as Sikkim, India. Importantly, contrary to previous approaches to Indigenous territorial sovereignty via recognition by the settler nation-state, Indigenous youth activism asserts that territorial autonomy cannot occur via state subsidies. This rejection of recognition as a path forward is present in contemporary Naga political and public discourse, as Nagas reimagine Naga sovereignty and territorial autonomy beyond a politics of recognition.

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[147] Mabel Denzin Gergan and Andrew Curley, "Indigenous Youth and Decolonial Futures: Energy and Environmentalism among the Diné in the Navajo Nation and the Lepchas of Sikkim, India," *Antipode: A Journal of Radical Geography* (2021), 1-21.

Conclusion

In this chapter, I have examined the politics of Indigeneity in India and how those politics are mapped onto a landscape for both direct and indirect surveillance of Indigenous peoples. As I have shown, working within the state's logics of recognition has territorial consequences. Indigenous territorial claims against the occupying state must be navigated within the frameworks designed by the state. In this context, I have argued that India's policing of Indigeneity as a political category requires that Indigenous landscapes be continually marked as insurgent, violent, disturbed, and under conflict. These representations of Indigenous space and place are used to justify colonial counterinsurgent measures on those territories thereby maintaining the colonial project.

The aerial, in the form of spatial data collection or the mapping of laws onto bordered territories, is upheld as the realm of the state, a prime vantage point from which the state can monitor and police Indigenous insurgents. By policing Indigeneity through legal categories and ascribing physical and political landscapes as inherently violent or disturbed, the state can control who can access the rights afforded to Indigenous peoples through international law. These practices of surveillance and control are dependent on the aerial perspective in that they require the quantification and assignation of status to Indigenous territories to reinforce the state's representations of Indigenous space and place and attempt to destabilize Indigenous territorial sovereignty. Thus, the surveillance of space, place and identity are a primary site at which Indigenous peoples confront the colonial state.

This surveillance of Naga territory extends from the cartographic, through the mapping and unmapping of Naga territory, to the legal, through categories of identity that

police who may or may not be in a specific landscape and dictate what rights can be accessed by people within those landscapes. In the next chapter, I turn to a physical mode of surveillance of Naga territory: satellite tracking for environmental data collection and the policing of what Nagas eat.

Chapter Two

What Nagas Eat: Sovereignty and Kinship Under Lockdown

This chapter considers surveillance of what Nagas eat in relation to Naga experiences of war, militarization, and counterinsurgency. I begin with a close read of media discourse that attempted to link Naga eating habits to the origin of the 2020 coronavirus pandemic, racializing Nagas as primitive, violent, and virulent through criticism of hunting and eating practices. I then analyze a graphic short story that narrates Naga eating habits as practices that articulate relations between Nagas and more-than-human beings.[148] I argue that Naga eating habits are closely linked to Naga experiences of colonial and counterinsurgent violence. Furthermore, I assert that the surveillance of eating habits contributes to counterinsurgent domination of quotidian life in Nagaland, an intimate manifestation of India's legal and territorial power in Naga territory. Finally, I close by considering how Naga relationality with more-than-humans, land, and water inform contemporary Naga visions of sovereignty.

In February 2020, I packed my bags and was getting ready to return to the United States after spending the winter in Nagaland. Reports of the new coronavirus had been at the top of international news for several weeks, but I had not been worried about my travel plans till a few days before my flights, when I heard that Hong Kong, where I was

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[148] I use the term "more-than-human" here rather than "non-human" or "other-than-human" to indicate Indigenous conceptions of relation between humans and other living beings. Here, "more" represents that relationship. See: Zoe Todd, "Refracting the State Through Human-Fish Relations: Fishing, Indigenous Legal Orders and Colonialism in North/Western Canada," *Decolonization: Indigeneity, Education, and Society* 7, no. 1 (2018): 60-75, 65. Vanessa Watts, "Indigenous Place-Thought and Agency Amongst Humans and Non Humans (First Woman and Sky Woman Go on a European Torld tour!)" *Decolonization: Indigeneity, Education & Society* 2, no. 1 (2013): 20-34.

supposed to layover before a flight across the Pacific, had sold out completely of hand sanitizer and soap. That did not bode well. I had already been cautious of my travel plans, as only a few weeks before, President Trump added Myanmar to the list of banned countries. Concerned that I might get blocked from reentry to the United States, or be quarantined at customs, I decided to cancel my flights and find a new direct flight from India to the US. The evening before my flight, *The Hindu* published a breaking news story declaring that the new coronavirus might have originated in Nagaland. The headline read: "Coronavirus: Wuhan Institute's study on bats and bat hunters in Nagaland to be probed." [149] "Don't tell anyone that you are coming from Nagaland," my grandfather told me. "Let them think you are travelling from mainland India."

The *Hindu* article reported that a collaboration between researchers from Wuhan, China, India, and the U.S. Department of Defense had travelled to a remote area in Nagaland to collect specimens from bats and blood samples from human bat hunters. Nagas in neighboring villages, the article stated, hunt and eat bats. While the article never explicitly blamed Nagas and Naga eating habits for the epidemic—soon to be pandemic—it was easy to connect the dots between their logic. Public outcry was swift. The U.S. Department of Defense denied involvement in bat research in Nagaland. [150] Later that week, India's National Centre for Biological Sciences with the Tata Institute for Fundamental Research published a press statement "in reference to media reports that

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[149] Bindu Shajan Perappadan, "Study on Bats and Bat Hunters in Nagaland to be Probed," *The Hindu,* February 6, 2020, https://www.thehindu.com/news/national/study-on-bats-and-bat-hunters-of-nagaland-come-under-the-scanner/article30722099.ece
[150] Mohana Basu, "Why Coronavirus has Triggered a Controversy Over 2017 Study on Bats in Nagaland," *The Print,* February 6, 2020, https://theprint.in/science/why-coronavirus-has-triggered-a-controversy-over-2017-study-on-bats-in-nagaland/360395/

grossly misrepresent the facts concerning a study of bats in Nagaland."[151] The press

statement clarified that no biological samples were ever removed from India, that two

researchers from Wuhan, China, were listed as co-authors only because they supplied a

reagent for the lab tests, and that the work was a collaboration between researchers at the

National Centre for Biological Sciences in India and the Duke-National University of

Singapore Medical School. The U.S. Department of Defense provided research funds to

Duke-NUS, the extent of its involvement in this study. The study the article claimed to be

based on had, in fact, nothing to do with coronavirus, and the results of the study had

been published in October 2019, prior to the outbreak of Covid-19 in Wuhan, China.[152]

Upon this outcry, *The Hindu* removed the word "coronavirus" from the article's headline

and removed a section of the article that focused on researchers from Wuhan. The revised

article retained its focus on Naga bat hunting, the age and gender of the bat hunters, and

how many times each individual participated in the bat harvest in a single year. The

article concluded: "The study says the potential virus present in the bats may not be an

exact copy of the virus responsible for various outbreaks."

Tracking the Amur Falcon

This is not the first time that what Nagas eat has made national and international

headlines. In the winter of 2012, Nagaland made international headlines, as journalists

reported the "slaughter" and "massacre" of amur falcon, a small raptor that migrates

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[151] "NCBS Press Statement: 3rd February 2020," National Centre for Biological Sciences Tata Institute of Fundamental Research, February 4, 2020, https://news.ncbs.res.in/bigger-picture/ncbs-press-statement-3rd-february-2020

[152] Dovih et al., "Filovirus-Reactive Antibodies in Humans and Bats in Northeast India Imply Zoonotic Spillover," *PLOS Neglected Tropical Diseases* 15, no. 11 (2019), https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0007733

across India en route from Siberia and China to South Africa.[153] The amur falcon is

famous among birders for making the longest over-ocean flight of any raptor, flying day

and night on its migration across the Indian Ocean. It is a relatively small raptor that

migrates in large groups, so thousands of birds will arrive in a small area all at once.

International papers described this "massacre" of birds by Naga people. Scientific

publications took on the same language as media reports. For example *GABAR: The*

Journal of Birds of Prey reported that the amur falcon in Nagaland were "flying the

gauntlet back to South Africa."[154] The birds' brief stopover in Pangti village in the

remote Wokha district of Nagaland was a welcome economic opportunity to villagers, as

birds could be caught and sold as a food source, bringing income to a village

geographically distant from the two cities of Nagaland. Capturing and selling these birds

was a means to adapt to and survive within capitalist systems. While early articles about

the amur falcon showed images of conservationists and scientists tagging birds, later

coverage narrated that it was in fact a Naga journalist who first sought to address the

issue of the amur falcon to protect the bird while also identifying new sources of income

with the villagers.[155] Without outside intervention, Nagas created a rapid response, which

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[153] "Wildlife Slaughter Goes Unabated," *New York Times,* February 14, 2015, accessed April 26, 2022, https://www.nytimes.com/2015/02/15/opinion/sunday/wildlife-slaughter-goes-unabated.html ; Kavitha Rao, "How Three Indian Villages Saved the Amur Falcon," *The Guardian,* November 11, 2013, accessed April 26, 2022, *https*://www.theguardian.com/environment/terra-india/2013/nov/12/amur-falcon-saved-by-indian-villages

[154] Munir Z. Virani and Darcy Ogada, "Amur Falcon *Falco amurensis* Update," *GABAR: The Journal of the Birds of Prey Programme* 24, no 2 (2014).

[155] Ananda Banerjee, "The Lady Who Saved the Falcon," *Mint*, November 8, 2015, accessed April 26, 2022, https://www.livemint.com/Leisure/DoObs49kjdCQBznNWfEOUI/The-lady-who-saved-the-falcon.html

included incentives, education programs for school-age children, and economic

development initiatives to decrease hunting of amur falcon. This response enacted

processes of self-determination that affect not only Nagas, but all areas within the amur

falcon's migration.

Radio tagging of amur falcon in Nagaland began in 2013 when three amur falcon

were fitted with 5 gram solar-powered satellite transmitters during their winter migration

in Nagaland.[156] They were named Naga, after the people and region, Pangti, after the

nearest village, and Wokha, after the district. The signals sent from the satellite

transmitter backpacks were then not only sent to researchers, but were also uploaded to

maps online, allowing anyone with an internet connection to track the falcon during their

migration, summer stop in southern Africa, and winter stop in Naga territory. While the

falcon Wokha's last signal transmission was only four months after Wokha was first

tagged, Pangti and Naga both continued to send signals for three years. A satellite

tracking website still makes accessible a tracking map where a viewer can select which of

the three original birds they would like to trace, and then can watch as the bird's historic

locations are marked by a red dot moving across the map against a timeline from the

bird's first day tagged to the day when its last signal was sent.[157] In the years since, many

other amur falcon have been fitted with satellite trackers, each named after Naga tribes,

towns, and districts. Bird watchers can post their own data on ebird.org to indicate

sightings of amur falcon in their area and the Nagaland state forestry division Facebook

[156] Bernd Meyburg, "Year- Round Satellite Tracking of Amur Falcon (Falco amurensis) Reveals the Longest Migration of Any Raptor Species Across the Open Sea," Argos-system.org, October 15, 2018, accessed April 26, 2022, https://www.argos-system.org/tracking-amur-falcon/
[157] https://www.satellitetracking.eu/inds/showmap?check145=145#

page posts occasional updated map screenshots to show where specific tagged falcons are currently located. These maps mirror the migration paths of the three original birds. When a bird's tracking signal stops moving, it is assumed that the bird has died and the nature of its death is pondered in public forums.[158] While ostensibly a conservation project, scholarly and media coverage of these tracking efforts retain an anti-Naga stance, indirectly surveilling Naga hunting and eating habits as much as they track bird migrations. Nagas are seen as a threat to bird conservation and Naga hunting practices are seen as threatening not only ecosystems within Naga territory, but along global migration routes. Surveillance of the amur falcon stands in for the surveillance of Nagas, allowing governments, NGOs, and the public to monitor Nagas, attempt to control Naga hunting and eating, and policing Naga relationships to the other-than-human.

What is striking is that, in the ten years since amur falcons first made international headlines, focus on the falcons has centered around their presence in Nagaland. Nearly all conservation, tracking, or surveillance efforts related to the amur falcon take place in Nagaland, despite the remoteness of the location. To get to the only airport in Nagaland, there are four flights per week. In addition to a visa to travel to India, visitors and researchers must also apply for an Inner Line Permit, which is required to enter areas enforced by the Armed Forces Special Powers Act. From the airport, it is an eight hour drive on dirt roads to the village closest to the falcon's roosting area, and that is assuming there is no military checkpoint, road shutdown, or bad weather that could slow down or

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[158]"Radio-Tagged Amur Falcon 'Longleng' Still Holed Up in Inner Mongolia." *Eastern Mirror Nagaland,* November 1, 2020, accessed April 26, 2022, https://easternmirrornagaland.com/radio-tagged-amur-falcon-longleng-still-holed-up-in-inner-mongolia/

prevent travel to the village. So why make so much effort to monitor a bird species that can be monitored from many other locations across two continents?

When an other-than-human species such as the Amur Falcon is seen as a common good belonging to a global public, the rights of Nagas within their own lands are seen as potential threats to global environmental good, and surveillance of Nagas or other Indigenous peoples, is seen as a necessity for conservation efforts. I consider events like the environmental monitoring of the amur falcon as part of the ongoing surveillance of Naga people in India-occupied Nagaland. Environmental monitoring meant to work towards conservation of a non-human species becomes a means through which to simultaneously surveil and control Indigenous peoples. In this way, armchair birdwatchers who track the amur falcon migration via GPS-tagged birds, participate in the surveillance of Naga territory.

In fact, Naga difference from mainland India is marked by what we eat, how we eat it, and what that might mean about our relationship to territory and nation. Through dominant critique of what Nagas eat, Naga Indigeneity is cast as barbarian, primitive, and ultimately, destructive. Identified as one of ten key biodiversity hotspots in the world, Nagaland's more-than-human life garners attention from conservationists and climate change activists.[159] While some of these organizations claim to prioritize or consider Indigenous ways of knowing and being, there is often a disconnect between

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[159] "Indo-Burma Biodiversity Hotspot: 2020 Update," Critical Ecosystem Partnership Fund, September 2020, accessed May 12, 2022: https://www.iucn.org/sites/dev/files/content/documents/indo-burma-ecosystem-profile-executive-summary-2020-english.pdf

conservationists and Naga political contexts. What Nagas eat, I think, comes down to how we survive a lockdown.

What Nagas Eat

The national lockdown in India due to the pandemic brought renewed attention to what Nagas eat. After a June 2020 tweet storm, not to mention years of activism, by Indian animal rights activists against the sale and eating of dog meat in Nagaland, the chief secretary of the state of Nagaland, Temjen Toy announced that Nagaland would ban the importing, trade, and sale of dogs and dog meat.[160] This announcement was celebrated by animal rights activists, and the conversation centered around the morality of what we eat, with the ban celebrated outside of Nagaland as a moment of progress for this "underdeveloped" state. Nagas responded critically, with consideration of how dogs feature in Naga cosmologies, the intersection of animal rights and far right Hindu nationalism, and the anti-Indigenous racism embedded in animal rights activism.[161] This ban occurred during the pandemic lockdown, when access to all food, including meat,

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[160] Bismee, Taskin, "Nagaland Bans Sale of Dog Meat After Incidents of Pets Being 'Shot at Sight' Spark Outrage," *The Print,* July 4, 2020, https://theprint.in/india/nagaland-bans-sale-of-dog-meat-after-incidents-of-pets-being-shot-at-sight-spark-outrage/454322/

[161] Naga and other Scheduled Tribe scholars have written extensively about the politics of dog meat in both scholarly and public forums: Roderick Wijunamai and Menokhono, "Many Meanings of Dog Meat Ban in Nagaland," *RAIOT: Challenging the Consensus,* July 14, 2020, https://raiot.in/reading-the-dog-meat-ban-in-nagaland/ ; Dolly Kikon, "Debates Over Food: The Politics of the Dog Meat Ban in Nagaland," *The Hindu*, August 14, 2020, https://frontline.thehindu.com/the-nation/the-politics-of-dog-meat-ban-in-nagaland/article32082833.ece ; "To Ban or Not to Ban: Debate on 'Politics of Food' Continues," *Morung Express*, August 3, 2020, https://morungexpress.com/to-ban-or-not-to-ban-debate-on-politics-of-food-continues ; Dolly Kikon, "From the Heart to the Plate," *The Focus* 77(2017): 38-39; Mabel D. Gergan and Sara H. Smith, "Theorizing racialization through India's "Mongolian Fringe,"" *Ethnic and Racial Studies* 45, no. 2 (2022): 361-382.

was limited, and many looked for sources of meats and vegetables that they might not usually obtain.

Why the preoccupation with what Nagas eat? In a country where religious difference gets conflated with political difference, we might be led to infer that what a person eats suggests something about their religious background and, therefore, their political affiliations. Legislation against cattle slaughter exists in many states across India, so we might be tempted to affiliate the policing of Naga eating with beef bans elsewhere in the country. But these forms of public outcry and shaming hit differently. While we can trace religious arguments for bans on cattle slaughter, the objection to the eating of fragrant fermented foods or even wild animals is not of the same cloth. "Unlike the cow debate," writes Naga anthropologist Dolly Kikon, "the one on dog meat does not centre around religion but on a civilizational logic."[162] The dog meat debate, like international coverage of the amur falcon "massacre" or Naga bat research, marks Nagas as uncivilized and backwards, incapable of complex understandings of the interrelationships between people, ecosystems, polities, and economies.

We might ask: where do contemporary Naga eating habits come from? Where do these public conflicts about what Nagas eat touch down on other contemporary Naga issues? What might that tell us about the political conditions of everyday life in Nagaland?

Breakfast

The pandemic lockdown, and its associated food insecurity, joined another type of territorial lockdown in Nagaland. Only three days before the dog meat ban, the

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[162] Kikon, 2020.

government of India renewed the Armed Forces Special Powers Act (AFSPA).[163] This

act has been in effect in Nagaland and renewed by the government of India every six

months since 1958. AFSPA marks regions as "disturbed areas" and permits Indian armed

forces special powers in those areas, such that they may detain or even kill anyone based

on suspicion. Furthermore, AFSPA protects members of the armed forces and exonerates

them from any wrongdoing if the suspects harmed are later found to be innocent. This

act, first instituted in Nagaland, has been applied to other states in northeastern India, in

Punjab and Chandigarh from 1983-1997, and Jammu and Kashmir since 1990.[164] The act

has been condemned by the United Nations as a violation of international law.[165]

Activism and government actions that cast Nagas as uncivilized fall into racist and anti-

Indigenous assumptions about Nagas and perpetuate the belief that Nagaland is disturbed

and, therefore, AFSPA is necessary. Kikon writes:

> The insidious logic of the Armed Forces Special Powers Act (1958) and
> the Disturbed Areas Act (1955) is the reproduction of the "disturbed area"
> as a geographical location (Northeast India) and a social category
> (northeastern people). Circular logic predicts that places inhabited by

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[163] "Entire Nagaland Declared 'Disturbed,' AFSPA Extended for Six More Months," *Live Mint,* December 20, 2019, https://www.livemint.com/news/india/entire-nagaland-declared-disturbed-afspa-extended-for-six-more-months-11577714452217.html
[164] The Armed Forces Special Powers Act has been studied extensively for decades. See: Charles Chasie and Sanjoy Hazarika, *The State Strikes Back: India and the Naga Insurgency*, (Washington, DC: East-West Center in Washington, 2009); Dolly Kikon, *Living with Oil and Coal: Resource Politics and Militarization in Northeast India* (Seattle: University of Washington Press, 2019); For gendered dimensions of AFSPA, see: Khriezomeno Iralu, "Effects of the Armed Forces Special Powers Act on Gender: Influence of Social Ecology on Psychological Well-Being of Women in Nagaland," Master's thesis, UiT Norges arktiske universitet, 2017; Amit Ranjan, "A Gender Critique of AFSPA: Security for Whom?" *Social Change* 45, no. 3 (2015): 440-457;
[165] "UN Asks India to Repeal Armed Forces Special Power Act," *NDTV,* March 31, 2012, https://www.ndtv.com/india-news/un-asks-india-to-repeal-armed-forces-special-powers-act-474228

suspicious people will eventually become a disturbed area, and those inhabiting the disturbed area will naturally become suspicious people.[166]

When AFSPA is renewed, WhatsApp conversations between Nagas remind loved ones to stay home and be careful, lest an accidental interaction with a member of the armed forces leads to a display of AFSPA's power. AFSPA itself may be construed as a form of lockdown, in which people may not freely move through their days without threat and unease.

If amur falcon migration data or harvesting of bats is used to mark Indigenous peoples as violent, primitive and barbarian, then this data supports the idea of Naga territory as a Disturbed Area. Activism, such as the interest by conservationists in the amur falcon or that of animal rights activists in dogs, cast Nagas as uncivilized. It falls into racist and anti-Indigenous assumptions about Nagas, and perpetuate the belief that Nagaland is disturbed and, therefore, AFSPA is necessary.

In a place where the "small problem" of Naga sovereignty is the punchline to formal jokes, debates over what Nagas eat often overlook a critical Naga perspective that situates what Nagas eat in relation to other aspects of our cultural and political life.[167] In other words, conversations about what Nagas eat often ignore questions of militarization, dispossession, or disenfranchisement. To consider these complex entanglements, I will

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[166] Kikon, *Living with Oil and Coal,* 2019, 150.

[167] Abbreviated version of one such joke: The Naga representative from northeast India slept in on the day God handed out blessings; by the time the Naga showed up, God had already dispensed with gifts of brilliance to South India, beauty to north India, wealth to western India, and all God had left to give the Naga was a "small problem." This joke takes up the colloquial collapsing of twentieth and twenty-first century Naga political movements into the single word "problem," as in "the Naga problem." Occasionally, people may also refer to the "Naga question" or the "Indigenous question."

examine the work of a Naga artist who centers Naga political struggles in the conversation around what Nagas eat. These questions play out in a graphic short story released shortly after the dog meat ban.

Less than a month after the dog meat ban, Naga artist Moa Lemtur, also known as Shinobi, published a graphic short story on his Instagram feed.[168] Titled "Breakfast," the caption said that the "short fiction is based on true events" and the only hashtag on the post was #AFSPA. This thirteen-panel story is drawn in pen and ink, exclusively black and white, except the title panel, which bears the name of the story and the disembodied head of a snarling dog. Red blood splatters out behind the head as it appears to be in an arc of flight. In the second and third panels, the text sets the scene as "circa 1960 Nagaland," begins with a description of the legal parameters of AFSPA, and directs the reader to imagine the consequences of such a law:

> The tragedy in the presence of such draconian acts is that unimaginable terrors have been wrought on the public in the pursuance of this so called 'order.' Mass killings, torture, and rape of the most blood curdling heinousness have been visited upon the innocent who were simply guilty of being caught in the crossfires. Needless to say, the perpetrators were protected by an ironclad act that placed 'order' above human dignity and lives.

This opening blends comic book tropes with legal footnote. Whether set in Gotham City or 1960s Nagaland, the protagonist exists within a draconian setting, evading violence and trying to survive. The third panel continues:

> Toshi, a young Naga lad looks down with horror from the cliff overlooking the burning remains of what used to be his village. He grits his teeth in helpless rage as he watches the soldiers languidly strolling about after their killings and rape. Bodies everywhere…bloodied, torn, mangled and violated. The sound of their laughter reaches him like a faint

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[168] https://www.instagram.com/__shinobi__/

echo and he wonders if they are truly human or demons come for vengeance.

The author continues, describing how no other people in the village escaped. The young man Toshi and his hunting dog Nok are two of three survivors, as they had been in the jungle when the soldiers arrived in the village. Toshi saw the third survivor, his own brother, taken away by the soldiers. From the clifftop, Toshi and Nok survey the devastation below, ashes, rubble, and flesh. In the midst of this horror, Toshi is drawn back to immediate needs:

> Despite the overwhelming sense of loss and rage Toshi can no longer ignore the painful rumblings his stomach was making. The soldiers had brunt [sic] all the granaries and either killed and eaten or taken whatever food there was. The vengeance would come in its own time but right now the rumblings demanded satisfaction.

In panel four, the first image-based panel, a hornbill sits on top of a woven handle of a machete. Behind it, billowing clouds fill the background and vertical crosshatching suggests the air is hazy, perhaps with smoke from the burned village. A speech bubble indicates that the main character, Toshi, warns his hunting dog away from the bird: "Not the bird Nok." In panel five, he continues: "I know you're starving too…but not the bird." Here, Toshi and Nok stand on top of a rock outcrop with grasses growing between fractures in the rock. Toshi is wearing traditional clothing, a loin cloth, woven greaves to protect his shins, an arm band, and two feathers on his head. We can see the chest tattoos indicating his success as a warrior. To one side is a tree stump with a machete casually stuck into it, the hornbill from the previous panel seated on the handle of the machete. On the other side are a shield and two spears stuck in the ground. One spear skewers four human skulls. From the high point of their rock outcrop, Toshi and Nok survey their village's fields below them.

We jump perspective in the sixth panel. Now, we can see the cliff on which they stand, with Toshi and Nok and the stump and spears small shadows. Below them in the fields is a traditional Naga rest house, with its iconic crossing rooflines, where people working in the field take breaks for lunch and tea. This house has open air walls and inside the house is a Christian cross. There are three men with guns in the image. One pins down to the ground a figure who appears to be unclothed, one stands guard with his arms folded on his chest, the third man, this one mustachioed, crouches next to a wide shallow grave in which there are many unclothed bodies. Up on the cliff above, Toshi refers to the hornbill when he says to Nok: "Let at least one thing of beauty remain. Maybe it's come to send us off on our warpath. What do you think Nok?"

The seventh panel zooms out further. Toshi and Nok are still on a cliff above the village field, the rest house with the cross inside now much smaller in our view. In the foreground is a stream with dark water swirling around two bodies. While the soldiers' faces were cross hatched and hard to decipher in the last panel, here, the faces of the dead are detailed; you can see the traditional haircut of a Naga boy. Around the stream you can see the furrows in the fields, but no evidence of crops still growing. Toshi speaks to Nok again: "Say old friend, you remember the spiteful dog that used to steal mother's chicken? I think I saw it slinking among the burnt ruins earlier. Maybe it was fated."

He continues in panel eight. "First I eat and then we find a nice hare for you. Won't do to become a cannibal, eh Nok?" Here we see Toshi in more detail, bowl cut, hornbill feathers on his head, pierced and gauged ears, tattooed chest. A dark colored dog slinks up behind him through tall grasses. Toshi continues: "Then nightfall and with the

darkness we scream our battle cry. May the forefathers witness the destruction of our enemies!"

In panel nine, Toshi and Nok turn to face the intruding dog. They stand crouched, ready for attack. Now Toshi holds the machete that had been stuck in the tree stump. An almost-transparent image of the hornbill in flight is emblazoned onto the machete. When Toshi speaks this time, he addresses his brother that the soldiers took away, and promises to rescue him. The dog Nok speaks for the first time in panel ten, growling as he and Toshi lunge toward the intruding dog. Next, we see the image from the title panel, the intruding dog's head arcing through the air, blood trailing behind, though this time, the image is black and white. A dark line connects this panel to the next one, where we see the now headless dog's body in the air as though pouncing. Nok gnaws a foot in his mouth. The dark line connects to the final panel, where we see Toshi lunging, machete in hand, mid stroke. There is no hornbill in sight, other than the hornbill feathers Toshi has worn on his head throughout the panels.

Grounding the story in the context of the Armed Forces Special Powers Act and setting the story in 1960s occupied Nagaland recenters the conversation from what Nagas eat, to the condition in which Nagas live. The story illustrates that Nagaland is not a political stage that displays a battle between modern, secular liberalism, and primitive barbarian practices, as it is so often represented outside of Nagaland. Rather, we see, everything that happens in Nagaland or to Nagaland or about Nagaland is foregrounded by AFSPA. We live, eat, and die in the context of AFSPA, which continues to be renewed by a vote of Indian parliament every six months, as it has been since it was first instituted in 1958.

This story complicates the current news coverage of the dog-eating ban instituted in Nagaland in 2020. The artist Shinobi shows that Nagas' relationship to domesticated animals such as dogs and to wild animals such as hornbills is more complex than the current political conversation around dog meat eating might presume. In this story, dogs are friends who work with humans, as well as occasionally enemies or breakfast. Even when Toshi decides to eat the invading dog, he makes sure to find other sustenance for his dog Nok, so that Nok will not cannibalize his own kind. Through his conversation with Nok, Toshi reveals that there are some species that have special relationships with Nagas and are therefore not to be eaten. Here, Toshi tries to decipher the meaning of the hornbill's visit, guessing what action the visit is meant to prompt. While he will eventually hunt a small bird for Nok to eat, he makes it clear that that will not be the fate of the hornbill. Perhaps, this story suggests, what Nagas eat is not a sign of a barbarian past or violent present. Perhaps what Nagas eat, and our relationship to the wild and domestic animals around us, is rooted in our political context. Perhaps war, militarization, and AFSPA affect what we eat.

Special Status in a More Self-Confident India

Increased surveillance of what Nagas eat occurred concurrently with shifts in India's understanding of its territoriality and a more volatile sense of who constitutes a threat to the state. In May 2020, nine months after India had reneged on Jammu and Kashmir's special constitutional status, reinforced its military presence in Kashmir, and barred broadband and mobile phone service, a pigeon was captured and detained by the Indian Border Security Force after the pigeon crossed the India-Pakistan border in India-administered Kashmir. The pink ring tag attached to its ankle was suspected to contain

codes intended to convey information to insurgent groups in India-administered Kashmir. After keeping the pigeon in custody for several days, it was confirmed that the code on the tag was the phone number of the owner of the bird, who races pigeons, and lost a pigeon when the bird crossed the border during a training session. The pigeon was not released, however, until the owner appealed to Prime Minister Narendra Modi.[169] Similar cases occurred in 2015 and 2016 when pigeons who crossed the India-Pakistan border were taken into custody on suspicion of spying on India for Pakistan. This national security approach conscripts all non-human agents as potential threats, regardless of human control or interaction. In order to reinforce nation-state territoriality, any presumed ability to see from above by those in surveilled territories is seen as insurgent. Aerial counterinsurgent strategies blur the distinction between the technological and the natural within the realm of surveillance, widening the possibility of threat to the colonial nation-state.

The relationship between Kashmir and Northeast India, particularly Nagaland, is fraught and not immediately obvious. At first glance, they seem to be entirely unrelated, as they are located on opposite sides of the Indian subcontinent, inhabited by different religious and ethnic groups, and have distinct histories in relation to the Indian state. However, the incompleteness of Indian state sovereignty renders these territories close cousins. What brings Kashmir and Nagaland together is India's interest in defending its

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[169] Joe Wallen, "India Detains Pigeon on Suspicion of Spying for Pakistan." *The Telegraph,* May 26, 2020, https://www.telegraph.co.uk/news/2020/05/26/india-detains-pigeon-suspicion-spying-pakistan/; "Pakistani Villager Urges India to Return 'Spy' Pigeon" *BBC News*. May 27, 2020, https://www.bbc.com/news/world-asia-52882119; "India Returns Alleged Spy Bird to Pakistan," *DW,* May 29, 2020, https://www.dw.com/en/india-returns-alleged-spy-bird-to-pakistan/a-53624862

claim to territory that borders China. In practice, these regions, and the people who inhabit them, are seen as potential insurgents, foreigners in India despite being enclosed by India's borders. Indian military presence in these regions is based on presumed suspicion and potential threat. Article 370 of the Indian constitution describes India's relationship to Jammu and Kashmir, citing Jammu and Kashmir's special status within the new India, granting it provisions for its own constitution, flag, and autonomous internal administration. From 1954-2019, Jammu and Kashmir was subject to some aspects of the Indian constitution in addition to its own constitution, such that Indian citizens could not legally purchase land in Jammu and Kashmir. However, in August 2019, the government of India announced that the entirety of the Indian constitution applied to Jammu and Kashmir, effectively abrogating the Kashmir constitution. Shortly after, the government of India amended the Indian constitution, adding article 370(3) which denounced not only the special status indicated in article 370, but suggested that any other former treaties or agreements with or about Kashmir were inoperable. In this announcement, land in Kashmir became available for sale to non-Kashmiri Indian citizens. Kashmir was placed under a central government-appointed internet blackout for over seven months, continuing in during the pandemic lockdown.[170] NYC-based Muslim

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[170] Akshay Deshmane, "Kashmir: Scrapping Article 370 "Unconstitutional", "Deceitful" Says Legal Expert A.G. Noorani," *Huffington Post*, August 8, 2019, accessed May 12, 2022, https://www.huffingtonpost.in/entry/kashmir-article-370-scrapping constitutional-expert-reacts-noorani_in_5d47e58de4b0aca341206135 ; Suhrith Parthasathy, "An Exercise of Executive Whim: Negation of Article 370 in J&K Doesn't Stand up to Constitutional Test, Strikes at Federalism." *The Times of India*, August 7, 2019, accessed May 12, 2022, https://timesofindia.indiatimes.com/blogs/toi-edit-page/a-plainly-illegal-order-why-the-overturning-of-article-370-in-jk-doesnt-stand-up-to-constitutional-test/; Ather Zia, ""Their Wounds are Our Wounds": A Case for Affective Solidarity Between Palestine and Kashmir." *Identities* 27, no. 3 (2020): 357-375.

Kashmiri cartoonist Mir Suhail illustrated the events in Kashmir before and during the pandemic. In one cartoon, military boots march into mountainous Kashmir, each boot a house with a roof, door, and windows with a warm yellow light. The landscape is a dark blood red, the mountains in the background shrouded by a dark sky, and ghostly figures at the edge of the plains and mountains. In an interview with Al Jazeera, Suhail said: "They will start building settlements there soon … they will colonise us just like Palestine."[171] Kashmiri Anthropologist Ather Zia argues that affective suffering in the face of occupation, torture, and surveillance serves as a pivot for solidarities between Palestine and Kashmir.[172]

Nagas and other Indigenous peoples in northeast India followed the events in Kashmir closely, noting the bureaucratic linkages between Kashmir to Nagaland. Just as article 370 granted a special status to Jammu and Kashmir within the Indian union, article 371 grants special status to states with large Indigenous populations, mostly within northeast India. Article 371A applies to Nagaland and asserts that Indian parliament cannot pass laws that interfere with Naga religious or social practices, customary law and procedure, administration of civil and criminal justice, or ownership and transfer of land and resources. If Kashmir could be stripped of its special status, could Nagaland?

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[171] Usaid Siddiqui, "Meet Kashmiri Cartoonist Taking a Dig at Indian Rule," *Al Jazeera,* August 13, 2020, accessed April 26, 2022, https://www.aljazeera.com/features/2020/8/13/meet-kashmiri-cartoonist-taking-a-dig-at-indian-rule

[172] For relational frameworks for studying Kashmir and Palestine, see: Goldie Osuri and Ather Zia, "Kashmir and Palestine: Archives of Coloniality and Solidarity." *Identities* 27, no. 3 (2020): 249-266; Ather Zia, 2020. Ather Zia, "Blinding Kashmiris: The Right to Maim and the Indian Military Occupation in Kashmir." *Interventions* 21, no. 6 (2019): 773-786;

The governor's "At Home" function on the 71st Republic Day, 26, January 2020, in Kohima, Nagaland celebrated the formation of the state of Nagaland and honored the individuals who had participated in that process. The governor addressed a group of families of the honorees, Indian military and government personnel, and a few others, including myself. Just two weeks earlier, the Indian government had intercepted the wife of a Naga militant as she attempted to leave the country with a large sum of cash. This attempted flight was seen as a breaking of trust between the Indian government and the Naga group NSCN-IM, which were in negotiations for "shared sovereignty." The "At Home" event, then, seemed to be primed to rewrite history and create an unspoken threat. The governor began his speech with a reminder of India's celebration: "Friends, this is an occasion when we remember and pay homage to the father of Nation, Mahatma Gandhi and other leaders who through peaceful means led a political process to the decolonisation of India. We also today, remember and pay homage to the founding fathers of Nagaland State, the leaders of the Naga People's Convention." In that introduction, Governor R.N. Ravi effectively tied the formation of the Indian state of Nagaland to India's independence from Britain, suggesting that the state of Nagaland is itself decolonized. Governor Ravi presented a story of Nagaland that left India blameless and suggested that Naga people suffered due to infighting between insurgent groups:

> "When all around the guns were booming and the people were caught in the crossfire, these people got together displaying an extraordinary sense of unity because even though the region was not like what we have the State today; administratively not under one. All the 16 tribes' leaders got together and deliberated and pursued a path in the best interest of Nagaland. I salute their extra ordinary courage because today when we

talk about the fear of the gun, it sounds trivial when we compare it with the situation when they took the lead." [173]

Ravi here ignored that Naga people and land are divided between three Indian states and Myanmar, asserting that Naga territory and people are administratively a single unit. Furthermore, Ravi suggested that representatives of all Naga tribes participated in the formation of the state and that the benefits of this formation were felt equally between tribes and people.

Between this revisionist history of Nagaland and awards congratulating community organizations on awards for excellence in conservation and public health, Governor Ravi added a veiled threat towards the current political situation, linking Nagaland to Kashmir, and India's expansionist dreams:

> "Because as the time passed, a more self-confident India would perhaps not agree what was agreed at that point of time. I really wonder if anyone can imagine getting today anything like Article 371A. They got not only a Nagaland State, which could have been otherwise partly a district of Assam and partly of NEFA. They got the state, a united state, and much more than that. It is a special state where the sovereign parliament of India chose to limit its own power in the core areas concerning the Naga people and gave it to Naga people's legislature to take a call on them. Land, resources, tradition, customs, religion, system, justice all that which were crucially concerned with people of Nagaland, Indian Parliament chose to withdraw and gave it to the people of Nagaland to decide their destiny according to their genius. And it was all done through peaceful dialogue. It was done pursuing the path with Mahatma Gandhi had shown." [174]

The papers summarized the speech without the direct text, but the synopsis was enough to inspire early morning phone calls and heated conversations. "Is India threatening to do to Nagaland what it is doing to Kashmir?" A more self-confident India,

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[173] R.N. Ravi, Address at the Governor's "At Home" function on the 71st Republic Day, January 26, 2020.
[174] Ibid.

the governor was saying, would never have acknowledged the rights of the Naga people to customary practices and traditional land ownership. Just months before, when India threw out the special status held by Jammu and Kashmir, Governor Ravi told the Morung Express, a daily paper in Nagaland: "I would like to categorically assure you all that you do not have to worry at all. Article 371(A) is a solemn commitment to the People of Nagaland. It is a sacred commitment." But this Republic Day speech seemed to alter the public approach to this "sacred commitment."[175]

Theorizing Indigenous Naga Sovereignty

In the wake of the stalled 2021 negotiations between the government of India and Naga national political groups, the conversation around Naga sovereignty is shifting to consider what Naga sovereignty looks like outside of or beyond the structures of recognition by the nation-state of India or the United Nations. For Nagas, the "Naga problem" is not the Naga insurgent insistence of sovereignty, but rather is the tension between the nationhood Nagas have articulated since the early twentieth century and the militarized opposition to that nationhood by the nation-states of India and Myanmar.

How to address this tension? Literary scholar Dr. Paul Pimomo and public intellectual Niketu Iralu theorize Naga nationhood outside of western, Westphalian understandings of sovereignty. In a speech to the Naga Peoples Movement for Human Rights (NPMHR) in November 2020, Niketu Iralu proposed a reexamination of "the

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[175] "Article 371 A a Sacred Commitment to Nagaland People: Governor RN Ravi," *The Indian Express,* August 6, 2019, https://indianexpress.com/article/north-east-india/nagaland/article-371a-a-solemn-commitment-to-the-people-of-nagaland-governor-r-n-ravi-5883133/

concept of sovereignty that Nagas have inherited from the colonial era."[176] Iralu argues

that Nagas have done everything possible to articulate Naga sovereignty within the

structures first introduced in South Asia during the British colonial period, but these

actions have not resulted in recognition of Naga sovereignty. Thus, Iralu asserts, even the

form of sovereignty through which Nagas seek legibility is a colonial legacy. Iralu

theorizes an "Indigenous Naga sovereignty," not constrained by a politics of recognition

as a nation-state but based on a "unwritten but lived sovereignty of our ancestors."[177] For

Iralu, Naga sovereignty is not a discrete moment of recognition of a nation-state. Instead,

it is ongoing state of being and process of self-determination and self-rule marked by

internal, mutual relations. Sovereignty is not merely a legal status, but a is a practice of

working towards fulfillment of the aspirations, concerns, and desires of a people.

Sovereignty, Iralu says, is "proper growth of a people in all areas of life." As interlocutor,

Paul Pimomo engaged with Iralu's proposal in his keynote lecture at the 2020 conference

of the Naga Scholars Association. Pimomo argues that Iralu's framing of an Indigenous

Naga sovereignty splits "the regimented narrative of Western sovereignty into two

modes: the concept of a world divided into sacrosanct juridical nation-states and an

Indigenous practice of transforming a people into a contingent nationhood."[178]

Furthermore, Pimomo asserts, this opens a path forward for Naga nation-building that is

not dependent on negotiations of the framework agreement, or any other recognition from

the Indian nation-state: "For Nagas, then, Western style conferred sovereignty has only

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[176] Paul Pimomo, "Nagas Living in the Present: Sovereignty as Nation Building."
Keynote address to the Naga Scholars Association, November 26, 2020.

[177] Ibid, 2.
[178] Ibid., 2.

been an idea, a costly idea, and an unfulfilled dream, which we are not about to dismiss –

not just yet…The way forward for us lies in implementing Indigenous Naga sovereignty

with what we have, where we are, and what we may together be capable of as a

people."[179] Sovereignty, then, is not simply an aspiration or demand for the near future

but is a current lived practice and way of relating to each other.

Naga demands for recognition as a nation-state had sidelined Naga participation

in the Indigenous activism that led to the formation of the United Nations Working Group

on Indigenous Populations in the 1980s. [180] Today, articulations of Naga sovereignty,

territory, and Indigeneity have renewed Naga representation in international forums. On

July 13, 2021, Paul Pimomo spoke on behalf of the Global Naga Forum at the 14th

Session of the Expert Mechanism for Rights of Indigenous Peoples Right to Self-

Determination. In his speech, Pimomo described Nagas as "an Indigenous transnational

people living in India and Myanmar" who were "arbitrarily divided and placed under

different administrative units" when India and Burma became independent in the

1940s.[181] Pimomo's articulation of Naga space and place rejects colonial notions of

territoriality, framing Naga Indigeneity as an inherently transnational category not

dependent on recognition by India or Myanmar.

While previous decades of Naga political organizing emphasize narrations of the

political history described above, supported by an archive of correspondence, public

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[179] Ibid., 2-3.
[180] Bengt G. Karlsson, "Anthropology and the 'Indigenous Slot': Claims to and Debates about Indigenous Peoples' Status in India" in *Indigeneity in India*, eds. Bengt G. Karlsson and T.B. Subba, (London: Kegan Paul Limited, 2006).
[181] Pimomo, 2021.

statements, and other writings according to normative western practices of providing

proof via physical documentation, Pimomo and Iralu draw on Naga cultural practices,

emphasizing relationality between community and territory to articulate a Naga

sovereignty that does not seek recognition from occupying nation-states. This emphasis

enables a shift away from the legal, citational, and documentary practices of previous

years and moves towards a centering of Naga lived experiences as a site of Naga

sovereignty. In the presentation to the UN Human Rights Office of the High

Commissioner, Pimomo articulated five related appeals from the Global Naga Forum.

Primary to these appeals were three items: a deep concern at the thousands of lives lost

and suffering due to the ongoing "Indo-Naga political conflict," a desire for peaceful

resolution of this conflict, the repeal of the Armed Forces Special Power Act (AFSPA),

and, as a material outcome of a peaceful resolution and repeal of AFSPA, the territorial

and political unification of Naga territory across four Indian states and Myanmar. The

statement expresses a desire for a change in political relationship: "We want a new

relationship that ensures human rights, justice, and peaceful co-existence for all the

stakeholders: India, Myanmar, and the Nagas."[182] With the phrase "the Nagas," Pimomo

exacts a slight shift in language, emphasizing relationality of people and territory over

recognized statehood. Throughout the statement, Pimomo offers a subtle critique of the

formations of state power that have enabled colonial power to continue in Naga territory.

Pimomo refers to "India's politically engineered state of Nagaland," rejecting the

argument that the formation of the state within India was anything other than a political

move and creation of the Indian government. Pimomo describes Nagas' experience of

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[182] Ibid.

British retreat from South Asia as a time when Nagas "were arbitrarily divided and placed under different administrative units (we still are)...The imposed separations have prevented us from maintaining links as an Indigenous nation." Rather than demanding recognition as a nation-state and membership in the United Nations, as Naga political groups have articulated in the past, this speech from the Global Naga Forum presents a vision of Naga sovereignty and territorial autonomy that is not delimited by the strictures of contemporary notions of Westphalian sovereignty via a nation-state. Naga sovereignty exists whether or not it is recognized.

Shared Sovereignty

For several years now, Nagas have watched in anticipation as the government of India negotiates with a Naga political group to find a settlement that satisfies the Naga demand for recognition of its sovereignty while not affecting India's territorial control and cartographic boundaries within the region. While the details of that settlement are yet to be made public, we have heard that "shared sovereignty" between India and Nagaland is under discussion, though we do not know the exact terms of this framework.[183] Nagas want our own flag and constitution; India rejects that possibility. During an ordinary family dinner with grandparents and cousins, we discuss: Can Westphalian sovereignty be shared? What is this new working definition of sovereignty? What futures might shared sovereignty activate?

Perhaps shared sovereignty is not something to be achieved via political negotiations, but rather a practice of sovereignty through kinship. Zubaan books, an

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[183] Sanjib Baruah, "Ending India's Naga Conflict: Facts and Fictions in Postcolonial Sovereignty." *Comparative Studies of South Asia, Africa and the Middle East* 40, no. 3 (2020): 434-443.

independent feminist publishing house based in New Delhi, hosted a forum in Nagaland's capital city Kohima on December 15-16, 2019, called "Cultures of Peace."[184] There, Seno Tsuhah, Nagaland program director for the women's rights organization North East Network, articulated a vision of "shared sovereignty" as a means to address ecological destruction in northeast India.[185] Tsuhah's vision differs from the visions of shared sovereignty deliberated in op-eds and legal news, which emphasize legal agreements, the geometries of national boundaries, specifications of symbology to represent the nature of a potential government-to-government relationship. As Tsuhah envisions, sovereignty starts with Indigenous peoples' control over their own lands, resources, the ability to make decisions about how to manage those lands and resources, based on Indigenous peoples' priorities. Shared sovereignty, Tsuhah said, "transcends borders." We enact shared sovereignty as Indigenous peoples when we practice food sovereignty, sharing seeds, sharing knowledge, helping each other adapt to the challenges of managing our own land and resources. But sovereignty, and therefore shared sovereignty, is not just about the present and articulating our control and agency now. Sovereignty is also about a vision for the future, and shared sovereignty means creating a shared vision for how we imagine our future together. In Tsuhah's vision, shared sovereignty means envisioning a future not just for humans, not just for Indigenous peoples, but envisioning how that political vision will make possible a future for land, soil, rivers, forests, aquatic life, and wildlife in relationship with Indigenous nations.

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[184] https://zubaanprojects.org/projects/cultures-of-peace-festival-of-the-northeast/
[185] https://northeastnetwork.org/

Conclusion

In this chapter, I have identified environmental data collection and the policing of what Nagas eat as practices of surveillance that further India counterinsurgent efforts in Nagaland. This informal surveillance functions in two key ways: First, it enhances a culture of surveillance that occurs directly, in the form of active military occupation of Naga territory, and indirectly, through criticism of Naga eating habits. This surveillance affects even the most intimate aspects of daily life in Nagaland. Second, digital approaches to this surveillance enable the participation of a national and international public, implicating that public in the surveillance of Nagas through monitoring of amur falcon satellite tracking data. This data collection and analysis contributes to stereotypes that racialize Nagas as violent and barbarian and Naga territory as dangerous and disturbed. In contrast to this colonial logic, Naga cultural production and political discourse traces the connection between our daily lives and the conditions of militarization and counterinsurgency that have remained in effect for over sixty years. In responses to environmental surveillance, Nagas center Naga relations with the more-than-human as a key framework for articulating Indigenous Naga sovereignty.

In closing, I return to Toshi and Nok's search for breakfast as an act of political agency. Confronted with the reality of devastating violence and destruction of their village, the characters Toshi and Nok could not address their pangs of hunger without establishing their relationship to each other and to people, wild animals, domesticated animals, and land around them. AFSPA initiated not just brute force and violence, but a destruction of ways of life and ways of relating to space and place. Under the Armed Forces Special Powers Act, breakfast is not a given, but rather, a negotiation, a political

declaration, and a mark of relationship between humans and more-than-humans. In "Breakfast," I see glimmers of Tsuhah's vision of shared sovereignty, where a boy, a domesticated dog, and a wild hornbill negotiate their kinship and belonging within an occupied landscape.

III. SURFACE

Chapter Three

Ground Truth in Palestine: Open Maps in Occupied Territories

In 2016, Google Maps came under fire for an allegation that it had removed the

label "Palestine" from its ubiquitous user interface. This controversy came to the surface

again in 2020. In both cases, it was found that, rather than removing the name of

Palestine from Google Maps, the name had never been in Google Maps in the first

place.[186] If you type "Palestine" into the search function of the Google Maps web

browser, the map slides to a view where the only country name label is "Israel." Google

Maps marks the borders of Israel with solid black lines. Smaller gray print labels "Gaza

Strip" and "West Bank" and these areas are marked by a dashed gray line. While there

are roads marked inside these borders, there are no labels for towns or cities. In the

"Quick Facts" box on the left-hand side of the screen, it reads: "Palestine, officially the

State of Palestine, is a de jure sovereign state in Western Asia. It is officially governed by

the Palestine Liberation Organization and claims the West Bank and the Gaza Strip." In

both 2016 and 2020, activists documented that other internet-based mapping programs,

such as Apple Maps and Bing maps, also lacked labels for Palestine. Google Maps,

Apple Maps, and Bing Maps are all based in the United States which, in contrast to the

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[186] News Outlets reported on the outcry on social media, both reporting that the claims of removing Palestine from the map were false and suggesting that corporate mapping programs are not neutral sources of spatial information. For example, the *Washington Post* stated: "Still, even if the current outrage is misplaced — and people *are* outraged, check out #palestineishere — it does raise some interesting questions about the power of mapping technologies like Google's. In their attempts to dispassionately document the physical world online, tech companies often end up shaping our understanding of it, too." https://www.washingtonpost.com/news/the-intersect/wp/2016/08/09/google-maps-did-not-delete-palestine-but-it-does-impact-how-you-see-it/

United Nations, does not recognize the State of Palestine. Yandex Maps, a Russian-based company, outlines Palestine's borders and labels it "Palestine."

While traditional printed maps function as a fixed representation of space, freezing space in the time of the map's publication date, web-based digital maps can engage more complex and iterative representations of space. For example, one has only to zoom in to a place on Google Maps to see the landscape change. As you zoom in, new labels, symbols, and colors appear marking cities, roads, landmarks, boundaries, and land cover. Google Maps previously was critiqued for marking disputed territories as belonging to one country or another; today, Google Maps addresses disputed territories by having multiple iterations of the same digital map such that Google Maps displays look different depending on the location of the viewer opening the application.[187] For example, a viewer at maps.google.in, will see the northeast Indian state of Arunachal Pradesh. A viewer at maps.google.cn will see the same territory occurring within the border of China. Google Maps views highlight a similar conflict in northwestern India. Viewed from India, Kashmir is within India's borders; from Pakistan, Kashmir falls within Pakistan's borders. Google Maps and other mapping applications shift the perspective of the viewer based on geopolitical claims and conflicts, demonstrating that mapmaking is always a political project. These liminal spaces highlight the instability not only of geopolitical claims of nation-states but also the mutability of spatial representations.

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[187] David Gellner (ed.), *Borderland Lives in Northern South Asia* (Durham: Duke University Press, 2013).

Throughout the chapters of this dissertation, I am concerned with critiques of normative technological representations of space, place, and territory, particularly those that are based on the aerial perspective as a colonial technology of territoriality. This chapter takes on the politics of the literal by considering the constraints of verifying accuracy through ground truthing. I argue that prioritizing "ground truth" necessarily means reifying the boundaries and structures of the settler state, even when attempting to map against the state. Furthermore, ground truth is a politics of the surficial, limiting cartographic representations not only to what is visible on the surface in the current moment but to what is able to be translated into symbols and geometric shapes on a map. Here, I examine digital participatory cartographic projects that juxtapose maps of historic Palestine against the physical landscape of the present Israeli settler state, focusing on projects built using software from Google Maps, Google Earth, and OpenStreetMap. While many of these projects are celebrated and held up as examples that challenge the settler state, I suggest that the impulse to document in detail for evidentiary truth claims works within colonial terms on colonial grounds. Finally, I engage critical scholarship from Indigenous science and technology studies and Indigenous approaches to Geographic Information Systems to consider how cartographic representations of Palestine might account for the Palestinian right to refuse quantification.

Mapping Palestine

International interest in the geopolitical dispute over occupied Palestine and Israeli settlements results in frequent representations of Palestine/Israel as well as objection to representations of Palestine/Israel. In 2018, 7amleh, The Arab Center for Social Media Advancement, published a report on the impact of Google Maps'

representations of Palestinian territory.[188] 7amleh argued that Google Maps'

representation of Palestine contributes to the "planned erasure" of Palestinian spaces and

places and that Google Maps route planning services are designed for settlers and place

Palestinians in unsafe situations. A non-profit organization based in Haifa, 7amleh uses

digital advocacy tools to build capacity, defend digital rights, and build digital media

campaigns. 7amleh's publication "Mapping Segregation: Google Maps and the Human

Rights of Palestinians" documents how Google Maps' representations of Palestine

reinforce the narratives and colonial spatial claims of the state of Israel. It advocates for a

series of recommendations, including making the level of detail uniform across

Palestinian villages and Israeli settlements, marking illegal Israeli settlements according

to Article 49 IV Geneva Convention and Article 55 of the Hague Regulations, naming

Palestine on the map, and providing more detailed information in route planning with

regards to marking restrictions on movement for West Bank Palestinians and identifying

routes which are only available to Israeli ID holders.[189]

　　　　While many nation-states base their territorial sovereignty around specific,

internationally recognized national borders, only Israel's national borders with Egypt and

Jordan are formally recognized. Israel has no formal national borders with the Palestinian

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[188] "Mapping Segregation: Google Maps and the Human Rights of Palestinians." *Google Map Palestine,* 7amleh Arab Center for Social Media Advancement, 2018, accessed May 5, 2022, https://7amleh.org/gm/

[189] Article 49 IV Geneva Convention protects people from compulsory deportation and transfer from occupied territories. Read the article at: https://ihl-databases.icrc.org/ihl/COM/380-600056?OpenDocument ; Article 55 of the Hague Regulations dictates that an occupying army can only take possession of items that belong to the state or, if they seize property of civilians, that property must be returned or compensated after war. Read the article at: https://ihl-databases.icrc.org/ihl/WebART/195-200063

territories, Syria, or Lebanon, making Israel's vision of its territorial sovereignty open for

ongoing expansion.[190] Contemporary territorial divisions in Israel and Palestine originate

in the 1993 Declaration of Principles on Interim Self-Government Arrangements, known

commonly as the Oslo Accords or Oslo "peace process." Mediated by the United States,

the Oslo Accords between the Palestine Liberation Organization, also known as the

Palestinian Authority, and the state of Israel were meant to initiate a process in which

Israel would give up control of the West Bank and Gaza while the Palestinian Authority

would form an independent state in these territories.[191] The underlying purpose of these

negotiations was to preserve the state of Israel as majority Jewish, which meant that the

Palestinian Authority would be limited to Gaza and the West Bank. The right of return of

Palestinian refugees – who make up two thirds of all Palestinians – would also be limited

to these areas. The Oslo accords erased the spatial and territorial history of the conflict,

from the 1948 formation of the state of Israel and the Nakba, the destruction,

dispossession, and displacement of Palestinian society, to 1967, when Israel first

occupied the West Bank during the Six-Day War, instead creating a new territorial base

and reference point for both Palestine and Israel.[192] The Oslo Accords effectively reset

the boundaries of Palestinian territory as if the historical territorial dispossession were

uncontested.

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[190] Helga Tawil-Souri, "Uneven Borders, Coloured (im) Mobilities: ID Cards in Palestine/Israel," *Geopolitics* 17, no. 1 (2012): 153-76.
[191] Adam Hanieh, "The Oslo illusion," *Jacobin: A Magazine of Culture and Polemic,* June 10, 2013, accessed April 28, 2022, http://jacobinmag.com/2013/04/the-oslo-illusion
[192] Linda Quiquivix, "Art of war, art of resistance: Palestinian counter-cartography on Google Earth," *Annals of the Association of American Geographers* 104, no. 3 (2014): 444-59.

Today, Palestine is recognized by international law to be made up of two separate territories, Gaza and the West Bank, while Israel exists inside what is known as the Green Line. The 1995 Interim Agreement on the West Bank and the Gaza Strip, informally called Oslo II, resulted in the creation of three distinct areas A, B, and C within the West Bank. The Palestinian Authority has limited powers that vary within each area. The Palestinian Authority controls Area A and has civil control in Area B. The Israeli military has control of Area C and has security control in Area B. Area C is the site of ongoing Israeli settlement in Palestinian territories. Areas A and B are not contiguous land bases, but are composed of tracts of land surrounded by Area C. Thus, Palestinians cannot travel between locations in Area A without crossing Area C or passing through a checkpoint. While Area C is under Israeli control, there are unrecognized Palestinian villages in Area C that continue to be under threat of dispossession and settlement. Israel's color-coded ID system determines the level of freedom or restriction of movement of the ID holder. Israelis and Palestinians living within Israel have blue IDs and may move freely through Israel and Area C. Palestinians in Gaza or Areas A or B have green IDs and can only move within the territory in which they reside. Holders of blue IDs are subject to Israeli civil law while holders of green IDs are subject to Israeli military legislation.[193]

In addition to Gaza and the West Bank, there are 36 unrecognized Palestinian villages in the Naqab, or Negev, desert in southern Israel. The majority of Bedouin Palestinian villages in the Naqab existed before the 1948 creation of the state of Israel, but these villages are unrecognized by the state of Israel and the state classifies

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[193] Helga Tawil-Souri, "Uneven Borders, Coloured (im) Mobilities: ID Cards in Palestine/Israel," *Geopolitics* 17, no. 1 (2012): 153-176.

inhabitants of these villages as "trespassers on State land."[194] Being classified as unrecognized means that these villages are denied access to infrastructure provided by the state to other cities and settlements, such as electricity, water and sewage systems, accessible roads, social services, hospitals, and education. Shourideh Molavi explains that Bedouins and other Palestinians "are placed in a paradoxical situation where, as Arab citizens of a Jewish state, they are both *inside* and *outside*, *host* and *guest*, *citizen* and *stateless*."[195]

7amleh's critique of Google Maps hinges on two key aspects of the digital mapping service. First, Google Maps' choices of how and what to label follow narratives of the state of Israel. The amount of detail at each zoom level of the map differs based on whether the details represented are Israeli or Palestinian.[196] For example, there are Palestinian villages in the Naqab desert in southern Israel and in West Bank Area C that are unrecognized by the state of Israel and therefore are under threat of demolition. Many of these villages are not visible on Google Maps or are only visible at a high zoom level, in contrast to Israeli settlements which are labelled and visible at lower zoom levels. Even at a high zoom level, Palestinian Bedouin villages are labelled with tribe and clan names, rather than village names. Second, Google Maps route planning is designed for people with Israeli ID cards and does not account for the restrictions of movement placed on Palestinians. Routes on Google Maps direct users along roads that are inaccessible to West Bank ID holders or that take them through check points and roads they avoid, as the

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[194] Shourideh C. Molavi, "Contemporary Israel/Palestine," in *The Oxford Handbook of Contemporary Middle Eastern and North African History* (Oxford: Oxford University Press, 2020), 7.
[195] Ibid., 7.
[196] Zoom level is a value that sets the scale for a map view.

consequences for Palestinian access of "Israeli-only roads include arrest, delays, detainment, confiscation of cars, and even death."[197]

These two factors critiqued by 7amleh inform and affect each other. Google Maps directions prioritize routes that travel through Israel rather than through the West Bank, sometimes adding hours onto travel time in order to avoid the West Bank. For routes that do pass through the West Bank, Google Maps neglects to include checkpoints or Israeli settlements along those routes. Google Maps will not provide directions between rural Palestinian communities, or between Gaza and a rural community, as these communities are not marked on the map and therefore are "missing places." These absences from the map reinforce the state of Israel's narrative of this land as uninhabited and open for settlement by Israelis. Google Maps, despite being open access and having systems through which users can submit edits, bolsters the Israeli state's spatial claims.

Drawing on the recent history of dispossession of Palestinian villages and lands, many scholarly and activist projects seek to remap Palestinian villages that were destroyed and depopulated in 1948, often using visual and cartographic technologies for mapping and immersive storytelling such as open access mapping programs, virtual reality, and the Metaverse.[198] Projects such as "Palestine, Today" created by Visualizing Palestine, use immersive storytelling to zoom in to historical maps of Palestine and

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[197] "Mapping Segregation," 12.

[198] Ameera Kawash, "The Occupation Enters the Metaverse," *+972 Magazine*, February 22, 2022, accessed April 28, 2022, https://www.972mag.com/occupation-metaverse-palestine/ ; Virtual Reality Tours of contemporary Palestine are available online through "Palestine VR" a project of The Palestine Institute for Public Diplomacy: https://www.thepipd.com/palestine-vr/ .

narrate the stories of specific cities and villages in contemporary Palestine and Israel.[199]

These maps draw on historical data from Salman Abu Sitta's *Atlas of Palestine*, the

Palestine Remembered Statistics Project, Zochrot Nakba Map, the Palestinian Central

Bureau of Statistics, and the Israeli Central Bureau of Statistics. They illustrate

Palestinian histories of dispossession and occupation by overlaying contemporary aerial

imagery with historical maps that have been annotated with colored dots to mark

communities that were destroyed and built over, depopulated and appropriated,

depopulated and currently uninhabited, or remaining since 1948.[200] This spatial

storytelling of "Palestine, Today" is based on Palestine Open Maps, an open source

platform that makes historic maps of Palestine searchable and compiles vast amounts of

data about historic villages and cities.[201] These projects demonstrate how the state of

Israel has remapped Palestine and manipulated the landscape and infrastructure to

maintain Israel's claims to territory.

Digital spaces such as Google Maps and Google Earth have become sites of

territorial conflict themselves. In 2006, just one year after the launch of Google Earth,

Thameen Darby announced on the Google Earth Community Forum that he had created a

Google Earth layer that marked all the Palestinian villages destroyed or depopulated in

1948. In addition to his post on the Google Earth Community Forum, Darby shared his

Google Earth layer via email with his friends and family, inviting them to share it

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[199] Many contemporary projects that map historic Palestine are based on maps and memoirs such as Salman Abu Sitta's *Mapping My Return* and *Atlas of Palestine*, Walid Khalidi's *All that Remains,* and Rajah Shehadeh's *Palestine Walks.*
[200] Palestine, Today can be accessed at: https://today.visualizingpalestine.org/
[201] Ahmad Barclay, "Mapping Palestine: Erasure and Unerasure," in *Sharpening the Haze: Visual Essays on Imperial History and Memory* (London: Ubiquity Press, 2020).

broadly.[202] Palestinians in diaspora could find their original villages and towns on the

Google Earth layer which would then link to PalestineRemembered.com where they

could read further about each town.[203] The Nakba layer, as it came to be known, was

downloaded so many times that it earned a top spot in the "Best of Google Earth

Community" which was followed by complaints from users, including formal complaints

against Google filed with Israeli police and the creation of a "counter-counter-map"

expressing "the Israeli side."[204] Quiquivix describes how the Nakba map led to the

creation of an even more detailed map of dispossessed Palestinian territories. Made by

Salah Mansour, site administrator of PalestineRemembered.com, using data from Salman

Abu Sitta's 2007 *The Return Journey*, this spatial data layer explicitly marked Palestinian

territories as occupied by Israel and referred to all Israeli areas as "Exclusive Jewish

Colonies." While Quiquivix acknowledges the role of geospatial technologies like

Google Earth in war, surveillance, and assumptions of neutrality of satellite imagery,

Quiquivix sees in Google Earth and associated technologies the potential for counter-

cartographic projects that appropriate technologies of warfare in order to protest injustice,

work towards the goals of collective movements, and destabilize dominant discourse that

erases Palestinian dispossession.[205] Quiquivix writes: "Because these are cooperative

endeavors that also leave the invitation open for Israelis to join in, they can also be

understood as practices that reterritorialize Palestine beyond a political geometry that

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[202] Download the Nakba layer here: http://umkahlil.blogspot.com/2006/09/thameen-darby-creates-nakba-layer-for.html
[203] Quiquivix, 450.
[204] Ibid., 450.
[205] Ibid., 455.

assumes oppositional division between people."[206] Rather than see engagement of Israeli and Palestinian history on Google Earth as a digital manifestation of conflict on the ground, Quiquivix sees an opening in this digital modality for solidarity building.

Critique of web-based mapping of Palestine focuses in large part on Google Maps and Google Earth, as Google's near ubiquity means that it dominates global representations of space, place, and territory in Palestine and elsewhere. The usability of programs like Google Earth means that Google products can be easily used by individuals to map data, creating counter maps and "counter-counter-maps." Many of these critiques emphasize Google Maps' positionality as a U.S. based company, subject to U.S. regulations regarding spatial data, and likely to represent international territorial borders that are influenced by U.S. imperial understandings of the world. While 7amleh's exposé focused on Google Maps, 7amleh compared Google Maps route planning directions to those of two other mapping services: Waze and Maps.me.[207] Waze is now owned by Google but was originally made by Israeli developers. Waze's default in Israel and Palestine is to "avoid high-risk areas," which means in practice that routes will conclude at Israeli checkpoints even if the final destination is a Palestinian town. This default option must be turned off to navigate to Palestinian locations and, when the user turns the default off, a warning is displayed with a number to call in case of emergencies. There is no route planning available in rural Palestinian areas nor will the software compute routes that begin or end in Gaza.[208] Originally developed in Zurich, Maps.me uses data from OpenStreetMap (OSM) to create offline maps to use for navigation.

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[206] Ibid., 456.
[207] "Mapping Segregation," 12.
[208] 'Mapping Segregation," 14.

Unlike Google Maps and Waze, Maps.me marks and names checkpoints. It rarely

provides routes that pass through Israeli settlements, which only permit movement by

blue ID holders (residents of Israel), and rarely creates routes that circumvent Palestinian

controlled Area A. Some routes even include dirt roads used primarily by Palestinian

residents. Both Waze and Maps.me allow users to add data to their respective maps, but

users can make edits to Maps.me by contributing to OpenStreetMap, which is open

source and open data, meaning that its base maps and spatial data are both editable and

free to use for any purpose. Maps.me uses this open source and open data software as

base maps for its own application, so changes made in OSM are reflected in Maps.me.

Collaborative forms of online mapping promise the possibility of challenging

power relations and democratizing the collection, maintenance, storage, and sharing of

spatial data. These forms of mapping are part of Web 2.0, a movement since the early

2000s towards web development that emphasizes participation through social

networking, cloud computing, and user-generated content.[209] While not open source,

Google Maps draws on developments of Web 2.0 by enabling users to edit or contribute

data to its maps. Google Maps also uses conglomerated user location data to predict route

time and traffic jams, so that features like route planning can change in the moment based

on present conditions of roads. OpenStreetMap (OSM) takes these elements of Web 2.0

further than Google Maps and other online mapping programs. Founded in the U.K. in

2004, just one year before Google Earth was launched, OpenStreetMap promises greater

transparency and democratization of spatial data through its status as open source and

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[209] Tim O'Reilly, "Web 2.0: compact definition." *O'Reilly Radar,* October 1, 2005, accessed May 6, 2022,
http://radar.oreilly.com/archives/2005/10/web_20_compact_definition.html

open data. For cartographers and activists such as those mapping the dispossession of historic Palestine, programs like OSM seem to offer an opportunity to right cartographic wrongs and provide just visual representation of Palestine and other occupied territories by putting cartographic tools and platforms in the hands of Palestinians.

In the OpenStreetMap Wiki page "How We Map," OpenStreetMap emphasizes that it is a "social activity" with a "tradition of making as few rules as possible."[210] Instead, it provides guidelines for contributions to OSM:

> Contributions to OpenStreetMap should be:
> - Truthful – means that you cannot contribute something you have invented
> - Legal – means that you don't copy copyrighted data without permission
> - Verifiable – means that others can go there and see for themselves if your data is correct.
> - Relevant – means that you have to use tags that make clear to others how to re-use the data.
>
> When in doubt, also consider the "facts on the ground rule": map the world as it can be observed by someone physically there.[211]

OpenStreetMap privileges two key elements: metadata and verification by ground truthing. It emphasizes metadata through its stipulation that data must be traceable and not invented and through its requirement that tags must indicate how to re-use data. The importance of ground truthing, or the ability to ground truth if necessary, is enshrined in its guideline about verifiability and the "on the ground rule." According to this rule, if someone were in the exact physical location one was mapping, they should be able to

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[210] "How We Map," *OpenStreetMap Wiki,* accessed May 2, 2022, https://wiki.openstreetmap.org/wiki/How_We_Map
[211] Ibid.

point to literal facts on the ground that correspond to and confirm the points, lines, and polygons on a digital map.[212]

While 7amleh found that Maps.me use of OSM resulted in better route planning and greater level of detail for Palestinians, OSM's reliance on "facts on the ground" results in maps that represent physical aspects of Israel's occupation of the landscape as uncontested, ahistorical fact. OSM's approach makes it possible to map dirt roads used only by green ID card holders and to include those roads in route planning, but simply mapping those roads and routes does not challenge the relationship of domination that necessitates different routes depending on the ID card color. A checkpoint is represented in OSM as a checkpoint; the fact of the checkpoint's existence is not questioned on contextualized. In an analysis of OSM map data, forum discussions, and interviews with OSM users, Christian Bittner examined whether Web 2.0 participatory cartography like OSM replicates previous cartographic conflicts in Palestine and Israel. Bittner's analysis found that while the aggregation of data within OSM did not replicate the same processes and points of tension as documented in other mapping efforts in Israel and Palestine, OSM data was predominantly created by Israeli users. Bittner hypothesizes that the lack of Palestinian participation is likely due to an ontological rejection of OSM's "facts on the ground rule." Bittner asserts: "Insisting upon an objective 'ground truth' can also be interpreted as a strategy to depoliticize a conservative form of cartography that reproduces current socio-spatial order and thus the power imbalances behind it."[213] OSM

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[212] The notion of "facts on the ground" is enshrined in Palestine studies in Nadia Abu El Haj's monograph *Facts on the Ground: Archeological Practice and Territorial Self-Fashioning in Israeli Society,* (Chicago: University of Chicago Press, 2001).
[213] Christian Bittner, "OpenStreetMap in Israel and Palestine – 'Game changer' or reproducer of contested cartographies?" *Political Geography* 57 (2017): 34-48, 46.

provides greater support for Palestinians for the purpose of daily navigation, safety, and

survival, but OSM's "facts on the ground rule" means that these maps will always

replicate the current conditions of colonial occupation. A change to OSM can only follow

significant shifts in the conditions of life as manifested in physical space, for example,

road infrastructure, buildings, and other features which can be mapped spatially as points,

lines, and polygons.

Digital cartographic projects documenting historic Palestine abound. Often

synthesizing video, photography, digital mapping, audio recordings, and interactive

media like blogs, chat forums, and user-uploaded photographs, these projects attempt to

make historical spatial data accessible, humanize it through story, and bring quantitative

data to life for viewers. Dale Hudson examines three interactive documentary projects

that emphasize the responsibility to remember by using cartographic technologies:

Gaza/Sderot, *iNakba*, and *Jerusalem, We Are Here*. Hudson argues that these projects

engage participants in cartographic representations of historic Palestine while limiting the

risk of surveillance by avoiding location-aware GPS tracking technologies.[214] These

projects all rely on quantitative cartographic data to represent Palestinians within the

occupied landscape. While Hudson focuses on how these projects engage memory and

generate an affective response by making viewers responsible for remembering and

memorializing Palestine before the Nakba, I am interested in how these projects are

drawn from the same overlapping sets of spatial data on historic Palestine. ARTE

France's *Gaza/Sderot: Life in Spite of Everything*, a documentary film made up of two

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[214] Dale Hudson, "Mapping Palestine/Israel through Interactive Documentary," *Journal of Palestine Studies,* 50, no. 1 (2020): 51-76.

minutes videos following six people from Gaza, Palestine, and six people from Sderot, Israel, was broadcast online every day for two months. The daily two-minute videos in the two sites were juxtaposed against each other and embedded into a map so that viewers could zoom out to see the places in relation to each other spatially.[215] In 2014, Israeli NGO Zochrot, which promotes awareness of the Palestinian Nakba, launched the trilingual mobile app *iNakba*. The app is based on GPS navigation technology, though it can be used on- or off-site from the locations depicted. Like the Google Earth Nakba layer, provides coordinates of Palestinian places that were destroyed and depopulated during and as a result of the 1948 Nakba. The app provides historical information, video clips, and photographs for these sites and allows users to add their own photographs and text comments to data within the app.[216] Viewers enter Dorit Naaman's video documentary project *Jerusalem, We Are Here* by finding themselves, via a web browser, sitting in the historic Regent Theater in Jerusalem and watching black and white video clips filmed by a narrator's ancestor. Viewers can then accompany three hosts on a walking tour of Katamon, a neighborhood of West Jerusalem, to learn about its Palestinian history. Rather than a traditional video format, viewers can click and drag a mouse to navigate through the neighborhood. There are three virtual tours to choose from and each one has symbols over objects in the street view scene to indicate video, audio, and text that the viewer can pause to take in. A street map embedded in the page lights up to indicate the path each virtual tour will take. Viewers can also click a link titled

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[215] Due to the phasing out of Adobe Flash, some of the web history is no longer accessible. Some videos and blog posts from this project can be viewed at: http://gaza-sderot.arte.tv/

[216] iNakba is available for download to iphones here: https://apps.apple.com/us/app/inakba/id864050360

"Remapping Jerusalem" that jumps to an interactive map made with data from Mapa GISrael and Google Street View and allows the viewer to toggle between aerial views of the neighborhood in 2014, 1946, 1938, and 1934.[217] What these and other digital cartographic projects that visually represent historic Palestine have in common is a documentary impulse to synthesize spatial data in order to make evidentiary truth claims to Palestinian life and presence. They attempt to map in as much detail as possible Palestine before the Nakba. When overlaid on a map of the present, the digital projects invite the viewer to deal with the incommensurability and try to comprehend what steps happened in the intervening years for the ground truth of the present to exist. Despite the intimacy and detail of these maps, the digital, web-based format in which they are shared means that there is global access to these projects. Who then is responsible to remember? What spatial details does a non-Palestinian viewer need to know?

Other digital mapping projects are designed around participatory processes of data collection, analysis, and representation, rather than simply interacting with data after it has been collated, and these participatory approaches are heralded as acts towards "cartographic justice."[218] For example, events called "mapathons" offer cartography training to interested people via a workshop who are then invited to participate in a large-scale collaborative mapping project. In 2020, a project of Visualizing Palestine called *Palestine Open Maps* offered mapathons to teach participants to digitize historic spatial data of 1940s Palestine. Participants vectorized the content of 155 original paper maps

[217] Dorit Naaman, "Jerusalem, We Are Here," accessed May 2, 2022, https://jerusalemwearehere.com/#/

[218] Olga Blázquez Sánchez, "Collaborative Cartographies: Counter-Cartography and Mapping Justice in Palestine," *Journal of Holy Land and Palestine Studies* 17, no. 1 (2018): 75-85.

made by the British Mandate of Palestine and this data was added to *Palestine Open Maps*.[219] In this way, *Palestine Open Maps* not only introduces people to its platform but also engages users in producing the spatial data and maps that make up the platform.

Digital Infrastructures and Data Transit

Who are these projects for? Advocates of digital cartographic projects such as those described above argue that these projects illustrate history that has been systematically erased, facilitate accountability, work towards cartographic justice, and initiate a rethinking of space and place beyond territoriality.[220] Some, like the Google Earth Nakba layer, are ostensibly made for the Palestinian diaspora to identify their own landscapes of origin and inhabit that space, if only virtually. Others, like Gaza/Sderot, are designed to speak to a global audience and inspire an affective relationship to and understanding of contemporary lived experiences in Palestine/Israel.

However, these projects circulate widely far beyond their intended audiences. To return to the example of the Google Earth Nakba layer, Thameen Darby made the layer to circulate among friends and family and encouraged them to share the layer with others in the Palestinian diaspora so that many people could return virtually to their families' homes and see what they look like today. Its immediate success placed the layer in a

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[219] For a description of the Palestine Open Maps mapathon process, see: https://blogs.bl.uk/digital-scholarship/2019/06/palestine-open-maps-mapathon-follow-up.html

[220] Hudson, 2020; Sánchez, 2018; Wallach, Yair. "Trapped in mirror-images: The rhetoric of maps in Israel/Palestine." *Political Geography* 30, no. 7 (2011): 358-369.

prominent Google Earth list, making the layer known and accessible to any users of Google Earth, regardless of their interests, politics, communities, or context. While Darby made the Nakba layer for the Palestinian diaspora as a form of claiming, knowledge producing, and memorializing, some responses understood the layer as a direct attack on Israeli territoriality and accounts of history. These viewers perceived the Nakba layer as a counter-map, made in opposition to state narratives of Israel. The Nakba layer generated Israeli cartographic responses within Google Earth that attempted to challenge the Nakba layer. These responses, in turn, were seen as counter-counter-maps, when in fact they simply reiterated the narratives and geographies that already dominate the "facts on the ground" maps derived from contemporary aerial imagery. I engage further in the concept of counter-mapping in chapter six. While it has been an effective tool for Indigenous claims making for land use, land tenure, and territorial boundaries, I maintain that it is not a panacea for Indigenous projects nor does it stand in as an umbrella term for all Indigenous cartography. In some cases, the term "counter-mapping" comes to mean a map made with a particular political point of view in contrast to maps where the political intent is not made explicit. While understanding counter-maps as political is not inaccurate, this alone does not challenge the central claims of objectivity of state cartography. It also centers the map as a response to state powers. While the Nakba layer did present a representation of Palestine that differs from the maps promoted by the state of Israel, its intended purpose exceeded that function. It was meant as a tool for reconnection of Palestinian diaspora to their ancestral places, not just as a response to the colonial state. The understanding of Israeli responses to the Nakba layer as "counter-counter-mapping" exemplifies this understanding of counter-mapping as defined by

response, as though these maps could not exist without another map to respond to. Of course, maps are never neutral, but the way that countermapping is taken up can reinforce assumptions that maps are political in varying degrees and are not inherently political.

We might consider what these spatial memorializing projects do when they circulate beyond their intended audience. Do they effectively challenge colonial cartographies? Do they add fuel to the colonial state's cartographic project? Does the impact of these projects shift for the Palestinians in Palestine and in the diaspora when the projects are the target for attack and contradiction from people outside the community?

Digital and spatial archival projects that document the occupation of Palestine draw on a long tradition of producing documentary evidence and reminders of the Nakba and its aftereffects for both Palestinians in historic Palestine and in the diaspora. From memoirs like Salman Abu Sitta's *Mapping My Return* and Walid Khalidi's *All that Remains* or visual projects like Edward Said and Jean Mohr's *After the Last Sky: Palestinian Lives,* these projects illustrate the everyday nature of settler colonialism in Palestine. More recent digital mapping projects are celebrated for exposing the physical fact of settler colonialism, and scholars engage notions of settler colonialism, Indigeneity, and apartheid in analyses of these digital projects. Bevilacqua understands these digital maps as Indigenous mapping: "Several Palestinian projects ranging from collaborative mapping software to open-source graphic layers have sought to expose Israeli settler colonial violence through the deployment of indigenous knowledges."[221] Other scholars

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[221] Ivana Bevilacqua, "E-Scaping Apartheid: Digital Ventures of Zionist Settler Colonialism," *Human Geography*, 2021.

see these projects as generating an independent archive of Palestinian history. Ann Stoler describes an "archival surge" by, for, and about Palestine in which artist-activist-academics engage in practices of archiving that stand in contrast to working in or on traditional archives.[222] These archiving projects, Stoler argues, are fundamentally anti-colonial and seek to narrate and document without having to simply respond to the formal archives of the state. Digitization of these projects, such as the Nakba layer, allow them to be shared and proliferate quickly, despite the increasing digital surveillance of Palestinians.

Critiques from Palestine studies and surveillance studies of spatial data collection for public projects focus on the infrastructural constraints and risks of producing and sharing digital images and spatial data. While activists may embrace the use of technologies such as drones, GIS, and GPS for counter-surveillance and sousveillance, the collection, storage, and sharing of this data is always tied to governmental and corporate digital infrastructure which are in turn closely linked.[223] Sophia Goodfriend argues that Google Maps and Israeli surveillance are deeply imbricated, not only because they rely on the same technologies of satellites, high speed internet, and Israeli physical infrastructure, but they have a symbiotic relationship in which what is visible or absent in Google Maps Street View is shaped by Israeli surveillance infrastructure and protocol.[224]

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[222] Ann Laura Stoler, "Archiving Praxis: For Palestine and Beyond," *Critical Inquiry* 48, no. 3 (2022): 570-593.

[223] Inderpal Grewal, "Drone Imaginaries: The Technopolitics of Visuality in Postcolony and Empire," in *Life in the Age of Drone Warfare*, eds. Lisa Parks and Caren Kaplan, (Durham: Duke University Press, 2017), 343-365; J. D Schnepf, "Unsettling aerial surveillance: surveillance studies after standing rock," *Surveillance & Society* 17, no. 5 (2019): 747-751.

[224] Sophia Goodfriend, "A Street View of Occupation: Getting Around Hebron on Google Maps," *Visual Anthropology Review,* 37 no. 2 (2021), 225-245.

Any user can create and share photos and labels with Google Maps or spatial data layers within Google Earth, but ultimately the creation, sharing, and storage of that data always falls within Google systems and procedures. Featuring the Nakba layer within the "Best of Google Earth Community" list was not a specific choice made by Darby but occurred algorithmically due to the high download volume of the layer. This development feature of Google Earth meant that the layer was automatically available to millions of users; the list is not generated by distinct choices of an individual or committee to publicize specific layers nor does sharing the layer require consent of the mapmaker. Google Earth layers can be private or public, but there are not built-in options that would allow both private and public data within a single Google Earth layer. Furthermore, participation in and interaction with these documentary projects is also influenced by individuals' comfort with sharing information in public forums.[225] Even projects meant to democratize cartography through inclusion of underrepresented communities may find greater participation from users whose interests align with dominant cartographic representations, as Bittner extrapolated in his analysis of Israeli and Palestinian participation in OpenStreetMap, or from those with access to internet infrastructure and speeds that enable them to engage meaningfully in these open source projects.[226]

Sharing of digital data is also dependent on access to internet infrastructure to upload, download, and view spatial data and cartographic representations of territory. Prior to 1993, internet access in Palestine was illegal. Today, internet access in Palestine remains dependent on Israeli internet infrastructure that is unreliable, low speed, and low

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[225] Rebecca Schreiber, *The Undocumented Everyday: Migrant Lives and the Politics of the Visible* (Minneapolis: The University of Minnesota Press, 2018): 220-221.
[226] Bittner, 2017.

bandwidth.[227] In addition to limiting participation in these Web 2.0 cartographic

representations of Palestine, dependence on Israeli internet infrastructure also makes

Palestinian internet activity subject to surveillance, which might limit the ability or desire

of Palestinians to participate in interactive digital cartographic projects. If an occupied

territory experiences frequent internet and cellular network blackouts, as occurs in Gaza

and as India frequently applies in Kashmir and northeastern territories, then access to

spatial data and the ability to participate in its creation is limited for people in those

regions.

Increased technologization and expansion of technological networks necessarily

means greater surveillance of users of those networks. Internet access detached from state

networks has been proposed as a way of increasing internet access globally, though

corporate ownership of internet infrastructure does not reduce the risk of surveillance of

users of those networks.[228] For example, Google Balloon Internet proposed to build giant

hot air balloons which could aerially transit large areas and transmit internet access to

rural areas without fiber-optic internet connection.[229] As another example, Starlink, a

"constellation" of low Earth orbit satellites owned by SpaceX, plans to use these satellites

to provide satellite internet access globally. Google Balloon Internet never came to

fruition and the newly launched Starlink remains cost prohibitive for most of the world's

population, one of many cascading issues with such a large satellite endeavor by a private

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[227] Helga Tawil-Souri and Miriyam Aouragh, "Intifada 3.0? Cyber colonialism and Palestinian resistance," *The Arab Studies Journal* 22, no. 1 (2014): 102-133.

[228] Christian Fuchs, "Web 2.0, Prosumption, and Surveillance," *Surveillance and Society* 8, no. 3 (2011): 288-309.

[229] Derek P. McCormack, *Atmospheric Things: On the Allure of Elemental Envelopment* (Durham: Duke University Press, 2018).

corporation.[230] Rather than increasing internet access, these commercial satellite communications systems create new forms of technological exclusion.

Can technological inclusion occur free of state and corporate surveillance? Palestinian-American scholar Helga Tawil-Souri documents the technological modes of control Israel exerts over Palestinian territories. All internet and telephone access in the Gaza Strip is entirely dependent on Israel, such that Israel can sever network connection at will, control bandwidth and speed, and maintain constant network surveillance.[231] Given the impossibility of avoiding colonial surveillance via Israeli internet infrastructure, Tawil-Souri proposes an Internet Pigeon Network (IPN) based out of Gaza, with pigeons flying between multiple nodes to transfer data via USB drives. Data could be transferred to local servers, Tawil-Souri asserts, and then accessed within Gaza without a need to rely on Israeli networks. Furthermore, the IPN would result in faster internet speeds than any currently available in Gaza.[232] Israel could use hawks or drones to attempt to intercept the Internet Pigeon Network, but the sheer volume of birds and the

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[230] The more distant from earch Geostationary Orbit is governed by specific legal agreements but the Low Earth Orbit in which Starlink satellites transit, do not have a distinct legal regime to regulate the number, speed, or function of satellites in this orbit. See: Alice Rivière, "The Rise of the LEO: Is There a Need to Create a Distinct Legal Regime for Constellations of Satellites?" In *Legal Aspects Around Satellite Constellations*, ed. Annette Froehlich (New York: Springer Link, 2019): 39-53.

[231] Helga Tawil-Souri, "Digital Occupation: Gaza's High-Tech Enclosure," *Journal of Palestine Studies* 41, no. 2 (2012): 27-43; Helga Tawil-Souri, "The Technological End between the 'Inside' of Gaza and the 'Outside' of Gaza," *7iber*, September 29, 2014, accessed May 10, 2022, https://www.7iber.com/2014/09/the-technological-end-between-the-inside-of-gaza-and-the-outside-of-gaza/

[232] Helga Tawil-Souri, "The Internet Pigeon Network," in *Open Gaza: Architectures of Hope, e*ds. Terreform Michael Sorken and Dean Sharp. (Cairo: The American University in Cairo Press. 2021), 158-72.

commonness of pigeons would make it challenging to determine which birds are part of the IPN and which, as it were, are civilians.

The use of pigeons as infrastructure is essential to the development of contemporary forms of the aerial perspective, especially in relations to visual technologies of war. Tawil-Souri's vision of an Internet Pigeon Network takes up traditional Palestinian use of pigeons for communication and early twentieth century experiments in combining pigeons with technological advancements to create an internet infrastructure that requires a relationship between digital systems and living beings. A century before the proliferation of drones as household object or military strategy or conspiracy theories about birds as aerial surveillants, German apothecary Julius Neubronner experimented to create the first photograph-taking unmanned aerial vehicle (UAV): a pigeon. Neubronner created a leather harness to attach to homing pigeons and designed a lightweight camera that could be strapped to the harness, complete with a pneumatic timing mechanism that would activate the shutter at set intervals. This would allow the camera to take photos entirely based on the pigeon's perspective and choice of angle and direction.[233] Neubronner built a horse-drawn darkroom so that he could capture and develop photographs on the move for public exhibitions, providing printed aerial surveillance imagery in real time. Germany and France attempted using similar camera pigeons for aerial surveillance in World War II, but camera pigeons were outpaced by

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[233] Ned Pennant-Rea and Adam Green, "Dr Julius Neubronner's Miniature Pigeon Camera," *Public Domain Review,* August 8, 2011, accessed May 4, 2022: https://publicdomainreview.org/collection/dr-julius-neubronner-s-miniature-pigeon-camera

manned aircraft for aerial surveillance. The impetus behind both modes, however, remained the same: to surveil the earth's surface from above.

Spatial Data Sovereignty

In the years since the Nakba layer was first made available on Google Earth, the state of Israel has only bolstered its technological aerial surveillance of Palestinian territory. Israel maintains specific geopolitical relations based on the development and trade of surveillance technologies and the sharing of data collected by those technologies, as I describe in the introduction. Thus, the risks of state-sponsored internet infrastructure and the limitations of frameworks of geospatial corporations are heightened in relation to publicly accessible spatial data about Palestine.

Historic maps and aerial imagery allow Palestinians in Palestine and in the diaspora to visualize and digitally inhabit their ancestral homes and experience an affective relationship to the land.[234] Physical landscape features are imbued with meaning and symbolize specific historical moments and an ongoing sense of Palestinian peoplehood. Nassar Abufarha considers the cactus, the orange, the olive tree, and the poppy as symbols that represent Palestinian identity, history, and relation to land and engender an affective relationship to Palestinian territory for displaced Palestinians. Abufarha argues: "Palestinians rely on the reconstruction of Palestine in the Palestinian cultural imaginary through cultural representations and performances to maintain the relationship to the land and a sense of hominess in the face of the Israeli physical

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[234] Oren Golan and Noam Tirosh, "Political 'Apptivism' in the Middle East: The Case of iNakba," *Convergence: The International Journal of Research into New Media Technologies* 26, no. 3 (2019): 658-673; Wallach, 2011.

isolation of Palestinians."[235] For Palestinians, then, knowledge of the location and number of trees in a historic olive grove can have great meaning and foster a sense of identity and connection to the land and diasporic community. But who else should have access to that information?

Scholars of Indigenous methodologies, Indigenous science and technology studies, and Indigenous geographies caution against uncritically embracing technologies like Google Earth in political organizing and communication, as data created, stored, and made accessible in these platforms is always at risk of being coopted by the state and used against colonized peoples. Applying a critical Indigenous lens to data sovereignty urges activists, artists, and scholars alike to consider how data made open access might be used to further the colonial project that data was meant to document and expose.[236]

Indigenous data sovereignty is the right of Indigenous peoples to govern how data is collected, who owns and maintains data, and how data is used and applied. It recognizes data as a cultural and economic asset to Indigenous peoples and understands data as something collected and maintained for and by Indigenous peoples, not just about Indigenous peoples.[237] Furthermore, within the rubric of Indigenous methodologies,

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[235] Nasser Abufarha, "Land of Symbols: Cactus, Poppies, Orange and Olive Trees in Palestine," *Identities: Global Studies in Culture and Power* 15, no. 3 (2008): 343-68, 344.
[236] For scholarship on Indigenous data sovereignty and methodologies within science and technology studies, consider Tahu Kukutai and John Taylor, *Indigenous Data Sovereignty: Toward an Agenda* (Canberra: ANU press, 2016); Vanessa Watts, "Indigenous Place-Thought and Agency Amongst Humans and Non Humans (First Woman and Sky Woman Go on a European World Tour!)," *Decolonization: Indigeneity, Education & Society* 2, no. 1 (2013); Max Liboiron, *Pollution Is Colonialism* (Durham: Duke University Press, 2021); Jessica Kolopenuk, "Miskâsowin: Indigenous science, Technology, and Society," *Genealogy* 4, no. 1 (2020).
[237] Maggie Walter et al, "Indigenous Data Sovereignty in the Era of Big Data and Open Data," *Australian Journal of Social Issues* 56, no. 2 (2021): 143-156.

Indigenous data sovereignty explicitly understands Indigenous data as part of a larger project of Indigenous knowledge production that occurs both within and outside of the academy.[238] Indigenous data sovereignty is also a response to normative academic and state-led data collection, storage, and analysis in which data belongs to private or government researchers, is stored within systems maintained by those structures, and is analyzed according to the methodologies and theoretical backgrounds of the researchers.

Open Data, propagated through the strategies of Web 2.0, is another response to the privatization of data collection, storage, and analysis. As within OpenStreetMap, the turn to Open Data critiques the idea that data should be maintained by a select few and instead asserts that data can and should be available publicly, crowdsourced, verified by an interested public, and able to be continually revised and updated in response to new crowdsourced evidence. Open Data assumes transparency of data as a common good and as a more ethical approach to quantitative data. The International Open Data Charter (ODC) was developed in 2015 by government and non-governmental entities to create norms for how data is managed and published. The six principles of the ODC call for data collected by governments to be open by default (and justified if kept private), available in a timely fashion, accessible and usable free of charge, identified within rubrics so as to be comparable and interoperable, make governance transparent, and be usable for "inclusive development."[239] The techno-imperial relationship between the U.S., India, and Israel described in the introduction is a modified, governmental approach

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[238] Shawn Wilson describes the relationship between scholarly research and cultural practices in his book *Research is Ceremony*: *Indigenous Research Methods* (Winnipeg: Fernwood Publishing. 2008).
[239] "International Open Data Charter," Open Data Charter, accessed May 5, 2022, https://opendatacharter.net/principles/

to open data, based on maintaining comparable and interoperable data though that data would be maintained by the three states and is not available publicly.

Despite sharing a critical approach to normative modes of data collection and analysis, Open Data and Indigenous Data Sovereignty stand in contrast to one another. While Open Data prioritizes transparency and public access to data, Indigenous data sovereignty requires a consideration of who "owns" data, who needs access to data, and what risks might be incurred by open access to data. Open Data processes are still shaped by normative colonial ways of understanding data and Indigenous peoples and therefore replicate state forms of oppression through data collection, storage, and analysis. [240] Both state-led data processes and Open Data processes, argue Walter et al., emphasize comparison of Indigenous peoples against non-Indigenous peoples, aggregate data at national and state levels at the expense of Indigenous communities and nations, and decontextualize data outside of social and cultural contexts. These tensions surface in the context of the present discussion of interactive mapping programs in Palestine. Within the conflict over the Google Earth Nakba layer, spatial data layers created in response to the Nakba layer focused on holding the Nakba layer in contrast to other visions of the same land. Instead of understanding the Nakba layer as additional information about historic Palestine, it was perceived by some non-Palestinians as a contradiction of Israeli narratives and therefore, as incorrect. The Nakba layer was used as evidence for which people in support of the state of Israel could blame Palestinians for territorial conflict. Despite being open data, the Nakba layer was interpreted within normative colonial data logics. Israeli responses to the Nakba layer decontextualized the project so that it was

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[240] Maggie Walter et al, 2021.

examined without attention to its purpose as a spatial representation for and by the Palestinian diaspora to view and connect spatially to the ancestral places of which they were dispossessed.

Even when users of open access software contextualize open data or provide detailed metadata, digital data is at risk of being reproduced incompletely, misused, or remixed, divorcing the data from its context. Guiliano and Heitmen describe the risks of digital circulation of Indigenous data saying, "Open access allows for objects to be divorced from their conditions of production and contexts of interpretation for all forms of reuse." [241] Common understandings of cartographic layers also devalue this documentary cartographic projects. As Musih and Fisher suggest, the use of layers in cartographic projects like the iNakba app or the Nakba layer play into assumptions of layers as being mere additions to a solidified base map, rather than being seen as maps in and of themselves.[242] On the contrary, Musih and Fisher argue that all map elements are added to a map in layers and each new layer must be considered a continuation of the cartographic process, not as an addition that can be turned on and off. Despite depicting the literal dispossession of Palestinian towns, the ease with which the Nakba layer can be divorced from its context as it circulates on the internet as well as the ability to turn the layer on and off on Google Earth make it an easy target for opponents to call the layer into question.

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[241]Jennifer Guiliano and Carolyn Heitman, "Difficult heritage and the complexities of indigenous data," *Journal of Cultural Analytics* 4, no. 1 (2019): 18.

[242] Norma Musih and Eran Fisher, "Layers as Epistemic and Political Devices in Mobile Locative Media; the case of iNakba in Israel/Palestine," *Continuum: Journal of Media and Cultural Studies* 35, no. 1 (2021): 151-69.

As the examples of participatory digital mapping projects described earlier demonstrate, users of an open access program like Google Earth must fit their cartographic projects within the data management parameters of that program. Web 2.0 software like Google Earth may not enable users to, for example, conceal some data while sharing others to limit the concealed data to a select group of viewers. The reliance of Google Earth, OpenStreetMap, and other cartographic mapping programs on facts-on-the-ground also limits the ways that spatial data can be represented within these programs. If data accessibility and representation of Indigenous and land-based peoples is enacted primarily within these kinds of open data initiatives that are not designed around protection of Indigenous self-determination and sovereignty, then spatial representation of Indigenous peoples will always be on colonial grounds, both literally and figuratively.[243]

Spatial data sovereignty requires particular attention to the protection of spatial data in order to prioritize Indigenous land tenure, land use, and relation to land, which may mean making data accessible to a limited audience. As I describe further in chapter six, Indigenous scholars advocate for forms of digital mapping that preserve Indigenous spatial data and knowledge for the communities to which the data belongs while also limiting who has access to that data or the level of detail in the data shared. Colonial states do not need to know the exact contents of sacred sites or the specific locations or routes used to harvest foods and materials in order to uphold Indigenous rights and protect those areas from development. Indigenous approaches to Geographic Information

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[243] Andrew Curley and Sara Smith, "Against colonial grounds: Geography on Indigenous lands," *Dialogues in Human Geography* 10, no. 1 (2020): 37-40.

Systems (GIS) call for forms of spatial representation that make spatial data available to
Indigenous communities, or even specific people within those communities such as elders
and spiritual leaders, while protecting that information from those outside of those
communities.[244]

Indigenous approaches to data sovereignty and Geographic Information Systems
enact a quantitative and cartographic form of what Audra Simpson terms "ethnographic
refusal."[245] Simpson writes that ethnographic refusal "involves an ethnographic calculus
of what you need to know and what I refuse to write. This is not because of the centrality
of esoteric and sacred knowledge. Rather, the deep context of dispossession, of
containment, of a skewed authoritative axis and the ongoing structure of both settler
colonialism and its disavowal make writing and analysis a careful, complex instantiation
of jurisdiction and authority."[246] For Simpson, refusal is an enactment of sovereign
authority over ethnographic data, used to protect community concerns, which in the
process highlights unequal power relations within ethnographic research. Indigenous
quantitative data sovereignty functions through a similar act of refusal. By making data

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[244] Data sovereignty has been an essential element of scholarship on Indigenous
Geographic Information Systems since the 1990s. The following readings address some
of the key debates in the field: Joe Bryan, "Where Would We Be Without Them?
Knowledge, Space and Power in Indigenous Politics," *Futures* 41, no. 1 (2009): 24-32;
Renee Pualani Louis, "Indigenous Hawaiian Cartographer: In Search of Common
Ground," *Cartographic perspectives* 48 (2004): 7-23; Mark Palmer, "Theorizing indigital
geographic information networks," *Cartographica: The International Journal for
Geographic Information and Geovisualization* 47, no. 2 (2012): 80-91; Margaret
Wickens Pearce and Renee Pualani Louis, "Mapping Indigenous Depth of Place,"
American Indian Culture and Research Journal 32 no. 3 (2008): 107-26; Robert A.
Rundstrom, "GIS, Indigenous Peoples, and Epistemological Diversity." *Cartography and
geographic information systems* 22, no. 1 (1995): 45-57.
[245] Audra Simpson, *Mohawk Interruptus: Political Life Across the Borders of Settler
States* (Durham: Duke University Press, 2014).
[246] Ibid., 105.

accessible to a limited group of people, or by generalizing for the purpose of claims making without revealing unnecessary spatial data, Indigenous peoples engage in a cartographic refusal to work within the terms of state cartography or Open Data software. Open Data software like OpenStreetMap assumes that having the power to edit and contribute to maps places all people on equal footing within its cartographic project. Indigenous data sovereignty refuses this assumption of neutrality, refuses "ground truth" as objective, and refuses the notion of spatial documentation as inherently good or necessary.

Conclusion

Ground truthing strips away context and history in favor of literal physical evidence in the current moment. When evidence of Palestinian life has been demolished and built over, and assessment of fact depends on ground truthing in the current moment, then the aerial perspective cannot resuscitate what is no longer visible on the surface. This chapter examines participatory and documentary cartographic projects that seek to provide evidentiary truth claims of Palestinian dispossession and displacement. These projects map historic Palestine before and during the 1948 Nakba against aerial imagery of Israel and Palestine in the present. As I have shown, an emphasis on "facts on the ground" in a settler colonial state will always replicate the settler territorial vision that the state has already constructed on the landscape. Furthermore, attempts to map previous presence of the dispossessed through normative colonial cartographic measures and technologies will always be constrained by the colonial rubrics and colonial assumptions built into those technologies.

In this context, I have argued that while these historic mapping projects can engender affective relationships to land, feed a sense of belonging, and recount a multiplicity of Palestinian experiences of colonialism, digital cartesian mapping projects are always influenced by normative assumptions of colonial mapping. I also contend that Open Data maps are structured without regard for asymmetrical power dynamics and cannot account for differences in knowledge needed based on those power dynamics. In this vein, my efforts in this chapter have been aimed less at problematizing participatory cartographic projects then at raising Indigenous critiques of these modes of community participation. Mapping the literal will always mean working within colonial spatial norms. Thus, I assert that consideration of the intended audience and protection of data for that audience be prioritized in participatory cartographic projects, regardless of the digital platform used, in order to reimagine spatial data storage and communication. But, as the next chapter explores at length, speculative and creative representations of landscapes also struggle to transcend the politics of the literal.

Chapter Four

Palestine Pixelated:

Imagined Geographic Futures in the Landscapes of Jordan Nassar

How might colonized peoples represent an over-represented space? How do transparency and opacity function to hide or reveal spatial relations of power? Must maps be ground truthed to be true? Can we map the future? In this chapter, I consider these questions of resolution, transparency, and opaqueness in relation to Palestinian diasporic speculative art. I extend my analytic of the aerial to consider how image resolution, and pixelation in particular, befuddles, compounds, and makes inaccessible the ability to sense remotely. Satellite-enabled surveillance monitors everything happening on the ground and via cloud networks while simultaneously obscuring the data, the process of data collection, and the identity of the data collectors. Engaging with scholars of surveillance and visual culture, I respond to Ronak Kapadia's urge to examine Palestine not only as ground zero for contemporary colonial surveillance, development of violent technologies for policing and killing, and as a template for contemporary settler states, but also as an "experimental site of decolonial fantasy and freedom. [247]

I begin with this provocation: If Israel-occupied Palestine is the development engine for colonial surveillance technologies in the present, then maps and other landscape representations that communicate other futures are essential for navigating that which technological surveillance obscures. I advance this provocation through a

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[247] Ronak K. Kapadia, *Insurgent Aesthetics: Security and the Queer Life of the Forever War* (Durham: Duke University Press, 2019): 152.

discussion of resolution, pixelation, and opacity in territorial images, and examine how these technological tools are taken up by New York City-based, Palestinian-American visual artist Jordan Nassar. Working primarily with textiles, Nassar is best known for his embroidered paintings based on traditional Palestinian embroidery patterns. Nassar also works with glass and wire, creates zines, and, most recently, transformed an art gallery into an imagined apartment. Here, I will discuss several of the embroidered paintings, a zine, and the imagined apartment to explore the relationship between pixelation and how aerial images shape what we think we know about a territory. In the process, I will consider how U.S. imperial acts govern not only U.S. ways of seeing and knowing colonized territories but take shape elsewhere. Image qualities such as resolution or opacity enable ongoing colonization in the present. These imperial acts are in turn reinforced through indirect governance by corporations like Google which are the primary purveyors of spatial data to the global public and provide visual access to remote geographies. I bring together observations of the geospatial, legal, and visual dimensions of U.S.-Israel geospatial technological dominance and Palestinian assertions of life, land, and self-determination, through scholarship from transnational American studies, critical surveillance studies, and visual culture. This chapter asks how anti-colonial resistance and representation turn aerial colonial surveillance on its head to enact imagined futures for the territories of dispossessed peoples and recast colonial spatial surveillance as an impossible, continually failing project.

Jordan Nasser's work is only one instance of a breadth of Palestinian speculative expressive culture. Palestinian writers and visual artists envision Palestinian futures that build on historical fact without necessarily adhering to a vision of reproducing historical

Palestine discussed in chapter three. For example, in the 2018 short story collection

Palestine +100: Stories from a Century After the Nakba, edited by Basma Ghalayini,

writers draw on genres of science fiction and dystopia to imagine Palestine in the near

future of 2048, a future much closer to the present that the 1948 Nakba.[248] These

dystopian futures are contextualized within Israel's present culture of techno-imperial

surveillance and control and locate Palestinian agency amid the colonial technological

array.[249] In Palestinian speculative visual art, these imaginaries are architectural and

spatial as much as they are time-oriented, imagining future Palestinian space and place.

For example, Larissa Sansour's 2012 short film *Nation Estate* imagines a Palestine in the

near future in which Palestine has no territorial surface area on which to expand, so all of

Palestine is housed within a single skyscraper. Palestinian cities are each assigned a floor

and Palestinians can travel between cities via elevator, without having to navigate Israeli

military checkpoints. Sansour describes this imagined future as a "vertical solution to

Palestinian statehood."[250] To imagine the future is not to erase the past. Instead, it moves

beyond recounting of the factual in order to imagine how liberation could look, sound,

and feel.

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[248] Basma Ghalayini, Palestine +100: Stories from a Century After the Nakba
(Manchester: Comma Press, 2018.)

[249] See also: Leila Abdelrazaq, "Palestinian Futurisms: A No-state (Re) solution, and
Other New Imaginaries," MA thesis, University of Michigan, 2022.Hoda El Shakry
"Palestine and the Aesthetics of the Future Impossible," Interventions 23, no. 5 (2021):
669-690; Abu Hatoum, Nayrouz, "Decolonizing [in the] future: scenes of Palestinian
temporality," Geografiska Annaler: Series B, Human Geography 103, no. 4 (2021): 397-
412. Fargo Tbakhi, N.A. Mansour, and Rasha Abdulhadi, "Roundtable: The Palestinian
Speculative." Strange Horizons. March 29, 2021, accessed May 8, 2022,
http://strangehorizons.com/non-fiction/articles/roundtable-the-palestinian-speculative/

[250] See a clip from the short film: https://larissasansour.com/Nation-Estate-2012

In the preface to *Becoming Palestine*, Gil Hochberg despairs of any promise of the traditional archive for Palestinian futurity. Hochberg suggests that "little remains that is redemptive or promising about the archives as a source of historical knowledge. There is nothing left to find or prove. Secrets have been exposed and more will still be unveiled, but these archival efforts, important as they are, result in little political change and bring about minimal if any new configurations of future potentiality."[251] Hochberg goes on to argue that whatever documentary evidence is needed to "prove" Palestinian dispossession and disenfranchisement is already known and well documented. Instead, Hochberg asserts, Palestinian futures require valuing the imaginative as much as the factual, leaving room for multiple, open-ended futures, rather than a prescribed reinstitution of pre-1948 Palestine. The work I examine in this chapter attempts to take on this charge. Chapter three examined cartographic projects that imprint historic Palestine onto contemporary aerial imagery to illustrate how Palestinian presence has been erased from the surface. It examined digital approaches to Palestinian landscape representation with the penchant of the digital for precision, definition, and exactitude. This chapter considers an analog and aesthetic attempt to represent future Palestinian landscapes. In this chapter, I consider Jordan Nassar's speculative embroidered landscape paintings as expressive culture that attempts to imagine a Palestine that is not limited to the recounting and reconstitution of Palestine as it was before 1948. I discuss Nassar's work here not because it is representative of all Palestinian speculative art (it is not) nor because Nassar's politics are exemplary among contemporary Palestinian artists (they are not). Instead, I discuss

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[251] Gil Z. Hochberg, *Becoming Palestine: Toward an Archival Imagination of the Future*, (Durham: Duke University Press, 2021): vii.

Nassar's work as an example of how Palestinian speculative art attempts, and sometimes

fails, to appropriate the technological tools of Israel's colonial surveillance of

Palestinians and recast those tools to imagine Palestinian life and landscape in the future.

Nassar's work, I argue, plays with pixelation to challenge the erasure of Palestinians from

Israeli narratives about the region but in so doing, ultimately re-enacts the very process of

obscuring Israeli violence which it attempts to critique.

Resolution/Pixelation

Open access satellite imagery has become an essential tool to identify and track

key socio-political events, used by the media, government agencies, and the general

public. In recent years, satellite imagery has been applied to document and expose

colonial and imperial violences and human rights abuses. Satellite imagery was used to

spot the destruction of Rohingya villages by the Myanmar military in 2017,[252] to

construction prison camps in North Korea in 2015,[253] the creation of "re-education"

centers forced upon Uyghers in the Xinjiang region of China in 2018,[254] and mass

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[252] For example: Nahian Ahmed et al., "Understanding the political ecology of forced migration and deforestation through a multi-algorithm classification approach: The case of Rohingya displacement in the southeastern border region of Bangladesh," *Geology, Ecology, and Landscapes* 3, no. 4 (2019): 282-294; Mohammad Mehedy Hassan et al., "Rohingya refugee crisis and forest cover change in Teknaf, Bangladesh," *Remote Sensing* 10, no. 5 (2018): 689.

[253] Timothy Barney, "The sight and site of North Korea: Citizen cartography's rhetoric of resolution in the satellite imagery of labor camps," *Quarterly Journal of Speech* 105, no. 1 (2019): 1-24; Christine Hong, "The mirror of North Korean human rights: technologies of liberation, technologies of war," *Critical Asian Studies* 45, no. 4 (2013): 561-592. David Shim, "Remote sensing place: Satellite images as visual spatial imaginaries," *Geoforum* 51 (2014): 152-160.

[254] Sarah Tynen, ""Keep withstanding": Territory in the body, home and market in Xinjiang, China," *Political Geography* 84 (2021).

prisoner killings in Syria in 2017.[255] Drawing on remote sensing data collected by

satellites, governments, non-governmental organizations, and the media monitor for new

buildings, particularly near known prisons, and draw on remote sensing data that

identifies fires, such as NASA VIIRS (Visible Infrared Imaging Radiometer Suite) and

Synthetic Aperture Radar.[256] Thus, the examples above are characterized by land cover

change and fire, as in the case of Myanmar, or new buildings, as in North Korea, China,

and Syria. Perhaps most famously, the collection of satellite imagery and examination of

images of a single site over time led to the U.S. killing of Osama Bin Laden.[257] Spatial

analysts with the National Geospatial-Intelligence Agency, a little-known wing of U.S.

intelligence operations, used intelligence about the house in which Bin Laden was living

and analyzed past aerial imagery to view the stages of building the compound. From

these images, they knew the exact dimensions and layout of the house, which enabled the

military to build a to-scale model of the compound where troops rehearsed their mission

before being deployed.[258] Both objects and actions can be seen from space in real time.

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[255] Ram Avtar et al., "Remote sensing for international peace and security: Its role and implications," *Remote Sensing* 13, no. 3 (2021).

[256] "Remote Sensing for Documenting Human Rights Abuses," Amnesty International, Citizen Evidence Lab, December 11, 2019, accessed January 14, 2022, https://citizenevidence.org/2019/12/11/remote-sensing-for-documenting-human-rights-abuses/

[257] Mark Owen and Kevin Maurer, *No easy day: the autobiography of a navy SEAL: the firsthand account of the mission that killed Osama bin Laden* (New York: Penguin, 2012): Nicholas Schmidle, "Getting Bin Laden," *The New Yorker,* August 8, 2011, accessed May 9, 2022, https://www.thomasweibel.ch/artikel/110808_new_yorker_getting_bin_laden.pdf

[258] Marc Ambinder, "The Little Known Agency that Helped Kill Bin Laden," *The Atlantic,* May 5, 2011, accessed May 9, 2022, https://www.theatlantic.com/politics/archive/2011/05/the-little-known-agency-that-helped-kill-bin-laden/238454/

Yet the coverage and resolution of this imagery is not uniform globally. Despite the proliferation of satellites and the accessibility to the public of remotely sensed images, the quality and use of such aerial images is limited by U.S. imperial power. In 1996, the United States House of Representatives signed into law Public Law 104-201, known as the Kyl-Bingaman Amendment, which effectively prohibited the collection and release of detailed satellite imagery of Israel and Palestine.[259] The law stated that non-federal entities could collect and distribute images of Israel "only if such imagery is no more detailed or precise than satellite imagery of Israel that is available from commercial sources" operating outside of the U.S.[260] Effectively, U.S. retailers of satellite imagery could not collect or distribute satellite imagery of Israel and Palestine at a higher resolution than satellite images sold by non-U.S. retailers of satellite imagery. While this law was only applicable to the United States and agencies and corporations operating within the U.S., the law nevertheless became institutionalized within the satellite imagery industry, due to U.S. domination of the market for satellite imagery. In addition to

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[259] Andrea Zerbini and Michael Fradley, "Higher resolution satellite imagery of Israel and Palestine: Reassessing the Kyl-Bingaman amendment," *Space Policy* 44 (2018): 14-28.
[260] The entirety of the law is as follows:
SEC. 1064. PROHIBITION ON COLLECTION AND RELEASE OF DETAILED SATELLITE
IMAGERY RELATING TO ISRAEL.
(a) Collection and Dissemination.--A department or agency of the United States may issue a license for the collection or dissemination by a non-Federal entity of satellite imagery with
respect to Israel only if such imagery is no more detailed or precise than satellite imagery of Israel that is available from commercial sources. (b) Declassification and Release.--A department or agency of the United States may declassify or otherwise release satellite imagery with respect to Israel only if such imagery is no more detailed or precise than satellite imagery of Israel
that is available from commercial sources." House Report 104-724 National Defense Authorization Act for Fiscal Year 1997. Retrieved on January 12, 2022.
https://www.govinfo.gov/content/pkg/CRPT-104hrpt724/html/CRPT-104hrpt724.htm

limiting future collection and dispersal of high-resolution imagery of Israel and Palestine, the law enacted restrictions on archival satellite imagery dating as far back as the 1960s.[261] The final amendment included a provision that this law could also be applied to "other countries or geographical areas designated by the President."[262]

As a practice of U.S. imperialism and counterinsurgent policy, policing the resolution of aerial imagery determines who has access to information, who can monitor the spatial consequences of ongoing colonization, and who is subject to U.S. imperialism. The resolution of satellite imagery determines what is visible and what is obscured on the surface. Where most publicly available satellite imagery of the Arab world has an average resolution of 0.5 meters, aerial imagery of Palestine has a resolution of 2 meters. It is 16 times less detailed. Spatial resolution is a number that indicates the equivalent size of a pixel in the imagery to measurements on the ground; the higher resolution an image, the smaller an area on the ground is represented by a single pixel. In other words, the more pixels an image has, the higher the resolution of the image.[263] At a resolution of 0.5 meters, an object with a horizontal surface of 0.5 meters or greater will be visible in the imagery. A change in landcover of an area 0.5 meters wide will be visible. At a resolution of 2 meters, one pixel will be equivalent to a 2-meter square area on the ground. Objects with a horizontal surface less than 2 meters will be blurry and

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[261] Zerbini and Fradley, 2018.

[262] "Prohibition on collection and release of detailed satellite imagery relating to Israel (sec. 1064) The Senate amendment contained a provision (sec. 1044) that would limit the collection and release of satellite imagery of Israel or other countries or geographical areas designated by the President. The House bill contained no similar provision. The House recedes with an amendment."

[263] "Satellite Data: What Spatial Resolution is Enough?" Earth Observing System. December 4, 2019, accessed January 18, 2022, https://eos.com/blog/satellite-data-what-spatial-resolution-is-enough-for-you/

indecipherable. While major land cover can be observed at this resolution, the encroachment of small-scale developments is obscured. At two meters, a car or a building will be visible, but many trees would not. Landscape change, such as the deforestation of an area or small additions to buildings might not be visible at two meters but would be visible at 0.5 meters. At the time that the Kyl-Bingaman Amendment was passed, commercial satellite imagery of Israel and Palestine was not yet available to the public. Imagery become commercially available in 2001 and had a resolution of 10-20 meters, which obscured vast amounts of landscape change.[264]

The operation of satellites that orbit the earth, owned by both corporations, governments, and non-governmental organizations, requires attention to the spatiality of the airspace through which satellites orbit. Even this airspace is understood volumetrically. Geostationary Orbit (GEO), the furthest removed from the earth's surface, is the realm of telecommunication and broadcasting. Medium Earth Orbit (MEO) is used for global positioning systems. Low Earth Orbit (LEO) is used for remote sensing, the process of collecting data about the earth's surface using electromagnetic radiation.[265] The creation of these zones emerged from the generation of an understanding of what makes "outer space" separate from earth's surface. Treaties such as the 1967 United Nations' Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies" established "outer space" as non-sovereign public space and created a structure for regulation of that

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[264] Zerbini and Fradley, 2018.
[265] Lisa Parks, "Mapping Orbit: Toward a Vertical Public Space" in *Public Space, Media Space*, eds. Chris Berry, Janet Harbord, Rachel Moore (London: Palgrave Macmillan, 2013): 61-87.

space.[266] But while airspace is regulated volumetrically, once a satellite is in orbit, the

purpose of the satellite is comprehensive data collection about the surface and thus

regulation of data collected via satellite occurs post-collection. For resolution of images

of Palestine, higher resolution imagery exists, but is limited to a specific resolution for

data distribution.[267]

Nassar's Imagined Landscapes

From afar, Jordan Nassar's embroidered paintings look like pointillist, color-

blocked landscapes. Developed in layers, Nassar's creative process to generate the

imagined Palestinian landscapes of his embroidered paintings is reminiscent of digital,

technoscientific processes of mapping and analyzing landscapes. Nassar begins by

adapting the symbols of traditional Palestinian hand embroidery called tatreez and he

recreates and riffs on these traditional designs to create digital patterns. These geometric

symbols and designs are printed, then embroidered in meticulously repeating and

intersecting patterns. An embroidered painting may be composed of a single repeating

symbol or may be a complex arrangement of multiple repeating symbols. When the

image is embroidered in a single color, the eye is drawn to the complexity and intricacy

of the patterns; there are geometric forms as well as imagery we might identify, such as

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[266] Ibid., 65.

[267] The 2-meter image resolution restriction of the Kyl-Bingaman amendment was changed in 2020, due the public availability of satellite imagery with a high resolution available for sale from non-U.S. based companies. This change to the amendment means that U.S. based companies can sell satellite imagery of Palestine up to a resolution of 0.4 meters. The report presented on June 25, 2020 to the National Oceanic and Atmospheric Administration Advisory Committee on Commercial Remote Sensing is available here: https://www.nesdis.noaa.gov/commercial-space/regulatory-affairs/accres/accres-reports-and-minutes

flowers. When embroidered with multiple colors, the composition of the landscapes emerges through color-blocking.

Nassar works with Palestinian women who are skilled at traditional embroidery practices to create these landscapes. After digitally designing the patterns, Nassar generates a PDF that captures visual instructions to create the geometric patterning. The Palestinian embroiderers follow the pattern, selecting colors and color-blocking patterns of their own design or in of-the-moment embroidery practices. Nassar sees this as a way of "capturing this living cultural practice" rather than replicating or reinforcing a historical embroidery practice.[268] Empty spaces are built into the patterns. After the Palestinian women have completed the first layer of embroidered patterns, Nassar uses the same repeating and interlocking embroidery patterns and color-blocking technique to create his imagined Palestinian landscapes in the spaces that were left empty in the original pattern. Rather than using colors in repeating patterns to mirror the repeating forms of the embroidery, Nassar uses a color blocking technique such that the embroidered patterns become the background from which the color-blocked landscape features emerge. If the background repeating pattern is an image of a rose with blooms, bud, leaves, and stem, the colors used do not necessarily distinguish between the forms. Instead, the embroidered pattern might be monochromatic so that the details of the pattern are only visible upon close inspection.

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[268] Interview with Jordan Nassar by Fondation PHI pour l'art contemporain, accessed January 20, 2022, https://www.youtube.com/watch?v=GZohQ7_P9Z0&ab_channel=FondationPHIpourl%E2%80%99artcontemporain

Nassar's repeating embroidered units operate as irreducible, opaque pixels that make up the pixelated image of Palestinian landscapes of the diasporic imagination. While viewers might be tempted to focus on the historical practices of Palestinian embroidery or might wish to decipher and interpret and draw links between Nassar's digitized Islamic embroidered patterns, Nassar insists that he sees the methods of traditional craft which he employs "more as medium than as topic."[269] The hybrid digital and analog process through which Nassar creates these landscapes is not just a modernization of traditional craft practices, but in fact affixes new meaning to the completed patterns. For the viewer, the intricate embroidered patterns are secondary to the color-blocked landscapes. To view the patterns, the viewer must zoom in, if using a screen, or, if viewing in a gallery, stand very close to the embroidered paintings to make out the individual stitches that form each repeating embroidered pattern. The viewers eye can locate specific repeating patterns but cannot break down each pattern into its individual stitched components.

Nassar distinguishes between the imagined aspect of his embroidered landscapes and those of the colonial, orientalist imagination. "Palestine is not a place for me that is imaginary."[270] Nassar asserts. Instead, the embroidered landscapes "are all potential Palestines, as imagined by people in the diaspora."[271] Rather than fixing Palestinian

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[269] Jordan Nassar, "Artist Statement," accessed January 20, 2022, https://www.escapeintolife.com/artist-watch/jordan-nassar/

[270] Interview with Jordan Nassar by Fondation PHI pour l'art contemporain, quote occurs at 19:31, accessed January 20, 2022, https://www.youtube.com/watch?v=GZohQ7_P9Z0&ab_channel=FondationPHIpourl%E2%80%99artcontemporain

[271] Ibid., Quote at 23:01, accessed Janaury 20, 2022, https://www.youtube.com/watch?v=GZohQ7_P9Z0&ab_channel=FondationPHIpourl%E2%80%99artcontemporain

embroidery practices or Palestinian landscapes into a past moment or a singular future, Nassar's embroidered landscapes blend the historic and traditional with a contemporary digital practice to create multiple iterations of Palestinian landscape futures. The paintings are not created in situ, but are completed transnationally, involving Palestinians in Palestine and in the diaspora.

Traditional creative forms like tatreez are always on the verge of cooptation, of being frozen in time as a remnant of the past.[272] In an open letter to Sylvia Wynter, responding to Wynter's "1492: A New World View," Ariella Aïsha Azoulay begins with a 1905 postcard captioned "School of Embroidery, Algiers" and considers her family's experience of Jewish Arabness and its reframing and reconstitution with the creation of the nation-state of Israel.[273] The image shows twelve girls in a courtyard, with engraved pillars and tiled walls. Five of the girls sit on the ground, their legs tucked under wooden frames stretched with fabric upon which the girls embroider. Azoulay relates how traditional embroidery practices became embedded into European colonial curriculum, becoming standardized and orientalized to appeal to European markets. While traditional embroidery was shared intergenerationally, with colonization, embroidery became associated with mechanization, capitalism, the French language, and European markets. Azoulay writes:

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[272] Reem Farah, "Heritage is to Art as the Medium is to the Message: The Responsibility to Palestinian Tatreez," *Third Text: Critical Perspectives on Contemporary Art and Culture,* January 28, 2021, accessed May 8, 2022, http://thirdtext.org/farah-tatreez1#f29
[273] Ariella Aïsha Azoulay, "Open Letter to Sylvia Wynter: Unlearning the Disappearance of Jews from Africa," *The Funambumlist,* June 29, 2020, accessed January 24, 2022, https://thefunambulist.net/magazine/reparations/open-letter-to-sylvia-wynter-unlearning-the-disappearance-of-jews-from-africa-by-ariella-aisha-azoulay

> Look at the synchronized movement of their right hands. No doubt, they were asked by the photographer (or their teacher-patron) to act as if they were in the midst of embroidering. This semi-mechanized gesture is not how their ancestors used the needle, outside of the market logic of French educational institutions. Note how everything is standardized: were there no left-handed girls among them? Was this "flaw" also eradicated, along with previous modes of embroidering? Does the standardization of their work connect to the disappearance of my great-great grandmother?[274]

It is this sort of mechanization and standardization which Nassar seeks to avoid. While the process of digital pattern design might seem to further regiment the traditional practice, Nassar attempts to infuse unpredictability into the process and finished product, such that each finished piece is a representation not only of traditional processes, or diasporic futurism, but is also attentive to trends of the moment in color, pattern, and aesthetic.

The zines that accompany Nassar's exhibits are compilations of black and white images and text. They feature cut and pasted photographs, photocopies of objects, graphic embroidery patterns, photocopied embroidery, and borrowed text in English and Arabic such as Etel Adnan's 1989 poem "The Arab Apocalypse." The photocopy as medium echoes the pixelation present in Nassar's embroidery and glass work. Blurred and imperfectly aligned on the page, the images, whether photocopies of objects, photos, or embroidery, recreate a feeling of distance from the page. The possibility of a clear view is obscured through the uneven and indiscrete pixelation on the page. A photocopy of a piece of an embroidered pattern includes a reproduction of the woven cotton on which the pattern is embroidered. In some places on the page, the woven cotton appears as a grid of dots of differing saturation. In others, the woven nature of the strands of

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[274] Ibid.

cotton is clearer. Individual stitches can be made out as small "x"s on the page, but when stitched close together, the x's take the form of a wavering line. Likewise, landscape photographs in the zines are grainy, photos of sand dunes that are not provided context or geographic location. Graphic images of barbed wire, flames, or roses look like off kilter clip art when juxtaposed against embroidered patterns. Unlike the embroidered landscape paintings, the snippets of embroidery look like practice pieces for the designs; readers can look closely at individual embroidery patterns and see the complexity of these individual units that form the color-blocked embroidered paintings. Here, each embroidered unit can more easily be seen as made up of pixels itself, each embroidered black x against the woven grayscale background.

In his solo exhibition, "The Sea Beneath Our Eyes," at the Center for Contemporary Art in Tel Aviv, Israel, in September 2019, Nassar transformed the exhibit hall into a projected studio apartment.[275] The gallery-as-apartment was furnished with 150 household objects that Nassar produced in collaboration with local artisans in Israel and Palestine, highlighting the craftsmanship and cultural forms of the numerous peoples who inhabit these territories. As with his embroidery, Nassar asked artisans to make objects according to their own design choices and practices, but with a few specifications, such as a particular color. While Israeli newspaper *Haaretz* called the apartment "quintessentially Israeli," Nassar emphasized that the familiar objects that made up the apartment are made by people of many different ethnic, cultural, and religious backgrounds who make up the population of cities in the region:

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[275] Jordan Nassar, "The Sea Beneath Our Eyes," accessed January 20, 2022, https://www.cca.org.il/exhibition/jordan-nassar%3A-the-sea-beneath-our-eyes

> "I wanted to think about returning to this land now, in 2019. It's not the Palestine of my dad's imagination, and it's also not the Ashkenazi dreamland that the Israeli government wants to project. So, I thought the best way to address the question of what I'd be returning to now is to look at the demographics of the country based on what crafts are here."[276]

For Nassar, this apartment exhibition was an imagining of what real apartment he and his Israeli husband might live in if they were to move to Tel Aviv. The exhibit plays simultaneously with memory and fantasy, of traditional forms of craft, and new riffs on those forms, to create a "home" in the present. The curator, Center for Contemporary Art director, Nicola Trezzi, emphasized that the apartment was not a facsimile of real life, but rather a window into how exhibit interiors contribute to understandings of history.

> This show is about memory and fantasy. It takes the personal history of the artist, his connection to this land, and links it to what period rooms — such as those you can find at the Metropolitan Museum of Art in New York or in several encyclopedic museums in the world — can do to our understanding and misunderstanding of history.[277]

Household objects that were called "quintessentially Israeli" are made by and come from the craft traditions of people of Bedouin, Ethiopian, or Armenian descent in what Nassar refers to as "the land between the river and the sea."[278] Nassar's apartment denaturalizes the Israeli identity imagined and constructed by the nation-state of Israel while his cartographic formation of river, sea, and land ignores the formalized boundaries of nation-states and occupied territories. His work insists instead on an understanding of

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[276] Aaron Hicklin, "Jordan Nassar's new apartment exhibition lives between the Israel, Palestine Binary," *Document Journal,* November 26, 2019, accessed January 20, 2022, https://www.documentjournal.com/2019/11/jordan-nassars-new-apartment-exhibition-lives-between-the-israel-palestine-binary/

[277] Ibid.

[278] Joy Bernard, "When You're Palestinian-American and Jewish, Life – Like Your Art – Is Complicated," *Haaretz,* October 22, 2019, accessed January 20, 2022, https://www.haaretz.com/israel-news/.premium.MAGAZINE-when-you-re-palestinian-american-and-jewish-life-like-your-art-is-complicated-1.8015886

place and identity that is attuned to diaspora and transnationalism, memory and the present.

Critiques of Nassar's work focus on the political positioning and economic practices that have helped his work gain attention globally.[279] While Nassar describes his process as a collaborative co-production with Palestinian women in the West Bank, the economics of this collaboration are uneven, as he pays the embroiderers the standard price they charge for their labor and then, after adding his embroidery, he sells the finished works for thousands of dollars. This uneven power dynamic recurs in several other projects with which Nassar is involved, including the brand ADISH which Nassar co-founded with two Israelis. This project follows the model of non-governmental humanitarian and economic development initiatives that reframe traditional practices like tatreez as women's empowerment projects, directing international attention to Palestine as a depoliticized site for charity initiatives. Despite stating on the ADISH website that its "mission is to counter the systematic erasure of Palestinian cultural heritage that is commonplace in Israel," ADISH takes up Palestinian "cultural heritage" of tatreez while erasing the individual Palestinian embroiderers who create the garments ADISH markets.[280]

Furthermore, Nassar has broken the call for Boycott, Divestment, and Sanctions (BDS) of Israeli institutions by exhibiting in Israeli institutions where it would be illegal for many Palestinians to visit, such as the apartment exhibit in Tel Aviv. Launched in 2005 by 170 Palestinian organizations, BDS is a movement to put non-violent pressure

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[279] Farah, 2021.
[280] https://www.adishstudios.com/

on the state of Israel through (1) boycotts of Israeli institutions, corporations, and

international companies that participate in the violation of the human rights of

Palestinians, (2) withdrawal of investments in the state of Israeli and Israeli and

international companies that uphold Israeli apartheid, and (3) pressuring governments to

place sanctions on Israel by banning business with Israeli settlements, ending military

trade with Israel, and pressuring international forums like the United Nations to suspend

Israel's membership in those international bodies.[281] Nassar's choices to exhibit in Israeli

institutions in Tel Aviv and collaborate with Israel-based companies directly go against

the BDS movement. In addition, participating in projects like ADISH situates

Palestinians as laborers working under Israeli leadership rather than working to end

Israel's economic oppression of Palestine. Omar Joseph Nasser-Khoury, a Palestinian

"anti-fashion designer" who works with historic Palestinian textiles, argues that Nassar's

approach to his work contributes to the normalization of Israel and Israel's settler

colonial violence against Palestine by commodifying and decontextualizing the anti-

colonial form tatreez has taken on during and since the Nakba.[282] As defined by the

Palestinian Campaign for the Academic and Cultural Boycott of Israel (PACBI),

normalization in a Palestinian and Arab context is:

> the participation in any project, initiative or activity, in Palestine or
> internationally, that aims (implicitly or explicitly) to bring together
> Palestinian (and/or Arabs) and Israelis (people or institutions) without
> placing as its goal resistance to and exposure of the Israeli occupation and

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[281] BDS campaigns are described in detail at: https://bdsmovement.net/what-is-bds
[282] Omar Joseph Nasser-Khoury, "Let's Not Tatreez: Normalization in the Age of Neoliberal Depoliticization," *Counterpunch,* August 28, 2020, accessed May 8, 2022, https://www.counterpunch.org/2020/08/28/lets-not-tatreez-normalisation-in-the-age-of-neoliberal-depoliticisation/

> all forms of discrimination and oppression against the Palestinian people.[283]

Thus, any project that involves collaboration between Israelis and Palestinians without resistance to the Israeli state as its base contributes to the normalization of the Israeli state and the colonial occupation of Palestine. These kinds of apolitical collaborations, PACBI asserts, prop up Israel's vision of itself. They allow Israel to benefit from the appropriation of Palestinian creative and scholarly production while drawing attention away from Israel's militarized occupation of Palestine. Artist and cultural critic Reem Farah argues that Nassar's work contributes to this normalization in that it commodifies his identity as Palestinian, furthers cultural appropriation of Palestinian art forms, and replicates uneven economic power dynamics that disenfranchise Palestinians as laborers. Nassar's willingness to exhibit in Israeli institutions and his reducing of Israeli settler colonialism to "the conflict," Farah argues, serves to further Nassar's career as an artist without challenging Israel's colonial domination of Palestine and Palestinians. Farah writes: "He is perceived by other liberals as a bridge – but in an apartheid state there are no bridges, only bypass roads for Israelis to access illegal settlements."[284] These critiques assert that, without centering the literal dispossession and disenfranchisement of Palestinians, the representational will always fail to do the political work it claims to enact.

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[283] "What is Normalization?" +972 Magazine, December 27, 2011, accessed May 8, 2022, https://www.972mag.com/what-is-normalization/
[284] Farah, 2021.

Indigeneity and Palestine

Nassar's multicultural vision of the region reflects the multiculturalism celebrated in the United States in the 1980s and 90s of Nassar's childhood. Nassar even goes so far as to apply colloquial language for this U.S. multiculturalism to Palestine/Israel, describing the ethnic communities whose work made up his apartment exhibit as a "multi-ethnic melting pot."[285] Rather than simply reinforcing Israeli cultural appropriation of cultural practices of distinct ethnic communities in Palestine/Israel, Nassar's description of Palestine as a melting pot demonstrates the cultural and artistic modes through which U.S. imperialism transits, upholding settler colonial states as diverse collectives, rather than sites of explicit, violent dispossession and disenfranchisement that maintain racist and anti-Indigenous hierarchies. In his engagement of the Palestine/Israel "conflict" and descriptions of the region as a "melting pot," Nassar evades any discussion of Indigeneity in Palestine or the illegality of Israel's occupation of Palestine. Representation and memory feature within his descriptions of his work, but he does not challenge the existence of the state of Israel or distinguish between the uneven experiences of the settler state by differently racialized groups.

The BDS movement was inspired by the anti-apartheid movement in South Africa and as such is framed around an understanding of Israel's occupation of Palestine as both apartheid and settler colonialism. Scholars and activists frequently draw parallels between settler colonialism in North America and Palestine, but theorizations of Indigeneity are not uniformly taken up in analyses of Israel's colonial relationship to

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[285] Hecklin, 2022.

Palestine.[286] Mark Rifkin engages discussions of apartheid and Indigeneity as "prisms"

through which to view the occupation of Palestine by the state of Israel. Rifkin argues

that considering Palestine through the prism apartheid, inviting comparisons to South

Africa, centers inclusion of Palestinians into the nation-state as the goal of Palestinians.

In contrast, viewing Palestine through the prism of Indigeneity rejects the legitimacy of

the occupying nation-state and focuses scholarship and movement building on self-

determination and sovereignty of Palestinians. Indigeneity, Rifkin argues, "foregrounds

the presence of a political collectivity (or collectivities) whose existence, inhabitance, and

governance cannot be conceptualized as an internal matter for domestic polity and whose

modes of political organization and expression need not take the form of a nation-

state."[287] In other words, Indigeneity as a theoretical framing for Palestine takes seriously

the rights of Palestinian people to self-determination outside of and beyond the occupying

state, while apartheid as a theoretical framing limits discussion of the rights of

Palestinians to inclusion within the occupying state. In Palestine, South Africa, and

elsewhere, a focus on inclusion into the polity of the occupying state recreates Indigenous

nations as ethnic minorities rather than communities with their own prior and ongoing

political systems and goals.

Palestinian identification with Indigeneity emerges as a political strategy to make

Palestinian claims to nationhood legible within rubrics formally recognized by both

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[286] See: Rana Barakat, "Writing/Righting Palestine Studies: Settler Colonialism, Indigenous Sovereignty and Resisting the Ghost(s) of History,*" Settler Colonial Studies*. 8, no. 3 (2018): 349-363; Mark Rifkin, "Indigeneity, Apartheid, Palestine: On the Transit of Political Metaphors," *Cultural Critique* 95 (2017): 25-70; J. Kehaulani Kauanui, "'A Structure, Not an Event.': Settler Colonialism and Enduring Indigeneity," *Lateral: Journal of the Cultural Studies Association* 5, no. 1 (2016).
[287] Rifkin, 2017, 56.

global movements for liberation and international governing bodies like the United

Nations. The Zionist project used the concept of Indigeneity, based on biblical historical

claims to firstness, to justify the formation of the state of Israel as a Jewish homeland.[288]

In the 1960s and 1970s, beginning before and continuing after the 1967 occupation,

Palestinian scholars described Israel as a settler state and compared Israel's occupation of

Palestine to apartheid South Africa.[289] Despite the emergence of settler colonialism as an

analytic to understand the occupation of Palestine, many Palestinians resisted

identification as Indigenous or comparison to Indigenous peoples of North America. For

example, the chair of the Palestine Liberation Organization Yasser Arafat repeatedly

rejected the notion of Palestinians as Indigenous, as he saw Indigeneity as equated with

backwardness, primitivity, and a dependence on the settler state.[290] The United Nations

Declaration on the Rights of Indigenous Peoples was ratified in 2007 and following its

adoption there has been a growing interest in thinking through Palestinian Indigeneity

and articulating Palestinian political goals through this analytic. While UNDRIP does not

fully account for the many forms of sovereignty expressed by many Indigenous peoples,

it does offer a framework through which to articulate Indigenous rights beyond a human

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[288] Steven Salaita, "Inter/Nationalism from the Holy Land to the New World," *Native American and Indigenous Studies* 1, no. 2 (2014): 125-44, 133.

[289] In fact, the term "settler colony" was first used to describe Israel's relationship to Palestine. The texts that shape this history include: George Jabbour, *Settler Colonialism in Southern Africa and the Middle East,* (Beirut: Palestine Liberation Organization Research Center, 1978); Maxime Rodinson, *Israel: A Settler Colonial State?* (New York: Pathfinder Press, 1973); Fayez Sayegh, "Zionist Colonialism in Palestine," (Beirut: Palestine Liberation Organization Research Center, 1965); Elia Zureik, *The Palestinians in Israel: A Study of Internal Colonialism,* (London: Routledge and K. Paul, 1979).

[290] Ahmad Amara and Yara Hawari, "Using Indigeneity in the Struggle for Palestinian Liberation," *Al-Shabaka: The Palestinian Policy Network*, August 8, 2019, accessed May 8, 2022, https://al-shabaka.org/commentaries/using-indigeneity-in-the-struggle-for-palestinian-liberation/

rights framework. While this aspect of UNDRIP is frequently critiqued, scholars such as

Sheryl Lightfoot argue that UNDRIP's framing of self-determination "is potentially

ushering in a broadening, and possible reshaping, of self-determination, which has been

increasingly decoupled from singular Westphalian notions of 'sovereignty' and

'territoriality' in ways that require ongoing negotiation between peoples and states."[291]

Therefore, UNDRIP offers Palestinians and others an alternate language through which to

express self-determination and sovereignty, including but not limited to Westphalian

sovereignty.

Discussions of Palestinian sovereignty that engage Indigeneity often center

Indigenous identity as deriving from the experience of settler colonialism. Amara and

Hawari refer to "the process of Israeli settler colonialism that created Palestinian

indigeneity" and insist that what the Palestinian liberation movement needs is "an

understanding of Zionism as a settler colonial project that rendered the Palestinian people

indigenous. It is the colonial encounter that created the native."[292] They define

Indigeneity as "those who have suffered the settler colonial invasion and continue to

suffer the subsequent structures of elimination."[293] They refer to a move to understanding

Palestinians as Indigenous as "harnessing indigeneity as a tool to achieve Palestinian

rights and sovereignty."[294] For Amara and Hawari, Indigeneity is primarily a political

category that can make clear the violence of the state of Israel as well as Palestinian

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[291] Sheryl R. Lightfoot, "Decolonizing Self-Determination: Haudenosaunee Passports and Negotiated Sovereignty," *European Journal of International Relations* 27, no. 4 (2021): 971-994.
[292] Ibid.
[293] Ibid.
[294] Ibid.

affinity with other Indigenous peoples globally. Palestinian organizations take up similar definitions of Indigeneity and place Israel's occupation of Palestine in a global context. For example, a 2018 statement by six Palestinians human rights organizations expressed support for the commemoration of Indigenous Peoples Day in the United States. Comparing the arrival of Christopher Columbus in the Americas in 1492 to the Palestinian Nakba, the statement expresses a solidarity between Palestinians and American Indians based on their shared experience of settler colonialism.[295] Steven Salaita terms these comparative approaches "inter/nationalism," a way to compare nationalisms that emphasizes "how the invention and evolution of national identities necessarily rely on international dialectics."[296] Salaita extends this to argue that taking on the category of Indigeneity to describe a community's relationship to colonialism simultaneously "recognizes Indians as the rightful indigenes of North America" and appropriates Native political movements while invalidating their agency.[297] Instead, Salaita analyzes how American Indian involvement in the BDS movement goes beyond comparison to a true solidarity where both Palestinians and American Indians exercise agency within a global struggle against colonialism.[298]

As discussed in the introduction, rather than shift international understandings of the Palestinian struggle as an Indigenous struggle, the recognition by the United Nations of Bedouin Palestinian Indigeneity risks dividing Palestinians, marking Bedouins as

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[295] "Palestinian Support for Indigenous Peoples' Day Commemorations and Historical Justice from Palestine to Turtle Island." *Al-Haq,* October 8, 2018, accessed May 8, 2022, https://www.alhaq.org/palestinian-human-rights-organizations-council/6152.html
[296] Salaita, 2014.
[297] Ibid., 33.
[298] Steven Salaita, *Inter/nationalism: Decolonizing Native America and Palestine* (Minneapolis: University of Minnesota Press, 2016).

unique from other Palestinians.[299] This recognition of Bedouin Indigeneity emphasizes cultural distinctiveness and continuity of cultural practices while ignoring Palestinian political claims.[300] Furthermore, it plays into preconceptions of Indigenous primitivity and tribal-ness, seemingly calling for performance of cultural authenticity as a prerequisite for recognition of Indigeneity.[301] In contrast, Indigeneity as a political relationship, as defined by Amara and Hawari, is one aspect often used to define Indigeneity. However, to limit Indigeneity to a specific experience of colonialism or a specific political relationship to the state, without regard for other cultural and land-based aspects of Indigeneity, introduces a problematic for defining Indigeneity and for global solidarity building.

Transparency and Opacity

"We clamor for the right to opacity for everyone," writes Édouard Glissant in the brief chapter "For Opacity" in *Poetics of Relation*.[302] Glissant theorizes difference through the twinned concepts of transparency and opacity. Transparency, he writes, is a prerequisite for the Western desire to understand people and ideas. Transparency allows

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[299] Lana Tatour, "The Culturalisation of Indigeneity: The Palestinian Bedouin of the Naqab and Indigenous Rights," *The International Journal of Human Rights* 23, no. 10 (2019).

[300] While Bedouin Palestinians are recognized as Indigenous by the United Nations, Israel does not recognize their status as Indigenous. See: Oren Yiftachel, Batya Roded, and Alexandre Kedar, "Between Rights and Denials: Bedouin Indigeneity in the Negev/Naqab," *Environment and Planning A: Economy and Space* 48, no. 11 (2016): 2129-61.

[301] Lana Tatour, "Recognizing Indigeneity, Erasing Palestine," *As-Safir Al-Arabi,* May 18, 2019, accessed April 20, 2022, https://assafirarabi.com/en/25757/2019/05/18/the-naqb-bedouin-as-indigenous-people/

[302] Édouard Glissant, *Poetics of Relation*, (Ann Arbor: University of Michigan Press, 1997), 189.

one to measure, compare, and judge the Other, reducing the Other to a scale that is comprehensible, identifiable, categorizable, and for which there are defined boundaries, beginnings, and endings. Glissant admits that, by acknowledging and accepting differences, transparency can elicit an unsettling of hierarchies. But ultimately, he writes "perhaps we need to bring an end to the very notion of a scale. Displace all reduction."[303] This is a task, Glissant argues, that can be accomplished through opacity.

Nassar's work eschews transparency by highlighting its impossibility. Though his creative practice involves the precision and detail of digitally designed embroidery patterns, he introduces uncertainty throughout the process. Describing his process, Nassar engages not in a practice of transparency, but his narrative description highlights how even transparency cannot reveal everything about how the embroidered paintings are made. From the color and design choices of the Palestinian embroiderers, to the empty spaces Nassar fills in, to the insistence on imagined landscapes rather than factual landscapes, the potential for redirection and confusion propagate throughout the process. Rather than allowing viewers to dissect the individual parts of the embroidered paintings, the photocopies of embroidered patterns in the zine obscure further. Individual stitches are blurred and smudged. The zoomed in view of the photocopy alienates the embroidered patterns from their places in the whole of the embroidered painting. The more the viewer tries to comprehend and analyze the process, the more opaque the paintings become. Even as one feels they can understand the form of the embroidered paintings, the next painting surprises by breaking the format of the previous paintings. New color schemes emerge, representational figures appear where geometric shapes

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[303] Ibid., 190.

dominated earlier. A gallery is strewn with embroidered pillows, simultaneously historical and contemporary, utilitarian and aesthetic.

In the context of neoliberalism, transparency is evoked to denote trust and accuracy, a disrupting of hierarchies. Colloquial phrases like "showing your cards" or "evening the playing field" suggest that this ability to not only see the inner workings of an institution, but to see through them, makes that institution accessible, or at the very least, less threatening. Transparency claims to allow one to be known to the other and promises no absences or gray areas. In her work on Freedom of Information Act (FOIA) documents and redaction, Anjali Nath interrogates the "implicitly assumed link between visibility and transparency" through an examination of the visual politics of redaction and debate around transparency in FOIA requests.[304] While transparency is seen as a mode of citizen empowerment, through which the liberal government is held accountable, the documents associated with detainees in Guantanamo and other U.S military prisons instead highlight a necropolitical governmentality; transparency does not prevent violence. Nath takes on a contrapuntal reading of redacted FOIA documents, not for the "transparent" information within them, but examines how the redactions amplify the necropolitics of U.S. military prisons. "Even as we may desire a full reveal," Nath writes, "the experiences of reading itself inadvertently undermine the logic of government transparency. The dispassionate rationalization of governmental forms of violence that work within legal definitions of what interrogation practices are legally permissible sit next to that which is manifestly hidden."[305] While FOIA requests seem to be a process of

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[304] Anjali Nath, "Beyond the public eye: On FOIA documents and the visual politics of redaction," *Cultural Studies? Critical Methodologies* 14, no. 1 (2014): 21-28.
[305] Ibid., 26.

transparency and, therefore, accountability, the unintended effect of redaction is a visual emphasis on the violence of the state.

Transparency is also a foundational element of quantitative geospatial analysis. Within Geographic Information Systems (GIS) software, spatial analysis occurs through the overlaying of transparent layers. At the risk of oversimplifying, to understand the relationship between two different spatially occurring phenomena, one could map (and by this, I mean geolocate) the occurrences of one phenomenon in a single layer A and the occurrences of the other phenomenon in a single layer B. This would result in two transparent layers, each only containing spatial data in the form of points in colors A and B that appear as dots on the transparent layers A and B. Overlaying these two transparent layers over a satellite image or other georeferenced map then allows the technician to examine, both visually and mathematically, the distribution of the points of each layer in relation to each other and in relation to the georeferenced base map. (Though, as discussed in chapter three, even the base map is a nebulous construction of layers, not a solid objective unit.) This analysis could lead to conclusions about the spatial distribution of and relationship between phenomena A and B. Visually, we might see a familiar image of map overlain with dots of two different colors, to represent the two different phenomena. Transparency, in a literal sense, is essential to this kind of spatial representation and spatial analysis. This process, both spatial and transparent, enables technicians to consider questions at a much larger scale than would otherwise be possible. Using this process, technicians can query data across a vast area of space that would be impossible, expensive, or time-prohibitive for a research team to examine through field work or survey. Similar to Glissant's understanding of the relationship between

transparency and hierarchy, spatial analysis through GIS promises a means through which to do powerful research using software and tools accessible on a home computer, making transparent and interpretable spatial relationships that would be otherwise undetected.[306] Thus, the transparency of GIS is often portrayed as a disruption of hierarchies of data collection and analysis. That this assumption is a reduction of complex spatial relationships and hierarchies of knowledge production is obvious. What then of opacity?

Glissant argues that while transparency ultimately encloses the Other within the bounds of the viewer's determination to understand the Other, opacity is "subsistence within an irreducible singularity."[307] An insistence on opacity makes futile the grasping to break down knowledge of the Other into comprehensible, digestible pieces. Glissant writes: "The opaque is not the obscure, though it is possible for it to be so and be accepted as such. It is that which cannot be reduced, which is the most perennial guarantee of participation and confluence." [308] In being irreducible, the Other cannot be grasped or contained. Opacity allows an ownership or assimilation. Through an insistence on past, present, and future Palestinian existence, speculative artists themselves become a signifier of Palestinian presence on the land, not to be subsumed by conceptions of a monolithic "Israeli" whose presence in the landscape is naturalized and ahistorical. Nassar's vision of Palestine includes multiple cultural and ethnic groups, with recognition

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[306] An example of this is described in detail in the next chapter, in which a teenage boy "discovered" a "lost" Mayan village via aerial imagery that he examined on his own, without the resources of a traditional research lab or center.
[307] Glissant, 1997, 190.
[308] Ibid., 1997, 190.

of changing demographics and landscapes as essential to Palestinian experience and irreducible to nationalist formations.

In contrast to the objectivity and quantifiability suggested by the term "unit," both pixels in an aerial image and repeating embroidered patterns in Nassar's work instead introduce the unknown and the opaque to an image. The pixel is a representation of a space in a moment in time. Its resolution does not convey exact detail, but instead provides an impression of a space, limited by the quality of the image. In other words, the pixel in an aerial image does not convey objective fact. Even the pixel is influenced and limited by geopolitics, imperialism, and colonialism. In Nassar's embroidered paintings, each segment of a repeating embroidered pattern operates as an irreducible element; it is the smallest unit to which his paintings can be reduced. Even these patterns are more complex than the viewer expects. While riffs on traditional embroidered patterns, these embroidered units are drawn on paper, on a screen, and then printed on paper again before they are ever embroidered. But their materiality belies the multi-layered process that generates them.

Like GIS, Jordan Nassar's embroidered paintings are based around layering of images, creating windows through which to overlay his imagined landscapes. A digital design is printed, stitched by one person, then stitched again by Nassar, photocopied, and printed. Rather than create a transparency of process, these layers introduce uncertainty into the process and product. Furthermore, Nassar's landscapes present a multitude of imagined futures in which the future is not fixed but is co-created by Palestinians in Palestine and Palestinians in the diaspora. In this future, contemporary artists play with traditional forms to create visions of what might be, where imagined landforms, flora,

and the sky take on new shapes and colors. Although both aerial imagery of Palestine and Nassar's embroidery play with pixels as irreducible elements that make up an image of a landscape, the former attempts to control the image by reducing what information is available while the latter attempts to add complexity to the image by visualizing Palestine(s) that are obscured by Israeli representations. However, what Nassar accomplishes by rejecting the politics of the literal and quantitative in his landscapes is limited by his emphasis on multicultural inclusion, representation, and recognition in the framing of his work. In so doing, his work to represent "Palestinian cultural heritage" does not engage the politics of this erasure or the literal violence of the settler state. Ultimately, Nassar's play with pixelation in embroidered paintings re-enacts the process of obscuring the facts on the ground to create a particular representation of Palestine.

Conclusion

In closing, this chapter has examined how colonial control of the resolution of aerial imagery serves to limit what can be seen of colonizing processes. However, permitting distribution of high-resolution imagery in a process of increasing transparency does not necessarily instigate greater production or distribution of visual spatial knowledge of colonization. Nor does the assimilation of specific cultural forms into the colonial project. Nassar's embroidered paintings resist assimilation and categorization as modern or traditional, pre- or post-colonial, but are not contextualized as fundamentally anti-colonial.

This chapter has read Jordan Nassar's embroidered landscapes as projections of Palestinian futures that neither adhere to past mappings of Palestinian territories nor subscribe to current border formations over Palestinian land. As I have shown, Nassar's

work rejects an ethnic binary between settler and native, Israeli and Palestinian. Instead, Nassar sees Palestinian territory and identity as in relation to other ethnic, cultural, and demographic populations in the Middle East North Africa region. In this way, Nassar's work functions as a rejection not only of state narratives about who is natural to the landscape, but also functions as a rejection of the state itself. Palestine is the land between the sea and the river, topographic borders which suggest movement both between the sea and river, and upon the sea and river.

In this context, I have argued that image resolution and pixelation of satellite imagery serves to bolster the Israeli state's occupation of Palestinian territory, literally blurring the evidence of projects of physical occupation such as the removal of trees or construction of buildings. I also contend that United States imperialism functions in tandem and cooperation with Israeli interests to obscure evidence of physical occupation, in its creation and enactment of legislation that polices the distribution of aerial imagery of areas occupied by the state of Israel. While United States legislation only applies within the United States, U.S. domination of the industry of remote sensing and satellite image collection means that this national legislation effectively limits the entire global industry from producing and distributing high resolution imagery of Israel-occupied territories. U.S. imperial interests in the Middle East and in relationship with Israel are well documented, but more clear forms of collaboration between these colonial projects dominate these scholarly discussions. This chapter argues that the policing of the resolution of aerial imagery affects how people around the globe see or rather, do not see, this project of colonial occupation. Colonial control of image resolution and pixelation obscures the occupation. While up-to-date aerial imagery is frequently used in

journalistic reporting or human rights campaigns to document violence, limiting the resolution of aerial imagery prevents human rights abuses or colonial projects from being seen.

My focus in this chapter and the previous chapter has been on contested representations of the surface of the earth in Israel-occupied Palestine. Satellite imagery is based on the aerial perspective, while Nassar's paintings borrow the effect of pixelation from satellite imagery without adopting its God's-eye-view. Engaging the surface as a political project, this chapter focuses on the quantification and representation of the surface of the earth. As the next chapter explores at length, the use of the aerial perspective also serves to obscure what is below the surface of the earth. I turn now to the surveillance and representation of the subterranean for the final section of this dissertation. In the following chapter, I examine digital projects that represent Indigenous territories in the U.S. in contrast to colonial norms around the subterranean, marking the subterranean as a site of struggle and meaning making about Indigenous territories. Attention to the subterranean, as discussed in the next section, decenters geopolitical boundaries and representations of land to show the attempt of colonial projects to fluidly move dispossession out of sight.

IV.   SUBTERRANEAN

Chapter Five

Sensing Remotely: Indigenous Landscapes in 360°

In May 2016*, The Telegraph* published a story about 15-year-old William

Gadoury, of Santi-Jean-de-Matha, Quebec, who had discovered a lost Mayan city without

ever having set foot in Mexico or central America. Hypothesizing that the Maya built

cities to line up with major constellations, Gadoury compared satellite imagery from the

Canadian Space Agency to constellation maps. Gadoury found that 117 known Mayan

cities matched the positions of stars in the constellation maps, but he noticed that one

constellation with three stars had cities that matched with only two of the three stars.

Using satellite imagery, Gadoury found a square shaped area that aligned with the third

star in the constellation and hypothesized that this square shaped area could be a former

Mayan pyramid.[309] As this story hit the news, it was met with widespread controversy

and critique by archeologists and remote sensing specialists. These experts argued that

the very premise of Gadoury's hypothesis was unfounded, as the Maya people mostly

likely did not choose to settle based on constellations and that, lacking a ground-truthing

field expedition, the square shape was most likely an abandoned corn field. Furthermore,

archeologists argued that extensive field work in this area since the 1930s did not suggest

that there was a "lost" Mayan city at this location. A paper published in the journal

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[309] Callum Hoare, "Google Maps Breakthrough: How Teenager Found 'Lost Mayan City' in Southern Mexico," *Express,* June 16, 2020, access May 10, 2022, https://www.express.co.uk/news/weird/1296482/google-maps-archaeology-news-mexico-mayan-city-found-yucatan-peninsula-spt

Remote Sensing stated: "There is no denying that the teenager's discovery is a square-shaped mark resulting from a spatial anomaly in the forest cover."[310]

The potential of satellite imagery to know contemporary Indigenous peoples has also captured public attention. Researchers at the University of New Mexico and University of Missouri have used satellite images to track an "uncontacted" tribe in the Brazilian Amazon near the Peruvian border. Inspired by aerial photographs released by the Brazilian government in 2008 that show a small village with rectangular houses with thatched roofs, and five people painted bright red and holding what appear to be spears, researchers used satellite imagery available from Google Earth to identify small uncontacted villages in the Amazon and estimated the "demographic health" of these villages, meaning the number of people needed to sustain the community. They identified conditions that could threaten the demographic health of these villages such as deforestation, mining, and ranching.[311] The researchers asserted that contact would have existential consequences for these communities, but that remote surveillance could protect the communities: "Given the grim history of previous contacts with the outside world, forced contact seems ill-advised. We suggest that an active remote surveillance program is needed to track the movements and demographic health of isolated peoples in hopes of ameliorating their chances for long-term survival by guiding future policy decisions of national governments."[312] Active remote surveillance, they argued, would

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[310] Lei Luo et al., "Google Earth as a Powerful Tool for Archaeological and Cultural Heritage Applications: A Review," *Remote Sensing* 10, no. 10 (2018): 1558.
[311] R. S. Walker and M. J. Hamilton, "Amazonian Societies on the Brink of Extinction," *American Journal of Human Biology*, 26 (2014): 570–572.
[312] Ibid, 571.

enable policy interventions to reduce destructive activities that might force contact and threaten the lands and villages.

The central conceit of geospatial surveillance technologies is that they remain invisible or unnoticed and thus can reveal otherwise unknowable information or collect the most intimate moments of daily life without intrusion. Surveillance technologies allow something distantly removed via geography or context to be observed and known to another and enable the observer to draw conclusions or even to imbricate that distant knowledge into their own lives. The above examples illustrate how remote surveillance technologies rely on the aerial perspective as an objective mode through which to "discover" Indigenous villages, historic and contemporary. This chapter engages with two Indigenous digital projects that represent Indigenous territories without and against the aerial perspective. If the aerial perspective of satellite imagery orients the viewer to look down from above at the surface of the earth, the following digital projects, *Poise/End* and *Thunderbird Strike*, disorient the viewer with less familiar angles and reorient viewers to ways of understanding Indigenous territories that integrate the air, surface, and subterranean in an Indigenous ontological relationship to land.

This chapter asks: How might reorienting spatial representations towards Indigenous ontologies and epistemologies change our understanding of colonial territorial dispossession and Indigenous-led movements for decolonization? What does this reorientation tell us about the relationship between the aerial perspective and colonial dispossession? I examine digital projects that decenter the aerial perspective to bring to light to what happens under the surface. I argue that colonial surveillance continues to center and emphasize the aerial as a means to obscure extractivist exploitation of

minerals, oil, and gas under the surface. This serves to delink what is below, on, and above the surface, breaking these zones into discrete blocks, thereby attempting to destabilize Indigenous epistemologies and political formations that are not based around formal borders in two-dimensional space. In this chapter, I analyze two digital projects that take on Indigenous representations of space that present and advocate for more three-dimensional forms of spatial representation. First, I analyze *Poise/end*, a virtual reality that invites the viewer to experience the surface and atmospheric effects of subterranean uranium mining. Second, I analyze Thunderbird Strike, an Indigenous video game that addresses extractivism in the Great Lakes region and articulates the relationship between air, surface, and subterranean via a thunderbird who cuts through a cross-sectional view. These two digital spatial representations disorient the viewer from normative ways of seeing and surveilling Indigenous territories and reorient the viewer to be emplaced within the landscape, embodied as a thunderbird or a visitor on foot. Finally, both make clear the relationship between air, surface, and subterranean as intimately linked, inseparable, and indiscrete.

What does it mean to be oriented as we locate ourselves in colonial atmospheres? How do Indigenous representations of space, place, and territory disorient and reorient us slantwise from the colonial orientations to which we are accustomed? What happens to our understanding of colonialism when we view it obliquely, vertically, or from below? In this chapter, I consider two digital projects that represent Indigenous territory by disorienting the viewer to colonial territorial representations and reorient the viewer to ways of seeing that colonial perspectives disavow. *Poise/end,* a virtual reality, disorients viewers in an attempt to envelop them in the devastation of uranium mining on the

Navajo Nation. Thunderbird Strike, an Indigenous video game, uses a cross-sectional

view to expose how environmental destruction links air, surface, and subterranean. "What

does it mean to be oriented?" Sara Ahmed writes:

> How is it that we come to find our way in a world that acquires new
> shapes, depending on which way we turn? If we know where we are, when
> we turn this way or that, then we are oriented. We have our bearings. We
> know what to do to get to this place or to that. To be oriented is also to be
> oriented toward certain objects, those that help us find our way. These are
> the objects we recognize, such that when we face them, we know which
> way we are facing. They gather on the ground and also create a ground on
> which we can gather. Yet objects gather quite differently, creating
> different grounds. What difference does it make what we are oriented
> toward?"[313]

Ahmed examines the phenomenology of orientation to understand sexual orientation,

articulating disorientation and reorientation as processes that respond obliquely to

normative orientations. Thus, the spatial and geometric oblique or slantwise perspective

is a queering of the "straight" orientation, in terms of geometry, spatial orientation, and

sexual orientation. Ahuja responds to Ahmed's question "What does it mean to be

oriented?" by examining "relations between reproduction and extinction" via the

mosquito and the settler to generate "an ecological dimension of queer critique."[314] Ahuja

asks how questions of orientation queer approaches to the atmospheric pressures of

climate change. Following Ahmed and Ahuja, I am interested in how questions of

orientation, disorientation, and reorientation change the way we approach studies of

colonialism and decolonization. How might disorientation and reorientation address the

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[313] Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others,* (Durham: Duke University Press, 2006), 543.

[314] Neel Ahuja, "Intimate Atmospheres: Queer Theory in a Time of Extinction," *GLQ* 21, no. 2-3 (2015): 365-85, 367.

subsuming nature of colonialism's aerial perspective? How might disorientation and reorientation be processes of decolonization?

Subterranean as Political Project

How is the subterranean theorized in Indigenous cartography? To reorient this discussion of territorial volume and the aerial perspective, in this chapter I turn my attention to the subterranean as a political project and site of struggle. As this chapter will show, colonial law severs the subterranean from the surface, making each zone distinct and therefore able to be claimed, sold, and surveilled separately from the other. This distinction is so naturalized within the law as to shape popular understandings of the relationship between the subterranean and the surface. In my analysis here, I demonstrate how the subterranean functions as a site of political struggle for Indigenous territorial claims. It is also a site of epistemological and ontological contestation in which Indigenous peoples assert understandings of land and human relation to land that are not comprehensible within colonial legal logics.

Free-entry, a principle that shapes subsurface rights to minerals, oil, and gas, allows prospectors and companies to explore for minerals and stake a mineral claim on an area of subsurface and obtain subsurface property rights without prior informed consent of neighboring property owners. While Indigenous nations must produce data providing evidence of historic land use in order to make socio-historic land claims, the free-entry principle means that corporations' claims to subsurface mineral rights are seen as legitimate without accompanying data.[315] The free-entry principle is enabled in the

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[315] Dawn Hoogeveen, "Sub-Surface Property, Free-entry Mineral Staking and Settler Colonialism in Canada" *Antipode: A Journal of Radical Geography* 47, no. 1 (2015).

United States, Canada, and Mexico by governance systems that make a distinction between property surface rights and subterranean rights. Thus, prospectors and companies have claimed sub-surface rights without seeking the consent of Indigenous peoples with historical connection to those lands. In the United States, the General Mining Law of 1872 authorizes development of mining projects of locatable minerals (e.g. uranium, gold, silver, molybdenum, copper, and zinc) on public lands by private individuals and stipulates that the subsurface property rights may be purchased. This law enabled exploration of uranium by mining companies at Tsoodził/Mount Taylor in western New Mexico, for example, despite Tsoodził's status as a sacred space for the Diné.[316] Historical claims of the Navajo Nation to Tsoodził were superseded by the law's protection of private rights to mineral exploration. Bruce Braun examines nineteenth century mining rights politics in Canada to show how geological, and in particular stratigraphic, ways of seeing territory led to a colonial understanding of territory as vertical. However, rather than seeing the surface and subterranean as co-constitutive, this colonial understanding of territory's verticality meant a severing of the surface and subterranean, such that they could be claimed, owned, and sold separately from one another.[317] Altamirano-Jimenez describes how the Mexican constitution upheld the Iberian division of surface and subsurface ownership: "While the state claimed the subsoil, Indigenous peoples maintained full ownership of the surface."[318] This stood in

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[316] Melinda Harm Benson, "Mining Sacred Space: Law's Enactment of Competing Ontologies in the American West," *Environment and Planning A: Economy and Space* 44, no. 6 (2012): 1443-1458.

[317] Bruce Braun, "Producing Vertical Territory: Geology and Governmentality in Late Victorian Canada," *Ecumene* 7, no. 1 (2000): 7-46.

[318] Isabel Altamirano-Jiménez, "Free Mining, Body Land, and the Reproduction of Indigenous Life," in *Turbulent Times, Transformational Possibilities?: Gender and Politics Today and*

contradistinction to Zapotec understandings of territory in which the subsurface

represents the roots of plants, mountains, water, and other aspects of life and is therefore

intimately tied to the surface. "Thus, the subsurface is part of the spiritual, symbolic, and

material life of Indigenous communities," writes Altamirano-Jimenez.[319]

Attention to the subterranean is also crucial for Indigenous peoples in the United

States making certain kinds of political, legal, and territorial claims. What lies beneath

the surface of the earth is literal historical sedimentation documenting Indigenous claims.

What is beneath the surface is quite literally what came before, made evident through the

presence of human remains, architectural ruins, and archeological evidence such as

historical roads, dumps, tools, materials, and art. This archeological data is used to

provide evidence for the traditional land claims and land use of Indigenous peoples

inhabiting the United States today.[320] The 1990 Native American Graves and

Repatriation Act (NAGPRA) acknowledges the right of descendant peoples and tribes to

these subterranean historical data. NAGPRA requires that all agencies that receive federal

funds must repatriate Native American human remains and cultural items to the lineal

descendants and tribes.[321] However, archeological knowledge production assumes the

unsettling of the subterranean as justified for scientific knowledge production. Despite

NAGPRA's important function, within the act, exhumation and repatriation are

Tomorrow, eds. Fiona MacDonald and Alexandra Dobrowolsky, (Toronto: University of Toronto Press, 2020): 159-76, 165.

[319] Ibid.

[320] Thomas J. Ferguson. "Native Americans and the practice of archaeology." *Annual review of anthropology* 25, no. 1 (1996): 63-79.

[321] Native American Graves Protection and Repatriation Act, National Parks Service, accessed April 23, 2022, https://www.nps.gov/subjects/nagpra/getting-started.htm

represented as legal processes rather than as affective experiences of trauma and grief.[322] And while this sort of data collection is used to reveal the violences of the past, the evidence collected is often treated as a revelation that provides new insight into the past, rather than further evidence of something already known to be true. For example, the 2021 exhumation of the remains of Native children at residential schools in Canada and the United States only provided evidence for the history of forced removal, assimilation, and death that Native peoples already knew to be fact. Even the technology used to identify these unmarked subterranean graves is modelled around aerial imagery technology. Ground-penetrating radar (GPR) uses pulses of radar to generate an image of the subsurface. GPR does not create an x-ray like image, but instead generates radargrams that indicate disturbances within the layering of soil below the surface. While naturally occurring disturbances, such as a boundary between soil layers, follow a predictable pattern, human-made disturbances such as graves break up the patterns visible in the radargram. Disturbances identified in ground-penetrating radargrams can then be avoided to avoid disturbing culturally sensitive sites or investigated using more invasive techniques of extraction and human remains found may be exhumed.[323] This sort of subterranean archaeological evidence is often necessary to validate Indigenous claims to historical land use and land tenure as well as Indigenous claims to historical violences and experiences at the hands of the state.

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[322] Deondre Smiles, "Review Essay: Repatriation and Erasing the Past (Elizabeth Weiss and James W. Springer)," *Transmotion* 7, no. 1 (2021): 221-228.

[323] Gabriel M. Sanchez et al., "Sensing the Past: Perspectives on Collaborative Archaeology and Ground Penetrating Radar Techniques from Coastal California." *Remote Sensing* 13, no. 2 (2021): 285.

I turn now to an Indigenous-made virtual reality that exhumes the violences of uranium mining on the Navajo Nation to demonstrate the impossibility of separating the subterranean from the surficial.

Poise/end

Klee Benally's virtual reality *Poise/End* begins with a countdown. An alarm clock flashes onto the screen, a radioactive symbol covering the face of the clock, as text on the screen says "Loading." When the alarm clock rings, it blends with an industrial alarm sound as a landscape fades in. The surface of the earth is brown dirt with small brown grasses and the sky, which takes up half the screen, is cloudy and gray. We can see powerlines in the background. As the viewer moves around in their own physical space, circling while holding their smart phone, or clicking buttons on a computer screen to toggle the view, the landscape looks the same from every direction: brown surface, gray sky. A light appears on the horizon, then quickly grows and explodes, creating a mushroom cloud. Now the ground at the horizon breaks into pieces and moves in a wave towards the viewer, obscuring the horizon, mixing the gray of the sky with the brown of the surface into a haze.

Produced in 2017, this 8:25 minute virtual reality documentary film links the imagined explosion at the opening of the film to the personal stories of people affected by uranium mining on the Navajo Nation. While perhaps best known for being the lead guitarist and vocalist of the Navajo punk band Blackfire which he formed with his siblings in 1989, Benally is also an anarchist activist involved in multiple Indigenous organizations including Indigenous Action and Outta Your Backpack Media Project. In recent years, Benally has produced several short films on Indigenous environmental

justice and the 2016 feature length film *Power Lines*. Like *Power Lines*, the virtual reality

Poise/end documents lived experiences of people on the Navajo Nation.

Uranium was mined on the Navajo Nation from 1944-1986, with the United

States Atomic Energy Commission as the sole purchaser of uranium from 1944-1966.

After 1966, both the federal government and commercial entities bought uranium mined

on the Navajo Nation.[324] These mining operations occurred on Navajo land and were

primarily staffed by Navajo workers who subsequently suffered high mortality rates from

lung cancer and other respiratory diseases.[325] After the Cold War, uranium mines on the

Navajo Nation were abandoned without any protections or remediation, uranium

processing sites were decommissioned, and mill tailings were covered with rock and left

in situ at the mill sites. At present, there are 524 uranium mine sites and four uranium

mill tailings sites on the Navajo Nation, as well as one tailings site on private land

adjacent to and directly upstream of the Red Water Pond Road community on the Navajo

Nation. The dam at this abandoned uranium mill tailings pond broke on July 16, 1979,

causing the largest release of radioactive material in U.S. history. People living on the

Navajo Nation continue to experience a high rate of uranium-related health effects

including cancer, respiratory disease, and renal disease, among others.[326] The Navajo

[324] Jonathan Nez and Myron Lizer, "Written Statement of the Navajo Nation Prepared for the House Committee on Natural Resources Subcommittee on Energy and Mineral Resources on Uranium Mining: Contamination and Criticality and H.R. 3405, the Uranium Classification Act of 2019," July 12, 2019, accessed April 23, 2022, https://www.congress.gov/116/meeting/house/109694/documents/HHRG-116-II06-20190625-SD013.pdf
[325] Robert J Roscoe, James, A. Deddens, Albert Salvan, and Teressa M. Schnorr, "Mortality Among Navajo Uranium Miners," *American Journal of Public Health* 85 (1995): 535–541
[326] Doug Brugge and Rob Goble, The History of Uranium Mining and the Navajo People. *American Journal of Public Health* 92, no. 9 (2002), 1410-1419.

Birth Cohort Study documented that the children of women who lived near former uranium mines had a higher rate of birth defects.[327] The legacies of uranium mining on the Navajo Nation also include an enduring political movement against uranium mining and nuclearism. An annual remembrance walk in the Red Water Pond Road community brings together Navajo, Latinx, Japanese, and other people affected by uranium and its afterlives to mark the anniversary of the mill tailings pond spill by following the path the water took from the dam to the Rio Puerco. To participate in the remembrance walk is an embodied experience; at points along the walk, members of the Red Water Pond Road community recount the events of the day in 1979 and describe the environmental, health, agricultural, and cultural effects experienced in the community in the subsequent decades.[328]

The description on the unlisted YouTube page for *Poise/End* states that the virtual reality "allows the viewer to experience lands contaminated by abandoned uranium mines, follow personal stories of Indigenous peoples impacted by nuclear colonialism, and ultimately witness how deadly the nuclear fuel cycle is."[329] *Poise/end* is part of the exhibit "Exposure: Native Art and Political Ecology" which was on display at the Museum of Contemporary Native Art in Santa Fe, New Mexico from August 20, 2021

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[327] Johnnye Lewis et al., "Environmental Exposures to Metals in Native Communities and Implications for Child Development: Basis for the Navajo Birth Cohort Study." Journal of Social Work in Disability & Rehabilitation 14, no. 3-4 (2015): 245-269.

[329] *Poise/end* is only available via direct link. While available via YouTube link, it does not appear in searches on YouTube. See: Klee Benally, Poise/End, Exhibited in "Exposure: Native Art and Political Ecology," at the Museum of Contemporary Native Art. Santa Fe, New Mexico, August 4, 2021, accessed January 6, 2022, https://www.youtube.com/watch?v=gTKdYyxmq0A&t=32s&ab_channel=IAIAMuseum ofContemporaryNativeArts

through January 23, 2022. The exhibit brings together international Indigenous responses to the impact of nuclear tests, nuclear accidents, and uranium mining on Indigenous lands and peoples. The exhibit included work by Indigenous artists from Australia, Canada, Greenland, Japan, Pacific Islands, and the United States from a variety of mediums including sculpture, beading, painting, photography, and video. Surrounded by sculptures, sound, paintings, and beadwork, *Poise/end* is easy to miss in the exhibit. There is no physical object to look at, other than a small card attached to the wall with the name and one sentence description of the virtual reality with a QR code. It is best viewed via VR headset or smart phone, with the ability to physically move in space and more naturally navigate the virtual reality, but it can also be viewed via computer and navigated by toggling buttons.

After the opening scene, the camera in *Poise/end* returns to the original landscape. This time, there is a person in view wearing a hazmat suit and carrying a Geiger counter that beeps constantly, the beeps increasing in frequency as the person approaches the viewer. Turning around in the virtual reality, the landscape looks the same from every angle; the only sign of human presence are power lines in the distance. Behind the viewer are footsteps as a woman comes into view wearing jeans, a t-shirt, and moccasins. She tells the viewer that she used to live here, nearly fifty years ago, and describes the house and yard she later evacuated when the level of radiation in that area was pronounced too dangerous for human inhabitance.

Poise/end denaturalizes the landscape's vastness and "emptiness" marked by the lack of trees, houses, or other objects protruding from the surface. As the woman describes what used to be on the homesite where she stands, we learn that the surface has

been denuded as the radioactive materials below the surface endangered all life on the surface, from the family in a three-bedroom house with an attached garage and wood flooring, to the trees growing in the front yard, to the fledgling birds who died in their nests. While located geographically on her old homesite, the affective, felt experience of the place has changed in the intervening years. What was a safe, welcoming home has been denuded and turned into a radioactive wasteland.[330]

As the viewer moves through the virtual reality, the viewer approaches the abandoned mill site, recognizable by a single line of train tracks and cement blocks that formerly grounded mill equipment. The woman describes how contamination at the surface entered the ground water, spreading radioactive material deep below the surface and moving with the groundwater, beyond the boundaries of the closed uranium mines and mill.

Rather than orienting the viewer to this nuclear landscape, *Poise/end* successfully disorients the viewer. The places and events described by the people in the virtual reality are no longer visible, having been abandoned, cleared, and covered with rock and dirt in an attempt to provide a barrier between the radioactive material and the surface. There are no markers that place the viewer in a particular geographic location, nor are there landmarks that give the viewer a sense of an archetypal geography of "home" or "forest" or "desert," for example. When the film cuts away to a scene of the Grand Canyon, the voice of Uqualla of the Havasupai tribe narrates how nuclear extraction upstream affects

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[330] Traci Brynne Voyles, *Wastelanding: Legacies of Uranium Mining in Navajo Country*, (Minneapolis: University of Minnesota Press, 2015).

his nation in the Grand Canyon. This spatial leap reorients the viewer with a direction and a familiar location. The viewer is following the path of groundwater downstream from an old uranium mill into the Colorado river.

Poise/end begins with an aerial explosion and closes with subterranean currents, both literal, in the form of ground water, and metaphorical, in the form of protestors and a pair of wire cutters used to cut an animated chain that represents the nuclear chain of production. While the opening scene was marked by desaturated gray and brown, by the end of the virtual reality film, the sky is a brighter blue and the ground is a warm rust color. The last view in the film is of the sun setting behind a person in a hazmat suit. While not currently inhabitable, human presence in the last scenes of the film gesture towards human survivance and recovery of Indigenous landscapes.

Documentary Virtual Reality

To whom is in *Poise/end* meant to speak? There is a fine line between inspiring empathy through the dissection of violent colonial processes and separating the viewers from that violence. A viewer unfamiliar with the landscape or histories of the places depicted might find the seemingly barren expanse alien and otherworldly, separating their own here and now from that which they experience in the virtual reality. The results of colonial extraction are visible, but the perpetrators are unnamed and invisible, so far removed from the virtual reality as to suggest that those institutions themselves are unreal. Rather than implicating the viewer in these colonial processes, *Poise/end* seems to hold the viewer at arm's length. The viewer remains a silent observer, unable to act or affect the scenes they experience, remaining witnesses rather than actors with agency.

The term "Virtual Reality" (VR) has been used throughout the history of the internet to refer to things from online role-playing games to contemporary usage referring to immersive digital experiences designed to be viewed through a VR headset.[331] First developed for use by the military to prepare people for war and rehabilitate them afterwards, VR of the 1990s was inaccessible to most people and was seen as a way to access environments and situations that the viewer would not otherwise experience. In other words, VR would enable people to experience the inaccessible, imaginary, and fantastical. In this vision, VR offered an alternative to the "real" world, marking a distance between virtual and real life. In the 2010s, "VR 2.0" emerged, shifting the purpose and meanings behind VR. Now, VR offered new ways of experiencing digital connections already linked via social media and the internet more generally. Furthermore, VR 2.0 recast the fantastic possibilities of VR to perceive it as a mode through which to increase empathy, promote compassion, and create intimacy between people and communities far removed from each other, where connection is only possible remotely, via the internet.[332] Unlike VR 1.0, which intentionally created a separation between the virtual and the real, VR 2.0 sought to blend the virtual and the real more intricately and enable people to experience the "real" lives of others. Lisa Nakamura traces this transition, beginning with Facebook's purchase of the virtual reality headset maker Oculus VR in 2014. "Virtuous VR," celebrated by Facebook and other media technology giants, is represented as being an "empathy machine," putting some people in the shoes of others in order to produce feelings of intimacy, connection, and compassion by

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[331] Lisa Nakamura, "Feeling Good About Feeling Bad: Virtuous Virtual Reality and the Automation of Racial Empathy," *Journal of Visual Culture* 19, no.1 (2020): 47-64, 51.
[332] Ibid., 47.

experiencing the pain and suffering of others. Engaging with documentary VR created by white producers about the lives of Black and Middle Eastern women, Nakamura argues that while virtuous VR purports feelings of empathy and masquerades as a form of political activism, virtuous documentary VR does not engender the connection or intimacy it claims to stimulate. Instead, virtuous VR often reifies the inequities it documents, bolsters the profile and earnings of large corporations such as Facebook and media outlets such as BBC, Al Jazeera, *The Guardian*, and *The New York Times*. [333] Nakamura argues that virtuous VR promotes "the idea that you cannot trust marginalized people when they speak their own truth or describe their own suffering, but you have to experience it for yourself, through digital representation, to know that it is true."[334] VR renders public the private lives of those it documents. One's suffering is not merely a personal experience or evidence of a structural issue; it is a product for consumption and entertainment, a means through which viewers come to feel politically engaged, active, and more compassionate. Keith Feldman argues VR attempts to move beyond empathy to humanization of its subjects, such that empathy results in a recognition of political personhood. Feldman writes: "In the face of a form of state violence, whose space and time seems uncontained by modern conceptions of warfare, and whose effects seem unimaginable, or exceed our normative frames of reference, these works rely on empathy as a generator of political recognition predicated on liberalism's longstanding conceptions of personhood."[335] However, this process of humanization-through-empathy

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[333] Ibid., 53.
[334] Ibid., 53.
[335] Keith P. Feldman, "Against Immersion," Presented at the American Studies Association Annual Meeting, November 9, 2018.

obscures state violence, the viewer's participation in that violence, and the agency of the subject.

Sensing Remotely

Documentary Virtual Reality claims to offer access to an embodied knowledge from a distance. In a you-are-here virtual reality documenting war, violence, and other suffering, you participate as an observer, getting a first-hand look at a reality from which you are far removed. The viewer may walk away from the VR feeling that they have experienced, and thus have intimate knowledge of, the suffering that they observed. As a visual, imagery-based tool, virtual reality is based on assumptions and understandings of knowledge creation as other technoscientific modes of understanding the world, such as remote sensing. Remote sensing is defined by the presence of three main characteristics: visual image, the aerial perspective, and the electromagnetic spectrum. In *Introduction to Remote Sensing,* Campbell and Wynne write: "Remote sensing is the practice of deriving information about the Earth's land and water surfaces using images acquired from an overhead perspective, by employing electromagnetic radiation in one or more regions of the electromagnetic spectrum, reflected or emitted from the Earth's surface."[336] As a technological process, remote sensing is the mode through which images of the earth's surface are produced.

Derek P. McCormack critiques this understanding of remote sensing for privileging ascension and elevation, vision and imaging as the primary ways though which geographic knowledge is generated, and for affirming cartographic abstraction

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[336] James B. Campbell and Randolph H. Wynne. *Introduction to Remote Sensing.* (New York: Guilford Publications, 2011).

rather than engaging with the specific, situated, and embodied.[337] McCormack argues

instead for "understanding remote sensing not so much as a technology of distanced,

elevated image capture but as a set of mobile and modest techniques through which

affective materials are sensed without direct contact or touch."[338] McCormack engages

with geographic scholarship from the 1970s that defines remote sensing as the practice of

gathering or sharing information about something without touching or interacting with it.

Thus, remote sensing is a practice through which we gain (or seek to gain) understanding

of something from a distance, without needing contact or first-person experience of that

thing. Drawing on Spinoza, Deleuze, and Massumi, McCormack theorizes perceptions of

the spectral as a form of remote sensing, asserting that the spectral, like the atmospheric

or electromagnetic, is not visible but can be sensed.

Remote sensing attempts to make intimate what is remote. This ability to sense

without direct contact suggests a relationality between sensing bodies. McCormack's

theorization of remote sensing of the spectral, or that which can be felt but may not be

visible, runs in parallel to Dian Million's theorization of felt knowledge. There are two

key elements to felt knowledge that pertain to this discussion. First, felt knowledge is

based an understanding that the felt experiences of colonialism are a legitimate form of

knowledge that informs our understandings of history. Second, this implies that history is

not a collection of abstract apolitical facts but is something lived in the current moment

through felt knowledge. While Virtual Reality seeks to enable an affective response to

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[337] Derek P. McCormack, "Remotely Sensing Affective Afterlives: The Spectral Geographies of Material Remains." *Annals of the Association of American Geographers* 100, no. 3 (2010): 640-654, 641.
[338] Ibid., 641.

and understanding of something far removed or distant, felt knowledge grounds knowledge production in affective response to one's lived experiences and inherited stories. Felt knowledge is based in the intimate and personal, mapping relationality between the person sensing and that which is being sensed, contradicting claims of remoteness. Whereas normative understandings of remote sensing suggest an *option* to sense and an ability to distance oneself as desired, felt knowledge is embodied and relational, it cannot be unmoored at will. For Million, felt knowledge is not just a result of bearing witness. Felt knowledge disrupts and disturbs colonialism, confronting dominating powers with intimate affective experience. McCormack's vision of remote sensing imagines it not as a discrete technoscientific process of capturing images of objects and surfaces, but as a process of relating what is felt to generate knowledge. This attention to relation and affect as essential to remote sensing offers a lens through which to situate felt knowledge. Here, "remote" is antithetical to affective experience. Instead, what normative logics categorize as remote can become intimate only through affective experience.

However, what appears to be remote is already intimate. Arboleda theorizes the mine as a transnational infrastructure that links geographically distant sites in a global network of extractive capitalism. "The mine is not a discrete sociotechnical object," he writes, "but a dense network of territorial infrastructures and spatial technologies vastly dispersed across space."[339] While perhaps invisible in a virtual reality, uranium mines on the Navajo Nation are already intimately connected to other sites of nuclear mining,

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[339] Martín Arboleda, *Planetary Mine: Territories of Extraction Under Late Capitalism*. (New York: Verso Books, 2020).

processing, weapon development, and war. And what could be more intimate than death? Iyko Day argues that uranium mining is a deeply colonial endeavor, creating global linkages between colonized places. Day describes how "uranium from the Belgian Congo and the Northwest Territories in Canada was used in the atomic bomb that was tested in New Mexico and detonated over Hiroshima."[340] What links sites of the nuclear fuel cycle, Day asserts, is that Indigenous peoples around the globe disproportionately experience the negative consequences of nuclear development and proliferation. Uranium and its associated nuclearism move across the globe, devastating Indigenous life in its wake.[341]

How do viewers of *Poise/end* see themselves in the virtual reality? Do they picture themselves in a hazmat suit? Do they squint in the sun? Do they wonder if the level of ionizing radiation changes as they move through the landscape? Virtual Reality attempts to use virtual spaces to not only share knowledge about the remote, but to create an embodied experience of the remote for the viewer and to engender an affective response in the viewer. However, documentary virtual realities such as *Poise/end* remain scripted and storyboarded narratives, more akin to viewing a stage performance than experiencing something firsthand. In this failure, virtual reality remains in line with representational and cartographic technologies that seek to make the other known and familiar. Scholars of feminist geopolitics highlight the need for attention to affect and performance in the use of geospatial technologies. Mei-Po Kwan writes: "Geospatial

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[340] Iyko Day, "Eco-Criticism and Primitive Accumulation in Indigenous Studies," in After Marx: Literature, Theory, and Value in the Twenty-First Century, eds. Colleen Lye and Christopher Nealon, (Cambridge: Cambridge University Press, 2022): 40-54, 40
[341] Day, 2022.

technologies are designed, created, and used by humans, and a large proportion of their application is for understanding or solving problems of individuals and social groups. Bodies, however, are often absent or rendered irrelevant in contemporary practices of [geospatial technologies]."[342] When these technologies include people, the affective, embodied experiences of people remain obscured. Colonial territoriality and spatial representation are inseparable from the lives of people upon whom those borders are traced.

Colonial territoriality is always an intimate process for both colonized and colonizer; spatial representations are made with a choice to obscure or narrate that intimacy. While documentary virtual realities like *Poise/end* seek to narrate and demonstrate that intimacy, they fall short of creating an embodied experience of that intimacy for the viewer, instead implicating the viewer as a bystander who can observe violence, but cannot intervene, even in a virtual reality. Documentary virtual reality can memorialize colonial, imperial, and other violences. But in doing so, it relegates those violences to the realm of the virtual, the imaginary, and the distant. As virtual reality subsumes colonial and imperial violence within a narrative of global connectivity and technologically mediated empathy, it acts as what Lisa Lowe terms an "economy of affirmation and forgetting."[343] While virtual reality can script feelings of horror and

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[342] Mei-Po Kwan, "Affecting Geospatial Technologies: Toward a Feminist Politics of Emotion," *The Professional Geographer* 59, no. 1 (2007): 22-34.
[343] Lisa Lowe, *The Intimacies of Four Continents* (Durham: Duke University Press, 2015).

empathy, it does not translate those in the daily lives of either the viewers or those being filmed.

In attempting to manufacture a false sense of closeness and stir feelings of empathy, virtual reality reifies the imagined disjunctures between the colonizer and the colonized, between geographically distant locations, or temporally distant events. While you can be placed into a scene to experience via virtual reality, the space-and time-jumping of virtual reality blurs the connections between U.S. imperialism and the experiences of oppressed others. In the introduction to this dissertation, I engage Edward Said's notion of contrapuntalism as a methodology through which to understand competing and collaborative colonial projects. Contrapuntalism as a frame asserts that things which appear to be remote are in fact intimately linked, affecting and affected by processes and events outside of what appears to be relevant. Through a contrapuntal framing, we can understand that the violence experienced by the narrators of *Poise/end* is a process set in motion by U.S. imperialism, making the viewer and the viewed intimately linked. Virtual Reality allows the viewer to enter and leave the experience at will, with the ability to kindle feelings of empathy upon entry and sever feelings of intimacy upon exit.

Thunderbird Strike

Whereas in *Poise/end* the perpetrators of volumetric devastation are unnamed and far removed, video game *Thunderbird Strike* exposes the tools that enable subterranean colonial extraction. Created by Anishinaabe and Métis scholar and artist Elizabeth La Pensée, *Thunderbird Strike* features a thunderbird who protects the Great Lakes waterways from the Enbridge Line 5 oil pipeline. The player is the thunderbird,

collecting lightning by flying through clouds and striking objects on and below the surface of the earth. Striking can destroy pipeline materials and machinery and can simultaneously bring life to other objects on the screen, for example, reanimating the remains of caribou and buffalo. Unlike the aerial or oblique perspectives common in first-person shooter games, *Thunderbird Strike* is a 2D side-scrolling game, marked by a cross-sectional view that allows the player to see what is above, on, and below the surface of the earth, reminiscent of geologic cross sections that indicate stratigraphic layering. In this way, the imagery connects what is below the surface – pipelines, fossils, water – to what is on the surface – excavators, herds of caribou, and sign-carrying water protectors.

While the movement against the Dakota Access Pipeline at Standing Rock brought international attention to oil and gas pipeline development in Canada and the United States, Indigenous organizing against oil and gas pipelines preceded the #NoDAPL movement. Rather, political movements like #NoDAPL and Idle No More, which started in Canada in response to the federal government's removal of environmental protections, are punctuated moments in a long history. In these moments, ongoing resistance to colonial extraction coalesces in time and space around a particular colonial incursion.[344] *Thunderbird Strike* was in development during the #NoDAPL protests and was released shortly after and discussed within that context, despite not being directly connected to the movement. The Enbridge Line 5 and Line 3 pipelines

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[344] Naomi Klein, "Dancing the World into Being: A Conversation with Idle No More's Leanne Simpson," *Yes! Magazine,* March 6, 2013, accessed April 23, 2022, https://www.yesmagazine.org/social-justice/2013/03/06/dancing-the-world-into-being-a-conversation-with-idle-no-more-leanne-simpson

have been the object of pointed resistance from Indigenous nations as these pipelines crosscut tribal lands, treaty areas, and water bodies, putting land and water at risk. Any leaks of the pipelines could lead to environmental contamination that could also affect Indigenous nations' ability to exercise their treaty rights to hunting, fishing, and harvesting on their traditional territories. The United States and Canada have responded to Indigenous protests by increasing policing and surveillance, and extractive industry companies have hired private security firms to further surveillance, such as the use of TigerSwan at the #NoDAPL protests. This has resulted in highly militarized federal and corporate responses to Indigenous movements against pipelines.[345] So it is in this state of heightened surveillance of Indigenous land defense that the video game Thunderbird Strike was released.

Thunderbird Strike is made up of three levels. In level one, the player begins in the Alberta Tar Sands. The cross-sectional landscape is dotted on and below the earth's surface with infrastructure and machinery used to extract oil from the tar sands, both surface open-pit mining, as well as in situ mining through steam-assisted gravity drainage. The thunderbird flies through the clouds to collect lightning and navigates down to strike. When the thunderbird successfully strikes a piece of extractive equipment and infrastructure, referred to in the game as a "fatal strike," the machinery bursts into flames and disappears, gaining the player destruction points. When the thunderbird strikes animal remains under the surface, the remains are reanimated as an animal above the surface, similar to animals already on the surface, except with a slight glimmer of

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[345] Anne Spice, "blood memory: the criminalization of Indigenous land defense," in *For Antifascist Futures: Against the Violence of Imperial Crisis,* eds. Alyosha Goldstein and Simón Ventura Trujillo, (Brooklyn: Common Notions, 2022).

blue around the reanimated body. This is "activation" and earns the player "restoration" points. The thunderbird can also strike animals that are already on the surface, earning neutral points. At the end of each level, the game displays the players destruction, restoration, and neutral points, as well as a total score comprised of points earned in all three categories. Players may choose what types of points to earn or emphasize. It is not necessary to earn a particular type of point in order to move to the next level. In level two, the thunderbird flies over the Saskatchewan prairies. Level two functions like level one; there is oil infrastructure, machinery, and vertebrate animal remains below the surface which the thunderbird strikes to earn destruction or restoration points. In this level, semi-trucks carrying pipelines move across the surface and parts of a pipeline are already placed underground. Humans walk along the surface of the earth, holding signs with protest slogans. Level three takes place in the Straits of Mackinac which connects Lake Huron and Lake Michigan. Now, the thunderbird flies through the clouds above the Great Lakes. A large black snake appears across the left side of the screen, jointed like pipes, with the pipe fittings visible in regular lengths along its body. The snake's head in the clouds at the level of the thunderbird and its body weaves as it spits out large gray rocks that the thunderbird must strike to stop them from polluting the lakes. Early in level three, a small leak of black oil begins to seep out of one of the pipe joints of the snake. The oil disperses and spreads over the course of the game. By the game's end, the water of the Great Lakes has changed color from a light turquoise green to a dark green-black.

Indigenous Aesthetic as Counterinsurgent Threat

Upon its release in 2017, the game was met with a vocal backlash, as oil lobbyists and a state legislator attempted not only to shut down the game but proposed new

legislation that would closely regulate state grant funding for artistic projects.[346] For these lobbyists and legislators, the two-dimensional world of *Thunderbird Strike* posed a greater threat to life than any of the dangers of oil production or transportation. By their representation, the video game's thunderbird became an aerial insurgent, instigating "eco-terrorism," attempting to twist game play into violence against capitalist ventures in the colonial state.[347] LaPensée situates this video game in relation to Gerald Vizenor's theorization of survivance, beyond survival to a "nourishing [of] Indigenous ways of knowing."[348] While the lobbyists and legislator see the thunderbird and the game itself as a technological attack by insurgents, for LaPensée, the thunderbird, clouds, and fauna reanimated through lightning strikes gesture towards a future in which Indigenous ways of being and knowing flourish.

Joanne Barker argues that representations of Indigenous peoples, such as those representations of *Thunderbird Strike* by lobbyists and legislators, are a reenactment of the "social relations and material conditions of invasion, occupation, exploitation, and appropriation" and that this reenactment is necessary for the state to continue to

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[346] Caleb Parke, "Eco-terrorism? Anti-Pipeline Video Game Under Fire for Putting Lives at Risk, Group Says," Fox News, October 26, 2017, http://www.foxnews.com/us/2017/10/26/eco-terrorism-anti-pipeline-video-game-under-fire-forputting-lives-at-risk-group-says.html ; Matt McKinney, "Minn. Lawmaker Wants to Tighten Arts Grant Rules after Video Game Labeled as 'Ecoterrorism'," *Star Tribune*, October 28, 2017, http://www.startribune.com/lawmaker-wants-to-tighten-arts-grant-rules/453656383/; Melissa Turtinen, "Bill Approved to Prevent Legacy-funded Art Projects from Promoting Domestic Terrorism, Criminal Activity," Minnesota House of Representatives, March 19, 2018, https://www.house.leg.state.mn.us/SessionDaily/Story/13126

[347] Elizabeth LaPensée, "Thunderbird Strike: Survivance in/of an Indie Indigenous Game," *Video Game Art Reader* 2, no. 1 (2018): 28-37.
[348] Ibid.

expand.[349] Identifying Indigenous peoples as terrorists, or Indigenous video games as a practice of aerial insurgency, provides the state with a threat upon which to act, an opportunity to justify its own violent expansion.

Inherent to the construction of Indigeneity is a state of opposition.[350] Indigenous peoples have a historic and contemporary relationship to the lands they inhabit, in conflict with colonial states, a tension that is amplified by a political consciousness against dispossession and colonization. This creates what Alfred and Corntassel term an "oppositional, place-based existence…that fundamentally distinguishes Indigenous peoples from other peoples of the world."[351] While foundational to Indigenous political struggle, this understanding of Indigeneity is coopted by the state to see Indigenous presence as an ongoing threat to colonial territoriality. The oppositional is always a threat to the state, linking Indigeneity to insurgence, Indigenous to terrorist. Barker theorizes the Indigenous terrorist via two key framings, the Murderable Indian and the Kinless Indian. Of particular importance to the discussion here of *Thunderbird Strike,* the Murderable Indian is a terrorist by nature of their threat to settler/state safety, stability, and security. Already a terrorist before acting, the threat of the Murderable Indian allows the state to frame colonization not only as inevitable but necessary to ensure the safety of the state.

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[349] Joanne Barker, *Red Scare: The State's Indigenous Terrorist* (Berkeley: University of California Press. 2021): 5.
[350] Taiaiake Alfred and Jeff Corntassel, "Being Indigenous: Resurgences Against Contemporary Colonialism." *Government and Opposition* 40, no. 4 (2005): 597-614.
[351] Ibid., 597.

Byrd engages founding documents of the United States to query the nation-state's correlation of Indigenous with terrorist. Byrd quotes the Declaration of Independence: "He…has endeavored to bring on the inhabitants of our frontiers, the merciless Indian Savages whose known rule of warfare, is an undistinguished destruction of all ages, sexes, and conditions," arguing that this exemplifies the nation-state's construction of Indigenous as terrorist, as both foreign and subordinate to the colonial state.[352] For Byrd, U.S. colonialism and imperialism is predicated on the "becoming savage" of those whom the state sees as a threat to empire: "This notion of becoming savage is what I call the transit of empire, a site through which the United States, with ties to Enlightenment and Victorian colonialisms, propagates itself through a paradigmatic "Indianness" tied now to the global ascendency of liberalism."[353] Making the Other savage justifies and enables colonial expansion, dispossession, and other violences.

The possibility of sensing remotely is stymied by the ways in which the terrorist other is construed as less than human, unfeeling, and savage. While *Poise/end* attempts to make the remote intimate for those who do not have personal experience of nuclear colonialism, and *Thunderbird Strike* attempts to place intimate political struggle into an imagined world, both goals are precluded by the colonial association of Indigenous with terrorist. For *Poise/end* to evoke empathy for the people who visit the virtual reality, it must also challenge assumptions of Indigenous peoples as savage, ungrievable, and murderable such that the losses the viewer observes are seen not as inevitable, but as

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[352] Jodi A. Byrd, *The Transit of Empire: Indigenous Critiques of Colonialism.* (Minneapolis: University of Minnesota Press, 2011): xxi.

[353] Ibid., 10.

terrors themselves. If *Thunderbird Strike* is to activate a feeling of intimacy in political struggle, it must expose colonial assumptions of Indigenous as equivalent to terrorist.

Navigating the Vertical

In *Thunderbird Strike*, the player-as-thunderbird flies both horizontally and vertically, crosscutting the boundaries between air, surface, and underground, gathering energy in the clouds and releasing it as targeted hits on and below the surface. In its navigation of the horizontal and vertical, as well as its facility for precision hits, the thunderbird is reminiscent of drones used in U.S. imperial warfare. Recent scholarship on colonial surveillance of Indigenous movements pays particular attention to the drone and its use for colonial surveillance as well as Indigenous countersurveillance, sousveillance, and territorial self-representation.[354] For both surveillance and countersurveillance, the drone is favored for its ability to blend in and be almost unnoticeable. It can capture wide angles and physically zoom in for a close-up image. The operator of the drone may be close by or operating the drone remotely. The operator is protected from any assault on the drone and can even remain anonymous. Images collected by drone can be shared quickly and seamlessly, making evidence public that can affirm or contradict dominant narratives.

Indigenous countersurveillance via drone extends the contestation over Indigenous territories from the surface into airspace. Kaplan argues that the rise in

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[354] Jaime Paneque-Gálvez, Nicolás Vargas-Ramírez, Brian M. Napoletano, and Anthony Cummings, "Grassroots Innovation Using Drones for Indigenous Mapping and Monitoring." *Land* 6, no. 4 (2017): 86. Sarah Tuck, "Drone Vision and Protest," *photographies* 11, no. 2-3 (2018): 169-175. Dennis Zuev and Gary Bratchford. "The Citizen Drone: Protest, Sousveillance and Droneviewing." *Visual Studies* 35, no. 5 (2020): 442-456.

civilian use of small drones, and in particular the use of small drones in Indigenous

protests, produces an understanding of airspace that "does not reinforce the state violence

of no-fly zones and regulatory restrictions."[355] Caplan describes the contested airspace

over the camps protesting the construction of the Dakota Access Pipeline, a proposed

11,712-mile pipeline that would transport oil from North Dakota to Illinois. The airspace

above the camps was populated by small drones operated by the police, journalists, and

water protectors, who both documented their daily life in the camps and conducted

countersurveillance of the police forces nearby. Kaplan writes: "Claiming airspace,

carefully surveying the land itself, referencing landmarks of special interest, noting

places of significance to tribes, establishing a landscape aesthetic based on Indigenous

sacred and political values, and sharing these images and narratives via social media –

such practices not only disturbed the usual liberal discourse of 'public order' but

introduced new political actors, human and non-human, and an Indigenous

'mediacosmology.'"[356] As a form of witnessing, drone vision invites the viewer into an

affective relationship with the images and videos produced and may potentially introduce

viewers to new ways of seeing.[357]

Horizontal and vertical navigation of a drone does not necessarily have to

replicate settler ways of knowing and seeing land. Instead, as Tuck asserts, the use of

drones by water protectors at the #NoDAPL protests offers the "potential of drone vision

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[355] Caren Kaplan, "Atmospheric Politics: Protest Drones and the Ambiguity of Airspace." *Digital War* 1, no. 1 (2020): 1-8.
[356] Ibid., 5.
[357] Anjali Nath, "Touched From Below: On Drones, Screens and Navigation." *Visual Anthropology* 29, no. 3 (2016): 315-330.

to produce new forms of relational experience."[358] How a drone operates and what it pays attention to is dictated by the drone operator and the ontologies and epistemologies that shape their ways of seeing and representing landscapes. However, critical surveillance studies scholar J.D. Schnepf cautions that the distribution of images collected via drone surveillance is inseparable from global media networks and state infrastructure regardless of its intended purpose.[359] For example, as discussed in Chapter 1, India's shutdown of the internet in occupied Kashmir and Indigenous territories in India's northeast prevents any distribution of digital images, severely limiting the effectiveness of countersurveillance via drone. Any images collected by drones and shared via global networks and infrastructure are always at risk of being coopted and used by the state, implicating those in opposition to the state in their own surveillance.

Perhaps what cannot be seen through the aerial perspective offers greater potential than an Indigenizing of the aerial. LaPensée's play with the cross-sectional view of the thunderbird's flight takes on this tension, generating an image from a perspective that cannot be achieved through drone, aerial photograph, or remote sensing. Though acting as the thunderbird, the player can see a vertical display of everything happening above, on, and below the surface of the earth, a perspective more expansive than the aerial perspective can claim to be.

"Digital navigations," writes Anjali Nath, "generate both the world users create through their interactions (and the interface with that world), as well as the subject

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[358] Tuck, 2018.

[359] J. D. Schnepf, "Unsettling Aerial Surveillance: Surveillance Studies After Standing Rock," *Surveillance & Society* 17, no. 5 (2019): 747-751.

positions that emerge from these navigational practices."[360] As a practice of witnessing, *Poise/end* and *Thunderbird Strike* attempt to make the remote intimate. Rather than simply offering a window into another's experience, these digital projects engage in a world-making vision where the intimacy of spatialized colonial violence is not only exposed but challenged.

Conclusion

In closing, this chapter reads Indigenous landscape representations that center the subterranean as epistemological challenges to colonial divisions between the surface and subsurface. While technologically mediated remote sensing attempts to make the remote intimate, what differentiates *Poise/End* and *Thunderbird Strike* from normative forms of remote sensing is the reorientation to the linkages between the surface and the subterranean. Rather than see these as discrete sites which can be claimed and capitalized upon in distinction from each other, these virtual spatial representations seek to expose the intimate connection and co-constitution of these vertical relationships. As I have shown, contemporary surveillance technologies are built around an assumption that spatial data can be collected on and about Indigenous lands without engaging in those places or with the people surveilled. The Indigenous digital projects discussed in this chapter attempt to make the remote intimate not through aerial surveillance, but by placing the viewer and player within the political landscape to be confronted with the

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[360] Anjali Nath, "Touched From Below: On Drones, Screens and Navigation," *Visual Anthropology* 29, no. 3 (2016): 315-330, 318.

material reality of colonial subterranean extraction. Extraction is not merely under the surface but has rippling effects across the surface.

I have limited my analysis here to the digital both as a means of settler colonial land claims and as a site of Indigenous meaning-making and expressions of territorial sovereignty. In the next chapter, I discuss Indigenous cartographic approaches to spatial justice that also challenge colonial systems of recognition of Indigenous territory, and that further highlight the connections between surface and subterranean.

Chapter Six

Putting Indian Country on the Map: Indigenous Practices of Spatial Justice

In October 2013, subsidiaries of Google Maps kicked off the first annual "Map Your Indigenous Community Month," inviting so-called "affiliates" of Indigenous nations to make edits, add landmarks, and use native languages to enhance Google Maps products. This initiative was cast as an opportunity for Indigenous peoples around the world to take control over representations of their communities.[361] In this chapter, I examine Google Maps' initiative in the context of two mapping collaborations based at Zuni Pueblo in order to understand how ongoing colonization of Indigenous lands can masquerade as self-determination. These projects challenge resource extraction on Zuni territory and represent Zuni sovereignty outside of settler notions of tribal sovereignty. Indigenous feminist spatial representations challenge settler sovereignty and practice accountability to Indigenous epistemologies and ontologies. In doing so, they challenge normative practices of counter-mapping to assert Indigenous nationhood. Furthermore, the mapping practices analyzed here engage the subterranean, the volumetric, and the oblique in ways that add complexity to representations of Indigenous landscapes and articulate a volumetric understanding of territory and Indigenous sovereignty.

The purpose of this chapter is to bring key theorizations of Indigenous studies about territory in conversation with scholarship on mapping and justice to examine how

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[361] "Map Your Indigenous Community Month FAQ," Google Maps, accessed November 11, 2015, https://sites.google.com/site/mapyourworldcommunity/indigenous-mapping-day-faq

mapping is co-constitutive of both the dispossession of Indigenous land through extractive industry and of articulations of Indigenous sovereignty. I take up Sherene Razack's notion of "unmapping," Mishuana Goeman's notion of "(re)mapping" settler cartographies, and Laura Harjo's theorization of emergence geographies and propose a methodological intervention in which Indigenous feminist spatial practices are viewed and put into action as tools in struggles for Indigenous nation-building, a process and practice that I refer to as Indigenous spatial justice.[362]

I argue that unmapping and (re)mapping offer a method through which Indigenous nations assert their nationhood and claims to territory, even at the risk of illegibility to the settler state. I consider three questions: First, what risk does counter-mapping pose to Indigenous nations as they seek to make claims legible to the settler state? Second, how do Indigenous feminist landscape representations expose the fallacy of settler innocence and re-politicize representations of Indigenous landscapes? And third, how do Indigenous peoples re-center Indigenous epistemologies and ontologies to assert claims to Indigenous nationhood? Finally, I conclude by considering the practices of unmapping and (re)mapping within the context of Laura Harjo's four tools of Mvskoke futurity as a model for how we might map Indigenous spatial justice.

The visual archive I analyze here comes from visual cultural production in the public domain created through community initiatives at Zuni Pueblo, a tribal nation in

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[362] Mishuana R. Goeman, "Notes toward a Native Feminism's Spatial Practice." *Wicazo Sa Review* 24, no. 2 (2009): 169-187; Laura Harjo, *Spiral to the Stars: Mvskoke Tools of Futurity*. (Tucson: University of Arizona Press, 2019); Sherene Razack, *Race, Space, and the Law: Unmapping a White Settler Society* (Toronto: Between the Lines, 2002).

northwestern New Mexico. My method is rooted in visual analysis as a methodology of cultural studies. I consider the images in this visual archive, including maps, photographs, paintings, and billboards, as artifacts which, to paraphrase visual culture scholar Nicholas Mirzoeff, speak for and about Indigenous spatialities, rather than simply illustrating them.[363]

This chapter is indebted to two strands of Indigenous knowledge production: First, the tremendous creative, technological, scholarly, and community-based knowledge production around mapping, Indigenous archives, and data sovereignty that has been developed by Zuni Pueblo in collaboration with Indigenous nations, scholars, cartographers, and community practitioners around the world. Scholarly interest in cartographic representations of Zuni Pueblo was crystallized in the publication of *A Zuni Atlas*, a collection of 44 maps accompanied by narrative text describing the maps' subjects, from hunting grounds to traditional mineral collection areas, houses and clans, and non-Zuni settlement in areas of Zuni sovereignty.[364] Since then, Zuni Pueblo has become a recognized leader in global Indigenous mapping movements, from work with the Indigenous Communities Mapping Initiative and the A:shiwi A:Wan Museum and Heritage Center.[365]

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[363] Nicholas Mirzoeff, *The Right to Look: A Counterhistory of Visuality* (Durham: Duke University Press, 2011.)

[364] T.J. Ferguson, and E. Richard Hart, *A Zuni Atlas* (Norman: University of Oklahoma Press, 1985).

[365] I lived at and worked for Zuni Pueblo for several years where I had the privilege of participating in this conversation about Indigenous mapping through my classroom at Zuni High School. This chapter is a continuation of that conversation.
For scholarship on mapping at Zuni Pueblo, see: Gwyneira Isaac, ""Get to Know Your World": An Interview with Jim Enote, Director of the A: shiwi A: wan Museum and Heritage Center in Zuni, New Mexico," *The International Handbooks of Museum*

Second, this chapter relies on scholarship from Indigenous, feminist, and Indigenous feminist theorizing about territory, sovereignty, and mapping. Drawing on a rich genealogy of geographic scholarship on counter-mapping as well as political theory on sovereignty, state, and territory, Indigenous feminist scholars relate how normative assumptions of cartographic production are challenged by Indigenous and feminist ways of understanding space, place, and mapping. In turn, Indigenous feminist approaches to spatial justice challenge scholars and practitioners of counter-mapping to critically examine approaches to mapping Indigenous territories, even those that attempt to resist colonial boundaries, representations, and ways of understanding space and place. Here, I focus on the understandings of Indigenous space, place, and mapping articulated in the work of Mishauna Goeman, Sherene Razack, and Laura Harjo, through their respective concepts of remapping, unmapping, and emergence geographies. Rather than categorizing instances of Indigenous mapping as either feminist or not feminist, I am interested in how Indigenous feminist approaches to Indigenous spatialities shift, add to, or challenge our assumptions about Indigenous space, place, and mapping.

Google Maps Indian Country

Perhaps the most well-known organization to initiate Indigenous counter-mapping is Google Maps. Collaboration between Google Maps and the National Congress of American Indians (NCAI) resulted in an event on August 9, 2013, to mark the United

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Studies: Museum Transformations, eds. Annie E Coombes and Ruth B. Philips, (Hoboken: John Wiley and Sons, Inc., 2015): 289-309; Clay Scott, Alvin Warren, and Jim Enote, eds., *Mapping Our Places: Voices from the Indigenous Communities Mapping Initiative. (*Berkeley: The Initiative, 2005).

Nation's International Day of the World's Indigenous Peoples. Google Maps and NCAI

encouraged Indigenous people in the United States to gather on August 9 and use

Google's mapping tools to edit Google Maps' current spatial data on Indigenous

communities. NCAI's goal was to "empower tribes and tribal citizens to actively

participate in how tribal lands and communities are represented on Google Maps."[366]

Two months later, Google Maps independently organized and advertised October as an

annual "Map Your Indigenous Community Month."[367]

Google Maps staged online trainings about Google Map Maker tools and

recruited communities to host MapUps, in-person mapping events within classrooms or

communities. Google Maps argued that Indigenous communities are "underrepresented in

the world of digital maps" and offered its initiative as a call to action to "build the most

comprehensive, digitally preserved maps of Indigenous lands across the globe."[368]

Google Maps suggested that this initiative would right a wrong of underrepresentation of

Indigenous communities and make individuals' lives easier by having more accurate data.

MapUp trainings focused simultaneously on data security and on converting data from

proprietary to open formats.

Counter-mapping refers to cartographic work created in opposition to colonial

cartography, but by working within the terms and framing of colonial cartography, it is

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[366] "NCAI and Google Maps Partner for Indigenous Mapping Day Today – August 9, 2013" National Congress of American Indians, August 9, 2013, http://www.ncai.org/news/articles/2013/08/09/ncai-and-google-maps-partner-for-indigenous-mapping-day-today-august-9-2013
[367] "October 2014 is Map Your Indigenous Community Month," 2014, accessed November 11, 2015, https://sites.google.com/site/mapyourworldcommunity/indigenous-mapping
[368] "October 2014 is Map Your Indigenous Community Month," 2014.

always at risk of cooptation. Primarily used to describe maps created by Indigenous

people to contest colonial claims to resources and territories, counter-mapping has been

taken up to describe both Indigenous and non-Indigenous efforts internationally and used

to advocate policy change and make claims to territory and resources.[369] Counter-

mapping intersects with methods such as participatory mapping, in which mapping

efforts draw on the knowledge and experience of people who are generally not conceived

of as cartographers. These counter-mapping efforts often involve the use of methods and

tools such as Geographic Information Systems (GIS) and Geographic Positioning

Systems (GPS) to make the claims of Indigenous nations legible to the structures they

contest.[370] Critics argue that counter-mapping empowers a few while further

marginalizing those it claims to benefit, particularly overlooking the knowledge and

experiences of women, children, and other disenfranchised groups. Counter-mapping has

also been critiqued as a product of neoliberal governmentality, as "these strategies do not

reverse colonial social relations so much as they rework them."[371] Counter-mapping is

also at risk of engaging Indigenous peoples in surveillance of their own communities and

territories, as occurred during the Bowen expeditions in which the US Department of

Defense funded community mapping projects in Indigenous communities in Mexico and

used the data collected as counterinsurgency intel.[372]

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[369] Nancy Lee Peluso, "Whose Woods are These? Counter-Mapping Forest Territories in Kalimantan, Indonesia," *Antipode: A Journal of Radical Geography* 27, no. 4 (1995): 383-406.

[370] Joel Wainwright and Joe Bryan, "Cartography, Territory, Property: Postcolonial Reflections on Indigenous Counter-Mapping in Nicaragua and Belize." *cultural geographies* 16, no. 2 (2009): 153-178.

[371] Ibid.

[372] Joe Bryan and Denis Wood, Weaponizing Maps: Indigenous Peoples and Counterinsurgency in the Americas (New York: Guilford Press, 2015); Joel

In the early twenty-first century, developments making digital mapping technologies more widely available popularized technologies such as Geographic Information Systems (GIS). For Native nations, GIS was heralded as a panacea which could aid land and natural resource management, develop and support legal land claims, strengthen services such as emergency response systems, and catalog and archive cultural knowledge and language.[373] In geographic literature, much has been published about the contested nature of cultural knowledge and language within maps, with great attention to privacy, access, and sources of data.[374] In the wake of the "wikification of GIS" and emergence of a "geography without geographers" spurred on by interactive web-based mapping programs such as Google Maps, questions about data privacy, access, and sources continue to be raised in Indigenous mapping efforts.[375] Some scholars of Indigenous geographies theorize counter-mapping through an "Indigenous GIS," combining Indigenous epistemologies with colonial cartographic technologies.[376]

Wainwright, Geopiracy: Oaxaca, Militant Empiricism, and Geographical Thought. (London: Palgrave Macmillan, 2012).

[373] Jay T. Johnson, Renee Pualani Louis, and Albertus Hadi Pramono, "Facing the Future: Encouraging Critical Cartographic Literacies in Indigenous Communities," ACME: An International Journal for Critical Geographies 4, no. 1 (2005): 80-98.

[374] Renee Pualani Louis, "Indigenous Hawaiian Cartographer: In Search of Common Ground." Cartographic Perspectives 48 (2004):7-23; Renee Pualani Louis, Jay T. Johnson, and Albertus Hadi Pramono, "Introduction: Indigenous Cartographies and Counter-Mapping."Cartographica: The International Journal for Geographic Information and Geovisualization 47, no. 2 (2012): 77-79

[375] Daniel Z Sui, "The Wikification of GIS and its Consequences: Or Angelina Jolie's New Tattoo and the Future of GIS." Computers, Environment and Urban Systems 32, no. 1 (2008):1-5; [375] Louis, 2004.

[376] Johnson, Louis, and Pramono, 2005; Louis, 2004; Louis, Johnson, and Pramono, 2012.

Google Maps' emphasis on the underrepresentation of Indigenous peoples in the "world of digital maps" misconstrues Indigenous resistance in two ways. First, the emphasis on underrepresentation within digital maps suggests that this "world" is one of the few locations in which Indigenous peoples are not represented. Google skews the conversation through the use of the word "underrepresented," as though adding landmarks on representations of Indigenous reservations will produce a more equitable cartography and, perhaps, world. Indigenous peoples' presence is erased in digital maps such as Google Maps as Indigenous lands, peoples, and movements are replaced by colonial boundaries, markings, labels, and inhabitants. In Google Maps and other colonial cartographic representations, Indigenous lands are overlain by cities, subdivided by highways, or re-represented as rural, isolated reservations. Second, by focusing on the "wrong of underrepresentation," Google Maps asserts that injustices against Indigenous peoples are merely issues of representation. This language depoliticizes the landscape representations Google Maps promotes, deliberately ignoring the conditions of genocide and dispossession which created this "underrepresentation."

For this initiative, Google Maps sought to recruit Indigenous "affiliates," which included not only those with citizenship in an Indigenous nation or membership in an Indigenous community, but also government or non-profit employees who worked within Indigenous communities. The term "Indigenous communities" was used exclusively, and the political status of Native peoples as sovereign nations in the United States, for

example, was noticeably absent.[377] The online form to register a MapUp privileged

categories of Indigenous "affiliate," requesting that the registered MapUp host work with

a formal institution such as a non-profit or school. While there was extensive

documentation regarding how to participate in Map Your Indigenous Community Month,

following the event, there was no direct way to identify which Indigenous communities

were mapped as part of this initiative, what was mapped, or the affiliations of the

mappers.

The temporality of Google Maps' initiative – Map Your Indigenous Community

Month – indicated that Indigenous spatial representation is extraneous to the business of

mapping. In this case, Indigenous presence is represented on a map only after the real

work of mapping boundaries of recognized nation-states, places of commerce, and the

structures that link them. This turn also marks the hierarchy of claims to territory and

nationhood. Google Map Maker's Frequently Asked Questions for Map Your Indigenous

Community Month addresses Google Maps' stance on Indigenous land claims succinctly:

> Question: Can I edit the boundaries for my reservation, reserve,
>
> Rancheria, pueblo, treaty area, etc.?

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[377] "October 2014 is Map Your Indigenous Community Month," Google Maps, accessed
November 11, 2015, https://sites.google.com/site/mapyourworldcommunity/indigenous-
mapping

Answer: No. In order to protect the integrity of your local maps, boundaries and borders for Indigenous lands are locked in Google Map Maker – similar to those of cities, states, and countries.[378]

In other words, Google Maps reifies colonial territorial claims, prohibiting map contributors from engaging in claim-making or decolonial imaginaries which challenge colonial jurisdiction and cartographies.

While Google Maps originally collaborated with NCAI for "Indigenous Mapping Day," Google Maps independently designed "Map Your Indigenous Community Month." My critique here focuses on the administrative guidelines of the latter project and, therefore, on Google Maps. The explicitly stated intentions of the two projects are themselves contradictory. The tension between NCAI's administrative language around the first event and that of Google Maps for the second is striking. Google Maps FAQ for "Map Your Indigenous Community Month" emphasized that the "boundaries and border for Indigenous lands are locked" to "protect the integrity" of the maps. In contrast, NCAI's language around the first event centered Indigenous sovereignty and nationhood: "Place is one of the most important values for Indigenous peoples – our place includes our sovereignty, our culture, our resources, and our ways of connecting with each other and other nations. This project is an exciting start to reclaiming and establishing our rightful place in the world."[379] Far from preserving the integrity of a map, to preclude the re-drawing of Indigenous national boundaries implies not only that the colonial project is

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[378] "Map Your Indigenous Community Month FAQ," Google Maps, https://sites.google.com/site/mapyourworldcommunity/indigenous-mapping-day-faq
[379] "NCAI and Google Maps Partner for Indigenous Mapping Day Today – August 9, 2013," 2013.

complete and uncontested, but that Indigenous peoples are confined by those boundaries. Google Maps' focus on identifying, naming, and labelling public places such as hospitals, schools, tribal buildings, and ATMS to improve Google driving directions is underlain by its assumption that Indigenous people live in rural, isolated spaces. By Google Maps' estimations, urban spaces where buildings and landmarks are already mapped, are not Indigenous spaces. Google Maps' practice of leaving Indigenous territory empty and representing it as a space yet-to-be populated with landmarks reinforces the settler colonial frontier imaginary. Initiatives such as Map Your Indigenous Community Month further implicate Indigenous nations in the very process of colonial mapping. Here, counter-mapping is complicit with colonial mapping. Google Maps claimed that this project would "put Indian country on the map." Where was it before?

Indigenous Feminist Approaches to Spatial Justice

Colonial processes may attempt to define the city as non-Indigenous space, but cities, and other spaces, places, and scales in which Indigenous peoples live, are not confined by these binary boundaries of Indigenous vs. non-Indigenous space.[380] Instead, asserts Julie Tomiak, Indigenous peoples repurpose colonial and neoliberal arrangements of space to contest their own marginalization, remaking sites such as urban reserves in Canada as sites of potential transformation and exemplifying the complexity of Indigenous spaces and places.[381] Added to this complexity are the tensions within attempts to represent these places and spaces. Counter-mapping may reify, reinforce, and

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[380] Natchee Barnd, *Native Space: Geographic Strategies to Unsettle Settler Colonialism*. (Corvallis: Oregon State University Press, 2017).
[381] Julie Tomiak, "Contesting the Settler City: Indigenous Self-Determination, New Urban Reserves, and the Neoliberalization of Colonialism" *Antipode* 49, no. 4 (2017): 928-945

extend settler boundaries even as it seeks to challenge dominant mapping practices; and still, counter-mapping may simultaneously create conditions of possibility for decolonial ways of representing space and place, as Dallas Hunt describes in his analysis of settler artist Sylvia Borda's art installation "Every Bus Stop in Surrey, BC."[382]

An Indigenous spatial justice framework can help us identify how Indigenous nations reclaim space and resist colonial violence. In "Subversive Spaces: First Nations Women and the City," Evelyn J. Peters denaturalizes the city as a settler space and refocuses attention on the city as a space of "alternative geographies of rights and identity imagined by urban First Nations women."[383] Through an analysis of interventions at the 1992-93 Public Hearings of the Canadian Royal Commission on Aboriginal Peoples, Peters demonstrates how the subversive geographies of First Nations women contest emerging geographies of race and patriarchy through "nation talk" and "culture talk." Through nation talk, First Nations women assert the need for partnership between men and women in nation-building and self-government. Through culture talk, First Nations women challenge settler geographies and claim urban spaces as legitimate spaces to regain, recreate, and revalue cultural practices. Peters demonstrates how colonial processes defined the city as a non-Indigenous space to highlight how First Nations women reimagine urban spaces as sites of Indigenous nation-building and self-

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[382] Dallas Hunt, "Every Bus Stop a Tomb: Decolonial Cartographic Readings Against Literary, Visual, and Virtual Colonial Claims to Space," *Cartographica: The International Journal for Geographic Information and Geovisualization* 55, no. 3 (2020): 199-206.
[383] Evelyn J. Peters, "Subversive Spaces: First Nations Women and the City." *Environment and Planning D: Society and Space* 16, no. 6 (1998): 665-685, 668.

determination. Peters illustrates the spatiality of both violence against Indigenous women and of Indigenous women's resistance and resurgence.

This focus on the spatiality of both violence and resistance is an essential question of Indigenous feminist theorizations of space and place. In "Notes Towards a Native Feminism's Spatial Practice," Mishauna Goeman articulates three characteristics and goals of Native feminist spatial discourse: First, Native feminist spatial practices present alternative methods of reading space, race, gender, and nation that link spatial practices and political challenges to ongoing colonialism.[384] Second, Native feminist spatial practices challenge the assumption of the "truth" of colonial spatial representations while asserting Native epistemologies. And third, Native feminist spatial practices provide paths to address the boundaries (urban/rez, men's space/women's space) that are drawn by colonial maps.[385] The violence of colonial cartography extends not just to the landscape or to the community or nation, Goeman suggests, but directly targets individual lives. Spatial control, articulated through colonial cartography, directly affects the lives of Indigenous women, as they experience physical violence, murder, rape, and imposed gender and family roles. In contrast to colonial cartography that makes claims about land, Native feminist spatial practice involves "sharing where one is from and learning to live with each other."[386] For Goeman, this sharing and learning mediates the impact of colonial spatial claims. While Indigenous counter-mapping projects have been taken up to demonstrate past occupancy or land use to make contemporary claims to land, a Native feminist spatial practice pushes beyond the limits of counter-mapping to assert

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[384] Goeman, 2009.
[385] Ibid., 184.
[386] Ibid., 175.

Indigenous space across scales of time. While historically rooted, "this Native spatial practice is as much about the future as the past."[387] In other words, Indigenous spatialities are not static, but emerge and change over time and even take shape through projections of desired futures.

Indigenous spatial justice appears in formative texts by scholars of race, space, and gender. In "The Case of Pamela George: Gendered Racial Violence and Spatialized Justice," Sherene Razack narrates the story of the legal case against two white men who murdered an Indigenous woman.[388] Razack argues that spaces are marked as respectable or degenerate and, therefore, people within those spaces are marked as respectable or degenerate, and surveillance of both spaces and people is seen as natural and necessary. When Indigenous spaces are marked as degenerate, the death of Indigenous people within those spaces is seen as an inevitable consequence of inhabiting those spaces. Razack links the circumstances of this trial to the long and ongoing history of settler colonialism and dispossession of Indigenous lands. Razack asserts: "I want to denaturalize the spaces and bodies described in the trial in an effort to uncover the hierarchies that are protected and the violence that is hidden when we believe such spatial relations and subjects to be naturally occurring. To unmap means to historicize, a process that begins by asking about the relationship between identity and space."[389] Using a spatial justice framework to examine settler colonialism allows us to examine the interconnections between the dispossession of Indigenous territory and violence against Indigenous women and

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[387] Ibid., 179.
[388] Sherene Razack, *Race, Space, and the Law: Unmapping a White Settler Society*. (Toronto: Between the Lines, 2002).
[389] Razack, 2002, 128.

girls. Unmapping, then, is the process of denaturalizing spatialized relations of power, placing it in contrast to processes such as counter-mapping that articulate uneven power relations without necessarily challenging the existence of the power relation itself.

Other scholars reject counter-mapping in favor of landscape representations which challenge colonial cartography and re-center Indigenous methods. In *Space, Race, and the Law: Unmapping a White Settler Society,* Sherene Razack interrogates how space is racialized through law under settler colonialism. Razack argues that the process of "unmapping" denaturalizes the presumed relationship between place and race: "Just as mapping colonized lands enabled Europeans to imagine and legally claim that they had discovered and therefore owned the lands of the 'New World', unmapping is intended to undermine the idea of white settler innocence… and to uncover the ideologies and practices of conquest and domination."[390] Counter-maps propose an alternative perspective to colonial maps; the process of unmapping rejects colonial cartographic categories altogether.

Mishuana Goeman uses "(re)mapping" to unsettle imperial and colonial geographies in *Mark My Words: Native Women Mapping Our Nations.* This term refers to the use of new and traditional stories as a means of map-making and survivance of Native women. Goeman intervenes in critical cartography, arguing that (re)mapping means privileging Indigenous spatial practices over colonial cartographic methods: "To begin to (re)map the settler nation," Goeman writes, "we must start with Native forms of mapping and consider Native-made spaces that are too often disavowed, appropriated, or co-opted by the settler state through writing, imagining, law, politics, and the terrains of

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[390] Ibid., 128.

culture."[391] Both Razack's unmapping and Goeman's (re)mapping require those who make landscape representations to re-politicize spaces previously represented as apolitical. These practices mark tensions between representations of nation-states such as the United States and Native nations such as Zuni Pueblo not as settled, but as ongoing processes of representation and resistance. Unmapping exposes the violence of colonial landscape representations and the complicity of settlers in racializing Indigenous lands and naturalizing the genocide of Indigenous peoples. (Re)mapping hails spaces as Indigenous which have been stripped of Indigenous presence through colonial landscape representations. Together, they constitute a rejection of colonial geographies and assertion of Native nationhood.

In the 2019 monograph *Spiral to the Stars: Mvskoke Tools of Futurity*, Laura Harjo proposes four tools of Indigenous futurity, articulated as methodologies emerging from and theorized by Mvskoke practices. Harjo describes these practices as "way-finding tools that operate to create a map to the next world."[392] *Radical sovereignty*, also called este-cate sovereignty, is an embodied sovereignty that exists outside of and prior to contemporary notions of tribal sovereignty; it is shaped by people in relationship with each other to structure and empower community and "enables us to see the power that we already have."[393] *Community knowledge*, then, is practiced, embodied, and valued as a practice of knowledge production. *Collective power* is produced through everyday community activities that have a potential to transform communities and social relations.

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[391] Mishuana Goeman, *Mark My Words: Native Women Mapping our Nations*. (Minneapolis: University of Minnesota Press, 2013), 23.
[392] Laura Harjo, *Spiral to the Stars: Mvskoke Tools of Futurity*. (Tucson: University of Arizona Press, 2019), 38.
[393] Harjo, 2019, 80.

Emergence geographies empower communities to reclaim Indigenous spatialities; they "provide a framework for moving beyond prevailing settler geographies that enforce particular types of spatialities."[394] Based on her theorization of Mvskoke geographies, Harjo suggests that emergence geographies can be concrete geographies, as in a specific town or built environment, ephemeral geographies, such as an event that occurs seasonally or intermittently like a festival or family tradition, metaphysical geographies, such as a sacred site through which people connect to a spiritual realm, and virtual geographies, which are shaped and mediated by technologies and exist in virtual space rather than traced onto a map of a landscape.

Harjo's emergence geographies, I suggest, take into account the complex relationships between power, agency, goals, and methods of mapping Indigenous spaces and places. Emergence refers not just to Indigenous emergence stories, but also provides a map or plan for representing Indigenous spaces and places that exist in the past, present, and future. Considered with Harjo's emergence geographies, Goeman's remapping and Razack's unmapping are methods through which Indigenous spatialities are made. While Razack's argument primarily challenges settler notions of racialized space, Harjo and Goeman are both interested in how the complexities of Indigenous space and place are identified, celebrated, and represented within Indigenous counter-mapping. I turn now to two sites of Zuni emergence geographies to consider how Zuni spatial practices might shift or expand our understanding of counter/un/re/mapping and emergence geographies.

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[394] Ibid., 189.

Mapping Zuni Sovereignty

In 1981, the Salt River Project (SRP), the third-largest electric producer in the

U.S., proposed an 18,000-acre strip mine to extract coal just ten miles from Zuni Salt

Lake. This project required pumping 85 gallons of water per minute throughout the

proposed forty-year duration of the extraction. While the coal mine would not be located

directly on Zuni land, pumping ground water from the local aquifer would lower the Zuni

water table, devastating water level and salt production at Zuni Salt Lake.[395] This

proposed surface coal mine would cover 16,800 miles and require construction of a 44-

mile railroad from the mine to St. Johns, Arizona, disturbing 8,432 acres of land.[396] Zuni

activists and government bodies held a twenty-two-year resistance to fight the SRP

proposal. In addition to conducting scientific data collection to document the damage the

proposed mining operation would cause, Zuni activists engaged in processes of spatial

representation which effectively unmapped the extractive capitalist effort, (re)mapped

Zuni nationhood through Indigenous spatial practices, and asserted both ephemeral and

metaphysical emergence geographies.

To raise awareness about the proposed coal mine, the Zuni Salt Lake Coalition, a

group formed by Zuni activists, the Sierra Club, and other Native activist organizations,

signed a contract and paid to rent several billboards in Phoenix located near Salt River

Project mining company headquarters. They hoped increased publicity would shame SRP

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[395] Tom Valtin, "Zuni Salt Lake Saved," Sierra Club, *The Planet Newsletter*, July 2015,
http://vault.sierraclub.org/planet/200307/zuni.asp

[396] "New Mexico and Arizona: Development of Fence Lake Mine," Advisory Council on
Historic Preservation, accessed December 4,
2016, http://www.achp.gov/casearchive/caseswin02NM-AZ.html

into shutting down their operation near Zuni Salt Lake. When the billboard company broke their contract with the Zuni Salt Lake Coalition, due to the billboard's perceived "negative political message," Zuni activists rented a mobile billboard and drove it first through Phoenix, then through communities in Arizona and New Mexico, asserting their territorial sovereignty and encouraging others in the region to join their struggle.

This billboard challenged the Salt River Project's right to mine by exposing the depoliticized nature of colonial landscape representations. Half of the billboard contained a black background with white letters reading: "SRP is targeting our Sacred Lands. SAVE ZUNI SALT LAKE." The other half held a black and white photo of Zuni Salt Lake. In the foreground was a white shore next to the still lake, depicting the source of salt harvested by Zunis. Behind the lake lay black volcanic cinder cones of the El Malpais region against a sky with bright white clouds. Overlaying the photo were thin black crosshairs, centered on the lake, capturing shore, water, volcanoes, and sky within the target. By using a black and white photo, the activists reminded viewers of colonial representations of Indigenous landscapes which confine Indigenous presence to the past, aestheticizing Indigenous extermination and removal from the landscape, and preserving Indigenous presence as a mystical, primitive haunting. Overlaying a gun's crosshairs over the photo juxtaposed colonial tropes of landscape representation with the lived reality of Indigenous peoples, exposing the violence of colonial territorial claims. Magnification of a target through the scope of a gun amplified Zuni protests of SRP's proposal, bringing into focus an issue not otherwise represented in public forums. Presenting viewers with a representation of Zuni Salt Lake through a weapon's scope called into question aestheticized representations of Zuni lands and re-represented these landscapes as sites of

political conflict. As a practice of unmapping, this image on a mobile billboard sought to startle non-Zuni audiences and incite them to question assumptions about territory. Who's land? Non-Zunis are meant to ask. What violence is indicated by the image of a gun's scope? This image and the method of publicizing it were meant to reject the colonial categories of space and place that shape the laws that allowed SRP to explore extraction on Zuni territory in the first place.

As another method of landscape representation and claims to sovereignty, Zuni activists ran 350 miles from Zuni Pueblo to Phoenix and ran for 24 hours straight around SRP headquarters in Phoenix before running back to Zuni. Zunis were joined by runners from neighboring Indigenous nations, including Navajo Nation, Hopi, and Taos Pueblo. At a rally and press release with the runners, then-Governor of Taos Pueblo, Vincent Lujan, marked the significance of this mode of spatial representation. In his speech, Lujan linked the runners' action of representation and resistance as part of the Zuni Salt Lake Coalition to the Pueblo Revolt of 1680. In this revolt, southwestern Pueblos successfully defeated Spanish colonizers in the region in one swoop, orchestrating the revolt and communicating across great distances by relays of runners carrying messages between Pueblos. Over three hundred years later, celebrating the runners' performance of Zuni sovereignty, Lujan asserted: "Now [we] are embarking on a similar battle. There's meaning in what these runners do here. We were here before you. We're going to be here forever. This is where our ancestors shed their blood."[397] Linking the actions of this contemporary movement to successful resurgence practices suggests that the performance

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[397] Jeffrey St. Clair, (2002) "The Battle for Zuni Salt Lake," *Counterpunch*, July 23, 2002, accessed November 30, 2020, http://www.counterpunch.org/2002/07/23/the-battle-for-zuni-salt-lake/

of Zuni spatial representation through running not only has historical significance but is also a viable means to represent Zuni territory outside of the narrow specifications of colonial cartography. To run is not just a marker of continued protest and resistance but is a marker of the paths and geographies that have sustained Zuni life throughout time. To understand what places are "here" for Zuni people, we could look at the maps in *A Zuni Atlas* of Zuni cultural practices, federally-recognized territorial boundaries of Zuni over time, or non-Zuni settlement in areas of Zuni sovereignty and, in doing so, perceive how Zunis remap their own lands.[398] The run to Phoenix and back marked the same points: traditional and ancestral places of Zuni life, a historicized relationship to territorial infringement, and a re-envisioning of cartographic methods to create a conceptual map of Zuni spaces and places. Furthermore, the run enacted an ephemeral emergence geography, serving as a marker of Zuni spatialities in movement, assembled at intermittent moments in time, whether to resist Spanish colonization or contemporary resource extraction.

Other scholars mark Native running as a means to assert Native presence, survival over time, and as political statement. In "Hopi Footraces and American Marathons, 1912-1930," Matthew Sakiestewa Gilbert argues that success of runners from Hopi Pueblo in formal running competitions such as the Olympics is an assertion of Hopi agency, a challenge to stereotypes of Indigenous peoples, and an example of how Indigenous peoples navigate the complexities of politics between the nation-state and the Indigenous nation: "For the Hopi runners at Sherman, their accomplishments in U.S. marathons reflected the beauty and complexities of Hopi culture, and their running victories

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[398] Ferguson and Hart, 1985.

compelled the athletes to consider the forces that pressured them and other Indigenous

people to become modern."[399] In "To Bring Honor to My Village: Steve Gachupin and

the Community Ceremony of Jemez Running and the Pike's Peak Marathon," Brian S.

Collier asserts that at Jemez Pueblo, running is "not about 'winning' but about

representing their people."[400] Collier narrates the story of Jemez Pueblo runner Steve

Gachupin's earning first place in the Pike's Peak Marathon in order to argue that that

running is a "ceremony of self and community" through which Pueblo nations assert their

own sovereignty and build relationships with other nations and communities.[401] Running

is an expression of lived presence: "For Gachupin running is a way to connect with the

traditions of the Pueblo and to remember those people from the community who ran

before him and those who will run after him; it is part of the continuity of life's

cycles."[402] But running is not only a symbol of relationship, Pueblos use running to

demonstrate political agendas. Collier describes how Gachupin ran with a group of

runners to petition the government to address teen alcohol consumption. Their run not

only made a statement about their political agenda, but also asserted the viability of

running as ceremony.

This performance was imbued with Zuni epistemologies and ontologies about

space, place, sovereignty, and territory. The Zuni Salt Lake Coalition opposed mining

occurring on land not federally recognized as Zuni land; the Indigenous runners

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[399] Matthew Sakiestewa Gilbert, "Hopi Footraces and American Marathons, 1912–1930." *American Quarterly* 62, no. 1 (2010): 77-101.

[400] Brian S. Collier, "'To Bring Honor to My Village:'Steve Gachupin and the Community Ceremony of Jemez Running and the Pike's Peak Marathon," *Journal of the West* 46, no. 4 (2007):62-71

[401] Ibid.,70.

[402] Ibid., 66.

demonstrated a vision of Zuni territory and sovereignty that runs counter to Western notions of territory and sovereignty. Running from Zuni to Phoenix with people from multiple Indigenous nations made a statement about relationships between Indigenous nations, Indigenous ways of understanding territory and sovereignty, and spatial representation through mapping as an unfolding process. Performance cartography, like the Zuni Salt Lake Coalition running protest, highlights cartography as process. The limited visible, physical evidence of this running performance in formal and informal archives, made visible only through the legal response by the Salt River Project mining company, demonstrates the processual nature of cartographic representations. For Kalani Akana, Hawaiian performance cartography is not aimed at making Hawaiian landscapes legible to the colonizer. Instead, Hawaiian performance cartography is an act of legitimizing existence and hegemony, of strengthening Hawaiian identity, and of teaching and learning Hawaiian epistemologies and ontologies.[403]

While the performance of the Zuni Salt Lake Coalition was aimed at SRP, its actions were part of an unfolding process of Zuni assertions of sovereignty, which are limited to a specific time and place as recorded by traditional Western maps. At stake for Zunis were the surficial and volumetric effects of the Salt River Project's subterranean extraction. The Zuni campaign was ultimately successful when, in 2003, SRP tabled the project.[404] Zuni activists' unmapping and (re)mapping of Zuni territory was not focused

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[403] Kalani Akana. "Hawaiian Performance Cartography of Kaua'i." *Educational Perspectives* 45 (2013):17-27

[404] L.A. Shively, "Zuni Battle for Sacred Site a Win - Prevents Coal Strip Mine Development," *Indian Country Today*, August 26, 2003, http://indiancountrytodaymedianetwork.com/2003/08/26/zuni-battle-sacred-site-win-prevents-coal-strip-mine-development-89200

on using colonial cartographic techniques to make land and resource claims legible to the Salt River Project, yet the use of Zuni spatial practices yielded the political results Zuni Pueblo desired.

Here, I turn to Zuni Map Art Project as an example of Zuni practice of and for spatial justice, emplacing people within and through the landscape.[405]

Zuni Map Art Project

The A:shiwi Map Art Project, a project of the A:shiwi A:wan Museum at Zuni Pueblo, is an art, language, and place name project created to "help Zunis connect to places through artistic rendering of the Zuni cultural landscape."[406] In this mapping project, Zuni artists painted representations of the Zuni region, reservation, and village to represent important places and spaces of Zuni. Only after an advisory group decided what *not* to paint were artists commissioned to paint these multiscalar landscape representations.[407] One painting by Ronnie Cachini of the Zuni region traces the migration of the Zuni people from the point of emergence to the current Zuni village.

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[405] Hunt, 2020.

[406] "A:shiwi Map Art Project," A:shiwi A:wan Museum and Heritage Center, accessed November 13, 2015, http://www.ashiwi-museum.org/mapart.html

[407] I was introduced to the Zuni Map Art Project while teaching at Zuni High School from 2009-2012. The A:shiwi A:wan Museum distributed laminated prints of several maps from the project to every classroom in Zuni Public School District and I built these maps into a unit on mapping and critical cartography for my high school geology class. Subsequently, I included these maps in the development of a place-based, culturally relevant geology curriculum for Zuni High School, using Feminist Approaches to Participatory Action Research (FemPAR) in collaboration with my geology students. My analysis here is deeply informed by learnings from the FemPAR project and in particular originates in class discussion with the geology students in which we discussed how our individual understandings of the maps differed based on our social location, age, relation to Zuni kiva groups, and initiation into Zuni cultural and linguistic knowledge and practices.

Another by the same artist shows significant landforms crosscut by paved roads which are, in this landscape representation, unnamed and unlabeled. In his artist's statement, Geddy Epaloose said "I want my audience to feel my paintings…it's going to be different for a Zuni to visualize, or see my painting and take in that information. It might mean more to them than it does to anyone else, but I'm okay with that."[408] These art maps are meant to be neither legible nor illegible to non-Zuni viewers, but rather to convey different meanings and understandings based on the positionality of the viewer and the viewer's initiation into Zuni language, culture, and religion. The absences chosen by the advisory group do not represent emptiness or availability for settlement as absences do in colonial cartography. Instead, these absences imbue a depth of presence which is not collapsed into a two-dimensional map. Ultimately, the intended audience of these maps is Zuni. The maps are designed to make that purpose explicit, through the centering of encoded "data" throughout the series of paintings, despite the fact that the Zuni Map Art Project has been exhibited in galleries and museums all over the world. These maps center Zuni spatialities, knowledges, and lifeways as both un-knowable and un-claimable by non-Zunis, even as Zunis and non-Zunis alike view the exact same images.

In a public presentation on the Zuni Map Art Project, former A:shiwi A:wan Museum director Jim Enote addressed the relationship between gender and landscape representations. When the Zuni Map Art Project board received few proposals from women, Enote talked to a female elder about what the board should do to take into consideration the participation of women. The elder told him not to worry. Zuni women,

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[408] Jim Enote and Jennifer McLerran, *A: shiwi A: wan Ulohnanne: The Zuni* World (Zuni: A:shiwi A:wan Museum and Heritage Center, 2011).

she stated, also make landscape representations through three dimensional forms of maps such as jewelry and pottery. Zuni pottery is a spatial practice emphasizing process through place, as potters collect the needed ingredients in a particular order from a variety of places to which potters have a historic relationship. Like the paintings in the Zuni Map Art Project, the painted designs on the pots represent specific places, stories, and processes that are coded so that they bear different meanings based on the positionality of the viewer.[409] Since its initial call for submissions, the Zuni Map Art Project has grown over time and now includes paintings by Zuni women as well.

Traditional western maps are usually depicted from an orthogonal perspective, or view from above, such that paths between places become lines and specific locations, such as towns or buildings, are represented by a point or perhaps as a polygon outline of a building or place's "footprint."[410] The bird's eye view masks the perspective of the map-maker, as the geographic information is not presented as the specific, view-in-place of the map-maker, but as an omniscient overview at an angle from which the viewer cannot see the place. Not a single map in the Zuni Map Art Project presents this perspective. Several maps, such as Larson Gasper's "Migration of Salt Mother," represent Zuni landscape as an experience of multiple vignettes, painted from the perspective of a person on the ground, viewing the landscape. In this painting, the viewer is led from the foreground, which holds a representation of a landscape close to the current Zuni village, to a path marked by piled stones, past petroglyphs carved on rock, to a new landscape marked by

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[409] Jim Enote, "Indigenous Landscapes and Collaborations," Public lecture, Albuquerque, NM, University of New Mexico, October 6, 2016.

[410] Margaret Pearce and Renee Pualani Louis, "Mapping Indigenous Depth of Place." *American Indian Culture and Research Journal* 32, no. 3 (2008): 107-126.

the Salt Mother's presence.[411] In discussion of how he painted this process of migration, Larson said: "I saw the aerial photographs [of Zuni Salt Lake] and [heard] the stories…from our ancestors – how the Salt Mother left the [Zuni] Village and how [she] migrated, and the story of how she dropped the feather and then the pillars of salt became a rock."[412] Like the Salt Mother's feather untethered the Salt Mother from one location and began her migration, Larson's painting unmoors representations of Zuni space from the birds-eye-view of colonial cartography and re-maps the Salt Lake as an unfolding process and relationship between Zuni people and landscape. In the description of the iterative process of painting for this project, with a back and forth between aerial photographs and Zuni metaphysical emergence geographies, Larson's narrative denotes an attention to the concrete points on a map and an intentional untethering from those aerial images in order to map a Zuni sacred journey within the physical landscape.

Many of the paintings are painted from an oblique angle, as though the artist – or the viewer – were standing at an elevated point, looking out across the landscape. Ken Seowtewa painted "I remember…," an oblique view of the Zuni village before the Zuni river was dammed. In this painting, the river flows from the background – represented here as Zuni mountains and Twin Buttes, to the village, which is flanked by traditional Zuni waffle gardens, each surrounded by a fence. Playing on tropes of normative mapping, Seowtewa included a zoomed-in inset in the painting to show four women collecting water from a well, one holding an elaborately painted pot, one scooping water into another pot, and one holding a pot on her head with a child strapped to her back.

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[411] Enote and McLerran, 2011, 72.
[412] Ibid., 73.

Writing about this painting, Seowtewa described making walls around waffle gardens with his grandmother when he was a child. Seowtewa articulates how stories and knowledge from his grandmother and mother determined the content of his painting: "On the stories that my grandmother had told me, and even the plan that I did on my work, I even remember being carried on my grandmother's back as a young boy…I used my grandson [as a model] for the young boy being carried by the grandmother. So my mother, Odelle, again helped me with some of the locations where the wells were…I would ask where the old wells were located. So this is what I wanted to do, the basis for my first with the museum here."[413] While Seowtewa's painting is titled "I remember…," the narrative suggests that the memories represented here combine the artist's memories with those of his mother and grandmother, representing Zuni women's stories. Here, Zuni space and place is not just tied to the landscape, but is shaped through memory, conversation, and relationship, a remapping of Zuni territory that privileges kinship and memory in interpretation of the landscape.

Another painting which uses the oblique view is Geddy Epaloose's "Halona:Idiwana'a (The Middle Place)," which also depicts the village, river, and Zuni landforms.[414] However, this painting depicts the village from a different perspective from that of Seowtewa. While Seowtewa's painting included the river on the left-hand side of the painting, Epaloose depicts the river as cutting straight across the middle and stretching toward the upper right-hand corner of the painting. In this painting, some landforms are marked by black or white stars hovering over the landform and some of the

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[413] Ibid., 67-69.

[414] Ibid., 28.

buildings in the village have colored roofs or ladders, windows, and doors, while others

are left as blank, rectangular forms. The significance of these symbols is not described in

a key or in any text associated with the painting. Instead, meaning is inferred by an

initiated viewer whose own knowledge of Zuni place and space informs their

interpretation of the symbols on the map. The sun sits low in a dark blue sky towards the

southwest, suggesting that the time represented is a winter evening. The reappearance of

the oblique view throughout many paintings in the Zuni Map Art Project suggests Zuni

understanding of landscape as embodied and emplaced, mediated by a person's lived

experience of that landscape.

Indigenous geographers Margaret Wickens Pearce and Renee Pualani Louis argue

that Indigenous landscape representations can communicate "Indigenous depth of place"

by representing time, season, and angle of perspective within landscape

representations.[415] They argue that the Western orthogonal perspective marks Indigenous

places as fixed in time and space, absent of people, and as being out-of-place, as "there is

no single point from which the map is projected."[416] Pearce and Louis propose shifting

the perspective of representations of Indigenous places to an oblique perspective, to

represent places as they are actually experienced by Indigenous peoples: "The

conventional map of Nu'alolo Kai is oriented with north at the top, and the map reader

looks down at a shoreline, which appears to be accessed from the interior and whose

central place-making features, the cliffs, are invisible. But Nu'alolo Kai is only accessible

from the water, and thus it is always viewed from this angle, which looks toward

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[415] Pearce and Louis, 2008.
[416] Ibid., 117.

shore."[417] Shifting to an oblique view, they assert, allows the mapmaker to focus on the dimension of light, animating the sun's movement and including seasonality in a map's representation of Indigenous depth-of-place. Aerial photographs used in digital cartography can indicate season by the presence of leaves on trees but differences in season may be less overt in regions such as Zuni which are not dominated by deciduous foliage. While advocating for the adaptation of Western geographic technologies to account for seasonality and perspective, Pearce and Louis remain cognizant of the limits of cartographic technologies, particularly with respect to these representations' ongoing erasure of story and people.

The Zuni Map Art Project presents alternative methods of reading space, place, and race. It contests dominant ideas of nation and territory while centering Zuni notions of reading gender on the landscape. The paintings challenge the assumed truth of colonial representations of Zuni space as they present an expanded notion of Zuni space, linking Zuni memory to Zuni present and futures, and asserting Zuni epistemologies through the coding of Zuni knowledge. Finally, the Zuni Map Art Project provides a means through which Zuni artists can address boundaries created by colonial maps, whether those be boundaries of territories which are recognized/unrecognized, historical/present, or modern/traditional. By representing women within the landscape and generating landscape representations directly from women's stories, the artists "move toward geographies that do not limit, contain, or fix the various scales of space from the body to nation in ways that limit definitions of self and community staked out as property."[418]

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[417] Ibid., 118.
[418] Goeman, 2009.

Conclusion

I close by considering what these two examples from Zuni might offer to us as scholars interested in decolonization and Indigenous geographies. How might we work towards Indigenous spatial justice? How are we already working to enact spatial justice?

Both projects of Zuni spatial practices described here assert the relationship between Zuni lives and Zuni land, articulating Zuni nationhood and mediating the effects of the nation-state on Zuni lives and land. In the Zuni Salt Lake Coalition, Zuni runners and drivers crossed through multiple geographies to challenge the colonial boundaries which sought to confine them. Through multi-modal landscape representations, Zuni highlighted the volumetric nature of Zuni sovereignty and territory and the surficial effects of potential subterranean extraction. In the Zuni Map Art Project, landscape representations were coded to articulate differently between viewers. While neither project marked itself as specifically feminist, both projects unmapped settler spatial boundaries, remapped Zuni relationships to space and place, and asserted Zuni space through entangled concrete, ephemeral, and metaphysical emergence geographies. Projects such as Google Maps' Map Your Indigenous Community Month attempt to fix Indigenous territory in place and to make it legible to outsiders. Resource extraction such as the Salt River Project attempts to unmoor Indigenous life from territory. In contrast, Indigenous feminist practices of spatial justice highlight the spatiality of unjust power relations and consider space as a key locus of (in)justice.

Keeping in mind the two examples analyzed in this chapter, the Zuni Salt Lake Coalition enacted radical sovereignty through its claims to Zuni territory outside the bounds of US-recognition of Zuni territory. The running protest functioned as a practice of collective power and marking of Zuni emergence geographies. The Zuni Map Art Project generated and shared community knowledge, enacted collective power through community activities, reclaimed Zuni emergence geographies through map art, and embodied Zuni radical sovereignty and spatialities beyond settler ideas of tribal sovereignty.

American landscape representation contained within colonial cartographies is premised on the systematic genocide of Indigenous peoples. By representing Indigenous peoples as disappeared or disappearing, colonial landscape representations clear ground for conquest and settlement. Recognition of Indigenous presence by settler colonial structures demands that Indigenous peoples represent themselves through colonial cartographic methods such as the Google Maps initiative to make themselves legible to the settler state. But in doing so, Indigenous peoples become complicit in racialized representations of their own supposed disappearance. In contrast, unmapping denaturalizes settler cartographies and exposes colonial logics of conquest and oppression while (re)mapping privileges Indigenous spatial practices to mediate colonial maps and assert sovereignty, self-determination, and nationhood. Taken together, unmapping and (re)mapping offer a critique and method of resistance against not only colonial cartography, but of neoliberal empowerment initiatives such as Google Maps' Map Your Indigenous Community Month and other structures that demand legibility of Indigenous claims above all else. While Google Maps' representation of Indigenous nations and its

Indigenous mapping initiatives serve to reify settler claims to Indigenous territory, mapping initiatives such as those I describe at Zuni Pueblo assert Zuni nationhood using Zuni spatial practices and, in the case of the Zuni Salt Lake, result in legal consequences that assert Zuni sovereignty and nationhood.

V.   CONCLUSION

CONCLUSION

When my grandfather Vichazelhu Iralu graduated from secondary school in what was then Assam, he was the top student in that administrative area of northeast India. The British India administrators wanted Vichazelhu to attend a ceremony at which time they would present him with an award to recognize this achievement. To receive the award, they informed him, he was expected to attend the ceremony wearing regalia given to respected and accomplished Angami headhunters. His father, my great-grandfather, was furious and together he and my grandfather Vichazelhu responded to the administration stating that Vichazelhu refused to wear regalia that was unearned, irrelevant, and a clear attempt by the British India administration to fabricate a story of colonial success. The administration wanted to create a narrative of native scholarly accomplishment and English literacy while simultaneously highlighting the presumed primitivity and violence of the natives in this remote territory. The top student wearing head hunting regalia would be a visual symbol to justify British colonial efforts in the region in the ever incomplete, and thus continually ongoing, project of civilizing of the native. My grandfather's refusal was one of the first decisive publicized moments of Naga refusal to engage with schooling on colonial terms. He told the administrators that he had been required to wear western clothing and a western haircut throughout his schooling and that he would celebrate his mastery of western schooling in the way that he had achieved it.

A few years later, Vichazelhu's younger sister Rano organized a student strike in the American mission schools in the Naga city of Kohima. The mission schools "treated us like coolies," Rano told me, and the striking students refused to attend school until the school administrators reformed their education system to focus on educating Naga youth

in academic subjects. Rano said that her brother's refusal to comply with the British administration inspired the younger students to take action to improve their learning conditions. Rano went on to become the first woman to represent the Naga people in India's Lok Sabha. Many decades later, Rano told me that the momentum from the two publicized protests in secondary schools in Naga territory emboldened other Nagas to speak up against the colonization of Nagaland. It was only after the student protests that the Iralu's maternal uncle Zapuphizo Dolie left the jungles of Burma where he had been organizing villages for the Naga sovereignty movement and became known as the charismatic Naga revolutionary leader Angami Zapu Phizo.

I share this story of Naga protest to reflect on the spaces of Indigenous insurgence that contribute to our strength as communities while marking us as targets of the state. As Indigenous elimination is the purpose of the settler state, any action that demands attention to Indigenous life is a threat to the state. Our presence and assertion of self, relation to each other, and relation to land will always be seen by the state as insurgent threat.

This dissertation, an exercise in theory building and critical analysis, is an attempt to build on the grounded knowledge and legacy of Indigenous ancestors like Vichazelhu, Rano, and Phizo. It is an attempt to understand our individual and community experiences of colonialism as connected with Indigenous struggles elsewhere. Theory building is not distanced from reality; instead, it is a way of making sense of the world in which we live and a way to scout out a route forward.

In this dissertation, I have focused on the aerial perspective as a technology of colonial territoriality that enables the collaboration of multiple colonial states to further

their goals of surveillance and control of Indigenous territories within the states'

individual boundaries. The aerial perspective, I have argued, is an integral element of

colonial territoriality in the twenty-first century. It shapes how colonial states and the

non-Indigenous public see Indigenous territory and sometimes, how Indigenous peoples

see ourselves. While Indigenous nations make use of cartographic technologies that are

built upon the aerial perspective, these maps often problematize the very nature of those

maps, as in the caveats regarding borders on the maps created by the Nagaland State GIS

office. Indigenous peoples also represent territories on their own terms, using

perspectives that challenge colonial assumptions about territory and property, such as use

of the orthogonal perspective in paintings of the Zuni Map Art Project which ground the

viewer in a very particular place in relation to the landscape represented, or in the cross-

sectional perspective of Thunderbird Strike, which links the air, surface, and subterranean

in one view.

Chapters one and two considered the aerial. In chapter one, I examined the

politics of Indigeneity in India and how the policing of Indigenous identity ascribes

colonial territorial boundaries onto people. In chapter two, I argued that the surveillance

of what Nagas eat is intimately linked to histories and ongoing experiences of

counterinsurgent warfare against Nagas. Chapters three and four focused on the surface.

In chapter three, I argued that Indigenous approaches to spatial data sovereignty offer an

alternative mode for mapping Palestine for Palestinians, while protecting spatial data

from cooptation by the colonial state. In chapter four, I considered pixelation as a method

of obscuring landscapes even while mapping under the guise of transparency. Chapter

five and six considered the subterranean. Chapter five examined remote sensing as a

digital strategy to create affective connections between geographically distant places. Chapter six argued that Indigenous cartographic practices represent Indigenous territory without seeking legibility to the state. Taken together, these chapters demonstrate how Indigenous and land-based peoples respond to counterinsurgent surveillance based on the aerial perspective and how they represent their territories otherwise in both digital and analog modalities.

English colloquialisms center being fixed in an identifiable place. To be grounded is to have a grip on reality. To have the thirty-thousand-foot view is to understand the big picture. To make our sovereignties legible to Western polities and cultural understandings, formalized Indigenous political assertions tend to deal in the concrete, the containable, and the measurable. Our territorial assertions become geocoded points, lines, and polygons on a map. As I have described in the preceding chapters, colonial territorial representations rely on our understanding of the aerial perspective as the ultimate factual way to know land. It is not seen as one of many possible perspectives, it is represented simply fact. The digital and analog Indigenous landscape representations I have analyzed here challenge the supremacy of the aerial perspective, highlighting the volumetric aspects of Indigenous territorial sovereignty and challenging colonial notions of the aerial itself. The aerial perspective is not a fixed God's eye view but is instead in motion and changeable as the air which it inhabits. I have argued that these Indigenous representations of space, place, landscape, and territory make colonial territoriality movable and immaterial. Likewise, Indigenous landscapes that colonial states see as unmoored and imagined are made material through visual representations of relation to land, kin, and political movements. They establish the presence of these relations which

cannot be contained by the normative geopolitical or scholarly frameworks we rely on to make sense of the world.

In the Angami Naga language Tenyidie, the morning greeting begins with a question: Nmho vi moga? *Did you have a good dream?* The evening ends with a wish: Nmho vilie lo. *Have a good dream.* Centering our dreams as the first and last thoughts we share each day signifies how our dreams are in conversation with our waking life, that good dreams are something we share and wish for each other, and despite their mysterious origin and purpose, dreams have real consequence in our daily lives.[419] I see the Indigenous landscape representations discussed in this dissertation as similarly firm material wishes for ourselves, our relations, and our shared struggles and joys. In the imagined aspects of Indigenous landscape representation – for example, Jordan Nassar's future Palestinian landscapes or *Thunderbird Strike*'s confrontation between thunderbird and colonial pipelines – I see a move toward making the immaterial real. These landscape representations show not only what the future could be, but what we are making it to be.

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[419] Scholars note the significance of dreams in Naga cultural practice for interpreting current events, political decision-making, and envisioning Naga relations to India. See Arkotong Longkumer. "Indigenous Futures: The practice of sovereignty in Nagaland and other places." In *Indigenous Religion (s)*, pp. 89-119. Routledge, 2020; Arkotong Longkumer. ""Lines that Speak:" The Gaidinliu Notebooks as Language, Prophesy, and Textuality." *HAU: Journal of Ethnographic Theory.* Volume 6, Issue 2. 2016. 123-147. Michael Heneise. *Agency and knowledge in Northeast India: The life and landscapes of dreams*. Routledge, 2018.

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