Louisiana State University
LSU Digital Commons

LSU Doctoral Dissertations

Graduate School

4-3-2018

Linguistic Political Ecology with the Ngäbe Indigenous People of Panama

Ginés A. Sánchez Arias Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_dissertations Part of the Human Geography Commons, Linguistic Anthropology Commons, and the Other Languages, Societies, and Cultures Commons

Recommended Citation

Sánchez Arias, Ginés A., "Linguistic Political Ecology with the Ngäbe Indigenous People of Panama" (2018). *LSU Doctoral Dissertations*. 4543. https://digitalcommons.lsu.edu/gradschool_dissertations/4543

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Doctoral Dissertations by an authorized graduate school editor of LSU Digital Commons. For more information, please contactgradetd@lsu.edu.

Louisiana State University LSU Digital Commons

LSU Doctoral Dissertations

Graduate School

4-3-2018

Linguistic Political Ecology with the Ngäbe Indigenous People of Panama

Ginés A. Sánchez Arias

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_dissertations

LINGUISTIC POLITICAL ECOLOGY WITH THE NGÄBE INDIGENOUS PEOPLE OF PANAMA

A Dissertation

 \mathcal{O}

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The Department of Geography & Anthropology

by Ginés Alberto Sánchez Arias B.A., The Colorado College, 2012 May 2018 © 2018 Ginés Alberto Sánchez Arias All rights reserved For Kiad.

ACKNOWLEDGMENTS

I extend my sincerest thanks to my dear hosts in the Comarca Ngäbe-Buglé. Tido-Kri and his family gave me a second home. They fed me and cared for me as one of their own. From their hearth, I departed to many new adventures about the western Panama. My hosts still remain resilient and welcome outsiders to visit them. I also give thanks to the Ngäbe people in general for showing great perseverance in the face of adversity time and again, so that Panama can have a future with diversity.

I am very grateful for the rigor, intelligence, and kindness of my dissertation committee. Andrew Sluyter has been a wonderful advisor for his openness, which gave me flexibility to explore many intellectual avenues and methods. His guidance and critical eye helped strengthen my ideas and thought experiments. Mary Jill Brody introduced me to linguistic anthropology, realizing a whole new world of analysis. Her advice was the seed that would become a foundational part of my linguistic research. Jill has been an increasingly caring supporter of my work, which culminated in a joint publication on the new Ngäbe orthography. Her diligence with my writing progress has been invaluable. Kent Mathewson gave me endless support since the very beginning. Presumably Kropotkin's reincarnation, Kent embodies the ethos of mutual aid. Thanks to him, I was never in need of advice and resources. John Fletcher, the Dean's representative, gave me helpful insights concerning my conjectures and writing trajectories that allowed me to focus on the core contributions I would make with my study. Such a challenging project as this one required countless hours of work that without my committee's counsel would have been impossible to complete.

iv

My thanks to the Department of Geography and Anthropology at LSU: David Chicoine, Brian Marks, Micha Rahder, and Giacomo Parinello, have all been excellent mentors and inspiring intellectuals, all of whom I am lucky to have met. I also thank Case Watkins and Peter Kamau, my academic siblings, whose work and friendship gave me confidence. Lastly, I am happy to acknowledge the Robert C. West Field Research Award which helped me to conduct preliminary field research in 2014.

I am grateful for my undergraduate education at The Colorado College. My advisor, Esther Redmount, always supported my curiosity across disciplines as I kept jumping around departments. Pedro de Araujo gave me much-needed guidance during the difficult times in and out of the economics department. To the political science department that received me during my later years at CC: Juan Lindau, David Hendrickson, and Tim Fuller helped me tremendously to grow as a critical thinker. Tip Ragan and John Williams in the history department, and Gale Murray in Art History gave me the most demanding workloads probably during my whole time as a student. Dennis McEnnerney introduced me to critical theory and political philosophy which turned my world upside down and inside out. The mathematics and physics professors too gave me valuable knowledge that I continue to employ in my thinking. Hong Jiang and Fanny Zhang opened the doors outside the Indo-European language universe, which inadvertently helped me to approach Ngäbere. Lastly but not least, my dear friend and colleague, Matt Bakker, the sociologist, who advised me to study geography and who is complicit in the execution of this dissertation.

I also thank my friends and family who believed in me and cheered me on. They funded my adventures and projects multiple times over. I am in their debt. Through the online platform IndieGoGo, many of them contributed funds so that I would jumpstart my studies. They bought my art and donated money to help relieve my friends in the Tabasará River basin. To my incredibly supportive family: My parents, brothers, cousins, uncles, aunts, and grandparents, whose support and undying principled ethics always kept me marching forward with my studies. To my partner Emily who always stood by my side giving me love and encouragement to follow through.

I would be remiss in not acknowledging the wonderful artists whose talent was indispensable in making the several collaborative projects designed to engage the publics with ideas of Otherness and coloniality. I thank my dear friend Martin Proaño, who was my creative partner in producing documentary material. He gave his valuable time to film multiple protests in far-out places. Martin came to the field with me, hiking to his last breath, and worked arduously with me to produce Alteridad+ 2.0, the film. Thanks to Ingrid Cordero and Gabriela Esplá for their talent and effort in aiding me with mounting and designing Alteridad+ 1.0, the art installation. To Alexandra Arias and the entire team of Mateo Sariel, especially Dario and Vale, who lent their talents and space to work on my installation. And finally toAna Berta Carrizo for teaching me how to operate a silent auction, allowing for the collection of funds to build a fiberglass boat for Kiad.

ACKNOWLEDGMENTS	iv
ACRONYMS	ix
SEMANTIC AND PHONETIC GUIDE	X
ABSTRACT	xi
RESUMEN	xii
CHAPTER 1: DECOLONIZING THE NGÄBE LANDSCAPE	1
The Cultural and Political Landscape	4
Language and Cosmology	17
Decolonial Theory	21
Methods	26
Organization of the Dissertation	
CHAPTER 2: POLITICAL ECOLOGY OF THE TABASARÁ RIVER BASIN	29
A River, a Dam, and a Resistance Movement	31
#TabasaráLibre	41
Remote Global Capitalism	44
The Comarca: Legibility and Borders	49
Aftermath	57
Conclusion	60
CHAPTER 3: NGÄBERE: AN ORTHOGRAPHY OF REVITALIZATION	61
Revitalization Efforts	62
Tödiba	66
Maba	68
Jatödigaga	74
Critical Literacy	75
Politics in the Text	79
Syncretism and Paradox in the Binana	83
Conclusion	85
CHAPTER 4: LINGUISTIC POLITICAL ECOLOGY: ASSEMBLING A DECOL	ONIAL
PRESENT	
Assembling the Network	
Idiographic Elements	
Student: The Critical Ethnographic Imperative	
The Decolonial Present	
Conclusion	115

TABLE OF CONTENTS

\mathcal{O}

CHAPTER 5: APPLYING DECOLONIALITY		
Engaging the Public		
Future Projects		
Conclusion		
REFERENCES	130	\bigcirc
APPENDIX A: .TIMELINES		
A.1: Political-Economy		
A.2: Indigenous Resistance		
A.3: Legal		
APPENDIX B: SUPPORTING DOCUMENTS		
B.1: Carta Orgánica	154	
B.2: OLEN		
APPENDIX C: IRB APPROVAL		
VITA		

ACRONYMS

ACUN Acción Cultural Ngäbe AFI Alfabeto Fonético Internacional **ASEP** National Authority of Public Services CNB Comarca Ngäbe-Buglé COONAPIP Coordinadora Nacional de los Pueblos Indígenas de Panamá EIB Bilingual Intercultural Education (Educación Intercultural Bilingüe) ETESA Empresa de Transmisión Eléctrica S.A. GENISA Generadora del Istmo S.A. INEC Instituto Nacional de Estadística y Censo **IPA** International Phonetic Alphabet M10 Movimiento Diez de Abril MEDUCA Ministerio de Educación de Panamá OLEN Organización de Lecto y Escritura del idioma Ngäbe PAPICA Proyecto de Apoyo a los Pueblos Indígenas de América Central **SOV** Subject-Object-Verb (sentence order) STRI Smithsonian Tropical Research Institute TE Tribunal Electoral/Electoral Tribunal (Democracy's House) UNESCO United Nations Educational, Scientific and Cultural Organization

SEMANTIC AND PHONETIC GUIDE

NGÄBERE - ENGLISH

PHONETIC

ö : long vowel e + glottal (EIB).

ä: long vowel o, deep and forceful \dot{o} (EIB): similar to the fourth tone in mandarin.

 \tilde{e} : nasal e.

d: varies in strength (~th or d).

g: strong, sometimes replaced with k (e.g., Bakama in EIB or Bagama; I use Bangama).

Ng: n while holding tongue in the back of the mouth.

SEMANTIC

boboda: frog.	maba: book.
chui: foreigner.	Ngäbe: people.
garebo/a: knower, teacher.	
	Ngäbere: people's language.
ju: home, hearth.	
	Ngöbö: God.
jatödigaga: student.	
	suguia/sukia: wise man/men.
jadaikore: future.	
	sulia: latino.
kiad: square, patio.	
	tẽmẽ: on the earth.
kiadre: kids.	
	töbi: giant serpent.
kökögueni: outside the cosmos, netherworld.	4" dib as ashaal
	tödiba: school.

ABSTRACT

Indigenous communities from all corners of the globe live in uncertain times. From the vantage point of their "remote" lands, they undergo some of globalization's most harmful externalities. Their homes become increasingly harder to maintain as extractive industries, development schemes, clandestine land grabs, and national bureaucracies encroach creating new colonial lands. First by assimilation, and then integration, these processes systematically undermine indigenous culture and autonomy. In place of such destructive coloniality, indigenous societies shelter unique ecological and linguistic knowledge that continues to serve their progress. This research applies lessons learned from studying with Ngäbe communities of western Panama, towards a viable process of decolonization underpinned by an indigenous orthography and pedagogy. The dissertation contributes to political ecology by showing how to apply linguistic anthropology to simultaneously support the indigenous struggles in defending their home and advance human geography's epistemic horizon. As such, a "linguistic political ecology" approach blends resistance movements, critical literacy, and decolonial theory with the politics of human-environment interactions in the Tabasará River basin ecosystem. By eliciting the subtleties of contemporary Ngäbe cosmology, this study applies the intellect of natives together with the environmental records of the landscape to build a conceptual framework of decoloniality. The resulting analysis fosters the importance of the creative work of locals, their autonomy re-legitimized, and their future process of decolonization.

RESUMEN

Las comunidades indígenas de todos los rincones del mundo viven momentos inciertos. Desde el punto de vista de sus "tierras remotas," los indígenas sufren los efectos secundarios más dañinos de la globalización. Sus hogares se vuelven cada vez más difíciles de mantener a medida que las industrias extractivas, esquemas de desarrollo, burocracias nacionales y robo de tierras les invaden expandiendo las tierras coloniales. Por medio de procesos de asimilación, y luego de la integración nacional, estos fenómenos socavan sistemáticamente la cultura y la autonomía indígena. En contraste a esta colonialidad tan destructiva, las sociedades indígenas albergan conocimientos ecológicos y lingüísticos que continúan sirviendo a su propio progreso. Esta investigación aplica las lecciones aprendidas en ciertas comunidades Ngäbe del oeste de Panamá, hacia un proceso viable de descolonización reforzado por una ortografía y pedagogía indígena. La disertación contribuye a la ecología política al mostrar cómo aplicar la antropología lingüística para simultáneamente apoyar las luchas indígenas en la defensa de su hogar y avanzar el horizonte epistémico de la geografía humana. Un enfoque de "ecología política lingüística" combina los movimientos de resistencia, la alfabetización crítica y la teoría descolonial con la política de las interacciones entre el hombre y el medio ambiente en el ecosistema de la cuenca del río Tabasará. Al incorporar las sutilezas de la cosmología Ngäbe, este estudio aplica el intelecto de los pueblos originarios junto con los registros ambientales para construir un marco conceptual de (des)colonialidad. El análisis resultante fomenta la importancia del trabajo creativo de las localidades y su autonomía re-legitimada en su futuro proceso de descolonización.

CHAPTER 1: DECOLONIZING THE NGÄBE LANDSCAPE

The [Ngäbe] make their living as applied ecologists. As a way of life, it makes have waned before its potential was realized; certainly before its prospects were fully explored: As world energy resources become more depleted or hoarded, regional self-sufficiency may be increasingly a factor in economic well-being.

- Burton L. Gordon in A Panama Forest and Shore (1982, p. 158)

It seems contradictory for Mama Chi to declare herself anti-Latino, if we consider that three of the five apostles were mestizos and that many peasants participated in the [Mamatada] religion. However, I believe that there is no contradiction since Mama Chi declares herself against those who exploit the indigenous and the landless peasant.¹

--Françoise Guionneau-Sinclair Movimiento Profético e Innovación Política entre los Ngobe (guaymí) de Panamá: 1962-1984 (1987, p. 91)

Despite that oppositional relationship [nonnatives and natives] being so basic to colonialism, some analyses of colonialism have tended either to ignore ethnicity and its manifestation as a suite of cultural variables or to elevate culture to the level of an independent variable, explaining everything and nothing at the same time.

—Andrew Sluyter in Colonialism and Landscape in the Americas, Annals of the Association of American Geographers (2001, p. 422)

To aid decolonization of the Ngäbe landscape, this study departs from three axioms concerning indigenous peoples.² 1) Before displacement, local autonomy shapes and maintains the biophysical environment (Gordon 1982), 2) language and culture inform political action directly (Guionneau-Sinclair 1987), and 3) uneven power-relations are intrinsic to colonial landscapes (Sluyter 2001). These points help outline previous research done by indigenous peoples in general (Alfred 2005; 2009; Anzaldúa 2007; Tuhiwai-Smith 2012) and by academic

¹ All translations from Spanish are by the author.

² The treatment of landscape in this context comes from the tradition of George Perkins Marsh and Carl O. Sauer. "It is a substantive landscape in which issues of the environment, economics, law, and culture are all important. It is also a symbolic medium to be perceived, read, and interpreted on the ground, in written texts, and through artistic images" (Olwig 1996, p. 645).

outsiders on the Ngäbe in particular (Young 1970a; 1971; 1978; Gjording 1991; Wickstrom 2003). This dissertation also borrows from interdisciplinary scholarship relating to ecology, politics, and linguistics. My research seeks to advance a new understanding of how existing institutional forms of oppression are being contested from the ground up by indigenous people. I intend to demonstrate this by creating a linguistic political ecology approach.

I start with a brief review of my vocation. Geography and anthropology carry a regrettable legacy as the outcome of indiscriminate mapping, geopolitics of the heartland, and scientific racism (Mackinder 1904; Semple 1911; Mead 1928; Bowman 1942). Sadly, these disciplines have a past as agents of European imperialism (Cresswell 2013, p. 261), and a lingering effect with indigenous research participants (Tuhiwai-Smith 2012, p. 17). In recent decades, however, geography and anthropology have become beacons in producing emancipatory knowledge (Wolf 1982; Blaut 1993; Carney 2001; Castree 2004; Thrift 1997; Descola 2013). Geography's scholarly output has increasingly improved its capacity to address a world troubled with neoliberalism, pollution, and injustice (Escobar 1992; 1995; Gudynas 2009; 2011; Harvey 2005; 2014; Robbins 2012 [2004]; Swyngedouw 2015). For these reasons, geographers and anthropologists must strive to collaborate with their hosts. We run the risk of allowing institutional biases to act as colonial agency, or for uncritical analysis of fieldwork data to give nothing in return to the communities we work with (Velásquez Runk 2014). Winona LaDuke (2016) reminds us that bias contains both prejudice and unfairness.³ Geographical

³ Winona LaDuke's 2016 talk at the <u>"In Pursuit of Cultural Freedom lecture series</u>" She is a native by heritage of the White Earth nation.

insight has the potential to make legible that which has been made purposely illegible. The knowledge we produce has the potential to be exploited for ignoble ends.

In the early 1970s, with the genesis of the environmental movement, the term political ecology began advancing the notion that natural processes have a politics attached (Watts 2009, p. 545). A pioneer in the field, Wolf (1972, p. 202) showed how local rules of ownership and inheritance of land moderate between the pressures from the larger society and the demands of the local ecosystem. Similarly, in Panama's Cordillera Central, land tenure and food security are traditionally dependent on local autonomy but are at a disadvantage to outside forces (Gjording 1991; Wickstrom 2003). At different scales and geographies these forces translate into pressure. In response, indigenous communities lead and live a costly resistance on the fringes (Acosta 2013; Alfred 2009; Anzaldúa 2007; Fanon 1963[1961]; Mignolo 2000; Tuhiwai 2012; Viveiros de Castro 2015).

As a project in political ecology, this research opens a new dimension to Gordon's 1982 cultural ecology. His work chronicles the intricate configuration of fauna and flora of western Panama's northern coastal forest, and shows evidence for a managed environment from centuries of Ngäbe habitation. Diametrically opposed to the Bocas del Toro coastal area, yet within the same indigenous realm, I sought to elicit the politico-linguistic dimension of the Ngäbe landscape. There are antecedents in the discipline. Like Steward (1937), Gordon looked at indigenous language to record idiographic factors. In this manner, he illustrated Ngäbe silviculture with local words to accompany the scientific nomenclature pf plants and animals. Gordon's cultural ecology also starts opening a discussion with the encroaching politics of the

3

Panamanian state. Demographic pressure have since become increasingly complicated. To dissolve state frontiers with Native American lands, Alfred Kroeber's students Julian Steward and Harold Conklin studied indigenous concepts of space (Conklin et al. 1980). In a similar fashion, Sauer (1925) led his students (Doolitle 2000; Whitmore and Turner 2001; Denevan 2001) to map and make visible the linguistic and cultural categories of natives (Bryan 2015, p. 252). Mapping place names of the "living topography" also reached anthropologists (Basso 1996), and further on, to political ecology (Perreault Bridge, and McCarthy 2015, p. 51). In contrast to my tradition, I unpack a political ecology of indigeneity in relation to an autochthonous written language developed by natives, as a long term resistance tool to present coloniality.

The next section reviews the political situation and material culture of the Ngäbe before introducing the core study area. Then, a background section on language and cosmology reveals some initial details of the case-study's discursive analysis. The theoretical framework follows with definitions and components of an inter-disciplinary decolonial assemblage. Finally, the methods section goes over how the research was conducted.

The Cultural and Political Landscape

Written accounts of the Ngäbe date back to Fernando Colón's notes about the Valiente coast of Bocas del Toro (Heckadon 1994, p. 140). He traveled there with his father, Christopher Columbus, and wrote about the native people of Bocas' shore, describing cursory details of the social ways of its inhabitants (Gordon 1982, p. 35). The accounts speak of the *tribus feroces* that inhabited the Valley of the Guaymí (Cooke 1982, Torres de Araúz 1980). This was Columbus'

4

fourth trip to the New World (1502-1503), when they had finally reached Tierra Firme, a concept that later became a main classificatory label in record keeping of Spanish officials of the Spanish Empire and in today's Archivo General de Indias in Seville.⁴ From this first encounter ensued a most drastic exchange of species that would ultimately transform the human and physical landscape of both "worlds" (Crosby 1972; Mann 2005; Cronon 1983; Carney and Rosomoff 2012). Waves of small-pox devastated the populations of Amerindians. The continuous influx of bacteria, animals, and plants from the Old World also took a substantial toll on endemic fauna and flora of Panama (Bennett 1976). On top of this, the conquistadors managed to ally with local groups to fight the contending Amerindian power in the regions they were looking to settle (Schwartz 2000, p. 11). After consecutive successful incursions and subsequent genocide, Spanish colonists established a violent paternalistic rule over the remaining indigenous groups. They brought European farming methods and pastoral traditions, which further transformed the landscape (Cronon 1983; Denevan 1992; Sluyter 2005).

The Ngäbe share their territory with the indigenous Buglé due to their proximity and combined efforts in fighting for legal recognition of their lands. Other reasons for sharing may include bureaucratic negligence, or conversely, geopolitical advantage (Bowman 1942). Both groups have been called Guaymí interchangeably for the most part of colonial history, possibly ever since Coronado wrote about El Valle del Guaymí in 1564 (Peralta 1883, p. 695).⁵ With the

⁴ Treasuries: "Española, San Juan, Cuba, Cubagua, Nueva España, Tierra Firme (Panamá), Cartagena de Indias, Nueva Castilla, C. Contratación" (Regiones de comerciantes y tesoros de Indias ~1538). The empire ended when the colonies became independent, but cultural hegemony through criollo governments lingered (Hardt and Negri 2000).

⁵ The valley of the Guaymí, subject to the jurisdiction of Costa Rica's Talamanca region, extended from the Guaymí River to the Calobevora River, or the Chiriquí river (Peralta 1883, p. 695 —Librería de Ferrer). Juan Vazquez de Coronado explored the Talamanca region in 1564, where the cacique was known as el *Duy*.

arrival of scholars and missionaries in the twentieth century, the indigenous groups of Panama had bestowed on them all manners of names, begotten by regionalism. In 1927, for example, the Swedish explorer, Erland Nordenskiöld visited a community of 200 people who lived near the Calovébora River, on the northern boundary between the provinces of Bocas del Toro and Veraguas. Anthropologists called this group Bokota and considered them different from the Guaymies (Nordenskiöld 1928; Alphonse 1956; ACUN 2010). The studies of French ethnographer, Alphonse Pinart (1885; 1887) first identified the Buglé as sub-tribes of the Ngäbe. Today, it is widely known that this is not the case. With the eruption of democracy in the 1990s, new indigenous social movements began to identify themselves under names chosen my their respective congresses (ACUN 2010, p. 16).⁶ Throughout the twentieth century indigenous people fought for protection of their lands. What was left of their territories became legal administrative regions known as *comarcas*. A comarca is semi-autonomous region for local governments in the tradition of the Spanish Empire (Suarez 1981). Figure 1 shows the Comarca Ngäbe-Bugle as it is today in western Panama.

The Buglé live in some of the more remote areas of the Comarca Ngäbe-Buglé (i.e., Santa Catalina, Calovébora, and Santa Fe), but also to the north of Cañazas and Las Palmas. Their language, Buglere, descends form the Chibcha linguistic family but has not been studied by outsiders as closely as Ngäbere (Ruhlen 1987, p. 202; ACUN 2010, p. 19). As a manner of geographical contiguity to the Ngäbe, settled Buglé communities to the east create a

⁶ Contradictory claims still persist. This move could potentially be a strategy to confuse the authorities. The beauty of this possibility is that nobody except them would know, thus remaining safe from legibility.

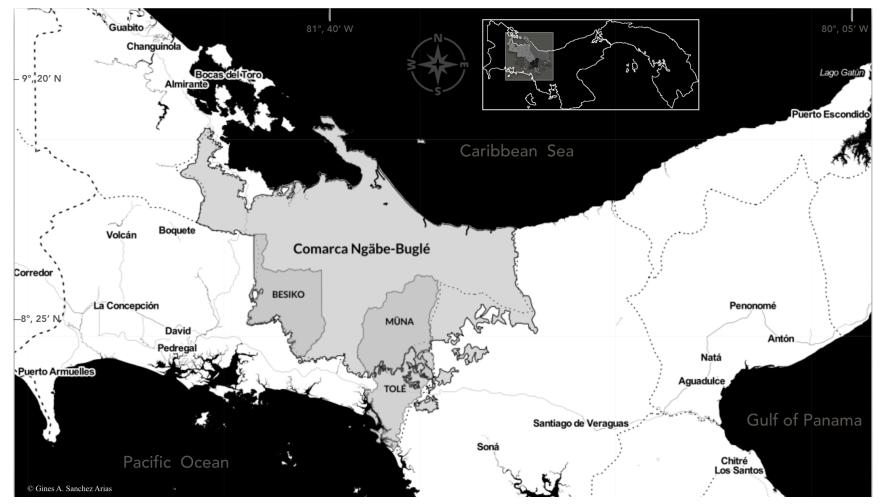


Figure 1: The Comarca Ngäbe-Buglé is approximately 7,000 km² or 9% of the total area of Panama. The districts Müna and Tolé were the main areas of study. Besiko was secondary. Credits and Permissions: Panama districts GeoJSON from <u>El Tabulario</u>. Comarcas GeoJSON by <u>Global Forest Watch</u>. Map tiles by <u>Stamen Design</u>, under <u>CC BY 3.0</u>. Data by <u>OpenStreetMap</u>, under <u>ODbL</u>., © <u>CARTO</u>.

linguistic-cultural frontier between the two groups.⁷ Like Buglere, Ngäbere belongs to the same linguistic family. The majority of the Ngäbe population speak it, but only half of the Ngäbe live within today's Comarca (ACUN 2010, p. 18).

Today, the shores of Bocas del Toro are populated by different Afro-descended peoples, the Ngäbe Ñekribo, tropical rainforests, tourist townships, and banana plantations spreading along the north-western coast of Panama. This wet-tropical sub-region climbs south to meet the Cordillera Central, at the continental divide. On the other side, towards the Pacific, the Ngäbe grow rice all year round, which is a staple crop in Panama. Maize is generally used for *chicha* and chicken feed, except when it is fresh, in which case *maiz nuevo* is a cherished food. Depending on the region within the Comarca, the Ngäbe and Buglé farm and tend to different fruit gardens, mostly depending on the fertility/acidity of soils, and altitude (Gordon 1982, p. 67-68). The rivers provide several species of fish and crustaceans (Gordon 1982, pp. 49 - 50).⁸ A minority of communities and hamlets in the Comarca also have the means to raise livestock, chickens, turkey, pigeons, and/or pigs (Gordon 1982, p. 68). Hunting is an increasingly

⁷ In July 2013, I spent one week in a mountain region over the Upper Rio Cobre region in a village called Guayabito situated in Ñürum district of the Comarca. Both Buglé and Ngäbe share this village. I had the opportunity to study and compare both languages (Ngäbere and Buglere). A couple of boys and girls would be eager to teach me every day after working on the field or going for hikes to the top of mountains and bottom of valleys. Guayabito is a dense township structure, already moving away beyond a cluster of hamlets and towards *villagization* or *reducciones* (Herlihy 1986). I have seen villagization takes place when the government, in association with Christian sects, build schools and health center, instructing people to move in closer together.

⁸ I have also witnessed that during the dry season, Latinos or *sulia*, who either have befriended the Ngäbe or just appear at the river/borders, come with incredibly big nets, and take buckets upon buckets of fish back home to sell to merchants. The activity becomes mutualistic sometimes, and the Ngäbe join in for the bounty. Other times, more so in the past, confrontation could turn violent.

secondary activity, but game can still be spotted around gardens and regrowth sites (Gordon 1982, p. 98-100).⁹

Banana plantations in Changuinola and Bocas del Toro used to represent the most significant workforce of Ngäbe labour. As wage labor becomes more ubiquitous, whole families, or solo workers, migrate to areas such as the highlands of Chiriquí, low areas in the east of Chiriquí and Costa Rica. In Costa Rica, however, the Ngäbe live in several "indian reserves" instead of comarcas (i.e., Coto Brus, Abrojos Montezuma, Burica and Osa). Others with training in secondary schools manage to find work in the construction and service industries. They save money and return home for several months or even years, to then repeat the process.¹⁰ In the highlands of Chiriquí, they constitute a substantial part of the workforce of coffee plantations and high-end horticultural urban businesses. In the last thirty years, thousands of Ngäbe have migrated to bigger urban centers like Panama City, Santiago, and David, where they go in search of new opportunities and adventures but often find hardship, gang violence, xenophobia, marginalization, wage slavery, debt, gambling, and other endemic phenomena of slums and sprawling unplanned cities (field notes 2014).

In Panama, the colonialism forced the Ngäbe to move farther into the safety of the remoteness of the Cordillera Central (Young 1970b, p. 13). The Spanish conquest of Ngäbe territory went through at least four stages: 1) the physical conquest of Ngäbe areas —i.e., Coclé

⁹ I was lucky to take part in hunting armadillos (*Dasypodidae*) and *ñeque (Dasyprocta punctata*). I would also help triangulating and chasing down free range pigs, with the aid of hunting dogs and using the various vocal and whistle sounds to identify the others in the chase. This was always a favorite activity for me, the oversized child in Kiad.

¹⁰ I have asked for reasons why they return. Most people seem to agree that the cities are dangerous and inhospitable. Indeed, drug problems, gang violence, noise, and long work commutes deter many people from assimilating into the peripheries of the city.

mountains to the east (Castillero-Calvo 2004); 2) the founding of "Indian villages" —i.e., Tolé, Cañazas, San Félix, San Lorenzo, Guabalá; 3) missionary incursions in the current area of Veraguas, Chiriquí, and Bocas (Castillero-Calvo 1995); and 4) the invasions and attacks of the Miskitos, driven by the English pirates (ACUN 2010, p. 18). This process also saw the reconfiguration of Buglé and Ngäbe populations. While this long period in history was characterized by sporadic encroachment, the central government's independence of 1903 saw the expansion of state control. This new modern era would come to reformulate the indigenouscolonizer relations in a more constant and conscious manner. These modern stages came about with the liberal governments that wanted to modernize the country, central planning dictatorships, and lastly neoliberal frenzy of foreign investment. Albeit ideologically different, these waves of development seek one common Panamanian identity, effectively jumpstarting a new struggle for native or indigenous societies.¹¹

Omar Torrijos is a major figure in indigenous politics today. He entered the picture with the *coup d'état* of 1968, soon advancing policies favoring landless peasants and social sectors neglected in the past (Gjording 1991, p. 28). Land redistribution became one of Torrijos' tools to empower the poor. He endeavored to unite all Panamanians under one national identity. By rescuing the Panama Canal Economic Zone from foreign occupation he would come to pioneer an unprecedented national sentiment across a majority of the population. In Darién, in the east of

¹¹ *Native* and *indigenous* are concepts that can refer to human, non-human, and more-than-human categories. They are locally occurring phenomena and people. I will not deconstruct these terms separately, because they both serve a politics of primacy. Being indigenous is a politically salient phenomenon. It harvests alliances and animosities, both benefitting and harming resistance movements. Deleuze (1994 [1968], p. 14) writes that "concepts with finite comprehension are nominal concepts; concepts with indefinite comprehension but without memory are concepts of Nature." I use indigenous and native interchangeably as nominal concepts that exist in a liminal state with a concept of Nature.

the country, Torrijos supported the formation of villages and the adoption of organizational systems based on the traditional congresses of the Emberá and Wounaan (Herlihy 1986). In 1969, two *congresos generales* were held between the Emberá and the Wounaan and between the Ngäbe and Buglé that formed the political structure that has evolved until today. With this new framework of relations, indigenous youth soon became crucial players in both promoting indigenist policies and joining the anti-imperialist struggle of the time. In the 1970s an indigenous intelligentsia linked to the indigenist policies of the government began to emerge. Today, for example, the Guna intelligentsia is well known in the country and internationally, with their philosophies and poetics they fill the political arena with invaluable social critique.¹² Abya Yala, "land of the vital blood" in Guna language, has risen in popularity among indigenous peoples to replace the colonizer's terms, America and the New World.

In 1977, shortly after the approval of the Torrijos-Carter Panama Canal treaties, Torrijos opened the discussion of policies concerning the indigenous populations. In 1989, the National Coordinator of the Indigenous Peoples of Panama was born (COONAPIP). The primary objective of this coordination was to bring together all the Indian General Congresses into a common future. During the first few years, COONAPIP became very active, pressuring the Legislative Assembly to draft laws of: 1) Wargandí and the Comarca Ngöbe-Buglé, 2) the Fundamental Law of the Guna Yala Comarca, 3) the legalization of the territories of the Embera communities that were located outside their comarca, 4) the ratification of international conventions (such as ILO 169) (ACUN 2011, p. 41). COONAPIP soon became part of PAPICA, a program for supporting indigenous peoples of Central America financed by the European

¹² Formerly known as Kuna, indigenous phonetic revisions now spell the ethnic group with a "g:" Guna.

Union (Léger 1994). After the progressive adoption of economic liberalization policies in the 1990s came the transition of the canal to Panama, and with it the total independence of the republic. A re-invigorated Panama began to open its borders to international tourism and foreign investment. This first decade of the twenty-first century saw unprecedented economic growth, and with it, new pressures to expand the energy and infrastructure sectors to cater also to a growing population. In reaction, new laws passed to reinforce the fragile structures of the country's indigenous societies: 1) Law 20 of 2000 on indigenous intellectual property, 2) Law 72 of 2008 on the adjudication of the collective property of indigenous land, 3) Law 88 of 2010 on intercultural bilingual education. However, not much empowerment took hold, and comarca lands would continue to be undermined.

In 2010, under Martinelli's infamous presidency, Executive Decree 537 would have modified the Organic Administrative Charter of the Ngäbe-Buglé Region so that the Electoral Tribunal (TE) could organize elections within the comarca. Even though the Supreme Court stopped it from materializing, this and several other attempts (e.g., Law project 30) indicate the national assembly's continued efforts to liberalize more mining codes to show that the Panamanian governments have not been interested in strengthening an intercultural state. In a marriage between populism and neoliberalism, policymakers used the discourse of inclusion to entice the indigenous people into assimilating as *panameños*, and to join the republic where "we all need to help each other prosper," meaning the powerless need to sacrifice to guarantee the ease of capital investment. New actors kept emerging, adding to the pressure over indigenous territories. The modern/colonizer model (conscious or "innocent") installs extractive projects, such as, hydroelectric power plants like the infamous "chan" dams —Changuinola 75 and

12

Changuinola 2— and Barro Blanco, and mines like Petaquilla Minerals Ltd., a Canadian gold mine in Colón, or the failed Cerro Colorado copper mine in the comarca (Gjording 1991).

In parallel with neoliberalization, the Ngäbe population has made a comeback, triggering a renewed political unrest with the larger society. Native population numbers have grown steadily since the 1960's, and the Ngäbe currently constitute the largest indigenous group in Panama, with approximately 260,193 people (INEC 2010). After one culminating protest in 1996, thousands of Ngäbe and Buglé marched to the capital city of Panama to demand the establishment of legal delimitation to protect their land. The Comarca Ngäbe-Buglé was created the following year by the Panamanian Government in association with the Traditional Congress of the Ngäbe and Buglé people. Formally speaking, the comarca is a semi-autonomous region by law (Ley No. 10 de 1997). It neighbors the provinces of Chiriquí, Bocas del Toro, and Veraguas (Young and Basset 1999).¹³ The demarcation covers 6,968 squared km reclaimed from the three surrounding provinces and superimposed over where it was agreed the Ngäbe had their homes established. This legal delimitation of indigenous territory is supposed to protect them from further encroachment. It should be an explicit social contract so that the inhabitants of the Comarca can have the final say regarding development schemes and supervise extractive industries wishing to operate within its boundaries (Hunter 2012).

Indigenous cultural revitalizations happen as forms of adaptation in terms of revolutionary organizations that resist stress, reworking themselves to produce a better "fit" to the population's cultural patterns (Wallace 1956, p. 426-427). Indigenous societies seek to jump

¹³ See Appendix B for supporting document "Gaceta Oficial:" Carta Orgánica de la Comarca Ngäbe-Buglé del 25 de agosto de 1999.

over the oppressor conceptually, to then return with ways to fight encroachment and claim their hearths. Other groups also look inwards to re-legitimize their knowledge-base. The indigenous cultural landscape keeps adapting to pressures in the land. Despite the countless calamities and assimilation programs by European and Panamanian colonization, their language and traditions survive and persist (Alfred and Corntassel 2005, p. 597). Kiad, the community at the core of this research, is an exemplary case of resistance. It is located in an annexed polygon of the Comarca Ngäbe-Buglé known as *Bakama*.¹⁴ Figure 2 provides a view from above the community.



Figure 2: Bangama slopes looking down to the community of Kiad. Bangama is annexed territory to the indigenous Comarca Ngäbe-Buglé, located in the south-eastern border with the province of Chiriquí. This photograph was taken by the author before the flooding (May 2016).

¹⁴ This spelling is prone to change depending on where one looks. The Ngäbe orthography discussed in later chapters should clarify it.

The name *Bangama*, as I translate it, also serves as the last-name of the families who live here. This geographical last-name probably became influential through the imposition and hegemony of state control (Scott 1998, p. 71).¹⁵ Kiad is close to the Tabasará River, where the land was lush before the flooding (Figure 2). Here they used to keep fruit gardens in the manner described by Gordon (1982, p. 93). At a higher elevation, people must find water drainage tributaries for productive soils and water. There are at least two crucial elements that make Kiad the core for this study. 1) A unique orthography was born here.¹⁶ It seeks to replace the Latin script that missionaries and government officials use for religious, public school, and official purposes. 2) There is a resistance movement against the damming of the Tabasará river. Although the dam's reservoir area has already flooded this basin, the Ngäbe conducted many thoughtful strategies to combat the project. 3) The development of a Ngäbe pedagogy, which functions as a synthesis of the two elements previously mentioned. Kiad's pedagogy initiative is critical, containing strong political and ecological components as well as a culturally situated religious discourse (Scardigno and Mininni 2014, p. 345). Figure 3 shows a satellite image of the area where the hamlets, the river, the dam, and the latino communities intersect. In the preface to Alphonse's Guaymí Grammar (1980), Young describes Ngäbe communities to be separated from each other about 1km and living in caserios (hamlets) of 8-9 houses. Although villages also exist, these are quasi-organic or promoted by the state.

¹⁵ Government officials often ridicule indigenous people by assigning them insulting names and last names in Spanish. El Tribunal Electoral and its clerks take care of the bullying. Thankfully, because they are primarily non-assimilated, but also given that they are aware of the implications of inaction, people in Kiad have fought and won against these clerks in several occasions with regards to their last names in the *cédula* (government identification card) (field notes 2015).

¹⁶ Orthography is the representation of the sounds of a language by written or printed symbols and the art of writing words with the proper letters according to standard usage (Merriam-Webster 2018).



Figure 3: Satellite image of the core area of study. This landscape shows the Barro Blanco Dam, the reservoir area during summer, and the hamlets on the slopes of Bangama (nudió/mountain). Three shades of brown on the peripheries represent the places with increasing relationship to the state and *mestizaje*. Credits and Permissions: School picture by Oscar Sogandares, and script by the author. Bird's eye of Barro Blanco, La Estrella de Panama (<u>©GESE</u>). Map Data: ©2018 Google, Digital Globe.

Language and Cosmology

In the Chiriquí region, fewer than 10 native words were recorded by sixteen century chroniclers. Therefore, it is hard to determine whether those populations spoke the now extinct languages Dorasque and Chánguena, sometimes believed to be ancestral forms of the languages that are spoken by the Ngäbe, Buglé, and Naso. Accounts from the seventeenth century suggest that these languages were spoken in pre-Columbian times. Such loss builds a nostalgic present for native scholars and linguists. Constenla was arguably the most prolific and preeminent scholar of the Chibchan languages. He pioneered work in linguistic genealogical histories and grammars of Ngäbere and its neighboring cousins (Constenla 1991; 2008; Constenla and Rojas 2009). In his 1989 article, Constenla advances the thesis that proto-Chibcha originated in today's southwest Costa Rica and western Panama due to its diachronic splitting at about 3000 BCE into the different Chibcha languages. Research of this kind helps complement indigenous political action in conversation with current government officials and Panamanian citizens. The distant past, however, serves more to fill textbooks and museums away from the front lines of legal geographies and resistance movements. Media and information warfare also demand indigenous societies to expand their approaches to subvert the grand narratives of powerful outsiders.

Writing systems in indigenous scripts are largely unknown to linguistic anthropologists and have been scarce or replaced by outsider scripts either by a need to document the languages or to proselytize (Basso and Anderson 1973, p. 1021). Often dismissed by scholars as mere scribbles, like the case of the Western Apache's Silas John writing system, orthographies have enormous potential for social action (Jaffe et al. 2012). Scripts are directly linked to literacy (Taylor and Olson 1995), but given that indigenous orthographies are often developed by

17

outsiders (Hinton 2014; Munro 2014; Cahill and Rice 2014) reading and writing have a limited autonomous potential of being critical. John Corbett (2011, p. 307) writes that culture is "the expression of a common purpose and the expectations of certain standards." This definition encapsulates the cohesion that writing can provide. Indeed, why are indigenous people like the Ngäbe and others like the Nunavut or the Cherokee coming to the realization for the need of a written language?

Mamatada is a minority religion in the Comarca, but given the condition of being autochthonous it is official by law (Law 10 of 1997, see Appendix B). The religion began in 1962 with a messianic figure known as Mamachi (Guionneau-Sinclair 1986, pp. 102). As a syncretic religion with Christianity, Mamatada teaches its followers to be skeptical of the government and the Latin people, by questioning colonial history and rethinking narratives of loss, trauma, and humiliation (Guionneau-Sinclair 1987; field-notes 2016).¹⁷ As such, Mamatada practitioners seek to repudiate the widespread stereotype of indigenous peoples as backwards, lazy drunkards by renouncing to the use of alcohol and traditional Ngäbe games like *balsería*. Moreover, they take the Bible to be true, and like the Rastafarians (Collins and Blot 2003, pp. 145-149), they believe that the "next chapter" must be theirs. In Kiad, the new orthography development began as interdependent to Mamatada; and has yet to outgrow it. At this point, social advancement intersects with cultural expectations producing contentious interdiscursivity.

In his studies of Ngäbere, Constenla points to three dialect varieties (Kädriri, Nidrini, Ñö Kribo), which are intelligible across regions. The dissertation focuses on the Kädriri variant,

¹⁷ For about four days (April 23-27, 2016) I attended a gathering in the town of Boca Balsa, district of Besigó, region of Nidrini, where every year all Mamatada practitioners get together to worship and discuss future prospects.

specifically in Munä, which belongs to the Tabasará and Bangama region. The UNESCO *Atlas of the World's Languages in Danger* ranks Ngäbere as "vulnerable" (Moseley 2010). This means that it is not in imminent danger of extinction, but it is certainly under pressure by Spanish, the national language of Panama. Other scholars of Ngäbere include several Christian missionaries such as Fray Adrián de Ufeldre (1622-1637), Bishop Ephraim Alphonse (1956; 1980), and Rev. Sarsaneda Del Cid (2009; 2012). They have pioneered transcriptions and translations of Ngäbere, in many ways aiding the state by performing as middlemen, virtually turning proselytization into diplomacy. In this sense, the Latin script facilitates the transition from Ngäbere to Spanish, aiding children's integration into Latin culture and citizenship. Their impact has helped promote the proliferation of 1) schools (EIB 2005),¹⁸ 2) health centers (Sarsaneda and ACUN 2012), and 3) churches, along with Western values and costumes.

Pioneering anthropological work on the Ngäbe include John Bort and Phillip Young's (1982; 2001) work on gender roles, ritual, symbolism, and cultural survival. Their research has contributed understandings about the structural model of Ngäbe marriages, the many non-Mamatada traditions (e.g., balsería), and cultural change throughout the latter quarter of the twenty century. Wickstrom (2003) has followed Gjording (1991) with development studies on mine extractivism. These scholars mentioned above inform foundational understandings of the Ngäbe culture at large, but remain largely *etic* in form and practice.¹⁹ My study seeks to understand the epistemological endowment in Ngäbe culture and language in relation to

¹⁸ *Sistema Intercultural Bilingüe* or the Intercultural Bilingual System of 2005 with efforts from the indigenous peoples of Panama and the Panamanian Ministry of Education.

¹⁹ In anthropology, *etic* implies the objective view of an outsider. Conversely, *emic* seeks to know the subjective approach from within.

extractivism. Kiad's critical literacy opens up an *emic* lens to Ngäbe culture. Critical literacy can be defined as "learning to read and write as part of the process of becoming conscious of one's experience as historically constructed within specific power relations" (Anderson and Irvine 1993, p. 82). My study takes this route to situate the decolonizing potential of Kiad's Mamatada revitalization. This indigenous pedagogy is subversive, because their literacy works as a counterpoint to national programs. Figure 4 shows generational relay in action: a third generation will come to bear the responsibility of maintaining and innovating the pedagogical program onwards.



Figure 4: Practicing the calligraphy of Ngäbere numbers. Photograph by the author, February 2016.

Decolonial Theory

Decolonial theory is interdisciplinary. The dissertation combines the more clear-cut research in the field of decoloniality (e.g., Anzaldúa 2007; Maldonado-Torres 2016; Mignolo 2007; Quijano 2000; Santos 2014) with scholarship by indigenous thinkers (e.g., Alfred 2005; Tido-Kri 1974; Tuhiwai 2012). It further includes critiques of neoliberalism and extractivism (e.g., Cleaver 1979; Harvey 2005; Acosta 2005; Escobar 1992; Gudynas 2009), notions on legibility and borders (e.g., Scott 1998; 2009; Nietschmann 1995; Herlihy and Knapp 2003), and ultimately assemblages of ontologies and epistemologies (Latour 2004). The discussion of decolonial theory requires four necessary definitions: 1) Colonialism is the historical process of European settlements across the world characterized by the extraction of natural resources, establishment of an intercontinental system of slavery, spread of disease, and biological transformation of fauna and flora of ecosystems (Sluyter 2002). 2) In contrast, colonization can transcend its historical category in academia to include indigenous people's contemporary experience with the oppressor, as they themselves name it (field notes 2015). 3) On the other hand, coloniality is more specifically the process of actively exploiting and undermining indigenous knowledge (Mignolo 2007). 4) Post-colonialism can be a state of cultural erasure where the subaltern subject is used, and spoken for (Spivak 1983), but also a hopeful landscape of liberated spaces (Watson and Huntington 2008)-propelled by decolonial theory and action.²⁰ The prefix *de*-provides a cognitive opposition to oppressive forces, from conceptual to material.

²⁰ The term subaltern was coined by Antonio Gramsci in his discussion of cultural hegemony to mean those people of lower status, invalidated, not allowed have power in politics or participate in creating knowledge. The subaltern are subjects of inquiry.

In the 1990s, decolonization was transformed into decoloniality, and came to mean "decolonization of knowledge," and "to cast Eurocentrism as an epistemic rather than a geographical issue [...] The focus became the decolonization of knowledge rather than of expelling the colonizer from the territory, and delinking from the colonial matrix of power. At this point decoloniality became synonymous with being epistemically disobedient" (Mignolo 2011, pp. 53-54). Colonialism and post-colonialism still are historical dimensions while coloniality is the active process whereby economic and national matrices of power interests also include racism and sexism (Quijano 1991, 2000; Quijano and Wallerstein 1992, Mignolo 2000; Maldonado-Torres 2016). In other words, there is a history of coloniality and a present as well. People at the other end of coloniality have been voicing that labor and land are life rather than mere commodities (Anzaldúa 2007; Fanon 1963 [1961]; Tuhiwai-Smith 2012). This signals a clear departure from capitalist modes of thinking and emphasis in decolonial thinking.

Decoloniality is de-Westernization, and decolonial theory first needs to look at how epistemologies of the subaltern are built. The ethnohistoric record is made legible through the lens of European explorers, missionaries, officials and academics. Panama's pre-Columbian societies have been described as diverse, ranging from small settlements with little disparity in wealth to loosely integrated macro-regional polities (Espinosa [c. 1628]; Oviedo [1535, 1547]). Inquiries into the early colonial cultural adaptation of humans in Panama have mostly focused on ethnohistoric documentation (Cooke and Sánchez Herrera 2004c; Young 1970; Sauer 1966). "Only with the emergence of ethnohistory does analysis of natives as agents in the colonization process even begin to become possible" (Sluyter 2001, p. 417).²¹ Critically engaged "ethnohistory" can be understood as stolen or neglected histories, even when they have been written down (Sluyter 2002; 2012). Many ethnohistories have been lost to racism, but can sometimes be rescued. Ethnohistories produced in the present as histories aid postcolonial studies, and can be emancipatory, but coloniality remains because Eurocentrism puts "ethnic" on its periphery. One exemplary discussion of Eurocentrism comes from unearthing the idea of a precolonial "unspoiled wilderness," and later, to the common modernist belief in "unexploited resources" (Willems-Braun 1997). Both beliefs draw on and reaffirm the colonizer's idea of the emptiness of the Americas, often termed the "pristine myth" (Denevan 1992). It worked by popularizing precolonial landscapes as having lacked dense populations and productive land uses (Blaut 1993; Sluyter 2002), and was exacerbated by maps showing European ownership over vast territories of land (Wolf 1982).

Moreover, if the "modernity/rationality" nexus defines a relationship between Eurocentrism and time that constraints it to the production of novelty (e.g., teleology), then that linearity can be understood as one of the conditions of coloniality which demands the inferiority of indigenous societies as subaltern. Urbanization became panacea, providing liberation from the toil of working on the land, and vocational schools represented the step away from

²¹ For example, documents found in Natá de los Caballeros in central Panama describe the vegetation of the past landscape of the Santa Maria watershed and adjacent lands. European eye-witnesses wrote about the landscape as they saw it. Natá was established in 1522, which became the first permanent European town in the Central Pacific lowlands (Cooke and Ranere 1992). Scholars doing archival research have found sixteenth century accounts of Natá stating that it served as an exchange center, where indigenous inhabitants would trade fish and crabs for maize (Espinosa in Jopling 1994, p. 49; Linares 1977, p. 73) and "cotton mantles and traded across the cordillera for gold ores" (Oviedo Sumario, VII, p. 7). Oviedo (Sumario, VIII, p. 23) remarked that the main items traded at Natá were salt, maize, salted fish, spun and unspun cotton, blankets, hammocks, and gold. We know by way of Gaspar de Espinosa's descriptions of the extensive salt production facilities, abundant fisheries, and hunting grounds around Natá's greater area (Linares 1977, p. 73). This means that both manufactured and crafted goods, were sold and bought here.

backwardness. For this purpose, urban political ecology studies help address the simultaneous presence of modernity and capitalism, what has come to be known as urban metabolism and urban nature (Cronon 1991; Gandy 2004; Heynen, Kaika and Swyngedouw 2005). The city is made of inputs and outputs, such as food, waste, and energy, but in the wake of its growth, it causes substantial changes to the health of the "remote places" where indigenous people live (Scott 1998; Cresswell 1997). Evidence of the negative social and environmental repercussion of capitalist modes around the world (Acosta 2005; Escobar 1995; Gudynas 2013; Quijano 2007) and its inescapable contradictions (Harvey 2014) have led geographers to build compelling cases against Western rationality (Doel 1999; Sundberg 2014). For example, the idea of the "colonizer's model of the world" emerged as the colonial redistribution of global resources, labor, and capital that became naturalized and justified through a concomitant conceptual redistribution of categories and hierarchies (Blaut 1993; Sluyter 2005). The goal for future scholars activists is to identify what are the existing alternatives and how to implement them (Gudynas 2009).

With clear proof of Western civilization's waste ontology, externality's trashing of the biophysical world, salient indigenous activism become a required point of departure for engaged academics (Gudynas 2013; Mignolo 2011; Santos 2014). In which case, studies that analyze colonial legacies must take into consideration: 1) development projects that depart from extractivism are an empiric contradiction (Acosta 2005; Escobar 1992); 2) a more in-depth connection to the landscape comes from practicing the language that adapted with it (Davis 2007 [2001]); 3) in the long run, coloniality is detrimental to all parties that live under it (Baldwin n.d.; Fanon 1963; 1967). Indeed, geography channels multiple disciplines into holistic assessments of

both the physical and the ideological worlds. In a broad sense, the tendency of this dissertation is to move from thinking economically to thinking ecologically (Latour 2013), specifically moving from Eurocentric coloniality to a hopeful pluriverse/plurinational society informed by decolonial theory. This conceptualization can also be thought as a shift from anthropocentric to biocentric (Acosta 2005; Gudynas 2009), whereby Ngäbe relationship with nature is not treated as backwards but as legitimate and viable (Gordon 1982). The written language development and its pedagogical content can help outsiders see what already is true in the indigenous culture (Cahill and Rice 2014). Figure 5 assembles the elements: orthography from the sky, crop management from land, and politics from the horizon.

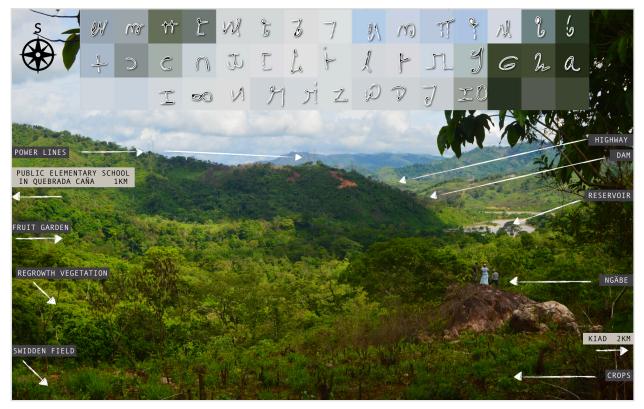


Figure 5: Landscape at the intersection of the Tabasará River, Barro Blanco dam, and the Comarca Ngäbe-Buglé. This figure represents border thinking as seen from the swidden fields of Ngäbe hamlets. In this photograph the dam is its final stages of filling the reservoir area for the first time. Image by the author, June 2016.

Methods

Beginning in the summer of 2013, I started visiting and living in the Comarca Ngäbe-Buglé. I lived intermittently with the Ngäbe of the Tabasará River basin in the hamlet called Kiad. While in the field, I attended more than fifty protests on the streets of Panama City, Tolé, Viguí, and the Pan-American Highway to witness and participate in the encounters between the Ngäbe and the police. At the heart of my study is the critical consideration of my own presence, that political ecologists are "forced to ask who gains and who loses from research, and to think hard about how one ought to act in a political ecological landscape" (Robbins 2012, p. 201). Through the lens of actor-network theory, my study weaves a path through a complex network of actors, including indigenous leaders, government officials, environmentalists, NGOs, political parties, school teachers, a dam, and businesses (Rocheleau 2008). I participated in rallies inside and around the borders of the Comarca Ngäbe-Buglé. I hiked many mountains and valleys, meeting people and chatting with them about their livelihoods. Indeed, entering the fray without participating becomes alienating, a distance withholding our understanding of situated knowledges (Haraway 1991, p. 183). Language thus becomes the first step in participating. I became one more student in Kiad and learned to write Ngäbere with their process and with the person who made it all possible, Tido-Kri.²² Tido and his family gave me confidence to express myself in Ngäbere, a much needed boost that became especially useful when asked to speak in public in rallies or meetings. I explore the role of the to-be linguistic-political-ecologist, who

²² *Kri* means big or large, but in this case it means older. It is also a *measure word* for elongated things. For example, a tree is also *kri*. When I write Tido-kri, I mean elder Tido. When I write Tido-badi, I refer to his son. And if I write Tido-chi I refer to Tido's grandchild. These suffixes are how I commonly distinguish them in conversation. Tido is their actual names in Ngäbere, and it is good measure to protect their identities. My name is Todi in Ngäbere, another common proper name in the *comarca*. Throughout, I will not be giving names in Spanish, which would be their legal names or as they are recorded by the Panamanian State.

must be an active observer-participant (Rocheleau 2008, p. 718), in order to sufficiently experience the situational realities of the communities one visits. I seek to answer the question: how is autochthony created and how does language play a role in political agency and selfdetermination? As I go about the *comarca* I ask informal questions that are often broad in scope and can thus take many directions that can only be improved via long-term evolving relationships.

Against coloniality, through syncretism, and into pedagogy (Freire 1970; 1993; Guionneau-Sinclair 1987; Wickstrom and Young 2014), "social discourse analysis is by necessity intertextual" (Kristeva 1986 [1966], p. 40), that is, "it is concerned with the way other texts are incorporated into the text under analysis" (Strauss 2005, p. 222). In this manner, discourse analysis is vital to the study. Corbett (2011, p. 315) mentions "the impact of intercultural communication on pedagogical understanding of discourse is seen in the importance given to differences in values and beliefs, conventions, [and] social expectations." In this manner, successful orthographies depend on the established rubric of a systematized pedagogy, coupled with an ideological imperative (Sebba 2007, p. 14). This study will look for discursive clarity across these categories. Quinn (2005, p. 26) mentions three ways of tracing discourse: 1) expository discourse (explanation, belief, opinion); 2) narrative (exposing cultural meaning); and 3) life stories (full individual accounts of life). To narrow down the search of meaning and knowledges in understandings of discourse, my study unpacks political events in Chapter 2, religious revitalization in Chapter 3, and pedagogical narratives in Chapter 4, specifically connecting contemporary resistance to extractivism, existential conundrum of language loss, and border thinking with decoloniality.

Organization of the Dissertation

Chapter two explores the Ngäbe resistance movement to extractivism by a dam on the Tabasará River. It follows the events and the actors along with an analysis on extractivism, borders and legibility. Chapter three looks at the community of Kiad more closely by assessing their linguistic innovation, elements of the pedagogy, and political narratives therein. Chapter four brings together linguistic anthropology and political ecology to argue for a hybrid approach in understanding indigenous ways of decolonizing (Demerritt 2005; Whatmore 2002). In their life-long struggle with state bureaucracy and now with a damming project, the Ngäbe teach us about civil responsibility and nonconformity in the face of corruption and paternalism. Chapter five concludes on how geographers can apply the findings to better understand the complex unfolding and repercussions of coloniality's wake. This last chapter looks at the significance of the findings to learn how to identify the potential of applying linguistics in political ecology in order to collaborate with indigenous ideas, and, to create projects together. A conceptual framework expands the relationships and interactions of these elements from the landscape and towards a global model.

CHAPTER 2: POLITICAL ECOLOGY OF THE TABASARÁ RIVER BASIN

Economic interests are being valued above the peoples'. [People] that are here with you today. We are going to lose everything! Be it from flooding, or from reforestation; we are going to lose it all. The land that we have, we can offer it to the next generations for many years to come, but in what ways are we going to provide them with anything, if Varela [the president] gives us a million dollars [to leave]?

 Tido-Badi in a public assembly with Defensor del Pueblo (Ombudsman), Alfredo Castillero Hoyos in Kiad (2016).

Changes in the landscape affect human communities unevenly (Bryant and Bailey 1997, p. 188). This is especially the case with development of extractive projects in agrarian and indigenous societies (Bebbington 2002, p. 130). A cost-benefit analysis of a hydroelectric power plant, for example, often results in dissonance across cultures (Robbins 2012, p. 42). One reason for this in Panama is that indigenous people and Latinos play opposing roles in the colonization process. This remains true today as it did in the past; one group's gain in power and space means the other's loss (Sluyter 2001, p. 422). In recent decades, the Ngäbe have endured colonization in the form of mining projects (Gjording 1991; Wickstrom 2003), dams (Evans 2015), law insecurity (Cansari and Gausset 2013), financial institutions and carbon credits (Hofbauer 2017), human/indigenous rights violations (Pérez, Hofbauer, Mayrhofer, and Calzadilla 2016) and mapping arbitrariness (Smith, Ibañez, and Herrera 2017). Indigenous societies deserve less coercive solutions, and political ecologists can help develop understandings of the complex dynamics they face in a Eurocentric world (Perreault, Bridge, and McCarthy 2015, p. 6).

Colonialism is a topic of serious academic inquiry (Denevan 1992; Sauer 1938; Sluyter 1999; 2002; Turner and Butzer 1992), but more importantly, colonization is a visceral reality for

indigenous people. The Ngäbe are continuously delegitimized as primitive (from teleological, and technocratic arguments), reduced to a commodity (from tourism and economic perspectives), or marginalized as an inferior ethnicity (from racist and corporatist worldviews). Constant pressures from the larger society affect the local ecosystems and the livelihoods of the inhabitants directly (Wolf 1972, p. 109). Tido-Kri reminds us of the pattern of colonization,

Ngäbe people get no rest. If its not one [project], then it is another. For example, I will be stripped away from here. So, they throw me somewhere else, but over there they find something else, and so from there, again, move over once again. You have to... No, you are not owners. What is going on with this?

Political ecologists know that it is wise to listen to the situated knowledge of place (Harraway 1991; Latour 1999), given that natives have experimented extensively with the land and adapted unique methods to take care of it (Bebbington 2004). Colonization and capital flows meet the Ngäbe at yet another juncture —the Tabasará river basin. The capitalist state with its police and the capitalist company with its machinery take control of the boundaries of resource extraction and deterritorialization as they clash with indigenous people. The government's bureaucratic apparatus exploits time (Tuhiwai-Smith 2012, p. 24), holds the maps that legitimate territory (Monmonier 1996; Scott 1998), and creates and maintains contractural relationships with private companies that have development money from European banks (Pérez et al. 2016). All the while, the Ngäbe have "weapons of weak" (Scott 1985) or grassroots strategies. The more the indigenous people resist their hinterland status, or pressures from urban centers, the more dependent their relationship with cash economy becomes (Swyngedouw 2015, p. 17). Crops left unattended start to fail, and subsequently, new avenues open: financial aid and wage labor in cities become new ways to support friends and family on the camping grounds.

This chapter first exposes the main actors and puzzles in direct relation to damming the Tabasará river. A follow up discussion looks at the Ngäbe resistance to the infamous Barro Blanco dam. Lastly, the chapter explains how political borders are at the core of a legal-capitalist framework that allows colonial power relations to run uninterrupted. The case-study uncovers some limitations for the political ecology approach: the impotence of maps and borders under a capitalist rubric give indigenous people little or no escape in protecting and conserving their cultural landscape.

A River, a Dam, and a Resistance Movement

The Tabasará river is fed from the drainage basin of the Cordillera Central, and from the river tributaries of Cuvíbora and Rey. From the 52 watersheds in the Isthmus of Panama, this river has the 24th largest basin and it is the seventh longest river in the country (ETESA 2016).²³ The Tabasará meanders south through the plains of eastern Chiriquí and flows into the Pacific Ocean. People who live in the watershed, who depend on the river for their livelihood, enter a tough situation when debating development strategies with governments (Gudynas 2009; Swyngedouw 2004). In 1997, a consortium was created to develop a set of two dams (Tabasará I and II). In 2000, the Supreme Court of Panama suspended the project in light of the project's failure to engage in consultations and obtain the consent of the affected indigenous communities, as required by Law 41 of 1998. In January 2011, the court approved the concession contract entered into between the National Authority of Public Services (ASEP) and the hydroelectric company, Generadora del Istmo, S. A. (GENISA) with the green-light for the study of

²³ Tabasará basin area is 1289 squared km and the river is 132 km long (ETESA 2017).

environmental impact (EIA) conducted by ANAM, the environmental authority at the time.²⁴ However, an addendum expanded the power generation capacity of the hydroelectric dam, causing the increase of the flood level from 98 to 103 m.a.s.l. This change directly affected the lands annexed to the Comarca Ngäbe-Buglé.²⁵ In this regard, the government and the company held the Ngäbe in a precarious position that would come to erupt in constant protests until 2017.

The *Movimiento 10 de Abril* (M10), is an indigenous movement that fights to protect the "life, traditions, ecosystem, cultural, and intellectual patrimony of the Ngäbe and Buglé of Panama" (interview with Goejet in 2015). M10 has been active since the first attempts at damming the Tabasará in 1999. It includes people directly affected by the damming, plus activists who want to join their cause. Goejet, Tido-Kri's eldest son, has headed the movement since 2013, after his uncle, the previous M10 president, "sold out." The group has a network of technical supporters (biologists, conservationists) who have demonstrated in many public hearings the illegal environmental transgressions of GENISA. In 2014, a change of administrations in the central government of Panama also marked a change in politics and hostilities against the indigenous people. Juan Carlos Varela won with the slogan "The People First" (El Pueblo Primero), and opening a relationship of "*diálogo*" with the different parties involved in the Barro Blanco debacle. This openness and change of hostilities worked well as a distraction, allowing time to finish the dam, and effectively refusing the indigenous groups

²⁴ ANAM became a Ministry with the administration of Juan Carlo Varela 2015.

²⁵ In 2011, GENISA released a report that states "no-one will be relocated because of the project" (p. 18) and that despite a small part (6.7 ha or 67,000m2) of land being flooded which belongs to the indigenous Ngäbe people (pp. 30-31). GENISA also claimed that the land which will be lost (submerged by the reservoir) are areas which are not under cultivation or used for any productive use (p. 36).

demands. Figure 6 displays three landscape images that together show three respective spaces of resistance: from subsistence, to civil disobedience, to literacy, and back.



Figure 6: Leaving to live or living in constant leaving. a) *top:* crops. b) *center:* school. c) *bottom:* highway. This sequence of three panoramas collapses Kiad's past, present and future: from food security to protest back home to learning, and repeat. The endless cycle takes the Ngäbe to Tolé, at the crossing with the Pan-American Highway. Photographs by the author, 2014, 2015, and 2016.

Although, M10 had managed to stop the construction several times, in the end, the government, admitting to all the faults and illegalities, made it clear that Panama needed the

hydropower plant, and offered to pay reparations to those affected by the project. Goejet discusses the logic in an interview,

We've got a very big difference. Someone who is used to money thinks that money gives them everything, and those who are used to their land knows that their land gives them everything, because from it, they live. To be poor means that one does not have anything. One thing may be that I have no money, another is that I have the environment, which provides a whole lot of unmeasurable riches. The forest in the Tabasará river basin is very important. There is medicine, plants, and different animal species that live there. So for me, we do, actually, have wealth, which is ecology. We do have it.

Since 2011, the case of the Barro Blanco dam has been well documented in national and international news outlets (TVN 2016, La Prensa;²⁶ Aljazeera 2012), NGOs (CIEL 2013; 2014; CIAM 2013a; 2013b; CMW 2011; GS 2017), several Human Rights Commissions (IACHR 1997; 2006; 2016), and researchers in environmental justice, policy, and finance (Cansari and Gausset 2013; Evans 2015; Hofbauer and Mayhofer 2016; Hofbauer 2017; Pérez et al 2016). After more than seven years of failed dialogue and negligence, constant protests have become an everyday part of life. M10, their families, and their entire communities have been exposed to the world and continue to be reported on in the news as indigenous people fighting for the natural endowment of the country, or conversely as rural folk who do not cooperate with the national program. Presently, the dam is built and running. The project completed its construction in August 2016. GENISA and three consecutive Panamanian administrations, who have exhibited a national politics of neglect by way of distraction, diversion, an all-out rhetorical war between competing parties, human rights and environmental law violations by GENISA, leave children in Kiad to dwell in the middle of this political drama from birth. Tensions have waned, and the

²⁶ All news on Barro Blanco by La Prensa newspaper, Panama. Web-link.

conflict lays on gray areas with animosities on all parts. The court has ruled against the indigenous people.²⁷



Figure 7: Opening the way for the dam's reservoir in the Tabasará River, and point of resistance. Photographs by the author, December 2013.

Honduran businessman Luis Kafie²⁸ and the past government of Panama under Ricardo Martinelli²⁹ (2009-2014), have been described as the epitome of belligerence, and both have a history of corruption, slander, and shady dealings. Panama keeps reviving its reputation as an obscurant of justice against corruption by attracting investors similar to Kafie. The ramifications are global. The European developments banks involved in financing GENISA —EIB European

²⁷ Updates and current status with the dam at <u>Banktrack.org</u> (also links to multiple news coverage).

²⁸ Honduran-owned GENISA is part of a Central American economic group owning more than 450 MW of installed power generation capacities in the region. AENOR, the Spanish Association for Standardisation and Certification, gives it a category 1 (renewable source energy industries). In total, GENISA estimated a total reduction of 1,405,622 t CO2 emissions (Barro Blanco PDD 2010, p. 8)

²⁹ With the administration of Ricardo Martinelli, corruption was business as usual. Effectively, many case studies on Dams in Panama illustrate processes of "green authoritarianism, spatial control, and social restructuring, [indeed] the private developers constructing the CHAN 75 and BONYIC dams did not follow international standards for free, prior, and informed consent, and state agencies reinforced private rights with physical violence" (Finley-Brook and Thomas 2011).

Investment Bank, German Investment and Development Company (DEG), and Netherlands Development Finance Company (FMO)— have also been irresponsible by joining in. M10 has paid visits to the ambassadors of these countries multiple times and even traveled to the Netherlands and Germany to denounce these banks (field notes; Pérez et al. 2016). In addition to making the intercultural leap to participate in the Latin American judicial system in order to defend themselves from private and governmental neoliberal agency, indigenous people must leave their sowings, houses and small children to travel and debate in the different towns and cities of the country and the world (Finley-Brook and Thomas 2010). Hydro-development affecting indigenous lands has a recent historical precedent as a hybrid neoliberalization process, where private and state institutions sell formerly collective resources to feed urban electrification and international carbon markets (Finley-Brook and Thomas 2010).³⁰ This is the case with ETESA, a state-privatized energy distributor, that now manages most of the energy grid of Panama.

Non-native sympathizers help indigenous people like M10 create spaces of resistance in urban centers, where they may occupy (e.g., Plaza 5 de Mayo) and demonstrate (e.g., National Assembly, Electoral Tribunal, Presidential Palace). Nowadays, the police rarely turns to lethal physical violence, as it used to under Ex-President Martinelli and Ex-Minister of Security Mulino.³¹ Protests usually end up costing participants a couple of hours inside a jail for civil disobedience (Alfred 2005, p. 204; field notes 2016). The political atmosphere regarding free speech and press remains somewhat healthy. The government remains eager (perhaps too eager)

³⁰ Intercontinental Cry 2011. Web-link to article.

³¹ SERVINDI: Comunicación intercultural para un mundo más humano y diverso. *Panamá: Represión a protestas de ngöbe buglé deja dos muertos y más de 40 heridos*. <u>Web-link to article.</u>

to listen to the different sides of the issue and keeps protests to a minimum by engaging them without retaliating too harshly. The semantics of the word *desarrollo* (development) and the phrase "we are all Panamanians" used in nationalist political discourse, undermines the right of indigenous cultures to their autonomy by wishing for them a path to Occidentalism. Ngueni remarks,

We do not want to end up in a marginalized *barrio brujo* or neighborhood on the edge of a city that keeps us entertained with violence and poverty every day. We want our lands to continue to develop in our own way.

This sentiment along with community ties to the land, forest, and water are the essential prerequisites for living without money, *buen vivir* in Spanish or *sumak kawsay* in Quechua (Gudynas 2011; Santos 2014; Walsh 2010). As soon as native lands are taken or destroyed, destitution looms for the rest of indigenous people's lives: "Again and again, peasants, nomads, and tribals have fallen into misery after being driven from their land, savannas, and forests. [...] Scarcity derives from modernized poverty" (Sachs 1999, p. 11). This relationship of capitalist imperatives over the exploitation of indigenous lands can also be read as colonization of the built boundaries through necessity of economic growth for the metabolism of cities (Gandy 2004, p. 369). The "availability of land" in the New World prompted the colonizers —ideologues of capital— to enclose the land and thus restrict availability to the colonized (Cleaver 2000 [1979], p. 86). By this measure, the indigenous people incorporate to the externalities of water privatization regimes that affect them and exclude them by the same process (Swyngedouw 2004). The disaster of the Tabasará river ecosystem is an aftermath of raw neoliberalism. Neoliberal capitalism relegates the native's lamentable circumstance to nature's way. Nature has

no disasters, it just is, but when humans enter the picture, the problems exist in cognitive relation to it. This critical distinction is made to assign a politics to what often is left apolitical, where the blame can often go to the void of nature, or the whims of the powerful. By thinking a-historically about human social pre-configurations —such as segregation, inequality, marginalization, and pollution— the present becomes tyrannical and unfair, especially when maps and borders already disadvantage minorities.

The "enviro-technical" complicates further the ahistorical and apolitical assessments to rivers (Hughes 1983, p. 1; McNeill 2000, p. 129; Blackbourn 2006, p. 74). A hydroelectric dam works by repurposing energy through the simplification of the biophysical environment (Worster 1985, p. 331; White 1995, p. 12). From the indigenous vantage point, a dam can be thought of as a disaster, in which case, Barro Blanco is part of the hinterland of urbanization, and a pulsating ecological hazard. Resource extraction, in this case, water, is an anthropogenic ecological disaster and a modern technology, a colonization and a necessary component for the metabolism of urban centers (Swyngedouw 2006). The case of Barro Blanco is thus a text-book case of a political-ecological crisis. The state of adaptability as a function of Ngäbe "underdevelopment" depends on their capacity to tolerate disturbances without collapsing into a different qualitative state. M10 maintains their strong vocation to defend the livelihood of the river as can be seen expressed in the following passage and in Figure 8:

Enough with all the the abuses against our Mother Earth. Let's decide the future we want to leave behind to our generation; it is we who must decide because the governments are very disinterested...let's think then from word to action! Let's protect our Mother Earth no matter the price. (M10 Speaker, Ricardo Miranda, 2015)



Figure 8: <u>Moneni</u> ritual at the petroglyphs (now underwater). This yearly ritual, that can no longer occur on this site of pilgrimage, was evidence of the vitality of Mamatada cosmology. This site was on the Tabasará River 200m from Kiad. Photograph by the author, February 2016.

The dam's political and environmental implications are an aggregate of the river overflowing, the reservoir area shifting, and the implementation of reforestation programs after the dam is completed —deploying the police to throw the Ngäbe out of their land. Risk-assessments from a utilitarian point of view dismiss the fact that indigenous people end up dealing with the full weight of a dam's externalities, while the cities reap all the benefits (Bakker 2000; 2005; Kaika 2003; 2005; Swyngedouw 2009; Gandy 2004). By damming the flow of the river, a hydroelectric plant also creates an imminent threat for endemic species that will be dealing with a change too drastic to adapt to (Lansing et al. 1998). In contrast, some cultures like

the Ngäbe assign greater importance to the "more-than-human world." Because these other species are not even part of the *demos*, and due to having limited mobility across ecosystems, plants and animals suffer hazards and experience disasters worse than the human inhabitants. Hence, indigenous people's stewardship of nature begins from their already existing relationship to the "more-than-human world." Some indigenous cosmologies draw from their mythology, theology, and political manifestos, or from their religious and cultural identity, to face external pressures like coloniality and extractivism. Therefore, many resistance strategies of indigenous people make use of the environmentalist approach.

At the hamlet level, the Ngäbe practice a close and even friendly relationship to the forest and land (Gordon 1982; Michon 2012). They are vulnerable, not in themselves, but given their relation to the encroaching system that supports the dam and other development projects of similar magnitude and reach (Wisner, Blaikie, Cannon, and Davis 2003, p. 8: Figure 1.1). They are vulnerable to the extent of their endemic capacity to cope, resist, or recover from the impact of resource extraction (Blaikie 2004, p. 11). Exploitable assets for modernity —water, minerals, forests— constitute the raw inputs of the networks that make the modern world's industries. Frequently described as parts of nature — as external, revealed, and made consumable through technology (Bakker and Bridge 2006, p. 8)— the capitalist enterprise looks for ways to use the complex biophysical world and commodifies a targeted resource (Bakker and Bridge 2006, p. 9). When the state, through the ministry of the environment, decides what rivers to dam, they must not only alert inhabitants how biological diversity and those who sustain their livelihood will be affected, but also must seriously consider the importance of local's situated knowledge (Braun 2007, pp. 24-25). In legal terms, the expropriation of people's homes is called easement (servidumbre forzosa) (DDHH 2016, p. 14). In other words, Western society with its utilitarian and democratic underpinnings sacrifices the livelihood of a minority for the benefit of a majority (Gudynas 2009, Ch. 4, ph. 1). Bakker and Bridge (2006, p. 12) write, "Conceding that commodities do indeed have their origins in social relations that are largely obscured by the commodity form [...] through their circulation, exchange, and use [...] resources perform myriad social functions as 'things in motion.'" Water as energy is one of these obscured commodities. In this darkness, Barro Blanco's maximum capacity of only 28 mega watts of energy outweighs the social cost of impoverishing several hundred people, archaeological sites, places of ritual and pilgrimage, fauna, flora, sediment flows, water regime, land tenure, and mature forests. In 2007, 56% of Panama's installed energy capacity came from hydropower (SNE 2016, Table 2). In 2016, the hydroelectric capacity had doubled to 1,768 MW, and a 60% gross consumption compared to other types of energy. The energy demand keeps increasing and the grid must adapt to the demand of skyscrapers, hospitals, and other buildings where constant energy flows are indispensable (Interview with the Panamanian Secretary of Energy, Dr. Victor C. Urrutia, 2014).

#TabasaráLibre

On the digital front, M10 seeks to inspire indigenous people to strive to protect their quality of life, ecosystem, cultural, and intellectual legacy. As M10 matures it informs itself, more by the global network of empathizers than by the national *status quo* Their internet hashtag movement became known as #TabasaráLibre. The scope of action in cyber-activism focuses on "freeing the river" from the Barro Blanco hydroelectric project (Hofbauer and Mayrhofer 2016). The hashtag's discourse focuses on the calamities of the centralized economic structure of development where minorities are unrepresented. The hashtag covers various themes concerning

colonization: from paternalism, misconceptions of the extreme poverty, indigenous culture priorities, human rights, peace with nature, and nonviolent resistance. #Tabasarálibre also connects an array of actors and news outlets that aim to update the public about the current status of indigenous and peasant communities, and meeting points for workshops and rallies in various parts of the Comarca and surrounding areas, in places such as San Felix, Soloy, Chichica, Cerro Venado, Bajo Mosquito, Llano Palma, Cerro Caña, Llano Culebra, Maraca, Cerro Maíz (in the districts of Tolé, Müna, and Besiko).

M10 is largely composed by Mamatada believers (see Chapter 3), which is fundamentally non-violent (field notes and Guionneau-Sinclair 1987, p. 90), making interesting clashes with the anti-riot police. Tido-Kri, for example, does not get involved with street protests, while new generations who are more active and study their civil rights more closely do tend to want to fight. Some practitioners helping with the resistance against GENISA come from all over the Comarca. Even though they do not live in the Tabasará basin, they have settled on the project's gates, to pray every day for years without stop. Clementina Perez is their leader, and they call themselves Movimiento 22 de Septiembre (M22). M10 and M22 have grown and maintained their cause also supporting other indigenous groups and communities, for example, against the Chan 75 dam in the Changuinola River. They have organized numerous debates with and petitions to the mayors and caciques of the area in communities throughout the districts of Munä and Besigó.

The internet and telecommunication companies are rapidly gaining momentum in the Comarca. Whatsapp has become the best means to organize rallies and meetings, replacing summoning people by traveling across the valleys and mountains. This technology has also

helped spread indigenous leaders' voices in real time to news channels, and radio shows. Possibly due to the extent of globalization, M10 has centered their campaign for indigenous rights very closely on the United Nations declarations. Throughout the years, their campaign became ever more articulate under the parameters of environmental justice, possibly given the help of the conservationists who worked in solidarity with them. Their digital presence has been unprecedented among Panama's environmental movements. For example, M10 fliers read "522 years of resistance," to organize rallies in opposition to the national celebration of the 12 of October as "The Discovery of America."

Also on the digital front, European development banks finance projects encouraging companies to rebrand their slogans of natural resource exploitation to address their discourse towards helping vulnerable peoples in coping with Climate Change, or promoting development that helps locals get out of poverty. Non-binding human rights international regimes, like the UN Declaration on Indigenous Rights offers hope for victims, but human rights treaties also pose barriers as state regulations are not bound to follow them (Murphy 2013, p. 1217; Pérez et al. 2016). Those affected by GENISA's Barro Blanco, campesino and indigenous alike, held dozens of workshops with environmentalists and lawyers to help the many communities understand the long-term implications of the dam. This strategy forced GENISA to face the courts regarding the various infractions it had already committed, but they ended up blaming the company and not the spirit of the project. The government would still need the dam, which was still promoted as "green development" or as "renewable energy."

Indigenous leaders and the national government would ideally have to examine which technologies available are least ecologically disastrous, and with full disclosure know where to put them, with precisely the measurements of impact. But the reality is that there is no trust among these historically opposed groups. If cases that caused environmental catastrophe due to hydroelectric power dams show time and again the problems repeated, why do governments continue to authorize them?

The following sections in this chapter take a theoretical bend to indigenous resistance, arguing that autonomous movements have a unique vantage point that can empower similar struggles dealing with capitalist borders and exploitation. More specifically, the task is to look at capitalism's construction of exploitable difference from the borders it creates. These borders are at the expansion of accumulation by dispossession, or the psychological "divide and conquer" mentality of coloniality. Lastly, the focus of this chapter is to fill-in on the deficit of indigenous representation in politics, which obscures attempts to trace the disruptions that lie at the core of capitalist globalization (Neilson and Mezzadra 2013, p. 30). Furthermore, I argue the indigenous people of Kiad, and more specifically M10, are successful dissenters, not only for their work resisting locally, but also by successfully communicating their struggle worldwide. Their defeat can have a new life.

Remote Global Capitalism

The hills where indigenous people live are globalizing faster than ever before. This process is happening via the expansion of telecommunication systems, satellite mapping, energy

grid expansion, and population growth.³² The global economic, political and cultural program that drives colonization is capitalism (Peet, Robbins, and Watts 2011, p. 203). Neo-Marxist approaches in political ecology (Biersack 2006, p. 10; Bryant 1998, p. 80; Watts 1983, p. 267) help articulate this landscape with attention to political economy (Barnes, Peck, and Sheppard 2016). Global capitalism has an ideological appearance: it promises to encourage freedom and creativity, but its systematic exploitative and competitive structure engulfs everyone, making them either tools or losers. The cultural dimension of capitalist expansion promises to welcome all peoples into free interactions, but works to homogenize cultures at the periphery. The following analysis looks more closely at capitalism at a particular shifting frontier, where it currently tries to absorb new subjects. Many Ngäbe women and men can be seen as semiproletariate, sporadically participating in the cash economy. For several seasons, many already live or commute to work as household servants or with informal contractors. Some have access to subsistence agriculture, but do not run their farms as enterprises, while others at least partially rely on the cash income of some family members.

Marxism is a European modality, and the Ngäbe as indigenous peoples of Central America can seem far from such Eurocentric analysis of capitalism. Indeed, there is a critical cleavage between these two. Indigenous people are not always fond of Marxist analysis for the teleological reasons that puts them outside the radar of contemporary politics (Porter and Sheppard 1998, p. 366). However, a more prescient reason it that indigenous people are usually preoccupied with their spiritual environment rather than worried about securing paying jobs with

³² During my time in Kiad (2013-2016) cellphone service became better every year. By the time the dam was built, multiple carriers were operational in the general region.

disregard to exploiting "natural resources." Indigenous people enter a relation with capital, and some use their status to learn about capitalism from a distance; and from such distance, they can rebel without being completely engulfed by it.

Since colonial expansionism began, capital used brute force to instill the commodityform into the indigenous populations (Cleaver 1979, p. 86). Since this moment, indigenous people would always be forced to participate in market relationships, but from an original position of disempowerment. As numbers of indigenous people dramatically decreased, the colonial governments would create "money taxes" to create a dependency relation (Sauer 1966). Other mechanisms of colonial rule would displace indigenous people to poor quality land (Blaikie 2016 [1985], p. 54). The Ngäbe live on one of the worst soils in the entire country (Gordon 1982, p. 4). There are other complexities at play about the current condition of indigenous people's poverty or powerlessness. Refusal to do work for pay was called backwardness by economists of capital, while the necessity of 'civilizing' primitive peoples grew (Cleaver 1979, p. 87). This same xenophobic stance still prevails today. The problem comes when hubris overpowers people to act in superior stance to others. Hubris elicits this threshold with regards to development: "Development always entails looking at other worlds regarding what they lack and obstructs the wealth of indigenous alternatives" (Sachs 1999, p. 7).

Land grabbing and land transformation by capitalism's border expansion produce externalities (e.g., hydroelectric dams, mines, protected areas). Systematically, these can be said to render negative feedback loops. Deforestation and reforestation of mono-crops have brought about pests that eat the products of swidden agriculture in the highlands (Gordon 1982, p. 140).

This process prompts —like with New Spain's institution of colonial money taxes— indigenous people to buy products in the national and international goods market. In the Comarca, people now buy pesticides to protect their crops. In turn, petrochemical pollution enters their ecosystem. A diverse forest protects crops, but the current lack of it, plus the existence of neighboring cattle ranches, are factors that help replace the *modus vivendi* of indigenous people. The "Zapatista effect" (Cleaver 1998, p. 637) presents for indigenous peoples of the Americas a strong and vivid example of resistance to capitalist exploitation, and a point of reference for free, independent, and authoctonomous movements. The Ngäbe look at the Zapatistas of Mexico with admiration for their protest of foreign capital. "In place of the usual hackneyed Marxist-Leninist jargon was a straightforward language expressive of the diverse local indigenous cultures in Chiapas" (Cleaver 2000 [1979], p. 19). M10 (2015), share a similar ethos with Zapatistas. Creating catchphrases at rallies:

There is nothing to negotiate. We want no charity, not millions, we want justice. We want the cancellation of Barro Blanco and a free Tabasará river!

M10 fervently defends indigenous autonomy over their land and riverine ecosystems that are so often threatened. The activist group also mentions the cultural, social, economic and environmental incompatibilities [of the Latino government] with the Ngäbe-Buglé and campesino people. They have looked closely at the arguments —technical, scientific, and legal that illustrate (in a language that technocrats should understand) their point against the hydroelectric dam at Barro Blanco. Indigenous people that employ their native status like the Ngäbe have the opportunity to join in shared cause and organize to defend themselves from capital's appropriation. They may indeed successfully resist capital by voicing to the public at large their discontent with the infiltration of dams. Borders come about from the creation of new war zones —no-man-lands — riots, boycotts, peaceful protests, cybernetic venues of discussion, mapping, and private property. Private space and borders are central to intimidation tactics that GENISA engaged against M10 and M22 members, as well as other protestors, creating many legal proceedings against them for "stepping on the company's property." These borders matter tremendously, especially when they are assigned to water, the river, and the reservoir. The social relations in and around borders constitute and reproduce a necessary understanding of capital (Mezzandra and Neilson 2013, p. 279). But the analysis goes beyond capitalism. In turn, "the encounter between nonnatives and natives in any particular region becomes increasingly problematic with protracted miscegenation, acculturation, syncretism, maroonism, resettlement, indirect rule through Westernized "native" elites, and other processes that blur the distinction" (Sluyter 2001, p. 422).

The particular place where the Dam is constructed is not inside the Comarca Ngäbe-Buglé, but quite literally on the border with it. Literally it is a fluid border, where capitalism is the border and where it also blurs the distinction between natives and non-natives, engulfing all actors. Indigenous autonomous movement is left to express its distance from capitalism by formulating a resistance, and innovating at the sight-lines. This stance is used politically by the indigenous people to show, for example, the wake of the destruction of ecosystems to the public. The native imaginary captures a long moment at a capitalist hinterland and tries to translate it so that others will sympathize. Similarly, the hydroelectric company tries to convince the public of the utility they provide and how "sustainable" they can also be. By causing habitat loss and fragmentation up and downstream in the aquatic ecosystems, capitalist expropriation simultaneously creates and removes borders to exploit people and the environment. What is to be done?

The Comarca: Legibility and Borders

Before the Comarca Ngäbe-Buglé (Carta Orgánica 1997), *colonos* (colonists) and Ngäbe had a troubled relationship characterized by informal claims to the land, swayed by deception and aggression. The official delimitation of borders of 1997 gave indigenous communities a new level of protection, but now under the Panamanian state. It follows, thus, that the state becomes responsible for cases of infringement (Wainwright and Bryan 2009, p. 160), even when neoliberal policies are in place (Hale 2005, p. 12). Concerning the case of Barro Blanco, political borders are at the core of disputes, and legally supersede claims about the health of the environment. Maps are the tools and legal mechanisms that legitimize and protect such political borders. Mapping indigenous territory with a participatory twist grew out of the idea that vulnerable landscapes (e.g. rivers, reefs, forests, and cultures) could be protected through a joint effort whereby local communities could map their knowledge of the landscape to make it legible, ultimately protecting it and themselves in the process (Nietschmann 1995; Corbett and Keller 2005).

With the advent of climate change along with capitalist societies' growing understanding of environmental degradation, the space grew for indigenous peoples to perform the role as stewards of holism, as conservationists. Being the people "closest to nature," they became the default caretakers of the world's fragile ecosystems (Herlihy and Knapp 2003, p. 308). This is a

new determinism, that, however positive, assigns indigenous peoples to a civilizational job in the productive network of a "sustainable capitalism." With the Green Revolution, indigenous people could embody a new identity as protectors of "nature" and through it, protect their land. The maps, however, remain problematic for reasons of historical antagonism, linguistic misunderstandings, and uneven degrees of inclusivity and properties at the national level (Chambers 2006). The main problem with legibility and mapping is: who is ultimately empowered (Poole 1995)? In this case, the Panamanian state's developmental agenda is prioritized over Ngäbe livelihood.

Such cartographic projects bring to life "the cognitive spatial and environmental knowledge of local peoples" in places that remain unmapped or where local knowledge is in need of "translation" to more conventional settings (Herlihy and Knapp 2003, p. 303). The aim of this approach is to leave education and empowerment via maps in the hands of indigenous communities (Corbett and Keller 2005; Herlihy and Knapp 2003, p. 306). Undesirable outcomes like Barro Blanco dam challenge geographers to re-examine the arena of struggle over natural resources (Peluso 1995; Rundstrom 1995; Rocheleau 2005; Sletto 2009; Wainwright and Bryan 2009). Mapping initiatives can lead to confusion, or what I call cross-pragmatic incompatibilities (Sánchez-Arias 2015). Tido-Kri (2016) says (Figure 9):

Once given to the Ngäbe, later it [the Comarca] came to be ignored. In other words, this [delimitation] is not really a law. So, this [boundary post] serves only to entertain. Moreover, who could enforce this [boundary post]? Nobody. Because the same people who make the laws, ignores them.



Figure 9: Tido-Kri on borders. Follow the <u>link</u> for a portion of the interview. This *hito* (marking) is now underwater. Located 30 mins walk downriver from Kiad. Photograph by the author, June 2016.

Most national policies until recently embodied the prejudices of colonial governments, which looked upon indigenous forest-dwellers not as resource managers who possessed the sophisticated ecological knowledge (Gordon 1982, p. 158), but as "primitive" peoples who should be pacified, civilized, and eventually incorporated into Western culture (Davis and Wali 1993; 1994). Maps are weapons as tools that for better or worse inform those in power about the exploitable elements of the landscape (Bryan and Wood 2015). Participatory mapping, however, has the potential to be counter-mapping by providing an institutionally validated means to make clear to the larger society which elements of their indigenous landscape are important to them. The saying goes, "if you cannot beat them, join them" or like Karl Offen (2009) put it, "O mapeas o te mapean" (If you do not map, you will be mapped). Racing away from the paradoxical nature of participatory mapping, geographers who help map indigenous landscapes see an emancipatory potential, imperceptibly against the risk of more colonization (Smith et al. 2017). However, between a researcher's intentions and the local participants' hope for autonomy there is a global industrial and capitalist system (Bryant 2001, p. 152). One cultural group's treasure when made legible can become the opportunity of exploitation by another group.

While doing fieldwork, researchers must look for evidence of potential cultural clashes (i.e. Kiad's petroglyphs, school, gardens, regrowth forests) and political cleavages (e.g., collective vs. private ownership) as they can result in cross-pragmatic incompatibilities. This study alludes to linguistics as precautionary measure. To learn the local language and its political and ecological ramifications can be intellectually challenging, but highly rewarding. Considering the many examples of cross-cultural political debacles across the world, the less powerful actors either conform, perish, or learn how to play the game (Rocheleau, Thomas-Slayter, and Wangari 1996). Many human geographers and critical cartographers support participatory research because the activity is believed to reduce the power imbalances inherent in the historically hierarchical researcher/researched dichotomy (Smith et al. 2017; Kelly, Herlihy and Viera et al. 2010). The idea of leveling the playing field with "participation" may give researchers greater insight into the target culture's inner workings. Others claim that giving into the systemic logic might be altogether a conscious defeat (Elwood 2010; Kim 2015; Pavlovskaya 2006). Academics, however, are not the only people helping indigenous groups counter-map. Conservationists and freelance journalists are also engaging and learning ethnography as they

map oral histories, plant and animal resources, hunting grounds, and communities. Indigenous leaders also counter-map, like with the case of the Quechua of Pastaza in Ecuador (Lozano Long Workshop 2014). M10 is especially not shy to exhaust all methods and avenues. Constantly creating new methodologies to help reclaim indigenous spaces, the scholars, activists, and indigenous leaders co-evolve around mapping technologies like GIS to warn governments of their existence (Dunn 2007; Pavlovskaya 2006).

The necessity for mapping everything has escalated for reasons of accountability and order in capitalist societies, but also for indigenous peoples' rights, conservation of forests, and climate change related issues. Researchers and participants have been engaging as partners for decades trying to undermine monopolies of knowledge (Kindon 2010, p. 519) and since population numbers of many indigenous groups have made a comeback (McSweeney and Arps 2005; Gordon 1982, p. 40), scholars have a better chance in developing this avenue. Nevertheless, global urbanization continues apace, putting pressures on increasingly remote ecosystems and cultures. Nation-states operate in opposition to nomadic, or smaller tribal societies (Scott 1998; 2009). The map, as an antidote, seeks to make borders comprehensive and legible, an inter-linguistic bridge, where nature's stewards and civilized society become harmonic partners. However, in "context-dependent local discourses" about environment and development, "each has lessons to teach and problems to avoid" (Peet and Watts 1996, p. 15-16).

In the twenty-first century, new technologies (e.g., GIS/Remote sensing/Satellite imagery) facilitate cross-cultural involvement and dissemination. With participatory mapping, research projects seek to validate indigenous knowledge and experience by combining research

with legal action, as well as jumpstarting remote communities into the process of participation in research so they themselves seek mapping as weapon of defense (Davis and Wali 1994). Moreover, the oral histories of indigenous societies are often contained in contemporary place names, and provide cultural cartographers with initial insight into their cosmology. Mapping landmarks with spiritual meaning ends up giving purpose to the participatory counter-mapping process. One clear example can be seen with the Comarca's districts and place names (e.g., Besiko, Mirono, Tabasará). Insights about the cultural landscape as represented through conceptual maps suggest the combination of "genealogical histories and symbolic attributions of place with some form of geographical representation" (Robertson 1972; Butzer and Williams 1992, p. 256-257). Moreover, glyphs, runes, and cultural symbols also inform of the importance of looking at these maps is the very politically charged landscape superimposition that results from the "process," the practice of making maps cross-culturally, while inside a colonial landscape.

In opening up mapping as both a didactic activity and legal action, participatory countermapping requires indigenous groups and researchers to appeal to bureaucrats, judges, and government executives for legitimation. However, in Panama, substantial illegal activity operates under cover or by circumventing due process. As a minority group, this task is thus all the more difficult. In this case-study, international organizations like the United Nations have stepped in, but have seldom succeeded or wanted to. Counter-mapping efforts end up neglected in practice. This is the point when and where the scholar-activist must enter the scene. Scholars are trained to dwell within contentious intellectual and technical atmospheres. While "map or be mapped"

exemplifies the obvious urgency, academics need to be in the forefront of innovating methods to plan for the failure of conventional means.

Nietschmann (1995, p. 7) writes "[A well-designed map] has transcendental power, because it can be easily translated by everyone everywhere." However, indigenous languages and cultures develop ontologies that make humanity diverse but at the same time create noncommunicable or illegible worlds, which modern states do not care about —unless they can extract value. So, has mapping worked for the betterment of indigenous people's rights and land tenure? (Bryan and Wood 2015). In Panama, participatory research sought to breach the gap between Ngäbe existentialities and those of the Westernizing policymakers in Panama (Smith et al. 2017). Escape from modernity does not seem an option anymore; even the remote areas of the world are scarce, and the question of population growth remains. On top of that, there is a clear need for conservation. Rising internal populations add to the pressures on the biologically diverse environments, but also challenge indigenous groups to focus their campaign against outside encroachment (McSweeney and Arps 2005). Kiad is a clear example of this.

Making knowledge, not just toponyms, legible can leak sensitive information. Barro Blanco and M10 are just two players under Panama's vast sea of problems with indigenous people. Even while having maps available to them, public opinion never settled the notion of boundaries about the dam or the reservoir. A utilitarian mindset always ran over the facts of borders and law.³³ In this manner, nation-states act to tame indigenous political action with innovations in the bureaucratic processes (Scott 1998), which protect or emulate capitalism, adapting new technics to expand its reach and control. Clerks from "independent" government branches like the Defensoría del Pueblo (Ombudsman) assist indigenous peoples to document claims, and help them pursue legal action, while at the same time, working as a mirage of hope, dilating time and building new distances between the indigenous people and the perpetrators.

Traditional–modern dichotomies tend to leave indigenous peoples on the far side from modernity reflecting a "racial dualism" where indigenous rights are rooted in their status as tradition-bound and stuck in time and against the modern state's seemingly benign intentions to spread wealth (Gordon and Hale 2003; Sletto 2009, p. 256). Such prevailing racial ideologies (and versions of them) are "common sense" in much of Central America (Mollett 2006, p. 1237). Lorde (1984, p. 112) so aptly put it, "[t]he Master's tools will never dismantle the Master's house." Inverting this logic: What but the Master's tools could dismantle the Master's house? "The Master" employs the more powerful tools; if one were to learn how they work, then would one be able to dismantle his house, his capitalism, his borders? This is the caveat with the legibility of maps.

³³ The state may say it is desperate for energy, and GENISA surely wanted a return on their investment. The arguments turn to utilitarianism: more benefits for the largest number of people, and over the suffering few. A group of marketers easily produce a visualization: How many households will receive energy and benefit from Barro Blanco dam? This is and has been, a powerful and easy discourse to aid the public to visualize the magnitude of that comparison. In reality, it happened like this. And the counter discourse ran: Barro Blanco is just a small dam that causes too much harm. It buries forests, and its output only feeds a Mall in the city.

Aftermath

As mineral deposits and untapped rivers of Panama become mapped in detail, what is left to ask is: who has the power to cultivate and harvest the map's potential in making the landscape legible? A map contains a summary of all the valuable vectors and anyone in the world can see them and seek to influence a purchase with local authorities. There are laws in place that protect the rights of humans and non-humans, including indigenous peoples, but in a landscape determined by corruption, the map is made up of valuable information that can instead be used to plan national projects that will always seem too big for minorities to combat. GENISA knew about this landscape because of maps produced by the state, and hoping the "Indians" would quickly surrender, sought to profit and deliver a much-valued service: electric power. In the end, it did not matter that the map showed the political boundary of the Comarca's territories.

The mapped landscape that is cultural, discursive, political, economic, and spiritual helps the group with more resources to make and remake borders that best conform to the maker's agenda. This colonial landscape of the Tabasará has been made substantially more uneven. In retrospect, the Barro Blanco dam could be seen as the most significant setback against one of the most ambitious cultural revitalizations in the region. Borders on a map become a new semiotic landscape for those affected by them. Primitive accumulation of "undiscovered" land for productive efforts, and for capital's propagation became the story of modernity: "to legally organize the colonial conquest and expansion of European powers" (Neilson and Mezzadra 2013, p. 32). Now, "a theory of legal pluralism is required" (Teubner 1997, p. 7). Fragmentation of the pluralist possibilities of a World Society become blurred because the border is a method for capital (Barnes and Sheppard 2010; Neilson and Mezzadra 2013, p. 280), which means that the

jurisdictional reaches of the hinterlands draw the limits of the city (Cronon 1992). Thus, the city ends where its extractive capabilities reach. Moreover, the city's networks of influence are not solely economic or energetic. These can also be cultural, and psychological.

The process of accumulation by dispossession is closed, static, and unidirectional, serving the people who have the ability to utilize nature for profit. A legible landscape has irreversible consequences (Dunn 2007; Elwood 2010; Rundstrom 1995), as the Barro Blanco case has shown in relation to of the Comarca's borders. To shift from ontology (how things are) to ontogenesis (how things become) "is a conceptual shift in how we think about maps and cartography" (Del Casino and Hanna 2006, p. 104), in other words, it is legibility. Capitalism creates new legibilities, as it commodifies them: the privatization of water "built around the logic of public law and public goods," (Neilson and Mezzadra 2013, p. 278) can also be considered as an enclosure within a map's jurisdiction. A map's very being is to have a becoming or a process, emphasizing the means over its end goal (Smith et al. 2017, p. 57; Sletto 2014). The most lingering conceptual misunderstanding during the whole Barro Blanco debacle was the question: where does the dam end? Proponents of Barro Blanco talk about the wall itself, while the ecologically minded look at the reaches of the waterscape.

If the government knew about the sacred sites, for example, would they be able to more effectively administer the Ngäbe, looking for ways to undermine them? If both parties hold the same maps at all times, when they come together to dialogue about proposed development projects, what variables and tactics will be used? What policy can exist that helps conserve indigenous valued places? Intended or not, boundary making to secure people in place, wherein

people and their cultures are presumed as primordial and static, risks the re-introduction of the "spatial incarceration of the native" (Appadurai 1988, p. 36). The day that the dam culminated and, in turn, opened this vein of the Comarca Ngäbe-Buglé —the Tabasará River— it denied indigenous rights to the ecosystem of the river (Galeano 2010 [1971]; Wickstrom 2003, p. 44). A glimpse of the aftermath can be seen in Figure 10. Injustices like this industrially induced blight continue to harm the landscape. Nevertheless, indigenous communities like Kiad keep looking for ways to alleviate these catastrophes with hopes of progressing towards a political arena when uneven power relations will not dictate their fate.



Figure 10: a) *left:* Satellite image one year after the effects of the flooding (Map data ©2018 Google). Regrowth forests become sacrificed for food production after loosing food gardens near the fertile banks of the river (Hecht and Cockburn 1989, p. 129). Dozens of species of fruit trees, tubers and plantain were lost. b) *right:* The reservoir fills and recedes leaving a muddy shoreline. Photograph by the author, February 2017.

Conclusion

Chapter two recounts the indigenous resistance movement facing the Barro Blanco dam. The ecology of the river-basin is a disaster remaining to be fixed. The case-study informs the political-economy of borders between the Ngäbe, Panama, and global capitalism as well as the intersection of extractivism and coloniality. Finally, in deciding how to become legible as indigenous people, the aftermath of the dam leaves the urgent need to decolonize. To this worry, on the banks of the Tabasará River, there is the school that holds the key for a Ngäbe adaptive strategy. That is, linguistic innovation from orthography to pedagogy that opens a new chapter for political ecology's considerations on how written language can inform the struggle for power. For months at a time, Tido-Kri walks the comarca teaching reading and writing, spreading his message: the desire to change the fate of the Ngäbe by giving new meaning to their linguistic group. The autonomous indigenous writing system could simultaneously make the Ngäbe a legitimate part of the map of education in Panama, and at the same time allowing an illegible critical literacy to protect the Ngäbe from colonial mentality and extractivism.

CHAPTER 3: NGÄBERE: AN ORTHOGRAPHY OF REVITALIZATION

Here [Kiad], we succeed in developing the letters we use to write our language. The only thing we ask for is to cancel the project [Barro Blanco]. Because we want to keep living here. You see, this area is going to be flooded. And we do not want that. We want to live in tranquility. We are not asking anything from the government that they could give us.

-Beliyi Jimenez (Interview, June 2016)

Language is always changing, sometimes due to regionalism which causes bifurcation from previous linguistic norms. Regarding general structural characteristics, the language, Ngäbere ['ŋɔbere], is verb-final, with SOV word order and ergative verbal morphology (Kopesec 1975; Payne 1982). It is a tone language, with two tones: high and low. It has a set of both oral and nasal vowels; there are 15 (eight oral and seven nasal) vowels and 16 consonants (field notes 2013). Some sounds of the language are shared with Spanish, while others are entirely different. The Comarca divides into three major regions, each with their linguistic peculiarities. I discuss the Müna variant.

In the Tabasará river basin of western Panama, the Ngäbe ['ŋɔbe] community of Kiad, has innovated a new way of writing their language, that, in turn, has spawned a critical literacy pedagogical program. While living in the banks of the Tabasará I realized that at the same time that the orthography was spreading, the political environment of this community became increasingly harsh, potentially undermining their cultural revitalization. This chapter documents and analyzes the phenomenon of the indigenous written script with the particular variant of Kiad-Mamatada culture-history. The case-study covers the more recent portion of a 56 year (1962 -2018) span of the messianic religion.

Revitalization Efforts

The Mamatada syncretic religion was born in the district of Besigó (Besiko). The district was likely named after the Mamatada prophet, Mamachi (also Besigó), who proclaimed her divine encounter with the deity, Ngöbö (God). Her house or ju, was located on the side of a hill, about fifteen minutes hike from the town of Boca Balsa. On the afternoon of September 22, 1962, three sets of runic inscriptions appeared on the ground around Besigo's house. She was told to show them to the Ngäbe so that someone would decipher it into a written system for the spoken language. The inscriptions were copied onto paper and reproduced for those Ngäbe who were brave enough to study and develop them. Many tried and failed, while others kept them for themselves and would preach from their esoteric scribbles that no one else could read. An original copy eventually ended up with Tido-Kri. He keeps it secure in Kiad. The process Tido engaged in developing the Ngäbere orthography is unique (Hinton 2014, pp. 143-144; Munro 2014, p. 170-171). Another "revealed" orthography arose among the Western Apache in the very early 1900s, but it was taught only to a few disciples of the prophet, Silas John Edwards (Basso 1990), and likewise remained esoteric knowledge. Tido changed the fate of this religion when he promised Ngöbö in 1974 to teach the orthography, in exchange for receiving enlightenment to decipher the runic symbols left to Mamachi.

In 1967, Tido-Kri began practicing Mamatada, and in 1971 he started studying the inscriptions. Knowing his purpose, Tido began a year-long study, finally interpreting the runic symbols into workable characters. He wrote down 163 words, which included all the sounds of Ngäbere, from which the new orthography was born. Words are, after all, where sounds live; the isolation of sounds from words represents a leap of faith of abstraction that took millennia to

occur in the invention of other writing systems (Gaur 1995, p. 19). Conversely, Tido's 163 words would come to hold the letters of an alphabet for written Ngäbere in just a matter of years. His covenant with God inspired this process of lexical to symbolic formalization. Tido's family, neighbors, and others across the indigenous territory began to learn his writing in the ensuing decades. "Our movement," says Tido, "begins with divine guidance, and takes root in practical life and experience." He reminds us, "We are weak, we are lesser, but is our turn to exalt." He gave me a sample of his calligraphy. Figure 11 shows an example of his writing and calligraphy.

WITHCH MINT +WM INDIH +I Em. LONGWAWWITAM JULYFFT EVITA IM OHIDH FOR LEWITHING YHWIFT WHITA Juctor FIANTH MARTIN ATTERCEN WITH Moyne Yury +HLORCAR MACAR 12100 Inlastor Attor Ogett Jugar In 1 Month theth YNLYTHIGHWOH GUVUNCON Reluction with monthing to man interes Sugueno Covytwott n7cno Attal From HARTING entre cuinter 19 200 them MOTIVEN ANOW 2NAMO ATTAT FZY 226 JUNFING HHATTICH + MINT tracticutors Type withe mount with me withe mine Imet +25m ALT ATHUAT LUARCHING LITTOPH WITH MITT noins las titros Incirca Synthesis Uskdes son indefensos, jormás se podrajo 16 restor and In 2 and ATLENT defender, no tienen como. Ahora les very a dar esto para que se defindan

Figure 11: a) *left:* Tido-Kri's writing sample (2014). b) *right:* Transcription from the Mamatada sacred book used for prayer and oration. Reproduction with Tido's permission 2015).

Sample b) reads:

You are defenseless, and would have never been able to defend yourselves, you don't have the means. Now I will give you this [the means] so you can defend yourselves.

Hitherto, Ngäbe cosmology had come from myriad interpretations by the different Ngäbe

factions. The sample above introduces the prime mover of Mamatada and the orthography:

written language as the means of salvation. Ngöbö returns with favor, giving the Ngäbe the

conceptual tool to revitalize their linguistic group. The message is the means, and the means embodies the message in return. In the case of Mamatada practitioners (a small portion of the larger Ngäbe society), the indigenous experience appeared as a cohesive perspective, that is, the vantage point of the subjects of colonialism. Esoteric indigenous knowledge kept by high priests of Mamatada would result in a failure to meet their needs as de-colonizers of Latino encroachment. Kiad's linguistic innovation would enter the scene with more vigor in 1995 as an alternative to the fragmented Ngäbe cosmology by democratizing writing into a reproducible system.

The new Ngäbe script renders an increasingly extensive network of "text-producing activities or discursive practices in which interdiscursivity is so embedded" (Johnstone 2008, p. 166). By analyzing interdiscursivity in narratives we can unearth the implicit elements of deeper knowledge. For example, the practice of reproducing sacred manuscripts for dissemination helps practitioners join praxis with theology, allowing them to hone their writing skills (Sebba 2012, p. 9). For decades, Kiad's identity creation has diverged from other areas in the Comarca because the written script strengthens the religious messianic mandate. This combination appears to liberate more than simply reward religiosity; it builds an inquisitive nature prompted by the condition of their divergent status with society at large. Mamatada is also endemic, and as such, holds special privileges of cultural autonomy not available to the followers of Evangelical, Baha'i and Catholic churches. The orthography, as an autochthonous creation, was created to aid the entire linguistic group and even hopes to serve other indigenous people in Panama, also troubled by phonetic incompatibility with Latin script (field notes 2015). Furthermore, the orthography is especially useful for people who have never learned to write, had struggled with,

or resisted the colonizer's system. "Print-capitalism created languages-of-power of a kind different from the older administrative vernaculars" (Anderson 1983, p. 45). This difference between the pre-printing and more competitive mass cultural program that came about in Europe, first among conspicuous actors and nations, became a powerful political tool diffusing the written word to all corners of the Earth. Either as defense, resistance, or to emulate, the Ngäbe felt the need to have a unique form of recording stories and communicating messages. The main point I want to elaborate is the decolonial logic of this orthography, in relation to the pedagogical program prompted by encroaching Christianity, and the myriad political pressures of state capitalism. Hence, the new orthography can function as a revitalization of the Ngäbe's existential being, of alterity, against colonial mentality and injustice.³⁴ This process is accentuated in scripture and narratives of Ngäbe unity and attention to ethnic preservation (Guionneau-Sinclair 1987, p. 89). This chapter also provides support that this stance has worked well for generating innovative potential and the steady diffusion of the orthography over recent decades.

Teachings in Kiad seek to explain and record orthographic genesis, philosophy of the environment, and social memory. The difference from Latino culture is inculcated to Mamatada practitioners as integral to the survival of the communities. Their animosity to the outside world becomes a means to articulate their issues of trust in past and current relationships. Popular misconceptions about so-called "traditional societies" like the Ngäbe continue to disenfranchise and delegitimize indigenous peoples' agency in the contemporary world. These societies are not outmoded modernity, but are parallel with it.

³⁴ I call this an ontography: writing one's being into existence.

As part of the research, I set out to study Ngäbere via Kiad's teachings. The study of language helped me reconsider the role of complexity in societies, because it opened a new horizon of stories, myths, and knowledge. There was however a lingering untranslatable clash between the *emic* and *etic*.³⁵ Although coloniality impoverishes Westerners as well, my experience as an outsider, as a *sulia*, remains disembodied from situated knowledge as I am not indigenous. Kiad shows how indigenous peoples' linguistic landscapes can become spaces for *tödiba* (schools), *garebo* (teachers), *maba* (books), and *jatödigaga* (students), to actively seek a praxis of decolonization. These four elements constitute the rubrics of Ngäbe literacy development, discussed below.

Tödiba

The school or tödiba is a hybrid place of gathering and learning. Simply put, it is a multipurpose space. It serves as a political space for debate and coordination and works as a venue for hosting events concerning the orthography (la letra or *kugüe*), and also to cater to various government officials and their crews when they visit the area, and to host Ngäbe travelers, news reporters, and other visitors. We eat and have philosophical conversations, listen to the news on the radio, study, and give presentations or declamations. Figure 12 shows three frames that viewed clockwise magnify all the way to a Saturday morning of school in Kiad. The first frame (a) is legible to the state. It shows the schools that surround the Comarca Ngäbe-Buglé. The second frame (b) shows tödiba, and the third frame (c) the jatödigaga with their maba. The Ngäber script written on the lower left corner translates to: for the students.

³⁵ From linguistics *etic* (phonetic) and *emic* (phonemic); anthropologists use emic to mean from within the social group in question or the subjective point view, and etic to mean the outsider's (objective) observations.

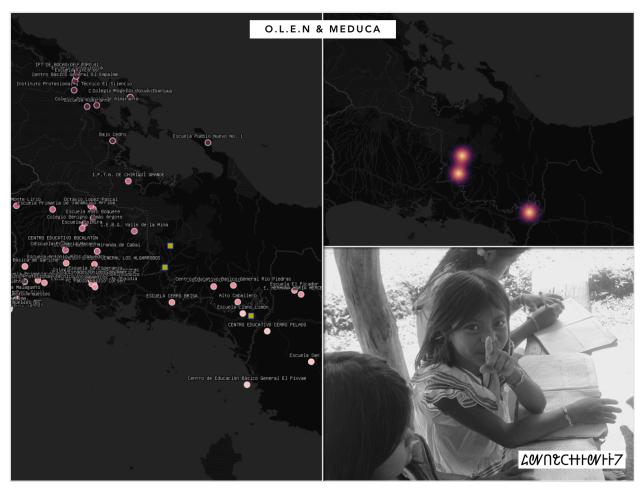


Figure 12: a) *left:* The map shows western Panama's public schools (circles with increasing pigmentation due north) and tödiba (yellow squares). Credit and Permisions: Base map © <u>CARTO</u> 2017 Data: UNESCO's Third Regional Comparative and Explanatory
Study (TERCE). b) *top right*: The map shows the beacons of Ngäbe tödiba. These three tödiba are the largest (with physical structures). There are smaller centers across the Comarca.³⁶ c) *bottom right*: Guenesi, Debora, and Melini studying. Photograph by the author, 2016.

There are at least three tödiba in the comarca, in Kiad, *Krawdo*, and *Keberi*, and there are also smaller independent study groups in other places, some of which are close to these three centers. Most students are 4-13 years of age. There are also some adults who find the time to learn to read and write the new orthography. School buildings are open tin-roofed structures

³⁶ There is another one in Nekribo, north of the cordillera. It is very difficult to access, at two days extra travel through the rainforest, and Antonio, who is the garebo there was not able to call me for a rendezvous.

containing a homemade chalkboard and some chairs and tables with unique designs. The floor is bare ground and the furniture is multifunctional, shifting depending on the function desired (e.g., studying, eating, or resting). The time for learning is all the time. In other words, it is not strictly enforced or compartmentalized. Tido-Kri stresses this point. He emphasizes that the *kiadre* (kids) have much to learn inside and outside tödiba, precisely about the function and utilization of plants, animals, and the river.

Maba

Three workbooks or maba guide everyday teaching in Kiad. These books are collaborative ventures between Tido-Kri, his daughters, sons, and friends or colleagues. These contain the conceptual tools for beginning literacy practice for children and adults in Kiad, Keberi, Krawdo and elsewhere. The first workbook, *Maba Kuadi* (1974), contains all the letters and syllabic combinations, plus short sentences dealing with children's lives. Tido, with the help of his bilingual nephew who had studied in the Panamanian public schools, established combinations of vowels and consonants into syllables, and then into an alphabet. The second workbook, *Maba Kubu* (1976), includes the first 163 words. Maba Kubu then follows up with a sizable number of short stories about fauna, people and the landscape including allegories and travel curiosities. Other stories consist of legends about past heroes, place names and events from their oral history. The third book, *Maba Tröro* (2006), is more similar to an actual workbook in style. It organizes vocabulary words along with similarities across prefixes and suffixes. The content of these textbooks results in an exemplary emphasis on Ngäbere cosmology.



Figure 13: a) *left:* All syllables for non-nasal vowels. b) *right:* Short sentences or phrases: children play, curiosity, and every day disputes. Source: Maba Kuadi (Tido-Kri 2015 [1974]).³⁷

Children first learn to write the vowels and then the consonants, later joining them in syllabic configurations. When they are ready to read, Maba Kuadi (Figure 13) offers relatable scenarios and genres. The anecdotes are all from Tido's experiences, from watching his grandchildren grow and interact. He illustrates these with drawings for each story. Themes include conflict, wonderment, and sharing. As an aggregate, these stories build a common analogy or metaphor: that the Ngäbe themselves are children, which is Tido's humbling reminder of new beginnings and patience. Mamatada lore also illustrates this teaching.

Maba Kubu, contains vocabulary words which constitute a broad worldview and quotidian concepts (Figure 14). *Ko* (name) *tẽmẽ* (ground) is one of the very first words, and it translates to the surrounding land or earth. A contrasting term and part of the 163 *kugüe*, is

³⁷ The community of Kiad gave their permission to reproduce the maba for this dissertation project.

kökögueni, or outside the cosmos, illustrating an elemental core-periphery model of the landscape and cosmology. Kökögueni is where the spirits live. A favorite travel story from Maba Kubu, recounts the particularly charming characteristics of a set of hills close to Llano Culebra, known as *Ola*. These are bald looking hilltops resting on a plateau.³⁸ The story of Ko-Ola is mostly a descriptive exercise of travel accounts; a means to explore more words and their usage in the context of the natural physical landscape of the upper Tabasará river basin.

12300 HIHTAN LUILTIN MICHINA would gele untilled 2-ulio INANT JIMM GENTAL JIMATIN tetro graina titit toat way MCCIAN YELE ELING 2019-17 Luchte Att there war ATTATT tuine non W then Att THEY GUIN IN THIT HTTP ATTEN TH IT MEN IM JITIT moins servino anterino u JUNI IT THE MITHING WING THE THE LILIFY METHON ITLINTH Mating with an out with it attatt as the signed AHTHTHT HURDENDING JNO JNO I WEW IH atte IZИ turn the costing the turing the ter ter 2 we contraction +7+7+70 we enture notice LADCAS ATT. METMET ITTCH WIND ATTAD IN husser Ittictt macro 2 milette 2 The mo tulno FI-TT ATT ATT HUND YUHEND END IN CON HEAV MA GEHURNS FI SHENNT MA JULIN CU ATT HTCH MORD IN TUND ATTURHURT דווא און דין אין אור האדאות דחוו בהן בהן אווין ITHCH ENTRY AND THE STRUTT ATCAS + MERS-Atting 12 ton Lun Ett for Lun Port tulton for CODING WITH ITTELT ATCODING IN HITLEH Little out on the wind in the wind the with our on the till the LILITU out out

Figure 14: a) *left*: End of the 163 words list and beginning of short stories. b) *right*: The first story is about Ko-Ola and the appealing features of these hill tops. Ko-Ola is a place that can be found near Llano Culebra, Munä. Source: Maba Kubu (Tido-Kri 2015 [1976]).

³⁸ I visited Ko-Ola while running errands for an active protest held at the Pan-American Highway against Barro Blanco dam. It was a rewarding excursion. I met over twenty different families with distinctive hamlet structures and animals.

ter H-grob HH M2-empty 277 - foam HH er plot (flat) nm2 er - inside HHH - fence nHM2 - (a mi) to me HUP7-fruit n2 - careful HUP7-fruit n2 - mind HUP7-fruit n7 - mind H282 - thread n77 - monioc (otoe) some left F77 - eacao chocolate n77 - monioc (otoe) some left HHH - I feel 2000 - strength Strengin Barriga - Moitt Hountrage - Mann - comer Jim - comer mentul Att + up fue mo 13 hos Ear it fer ins MATH MEMMET M With LEE JIE 0

Figure 15: Vocabulary words, a phrase, and a hat. Source: Maba Tröro (Ngueni 2006).

Figure 15 shows Maba Tröro (owl book), written by Ngueni Bangama (2006), provides isolated sentences and a much more extended and organized list of words. This book makes it useful to learn basic vocabulary. As a non-Ngäbe, *chui* (foreigner), it is hard to start learning from the first two maba. Maba Tröro makes it easier to organize the different Ngäbe terms

because they relate to each other in as much as the first letter (sound) of the words are the same throughout. The lists also includes verbs, nouns, and adjectives. As one starts to deconstruct the words into morphemes (the smallest units of meaning), the exercise of learning becomes progressively easier. With the other two maba, the phrases and sentences are more idiosyncratic, and as a beginner it is hard to see how the components relate to each other, especially when there is no punctuation; punctuation is typically a subsequent addition to writing systems. Kiad's pedagogical program is not thought-out to teach sulia, like myself, so it was also a new experience for them, to try teaching me. Rather it is utterly emic, designed for teaching those for whom Ngäbe is their mother tongue.

Paintings and drawings at the tödiba depicting the Tabasará river delta lead by association to a story about a *suguia*, or wise man with supernatural powers, of this watershed's past.³⁹ This suguia, after being captured by the Spanish, escaped and went on to live under the sea. He would sink Spanish boats as they crossed the bay. These types of events, when aggregated, tell us the histories of the heroes, wisemen, and leaders that confronted Spanish conquest. Even though these events occurred long ago, the stories remain, lessons endure, and trust becomes scarce. Drawing is another frequent accompaniment to learning to write a language (Vygotsky 1997). Drawings are integral to maba building and students at the school spend hours thinking in depth about representing their stories. For example, they study the dimensions of a horse in relation to its rider. Animal and landscape drawings and paintings are common. For this reason, teaching includes animal and human anatomy diagrams and labels. These are what Gee (1996) alludes to

³⁹ I refrain from calling this character, anything other than what it is suguia, or its immediate translation given to me (mostly each suguia is elementally different than the next). Terms like shaman, *curandero*, magic man, or witch are all inaccurate.

as activities that carry the language not only via the written form, but also the very importance of diverse types of expression. Figure 16 below shows work in progress by Goejet. He is making a book of infographics that reviews old and new ways of measuring, counting, and partitioning (divisions, fractions, degrees). He presents different forms and shapes their partitions, ratios, counting, and measuring of length and volume.

Ans +uchinaride Spitt Accessing Ansans E22 ender Hospital Anderson Castreen ins	Industry Lange Lange Lange Lange Lange Lange Linge Lange La
Institution Inst	nzerina erzer o zwer. 7

Figure 16: A new textbook to explain measurements, ratios, and classifications. Source: Goejet 2017.

Jatödigaga

Jatödigaga (students) receive assignments in relation to their individual advancement. There is great variability among children of the same age, which is possibly due to the methods used to teach them. Since there are just a handful of exercises, they may not perfectly suit a student's unique attributes. To write and to read in Ngäbere are symbiotic skills in the progress of children becoming proficient members of their community. Because the new orthography does not resemble latin graphemes, it is crucial to understand the phonemes (smallest meaningful sounds) and their ruled governed phonological combinations in order to spell properly. There are Spanish consonants that are not used in Ngäbere (f, p, z, c, and x), and Ngäbere has vowel sounds that don't exist in Spanish. This lack of correspondence can be eliminated with the new orthography.

After a full morning in the field, jatödigaga return to the tödiba. The more formal or bigger classes are set on Saturdays from 7:00-12:00 am. There is homework every day, with recurrent visits to the school for individual lessons, targeted to each pupil's particular need. Classes are almost all practice and very little lecturing. Children are called to sing from written text. They must read out loud stories written in practice books and deliver back syntheses of their understanding of the stories. Children must write out answers to questions and do math practice to pass the lessons. When they grow older and become better at writing they must transcribe entire books written in Ngäbere. At the *binana* (church), they read passages from their sacred Mamatada maba.⁴⁰

Regarding access to education, the Ngäbe of Kiad do not discriminate based on age or

⁴⁰ I chose not to show the sacred maba as a figure in this dissertation.

sex: everyone is actively encouraged to learn. Another consideration to what is perhaps a hardship of learning is in its setting of semi-isolation, which limits the diversity of didactic material. Gee (1996, p. 143) writes, "One can substitute for 'print' other sorts of texts and technologies: painting, literature, films, television, computers, telecommunications — 'props' in the Discourse...." These media are integral to our cognitive functions towards a learning a language and a culture, by diversifying the inputs to our curiosity. However, most are currently unavailable to the Ngäbe.

Critical Literacy

Traditional literacy techniques favor the powerful but disenfranchise the weak and marginalized. Critical literacy becomes apparent in its contestation of oppressive literacy programs (Barton 2007; Freire 1970; Luke 2012; Street 2003). Empowerment by means of critical literacy, with the goal of bringing about more awareness for the rights of indigenous people, can permeate outwards to a public "conscientization" of the people's right to selfdetermination (Barton 2007, p. 13). Street (2003) identifies the traditional view of literacy, where literacy is imposed from the outside upon communities deemed to be deficient, with the goal of "enhancing their cognitive skills, improving their economic prospects, [and] making them better citizens" (Street 2003, p. 77). This model is comparable to other traditional "ways of talking about [il-]literacy as "sickness," "handicap," "ignorance," "incapacity," "deprivation," and "deviance" (Barton 2007, p. 12).

What are reading and writing for? This question can only be answered by careful and prolonged ethnographic observations of actual practices of reading and writing in social and

cultural contexts (Szwed 1981, p. 14). By searching for the ideal scenario of striving for educational independence, we could approximate an answer to the question. In Street's terms, an "ideological" approach to literacy is education "embedded in social practices" (Street 2003, p. 78). As a parallel to what the Ngäbe have developed, an ideological approach to discourse may unpack the politics in the text. As a minority indigenous group facing ongoing exploitation and the imminent threat of flooding from Barro Blanco, the Mamatada revitalization and its associated orthography provide a unique tool for reinforcing local identity. The Ngäbe's attempt at a critical literacy takes the form of reinventing literacy on their own terms, with a unique spiritual basis, for the purpose of uniting the Ngäbe people in their situation of struggle. In the context of their own schools, they teach and learn Ngäbe concepts of community and interaction with the environment. Paolo Freire (1993, p. 115) writes,

To teach to read and write should not ever be reduced to the reductionistic, inexpressive, insipid task that serves to silence the voices of struggle that try to justify our presence in the world...Teaching literacy is, above all, a social and political commitment.

However, "those in power... both undermine and deny the literacy of the groups they rule or dominate" (Rockwell 2005, p. 6). This is equally the case for children as new writers as it is for new writing systems, such as that of the Ngäbe. The Bilingual System or EIB for writing Ngäbere is promoted by the Panamanian educational system in the indigenous Comarca, and constitutes a form of *castellanización*, or teaching Ngäbe people to read and write in Spanish and to be Panamanian, facilitated by literacy in Ngäbere with a latin-script. For the indigenous peoples, it is a gamble to maintain their unique ethnicity "in the face of the powerful forces of nationhood carried out overwhelmingly through educational institutions ... language and literacy are not only the means by which the battle is fought, they are the site of the battle itself" (Collins and Blot 2003, p. 131). The Ngäbe, thus, re-appropriate literacy. Re-appropriation, in this context, is meant as a collective cultural process that occurs under conditions of asymmetrical power relationships, as tools or signs of a dominant group are taken up (or, in the case of the Ngäbe, re-invented) by subordinate groups and incorporated —often with new meanings and uses— into their own cultural history (Rockwell 2005, p. 6). The new Ngäbere writing system is quietly entering into this fray of politics and education. People in Kiad read the newspapers and listen to the radio in Spanish but transmit the information in their Ngäbere orthography, taking notes for example, and reading them later on to others.

Although Ngäbere is not "endangered," but "vulnerable" (Moseley 2010), the question of whether an indigenous language may disappear is always a possibility, especially in the face of colonialism and rapid culture change (Thomason 2001, p. 2). Linguistic anthropologists as well as indigenous leaders like Tido-Kri, dread the loss of language. It is clear that humanity would lose much if Ngäbere were to become extinct. A complex knowledge system that evolved in a particular geographic area would be never be heard again or teach us any longer. As homogenization to colonial languages and cultures takes hold, humanity loses knowledge systems represented by indigenous languages that contain countless configurations, categories, idioms, comparisons, art, etc. (Davis 2007 [2001], p. 6).

The success of the religious diffusion of Mamatada may thus depend on the new orthography but Mamatada, in return, may end up hindering the diffusion of the new Ngäbere writing system. The success of a new orthography will lie in its relative power to convince new

users of its efficacy. If Ngäbe people continue to promote and develop their culture in the 21st century, this new orthography can form a foundation for legitimacy and innovation. In the words of Collins and Blot (2003, p. 144), it could help "create a new cultural identity which reflects not only a distant historical or even mythic pre-colonial past, but also incorporates the lessons learned as colonized people." Mamatada advocates separation from the Panamanian government, including restrictions on visiting and engaging in commerce with Latinos (Young 1971). As a syncretic religion, Mamatada is a hybrid category, and works to generate confidence, as practitioners build a bridge from the established religious orthodoxy into a new approach, open to new kinds of publics. Their bridge is the orthographic and pedagogical program. This quest for authenticity seeks to make the written form of the language indispensable for Ngäbere speakers, while simultaneously allowing growth from a practical departure point. What they wish to accomplish is to convey the ongoing multiplicity of events, stories, ideas, and situations that happen not only inside the fixed boundaries of what we might delimit (temporally or spatially) as the language, but also the network of influences from the outside that ultimately construct and legitimize it.

The exercise of becoming literate in the comarca is similar to that engaged by Sequoyah (George Guess) for Cherokee in the early 1800s. Although previously illiterate, Sequoyah and Tido-Kri recognized the power of literacy and each wanted that power for his own people. Sequoyah first tried a logographic system before eventually arriving at the syllabary, which is very congenial to Cherokee syllable structure (Bender 2002). This syllabary is still in use today among Cherokee people. Both Sequoyah and Tido realized that writing is not a neutral technology, but rather one that is associated with power. For Tido, his writing system is infused

with spirituality. To invent a system from the inside rather than have one imposed by colonialists represents a source of indigenous soft power. Within even a 21st century literacy ideology, having its own writing system moves a community from being a non-literate Other to participation in the so-called civilized world, with all the rights and respect attendant thereto.

Politics in the Text

Students practice by writing answers to questions about their own stories or about the history of their people. Grammar and syntax are not standardized; as such, written text more closely resembles speech (Brody 1988, p. 316). I found a high degree of appreciation by the teachers for the skill of interpretation. There are different kinds of politics behind interpreting texts, or narratives in the newspapers and radio stations that reach Kiad. For example, *Escuela para todos* was a popular Central American radio program that people in Kiad have used for decades as a channel to learn about Western culture. The children learn that there are multiple interpretations of the world, and from their particular standpoint, this produces a more nuanced process of assimilation to external influences (Geertz 1984). The conversation with the non-indigenous world is part of school life and Escuela para Todos is central to understanding their role in the colonial landscape.

Genres contained in narratives can provide political representations of the humanenvironment of colonialism. Martin and Rose (2003, pp. 16-17) set five modes for analyzing discourse in educational activities: appraisal, ideation, conjunction, identification and periodicity. To illustrate this, I chose appraisal, ideation, and periodicity to analyze Ngäbe children's responses to exam questions. Appraisal relates to evaluation of text, where "interpersonal kinds

of meaning realise variations in the tenor of text" (Martin and Rose 2008, p. 30). Ideation relates to how students classify and qualify. Periodicity relates to the way of organizing the narrative in time. To differentiate genres, it is vital to identify and distinguish global patterns in politics (Rose 2010). But also identifying local patterns, such as the narrative stages (orientation, complication and resolution), can advise how we interpret children's written response genre. With the response genres as a measure of comparison, Rothery (1994) points out that beyond responses, a key genre in the secondary school curriculum is interpretation. An advanced skill in interpreting texts, he writes, can "respond to the cultural values presented in the narrative" (Rothery 1994, p. 156).

Tido-badi and I translated the following written samples. The samples were chosen from a set of ten, sent to me from Kiad via WhatsApp in June 2017. When analyzing them, I found the following three to form a chronology. I look at the periodicity of their cultural-history, and ideation internalization of their cosmology.

Translation:

(1) How did our people use to live before the outsiders [colonized] our land? Our people lived in internal conflict between different tribes and against each other across the regions.

(2) How did our people live before the message [Mamatada] arrived?Our people were doing balseria, which is one of the diabolic activities that have always been practiced in many places across the regions.

(3) Having passed fifty-three years [since the message] what is our current situation? Fifty-three years have passed since we came to believe in God, but the political system

divides us and it creates obscurity for the development of our religious and educational system.

The answers to the first two questions are short yet assertive. It is important for Tido, and in this case *gareba* Beliyi, the teacher of these children, to instruct them in giving answers that are clear and direct, and in turn the teachers "evaluate them by the degree of creative formulation, and interpretation" she says. In these examples it is clear that nevertheless there is a correct answer, as shown by the grades they received (44, 40, and 30 out of 50 respectively). Although these answers are probably correct, the relatively low marks mean that they failed to provide sufficient detail or used poor calligraphy. I am, however, looking for the content that reveals the children's knowledge.

To return to our theoretical base in looking at these writing samples, ideation relates to the writer's experience of "reality." It can be both material and symbolic (Martin and Rose 2003, p. 66). In the first response, the child harkens to a past where internal conflict had the people in a state of discord, which in turn paints a bleak picture, far from ideal. This is "real," both in a symbolic sense, but also, as we know, a relatable material reality because of the dam that flooded their forests and homes. It also represents a case of repeated history, because to this day, the leaders of the Comarca seem to remain in discord. The child interprets the question as the ideation of his present lived experience, which has grown out of the reality of the past.

The second question also reflects both past and present. In the distant past, his people were doing "dishonorable" things —balseria (playing belligerent games) and drinking— and still today, many continue to do so. The child classifies the theme as bad and gives us a description of what it is composed of, or that bad entails diabolic practice. There is an implicit moral lesson that

comes attached to the path toward revitalization, which is embodied in the very exercise of writing. Ideation, once more, is the child projecting his knowledge as part of the response, which is the *ought to* in this genre.

The third response, written by a 11-year-old boy, deals more explicitly with political reality; this time, in the absolute present. It is widely accepted history that many Spanish conquistadors would abduct, torture, and kill indigenous leaders to weaken or destroy them. The colonizer model caused the permanent loss of valuable knowledge. These are collective imaginaries that inform us of current indigenous purpose and drive. Ideation drives the content and the ways that students think about and classify activities. The third response echoes this sentiment by classifying the circumstance of loss as obscuring development that the child is engaged in.

These questions and responses show us at least three major periods, otherwise comprising an implicit Ngäbe-Mamatada timeline. We can make sense of them through Martin and Rose's (2003) concept of periodicity. These periods are: 1) An unhappy situation that otherwise becomes fateful, 2) Bad practices that prolong God's punishment, and 3) A major shift in moral trajectory guided by Mamatada's revelations, in a time when other Ngäbe are still falling behind. Periodicity "is built from a flow of information that creates meaning as a whole, making it easier for us to take in" (Martin & Rose, 2003, p. 175). Moreover, periodicity identifies the themes at different levels, which become "new" yet traceable. Hence, we see in these samples of children's writing clear themes of outside forces; i.e., Christianity and nationalist narratives, where genres created in response to those forces throughout time construct a sense of periodicity which in turn give meaning to their indigenous identity. The theme of "divide and conquer" (being divided and

conquered) transcends and also connects the periods, while Mamatada is the cohesion provided spiritually, and, through the orthography, practically. In this case, appraisal shows the "children's affect, judgement, and appreciation" (Martin and Rose 2008, p. 31). It appears that lived experience in everyday politics helps to revive the visceral aspects of a troubled history under colonialism, and informs the analysis of the children's responses. "Narratives make public the covert underlying presuppositions that organize the world in which speakers live" (Hill 2005, p. 157).

Culture is "the expression of a common purpose and the expectations of certain standards of behavior" (Corbett 2011, p. 307). To narrow down the search of meaning and knowledge in discourse, I focused on political narratives, specifically connecting the existential conundrum of language and environmental loss. As for translating indigeneity, the lived experience and the implicit political worries surrounding the narratives must be taken into account. Indeed, not all is straightforward with regards to Ngäbe political strategy today. And here we can find an emotional feature as well. I discovered here something that was not so obvious at first. There is a paradox, a contradiction to the process of culture diffusion in the situation of an indigenous group (Blaut 1987, p. 43): that is, to seek both to safeguard and promote their knowledge. Releasing as much information as possible, could cancel out the prospects of the Mamatada.

Syncretism and Paradox in the Binana

Syncretism is paradoxical because it contradicts its foundational structure but as such, it allows the possibility of a re-enchantment of the colonial landscape (Deleuze 1994 [1968], p. 236-237; Weber 1946 [1917], p. 12). The binana, the place of worship for Mamatada, can be seen as part of this category. Its embryonic status and the current colonial landscape where it

exists makes it a novel case. Every Wednesday and Saturday people get together in the binana for a standard service of two hours. Both women and men can give the sermon, but they follow an age based hierarchy. In the binana, one truly feels away from the Latino-Panamanian cosmology. It is a great discovery and useful understanding for a person from the city. For some Ngäbe, the journey of going through public schooling is notoriously a process of degrading local culture and augmenting mestizo acculturation. In the binana, all of these external nuisances fade for a time. I came to interpret its syncretism to have a ecological twist. Mamatada does not portray itself as anthropocentric as Christianity has allowed itself to be. How does the Mamatada cosmology understand the world coming at them? They face a capital city that explicitly propagandizes on a cosmopolitan-hub ideal that seeks to encompass all peoples into one model, systematically failing to understand Otherness, while entertaining cultural differences superficially. The Panamanian government —public officials and voters— cannot abstract itself in a manner that can be considered anthropological. The reason is because they are embedded in ideologies of modernity (Quijano 2007, p. 173). The indigenous people remain utterly ignored by extractive multinational companies, industrial engineers, business entrepreneurs, and a centralized economic system (Gjording 1991, p. 65). Their territory, on the other hand, is always accounted for.

Kiad is a *communitas*. Communitas is represented by the egalitarian quality of a group of people sharing same status in an anti-structure of a previous social realm (Turner 1969, p. 96). Communitas means for the binana that the concentration of egalitarian ideals are embodied during congregation meetings in the sacred space. Liminality becomes the threshold where symbols act to transform behavior, and compose tangible new meanings (Turner 1969, p. 95).

The Ngäbe have a particularly distinct liminality that is different from the one experienced when entering and becoming part of the congregation in a Catholic church. Not everything is readily perceived and it takes time to discern meaning in action or performance. The building, the binana, is a fixed ritual space where practitioners chant hymns about community, reaffirm their unique cultural identity, worry about their political trajectory and imagine the outside world that is both eminently against them and spiritually in favor of them. According to Kertzer (1988, pp. 340-341) the characteristics of ritual are place-identity, formality, redundancy, channeling emotions, guide cognition and organization, linking time scales, and providing security. These I have found to be attributes of the congregation of religious service in the binana. The ritual, the communitas and the syncretic components of the binana in Kiad serve to protect it from external acculturation by practicing a common identity, initiated by the orthography and backed by their cosmology.

Conclusion

Chapter three included linguistic components ranging from the level of a phoneme and a grapheme to the narratives spawning from Ngäbe literacy practice. Discourse analysis of genre pedagogy assessed a general sense of the cosmology with a long term and stable source of proof. Critical literacy (outside national public schools) shows a structure that helps students question the status quo: established structured of power, and inequality. Syncretism, for example, influences the theological and perhaps in a new retrospective the cosmological identity among the Ngäbe.



CHAPTER 4: LINGUISTIC POLITICAL ECOLOGY: ASSEMBLING A DECOLONIAL PRESENT

The grammar of decoloniality begins at the moment languages and subjectivities have denied the possibility of participating in the production, distribution, and organization of knowledge. The colonization of knowledge and of being worked from top down and that is the way it is still working today: looking from economy and politics, corporations and the state down.

-Walter D. Mignolo. "Delinking." Cultural Studies: 21(2) (2007, p. 492)

We need the tools to get out of this newly created poverty. God does not seek our misery, and we do not want it either.

—Tido-Kri to a Christian pastor quoting Luke 18:25⁴¹ (2014).

A "linguistic political ecology" assembles the use of language with a place's political economy and biophysical environment. In relating the subtleties of text and discourse with the plight itself, this new approach can address the intellectual capacities of situated knowledge together with the environmental records and colonial present. These conceptual crossings emphasize the creative work of locals as they construct a resistance powered by long-term thinking and planning. Different indigenous resistance movements depend on the unique factors of their place, but they can formulate shared meaning against coloniality by building a global network of pedagogies, informed by similar circumstances. In this vein, decolonial efforts begin by creating tactics and strategies at the border where indigenous landscapes meet racism, paternalism, capitalist dispossession, ecological catastrophe, and even the overt corruption of state officials. This chapter aggregates the idiographic elements and methods from previous chapters, in order to adapt the epistemologies and subjectivities of locals to engage the public at

⁴¹ I tell you the truth, it is hard for a rich man to enter the kingdom of heaven. Again I tell you, it is easier for a camel to go through the eye of a needle than for a rich man to enter the kingdom of God. Mark <u>10:24-27</u> and Luke <u>18:24-27</u>.

large. The end goal of the researcher is to translate indigenous people's realities and hopes. A linguistic political ecology approach can thus help illustrate the process of creating conceptual tools in tandem with a cultural group's experience under coloniality.

Epistemological questions that arise outside a Eurocentric context (Escobar 1992; Gudynas 2011; Velazquez-Runk 2015) made scholars realize the binaries inherent in European languages (Derrida 1997; Descola 2013). The decolonial process consists in creating space for new epistemological traditions that can help counter oppressive institutions under Western hegemony. In European and Latin American societies, academics work to generate new concepts to articulate freedoms that can help us overcome old conceptual boundaries, spaces, and categories. Indigenous languages too have grammars, semantic, and epistemological traditions that follow other patterns and create parallel ways of living in the world. The colonization of Latin America put to an abrupt halt to many native people's societies (Sauer 1966; Doolittle 1984; Sluyter 2002). Even after awareness of this calamity, the West's educational system continues to perpetuate negligence of indigenous knowledge. With widespread levels of pollution caused by industrialization and global capitalism, other subsets of humanity, in particular indigenous peoples, continue to suffer the consequences of Eurocentric hubris. Coloniality is a particular kind of learned ignorance that excludes indigenous, not as Other per se, but as failed attempts at being modern (Latour 1993; Mignolo 2000; Sluyter 2002; MacCabe 2007; Alfred 2009; Khon 2013; Santos 2014; Viveiros de Castro 2015). The following conceptual structure shows the flow, movements, and positionalities of the linguistic political ecology actor-network (Figure 17).

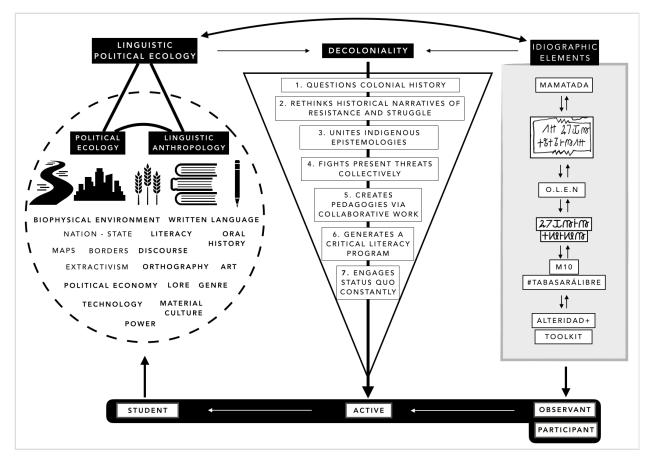


Figure 17: Ngäbe model for decoloniality as seen through the lens of linguistic political ecology (2018).

The triangle pointing to "active" traces decoloniality becoming an embedded causality as the "student," who can be anyone. The cycle starts where knowledge can be found and interpreted (academia and the indigenous landscape). The phenomena and discourses that enable the subjectivity of the Other form with the construction of "decoloniality."⁴² The decolonial grammar seeks to evade oppressive meaning by finding a path to escape dispossession (Derrida

⁴² In the tradition of studying phenomena in philosophy and phenomenology, the Other, or Otherness comes to us, more directly, by reading Edmund Husserl (1859-1938) as a component of intersubjectivity, which is to say the relations between people's subjective stances and their becomings. Since Husserl, existential philosophers have followed in this tradition (H. Arendt, M. Heidegger, J.P. Sartre, E. Levinas). Edward Said's (1978) *Orientalism* made such a wide spread impact in the Humanities, that the use of intersubjectivity and thus Otherness has become more widely recognized as a mode of analysis.

1997, p. 7). Following the upper double headed arrow, the circle containing the disciplines and academic concepts constitutes the links that illuminate and relate to the Ngäbe plight. "Political ecology," for instance, is one useful repository of empirical studies that implicate social and political issues concerning how uneven power-relations end up abusing minority rights and obviating local knowledge. With little geographical sensibility, the proliferation of extractive industries (mines and dams), intensive agriculture (plantations and mono-crop), and overall energy consumption of cities puts indigenous livelihoods at risk (Sauer 1956, p. 66; Gjording 1991; White 1995; Watkins 2011; 2015). Coloniality is one way to describe developmental logic that moves away from ecology. The "gray-area" rectangle holds the elements that are can be interchangeable depending on the case-study. "Alteridad+ and toolkit" represent my agency in the study, or the things I have produced in terms of video, art, and ideas (Koopman 2017, p. 158). "Alterity+," in this case, means Otherness in action, and empathy as praxis (Lyotard 1984; Dussel 2004). The following sections unpack the conceptual model of Ngäbe decolonization respectively (Figure 17).

Assembling the Network

The more significant repercussions of the actor-network in the Tabasará River basin happen at the hamlet arrangement. The Ngäbe comprise national and fringe modalities. Unpacking coloniality renders a plethora of topics, such as technocracy, development, castellanización, literacy, bureaucracy, capitalism, and commodification of nature. Looking into the relationships of these social conventions, scholars can read the colonial landscape (Maldonado-Torres 2007). With relation to the Ngäbe struggle for legitimacy —first inside their Comarca, and then outwards— they must combine critical literacy (Freire 1970; Street 2003),

active political resistance (Marcos 2000; Walsche and Marcelo 2008), and the sacrificing of their bodies (Mignolo and Vázquez 2013; Santos 2016). Students of present-day coloniality, engage with public opinion regularly, and, like the natives, they seek to collaborate with artists and activists (Maldonado-Torres 2016). In this vein, art operates as conceptual vandalism, in the sense of obstructing the comfort of the status quo, to attempt to re-frame preconceptions or expectations of the indigenous landscape.

The Ngåbe landscape continually shifts and evades, escaping definitions (Escobar 2008), bureaucracy (Scott 1998), and economic logic (Gudynas 2009). At times, cultural knowledge can be made deliberately illegible, while in other circumstances getting lost will depend solely on ignorance of regionalism. Linguistic violence, in particular, plays a crucial part in colonization efforts all over the world. For example, global postcoloniality also produces the value of subaltern lives, giving them a political identity inside singular national allegories (Spivak 2009, p. 88). The value of the subaltern depends on the superficial properties of their civilizational appearance. What is the history as subaltern, what language do they speak, what do they believe, and why? People in their ethnocentrism are prone to undermine and alienate the subaltern for being different/Other. In the case of indigenous peoples in the Americas, their catastrophic demographic encounter with the immigrant environment is now recuperating. With this resurgence, their plight with modernity offers more chances of creative épistème(s) of contestation (Foucault 2005 [1966], p. 55).

Linguistic political ecology has the potential to explore across ontologies. The conceptual model depicts four spaces of inquiry (Figure 17): 1) The academic literature and disciplines in a

circle with an open horizon; 2) the idiographic elements contained in a rectangle with diminished opacity, meaning this relational space is interchangeable with other case-studies; 3) the student's positionality is fixed into three performative stances —being active, participating, and observing; 4) triangle for decoloniality with a base for questioning, pointing toward increasing action. If decolonial work is to be done, it must deterritorialize hegemonies, and decentralize cultural agency over nature.

Idiographic Elements

1) Mamatada going forth. There have been at least three sects of Mamatada practitioners. Guionneau-Sinclair (1987, pp. 159-166) was right that the Mamatada resurfaced, whereas Young (1978) remained skeptical. Guionneau-Sinclair identifies: 1) Sandalio Moreno (represented Mamachi after her death); 2) the daughter (Niñachi was venerated almost like her mother); 3) Telésforo Marcucci (from Tolé, was a Cacique and dissident). Her central thesis is that although Mamatada failed to remain strong —probably because of Torrijos' push for castellanización— it revolutionized politics among the Ngäbe by calling for all Ngäbe to come together as one. Telésforo's efforts attest to such unity. He was widely known and praised throughout the Comarca. With her thesis, Guionneau-Sinclair predicts the creation of the/a Comarca. A fourth strain, however, sprung up in Kiad, then spread to Krawdo, and Keberi. Kiad was not on Guionneau-Sinclair's radar, perhaps because she focused on Boca Balsa, district of Besigó, and therefore predates Kiad's linguistic maturity. According to Tido-Kri, it was not until 1995 that Kiad made public their orthography to the Comarca at large. This fourth movement is possibly the last chance for political cohesion among the Ngäbe via a Mamatada cosmology.

Situated in a crossing between Christendom and capitalism, Mamatada exists on a shifting border, pushing and pulling the delimitations that make it salient. It is an embodied ontology in using the border as therapy, in conscious opposition to coloniality and modernity (Dussel 1995; Quijano 2007; Mignolo 2007). Chapter three concluded that the ecological component in Mamatada has given recognition of decades of negligence to the general levels of pollution caused by globalizing industrialization (Gudynas 2009, Table 1.1). Figure 18 shows ecological thinking as part of the lore of the Mamatada more-than-human world by becoming part of the pedagogical material. The people of the Tabasará continue to suffer the consequences of Western hubris, a particular kind of knowledge that excludes the Other. The intrusion of the dam prompted hundreds of attempts by the government to try to relocate the people of the basin. One example of the favors they did for the Ngäbe was from the former minister of government, Milton Henriquez (2014-2016); when visiting Kiad offered to reproduce their maba(s). His political goals and that of the government may be deceiving, shady, or clientelistic but, thanks to this, they now have many copies of the maba to give away, or sell to fundraise. While previously Ngäbe teachers would go about establishing classes elsewhere across the Comarca Ngäbe-Buglé using handwritten copies, now they can reach more families and students. The boboda (frog) in the following story is just one example of vulnerable species in the basin. As the reservoir filled the basin, in displaced the frog from its habitat in the river banks. The maba can immortalize the boboda in books and in children's memories, but cannot save it from becoming myth.



Figure 18: a) *left:* Panamanian blue & black frog (*Dendrobates auratus*) on the shores of the Tabasará River. Photograph by the author, July 2015. b) *right:* Story of the boboda (frog), which considers the curious deed of the frog in carrying smaller frogs on their back and up the tree for safety. Source: Maba Kubu (2015 [1976]).

2) Defective Script: In and out of the Ngäbe Cosmos. A defective Script is a writing system that does not represent all the phonemic peculiarities of a language. As shown in the previous chapter, missionaries and religious scholars have developed non-indigenous orthographies based on Latin script for indigenous languages. These are commonly known as bilingual systems. EIB relies on Roman/Latin alphabetic symbols and arbitrary modifications to write down indigenous phonemes. I argue that these bilingual systems fail by being incomplete. They constantly cause confusion when read by outsiders, such as journalists, news anchors, lay people and even many Ngäbe themselves. They were constructed to serve indigenous people's transition to Spanish, and for the easement into those few Spanish speakers as they learned Ngäbere. However, perhaps the more ubiquitous practice is now for Ngäbe children to read and write the Bible passages translated by missionaries, and assimilate more quickly into public schooling.

The two orthographies that have been published and transcribed from oral Ngäbere into Latin script come from the work of Methodist pastor, Ephraim Alphonse (1956; 1980; 1987), Harriet M. Klein (1983, not published), and later complemented by Jesuit Rev. Jorge Sarsaneda del Cid (2009; 2012) in conjunction with ACUN.⁴³ As a manner of comparison, for the Mexican indigenous language of Nahuatl there were at least four types of transcriptions. 1) Franciscan missionary-linguists (without consideration of vowel length and glottal stop); 2) Jesuits (adds h, and macron for long vowels; 3) Romances (Paleographic —not respelled); 4) Florentin Codex (also paleographic).⁴⁴ At different points of colonial history, missionary-scholars, linguists, and amateurs alike have tried transcribing native languages. The main practical problem with these and other Latinized versions consists in not being able to fully engage the numerous aspects of semiotic potential and phonetic complexity of the language.

⁴³ Sarsadena (2009), for example, tries to improve the existing system. In his 2009 workbook on Ngäbe orthography and syntax, he changes the ä for ó (Ngäbe to Ngóbe) to make it sound more readily similar to its spoken way. However, in 2012, along with ACUN, he returns to the EIB standard. Alphonse (1980; 1987) does not have [ö] in his grammar and vocabulary. While Sarsaneda (2009) uses ö and correctly describes the sound as "(setting your mouth to say e [in Spanish] but saying o [in Spanish]). Although he writes in Spanish, he mentions IPA instead of AFI, which is confusing. He writes ϕ as IPA for his ö; maybe he meant to write ϕ , although in Ngäbere it should be short rather than a long vowel sound. e.g., yuca/manioc is ö.

⁴⁴ The University of Texas's (UT) digital library <u>"Romances de los Señores de la Nueva España"</u> (36 song-texts from the late 16th Century Mexico) includes these four or rather three distinctions of orthographic transcriptions if we discount the Romances which are particularly idiographic.

As a collective voice, the Ngäbe proponents of the new orthography argue that if students want to learn and practice the language in all its uniqueness, one must learn their orthography so that the mind of the learner can operate within the logic of the language as it is contained in the autochthonous script. Kiad's script can also be understood as the materialization of Mamatada cosmology. The script interlaces the general ethos of the political plight launched by the revolutionary linguistic development, reproduced and echoed by the Mamatada pedagogy. Conversely, Latin scripts end up serving the Ministry of Education's Bilingual Intercultural Education, or EIB (Educación Intercultural Bilingüe 2005), under the premise that they help indigenous children ease into a future of bilingualism of roman orthography, further lifting their chances of joining the society at large (EIB 2005).⁴⁵ This is castellanización and therefore a form of coloniality. ACUN and other groups of scholars could potentially help advising on grammar and punctuation, but the elementary particles of language —the phonemes and graphemes— are already well defined in the indigenous orthography.

3) O.L.E.N: Towards Ngäbere Kugüe. In 2015, the writing system became the central mission of the "Organización de Lecto y Escritura del Idioma Ngäbe" (OLEN). To formalize Kiad's pedagogical program was a collaborative decolonial move. With the help of the Panamanian lawyers Ramón R. Arias Porras and Anna C. Valdés of GALA, OLEN became a not for profit organization within the state's legal apparatus.⁴⁶ This process allows for tax-exempt

⁴⁵ <u>Web-link</u> to the EIB document from the National Library of Panama. See the news piece describing the introduction of a Bachelors degree for the study of EIB education with the *Univerdad Especializada de Las Americas* (UDELAS). <u>Web-link to article.</u> (Caicedo-Mendieta 2016).

⁴⁶ GALA is the law firm in Panama City that donated their services and expertise to process the application. Using privilege and connections, I asked my uncle Ramón R. Arias, a partner at GALA (Galindo, Arias, y López) to help me with OLEN. He forwarded the task to Anna C. Valdés, a former classmate of mine who now works at GALA. Together with Tido-Badi and Ngueni (OLEN's President), OLEN successfully has become a legal entity.

donations to reach the organization from sympathizers in Panama and abroad. The organization promotes cultural growth for the Ngäbe. Thanks to this, Kiad's pedagogical program can receive funds to build schools and start paying teachers. Participants and leaders from the three regions of the Comarca Ngäbe-Buglé take part in making decisions about new vocabulary words that update their language with words for modern technologies, like cell phones and cars, which are in OLEN's Ngäbere, *dodonora*, and *niar*, respectively. It is both interesting and a piece of thier philosophy that they have chose lexical innovation over borrowing terms from Spanish.

Tido-Kri's family, neighbors, and others across the indigenous territory began to learn his writing and philosophy. His pedagogy is open to the public, whereas the rest of the Mamatada tend to isolate themselves from outsiders. The main obstacle consists in that OLEN's tödiba (schools) might have to de-prioritize Mamatada cosmology for some time to further the written system because many Ngäbe people will not study it given its implied link to the non-Christian religion. While Tido-Kri is devoted to the joined practice of literacy and religion, a younger generation of adults sees it best first to promote the pedagogical system, and allow Mamatada ideas to follow after. They have nevertheless maintained a critical approach to the challenges facing their future as indigenous peoples in the linguistic political ecology of their language, past and future (Alphonse 1956; 1980; 1987; EIB 2005; Sarsaneda Del Cid 2009; ACUN 2012). I think that the future of the orthography's success also depends upon the broader public's interest in indigenous knowledge and development. With the advent and proliferation of cellphones and laptops, along with social networks online, the Ngäbe orthography itself can make its way further out into the world, attracting enthusiasts and supporters, which M10 has already done quite successfully with their resistance to Barro Blanco; now its OLEN's turn.

4) M10 after #TabasaráLibre. The Ngäbe have oral histories and myths about the origins of the rivers relating to an ancient fight between the suguia (wise man), and the *töbi* (giant serpent). The suguia summoned lightning to scare the töbi upwards towards the Cordillera Central. This happened during the time when the spirits and humans were together in the same world, when the kökögueni and têmẽ were one.⁴⁷ The headwaters drain from a small lake up in the mountains in the cordillera central. In that body of water, it is said, lays dormant the töbi who once shaped the rivers. Figure 19 shows two different rocks with petroglyphs. One is about 200 meters south from Kiad's outskirts. It serves as an important historical reminder of the story of the töbi. These petroglyphs, are/were places of ritual, worship, and pilgrimage for Mamatada practitioners. In Kiad, they write down the stories so that future generation will not to forget. This is quite useful now that the actual glyphs have disappeared under water.



Figure 19: a) *left:* petroglyph on the Tabasará river before flooding, January 2016. b) *right:* flooded petroglyph symbolizing the head waters, June 2017. Credit and Permission: Oscar Sogandares.

⁴⁷ kökögueni: outside the cosmos, netherworld; tẽmẽ: on the earth.

#Tabasarálibre was the struggle against the utilitarian politics of government. When the flooding happened, the hamlets in the bottom had to compete for land (livable and farmable) with those up mountain. Ngäbe used to live near the plains closer to the coast south of these mountains where land is more fertile (Young 1971; Gordon 1982). Environmentality has also become governability for indigenous people. Via social networks and research on the internet, they learn about the world and the different institutions that govern it. Not only is their historic claim to the land a pillar of their political program, but through their understanding of modern-capitalist society's flaws —the incommensurability of waste, pollution, and the homogenization of nature itself— they have coalesced with a very compelling critique that lingers beyond the calamitous events of Barro Blanco.

The Ngäbe value the land near the river which is more fertile (Young 1971; Tido-badi, Bulu, and Goejet, interviews 2017). In figure 20 (top), children draw the properties of this mountain, its vegetation, ruggedness, and steepness. Although it is virtually impossible to spot all of the homes using satellite imagery, or flying by on plane, people live all over this *cerro* (mountain). Considering the many examples of cross-cultural political debacles across the world, the less powerful either conforms, perishes, or learns how to play the game. How can a group, vastly underrepresented with virtually no material wealth, face a government, a propaganda that says "we are all Panamanian," which undermines real cultural diversity, history and much more? It is a constant battle of language and definitions. Figure 20 (bottom) shows some of the banners we (Ngäbe and sulia friends) made for the protests in Panama city on June 25, 2016.



Figure 20: a) *top:* Window into some properties of an indigenous pedagogy: art, language, fruit garden, and free range animals. Photograph by the author February 2016. b) *bottom:* Tödiba as protest. No fruit garden or animals, but still the indigenous pedagogy survives. Photograph by the author February 2017.

5) Alteridad+. Digital Humanities and Multimedia Art are part of the direction of the intellectual activist (Latour 2013),⁴⁸ which is to disseminate the social issues that they may encounter in the field. Emancipatory work applies the researcher's knowledge in contribution

⁴⁸ An inquiry into modes of existence: <u>AIME</u>.

with indigenous knowledge to build bridges to audiences otherwise immutable. The fact that indigenous landscapes are difficult for outsiders to read or understand allows for simplifications or negligence. As a matter of parallel experimentation, I created political-art projects to engage new kinds of public with ideas that my academic writing could never get across. Leveling the playing-field with documentaries and art projects apart from protest meant to show that not one type of indignation is more legitimate than the other. By reaching out to people in the city, lawyers and activists that care, I have had the chance to grow my efforts and network by organizing Proto-Alteridad+ (June 25, 2016): a peaceful art protest and discussion space to complement a nation-wide indigenous protest. Alteridad+ 2.0 (Jan 17, 2017): a comparative documentary film drawing curious analogies about the urban elite and the indigenous fight for their respective ideas on "quality of life," and Alteridad+ 1.0 (Dec 12 -14, 2016): a multimedia art exhibition.

Alteridad+ 1.0 looks to confront the public with feeling of being alien, displaced, lost, and illegible, through the several crossings of photography, sound, and film in the context of contemporary art. Figure 20, originally less grainy and in full color, shows the distance created by taking away the photo's liveliness by framing it as old and exotic. Although this event is not distant in the past or even geographically, but is happening now, such a portrayal of injustice betrays the genre of vulnerable indigenous peoples, but by doing so, it hopes to go beyond it. This is one example of the possibilities of presenting ideas to the public to get their attention and hopefully their interest, after walking them through the visceral existentiality of being Other.



Figure 21: Bulu's house flooding. The original photograph was sold in the art installation, <u>Alteridad+ 1.0</u>. Photograph by the author December 2016.

Alteridad+ 2.0 is a short film that shows two separate extremes in the social spectrum of wealth and status. This is an indigenous-urban elite nexus; both parties are out to defend their quality of life. The project aims to show two parallel narratives on the idea of quality of life. The film exposes two Panamanian groups' claim for justice in front of impositions made to their living space by conspicuous forces: a dam and an urban strip mall. Indigenous people are affected by globalization because of mining, logging and energy companies (Gjording 1991; White 1995; Guydnas 2009). The globalizing action helps expand the extractive industries' network towards the fringes of Western civilization: the so called "hinterlands" of urban centers

(Cronon 1991). Figure 20, above, shows that paradox of glocal (Acosta 2005), not in ideal of bottom-top, but in the top-down of globalizing capital flows. It is only with insistent critique that indigenous people and allies can resist a state that homogenizes people, and assumes levels of economic and health standards for all cultures, without taking the time to ask what the real needs are.

Student: The Critical Ethnographic Imperative

Central to linguistic political ecology is to include oneself in the story. Who am I, where do I come from and what do I want? I come from an economic and culturally privileged strata of Panamanian society. I have family with a political tradition, a tradition within the rubric of colonizers and modernizers of Panama. Social consciousness, however, gives awareness to the injustices inherent in cultural history to students of any background, to examine "the extent to which elites are able to impose their own image of just social order, not simply on the behavior of non-elites, but on their consciousness as well" (Scott 1985, p. 38). Contemplating oneself like Narcissus in "the mirror of the world," so as to reject the world, is what Weber (1946 [1917], p. 12) called disenchantment: being disenchanted and denuded of its mystical but inwardly genuine plasticity. The decolonial program seeks outwards plasticity, which is flexibility of intentionality. Decolonizing, deterritorializing the state, the hegemonic culture, is to expose the flight of intentionality in the self-effacement of officials, clerks, and oneself that produce a destructive plasticity. Malabou (2012, p. 11) expands on this with her "ontology of the accident:" destructive plasticity enables the appearance or formation of alterity where the Other is absolutely lacking. Plasticity is the form of alterity when no transcendence, flight or escape is left (Levinas 1999 [1995]). "By dramatizing the distance and difference between each other imaginative

geographies not only produce images of the Other but of the Self too" (Said 1978, p. 239). The student, whomever this is, should keep in mind their plasticity, their ability to bend and empathize with others, in mutual alterity.

The Decolonial Present

Questioning colonial history. Established knowledge differs from oral histories we supposedly know: Panama's landmass connects two epicenters that are well-known cradles of civilization and culture hearths. This small region in the middle of the Americas does not have the attractions that have drawn countless explorers to the Maya, Amazonia, and Incan territories. In contrast, no evidence of lasting architecture, dynasties, or outstanding technological accomplishments has been found along the Isthmus of Panama. Furthermore, Vazquez de Espinoza (c. 1628) who traveled to Chepo and Natá wrote about the emptiness he saw in these two places where only hundreds of natives lived in poverty. If at the arrival of the conquistadores, the population of the isthmus was estimated between 150,000 and 2,000,00049 indigenous (Cooke and Sánchez Herrera 2004b), in 1522 it had been reduced by disease to about 13,000 people (Gallup Díaz 2005). A politics of this effort appears to test the hypothesis that the precolonial landscapes of the Americas were densely populated, intensively cultivated, and profoundly modified rather than pristine wilderness/untrammeled resources and thereby to infer the productivity and sustainability of native land uses (Denevan 1992; Sluvter 1999; Blaut 1993). River networks in central Panama, such as the Santa Maria watershed, granted pathways for transportation, nutrient-rich flood plains, estuaries, and large populations of terrestrial game, fish,

⁴⁹ The idea of this magnitude probably comes from Gonzalo Fernandez de Oviedo y Valdes (1478–1557), *Historia*, Book XXIX, ch. 10. where he writes about the native population being: "2 million or innumerable."

and shellfish (Cooke and Ranere 1992; Espinosa 1517 in Jopling 1994, pp. 65, 68; Linares 1977). Central Pacific Panama was a propitious setting for human habitation (Sauer 1966, p. 243)⁵⁰, a place for trading ideas, tools, and seeds, the first peoples of this region where able to modify the natural landscape, transforming its vegetation during the Preceramic period (c. 7000 BP).

In the Ngäbe case, those who have not been to University do not follow these epistemologies. In Kiad, I learned that because of colonization much of the knowledge was erased, as many people died, and no writing system told the stories. DNA research (Soares et al. 2009), along with ethnohistorical (Sauer 1966), archaeological (Mayo 2013), and linguistic studies (Murillo-Miranda 2009) of the indigenous population, debunks a long-held belief in Panama that the isthmus had been a place of population transit and commerce, which invariably works as a counter measure to indigenous people's oral tradition. In the context of human migrations, the Isthmus of Panama retained more mitochondrial-DNA homogeneity than neighboring regions in Latin America, meaning that the population has been prehistorically and historically stable. Scientific studies show such continuity of the Isthmian peoples (Cooke and Sánchez Herrera 2004a, 2004b, 2004c). Following scientist knowledge production like this fact can empower indigenous' oral histories about their claim to the land.

The recent colonial history for Mamatada is evidenced from Omar Torrijos' modernization campaigns in the region of Besigó, perhaps strategically coinciding with when Mamatada was taking root among the Ngäbe (Guionneau-Sinclair 1987; Tido-Kri 2014). Omar

⁵⁰ Oviedo 1986 Sumario Ch. 4.

Torrijos created the first public schools in their territory, which presumably halted Mamatada's momentum (Tido-Kri 2015). Torrijos envisioned a homogenizing nationalist narrative, where all "Panamanians" would form a single cohesive political body. The building in place and the texts of colonial history harbor symbols that inform political purpose (Geertz 1964; Kertzer 1988). The development of the orthographic linguistic innovation, with the tödiba(s) that emerged, and the binana(s) that ensue are a call for revival of Ngäbe identity, re-legitimized.

To question colonial history is to claim a more-than-Panamanian identity, because history does not stop at the national level. Going beyond arguments for primacy of the land, much of the debate about being a member of a place has to do with who was there first. This requires a deep understanding of a logic that is constructed by the opposing narrative to Spanish colonialism. The lesson from all of this is to go beyond this primacy issue without undermining history. Because the political components of the situation in the community of Kiad today, given incoming extractive projects, their learning includes a critical literacy. Literacy in the new Ngäbere orthography meets a local need to decolonize and it is the first step towards enacting decoloniality.

Rethinking Historical Narratives of Resistance and Struggle. Since the early 20th century, Jesuits and Panamanian state officials have intervened in Ngäbe society with either literacy programs via a Christian framework, or by modernization efforts via public schooling. These efforts have been somewhat successful. Today, most Ngäbe are part of some type of Christian denomination, increasingly bilingual in Spanish and Ngäbere, and new generations with access to public schools can read and write with the bilingual system. Westernization had caused the idea of "backwardness" (Sauer 1956, p. 1133) that for hundreds of years fed scientific racism. "After several thousand years of pre-Columbian activities and five-hundred years of livestock raising and extensive agriculture with European tools, the environment is now characterized by forest patches, savannas, and pasture" (Sauer 1966, pp. 283-289). The idea that indigenous people are not proverbial stewards of nature, living in homeostasis with it, grew in postcolonial studies and has helped decolonial thinking to reformulate narratives about struggle. This can open the space to expand the image of indigenous peoples as simple and legible to the complex, rendering them mysterious, and illegible.

In Kiad, I try to look at such implicit elements, hoping for a better understanding of the Ngäbe culture and to help reinvigorate components that can resist colonization. There is pressure to act, says Ngueni (2015),

If we ignore the situation that we are already experiencing in the comarca, in about fifty years we will be under the same circumstances of our comrades from Coclé. Once our language is lost we will never recover it.

Deleuze and Guattari write that "the more a language has or acquires the characteristics of a major language, the more it is affected by continuous variations that transpose it into a "minor" language" (Deleuze and Guattari 1987, p. 102). Ngäbere appears to be in high variation because of Spanish, or even English and Chinese, which are increasingly prevalent in the urbanizing townships surrounding the Comarca (e.g., Tolé). OLEN is an answer to help in the creation of new vocabulary and books, in order to stabilize the variation of Ngäbere in the frontiers. *Uniting indigenous epistemologies*. Literacy plays a fundamental role in cultural assimilation campaigns all over the world. Panama's government and others across the region penned constitutions and laws that are heavily backed by European Enlightenment philosophies (EIB 2005, p. 2). Since its first constitution in 1904, the Panamanian state promoted pedagogical programs of literacy across the country, with conscious disregard to indigenous culture. These statutes meant to assimilate the indigenous peoples by teaching them Spanish over their native tongues. It wasn't until 1995, with the increasing popularity of multicultural education, that a pro multilingual amendment was modified into law (Law 47 of 1946), now (Law 34, July 6, 1995). Intercultural bilingual education (EIB)'s philosophy started in Texas, and regards indigenous culture into consideration and employs indigenous people to guide education programs in conjunction with the state, it remains external to indigenous decoloniality because it is not an effort in critical literacy.

In Panama, most indigenous peoples have entered into a relation with national literacy programs. Especially in eastern Panama, indigenous groups like the Guna and some Emberá have public schools seeking to mix Western/Latino systems with indigenous epistemologies. Kiad is a different case, where an indigenous group has taken an alternative route to literacy by developing their own orthography and pedagogy. This requires some isolation and a lot of effort and conscientiousness to equip themselves with tools to subsist in a Eurocentric world. Due to their struggle with Barro Blanco, the Ngäbe have become much more well known across the country and the world, and receive visitors from other indigenous groups of Panama. This opportunity brought other indigenous epistemologies to help in collaboration, and these shifting

subjectivities would end up creating new approaches, that, for better of worse, become absorbed by a growing body of written accounts serving the indigenous pedagogy. In other words, *becoming* must take priority over static *identity* in politics.

Native subjectivities are viewed as a function of their primacy. This means that indigenous identity carries with it the reductionist conclusion that their worth comes from the claim of being first. On the contrary, indigenous people are constantly adapting. Some cultures go about their environment differently, where one sees a mountain as pile of rock, another may see it for its spiritual qualities. Goejet (2016) tells me, "We are changing, picking up the crumbs left from the wake of colonization (*el despojo*), to keep improving as a culture that has much to learn and much to investigate." What surrounds Ngäbe and Buglé hamlets is more than just wood, rivers, and sporadic meat. Local culture groups have intimate and intricate connections with the richness of the environment, which outsiders may easily dismiss or fail to identify.

Fighting present threats is a collective effort. Even when companies break the law or are to blame, functioning neoliberal economies like Panama's maintain a large police force to protect capital and mediate with the poor who protest. In this context, the Panamanian state has demonstrated time and again its lack of consideration in creating examples of justice. It cancels out culture-history, considers the *invisible hand* a panacea, and its public officials condense into opportunism, effectively creating a negative feedback loop where more social unrest becomes inevitable (Thrift 1997). This problem is mainly evidenced by the increasing economic disparities and social inequities across urban and rural geographies. The public debate on economic issues is mostly silenced by the incapacity of the political parties to formulate

comprehensive national programs or even establish ideological differences (Watts 1983). The indigenous people end up at the periphery of the conversation. As "primitive" they are either thought as living like Rouseau's noble savage or like Hobbes' (1982 [1651]) "nasty, brutish, and short" existence. Whichever the case, the state grew in the direction of implementing development programs to "educate" private property with the hopes of solving the misconception of a "tragedy of the commons" in the comarcas. To administer private property makes it more efficient to tax individuals, as opposed to the more anarchic collectives. "Binary logics of legible and illegible property regimes are not simply coded in the differences between individual and collective tenure arrangements but in the conflation of racialized bodies within this binary" (Mollett 2013, p. 1234). Under the Martinelli Presidency (2009-2014), several indigenous protesters died from police brutality, precisely during a demonstration protesting GENISA's privatization of the watershed. With the death of the body in resistance, the body of the native also becomes legible, in that their sacrifice for the principle of freedom materializes as their existence is reduced to the struggle and silenced by the bullet. Figure 22 shows the riot police under during a heated confrontation with M10 in Viguí, in September 2016. They were not allowed to use life bullets during the administration of president the Juan Carlos Varela. From experiencing the constant return to the streets, indigenous people often end up enacting direct political participation, which transfers into their pedagogy as praxis.



Figure 22: "Why don't you get a more honest job?"- Yibiyi. Viguí, Chiriquí. In September 7th, 2016, where the Viguí River meets the Pan-American highway, I experienced the height of the violent conflict during my fieldwork. The Ngäbe struggled for over five hours with the anti-riot policePhotograph by the author, September 2016.⁵¹

Creating Pedagogies Via Collaborative Work. "To recognize one's own game, one's own

direction, is of elemental importance" (interview with Mamatada practitioner in Boca Balsa).

The feeling of being in the world, that is through consciousness, is not without agency.

Differences across culture and belief systems create the characteristic hallmarks of a landscape.

Collaborating and sharing skills created the maba, the tödiba, the binana, as well as the forests as

gardens. This is not innovation from creative destruction, as it is in a factory or in the financial

markets, but rather at another pace, within a slower time-frame. For OLEN, this time frame is at

⁵¹ Photograph [in black and white] titled <u>"Fourth Wall Mercs" (Uro krobogo gore)</u>.

least 500 years. As I mentioned in Chapter 3, only esoteric reading by the elite mystics is allowed in some sects of Mamatada. OLEN, however, tries to democratize reading and writing and germinate a growing network of garebo(s) to share the message and the tools. Nevertheless, most of Mamatada practitioners still resist the orthography, and the Christian Ngäbe will not learn it because they see the writing as linked to a pagan religion. Perhaps, the new Ngäbere script is seen as unappealing given that it operates as divergent and radical like its religion and politics. What can new generations do to appeal to a broader audience?

Pedagogies give complementary power to land tenure because, in unison with border thinking, the Comarca allows for Ngäbe-ness to develop local innovations. The creation of new symbolism and lore through text helps Kiad sustain and produce their pedagogy. Symbols that give meaning include the textual religious script, oral traditions, petroglyphs, manifestations, and the active roles of people. Religious symbols exist in the functioning of language for Kiad, but also in countering Latin hegemonic cultural expansion (Gramsci 2000 [1935]). Stuart Hall reframes Gramsci's treatment of culture (consent vs. coercion) to include power relations (Procter 2004, p. 4). The study of language is thus integral to understating the symbols of politics, because these conform to political purpose. Figure 23 is a digitalized version the Ngäber script, similar in content to the passage about the prime mover shown in Chapter 3. Ngäbe of many walks of life worked together to finally create this prototype digitalization. If similar work continues, it would mean that OLEN continues to enlisting diverse talent and could see this prototype and other goals overcome.

Ոաշա

+ፖርፖኑፖ +ሙር₩ፓፖ ለ₦፟፟፟፟፝፝፝ኯ፟፝፝፝፝፝፝፝፝፝፝ኯ፟ዀ በዀ፝፝፝፝፝፝፝ኯዀ ወዲለያለዀ በሥር₩ ፟ዾጜፚዩኮሎ +ፖዞለያዀ ለጠለጠ ፚዀጷ₦ዞኟ ₦ዀ በዀጛዀ ለዀ ጋፖርዀለ₦₱₦ በ₦ዞለያዀ ያለያጛለዀ ሡ፝፞፞፞፞፞፞፟፝፝ፚለያ ሡኮሡፚዀ በ₦ዞለያዀ በፖኑፖ ጛ₦₱₦₽ ጛለያጛርዀ ሬሡበድር₦ዞሡዞኑፖ ለጠለጠ +ለያጮ ፚዀጷ₦ዞኟ ₦ዀ

Figure 23. Example of proto-digital Ngäbere. Source: Nunama by Tido-Badi (2017).

Generating a critical literacy program. In Maba Kubu, there is a story about a cat who warns the mouse that the next time there will be no warning, "no words spoken." Next time, the cat will eat the mouse. I interpret this story as a representation of magnitude in power-relation. This concept in the abstract meanders towards thinking about vulnerability, humiliation, injustice, and bullying, and into world-social dynamics: a network underpinned by forces with no restraint of abuse. It is not a food-chain, but a disjointed opportunistic, ahistorically crude, where contracts are created over groups with little opportunity to do anything about it —e.g., treatises never up-held by the colonizer, abusive constitutions, business contracts to control land.

Against the grain, Kiad, and its' broader organization OLEN, have gained significant ground in the last two decades in formulating alternatives to the development logic. The alternatives are vast, although mostly illegible (and rightly so), but many are becoming apparent. Divergent from Panamanian public education, Kiad's vision and pedagogy has shown to be an exemplary case of decoloniality. Their/our/my discourse includes an explicit critique of Panama's treatment of indigenous peoples: that the country's bureaucratic and corporativist ontology drowns alternatives as a condition of its own poverty (as corruption) and violence (as state capitalism) toward minorities. The people in Kiad and their pedagogical network, OLEN, are aware of the power inherent in making texts (interview with Tido-Kri 2016). For three generations they have been developing educational resources so that their kin may read and write, but most importantly doing so with tools not imposed by the historical oppressor. Kertzer (1988, p. 344) notes that "political reality is defined for us in the first place through ritual, and our beliefs are subsequently reaffirmed through regular collective expression." Evidently, the external or etic narratives about the Ngäbe got built into the psyche and subsequently "exerted a cultural hegemony, because it exerts an economic hegemony" (Gramsci 1971, p. 179).

Ngäbe syncretism could be regarded, within the legacy of colonialism, as re-validating the "undeniable truths" of Christian doctrine. Being both syncretic with and incorporating to Christianity means that they are not aggressive, resentful, or hostile about Christianity. Inclusion is a problem for the indigenous people as much as exclusion (e.g., dialogue, the content of which easily excludes indigenous prerogatives). The tyranny of democracy (Arendt 1970) or the abuse of minorities by the majority (Lijphart 2012), the dominance of the human over the non-human (Santos 2004), all unpack another less apparent institution of colonial mentality. The subject, who learns that the majority of his people have been misguided by a foreign force, still fights for developing a genuine culture in so far as to decolonize by innovating outside of the *status quo* (Sapir 1924). The process of revolutionizing a society's logos, ethos, tradition, intellectual legacies, doctrines, even the sensuousness that is situated knowledge, is effectively the reeducation of all members of society into a critical mindset. To help themselves, the Ngäbe of Kiad are reclaiming the voice inherent in the phonemes of **Ngäbere**, as **this** Latin script demonstrates to be defective.

Engaging the status quo constantly. Christianity and capitalism, two towering light posts over a sea of stolen histories, point to cultural pressures, shifting the spotlight onto indigenous people. Perspectives about anthropocentrism, for example, differ across cultural geographies. An understanding of such differentiations, but also the execution of such realizations are absolutely central to change the colonial mentality of the status quo. Dissenters must cultivate a conviction for looking at the full picture of phenomena in their environment —such as describing the relational character of actors and networks on a space of inquiry (Demerrit 2005). This process is what permits citizens to think politically about ecology and to regard nature as political. Humans and non-humans can have a "constitution." Some indigenous peoples, like some Ngäbe, do produce such a unified constitution, where there is not only a conceptual crossover, but also practical one, in part, because some actively engage and contest capitalism's extractive ontology. Also because they do it from a parallax view, effectively viewing modernity already with a different lens; it has required their building a pedagogy in an alternative geography. Their view is unique because they have yet to fall into an irreversible dependency with the political system that surrounds them.

Powerful groups tend to purify and dominate space to maintain their position. At a national scale, the political economy of clientelism continues to produce uneven development and environmental calamities, that, in turn, become targets for re-investment, or are left marginalized. Maintaining these differences preserves groups with the most power without any chance of variability, which aggregates to the difficulty of constructive change. Ontologically and epistemologically, indigenous societies under Western influence perform poorly (Deleuze and Guattari 1987; Escobar 1996; Latour 2005; Kohn 2013; Descola 2013). Although in the

University there is a healthy understanding of the biophysical world, our Western ontology regards the non-human/more-than-human worlds with little to no attention as to their intrinsic value or right to exist. Systematically and categorically, Western institutions are anthropocentric, but there are some examples of sub-cultures within our Western society who practice awareness of animal suffering, monocrop practices, pollution, or corporation's abuses throughout economies of scales, and choose to shift their priorities in order to help society in their demographic aggregate. Private life has political meaning and is an example of forms of citizen engagement that mixes public matters with private action and *vice versa*. A new audience must confront the input and choose what to do — via film, writing, live performance, and even mapping— decoloniality provides new input that develops a new horizon for the *status quo*.

Conclusion

Chapter four took the main aspects of the political ecology of the Tabasará river basin (i.e., resistance movement, riverine ecosystem, extractivism, and borders) and linguistic anthropology (i.e., critical literacy, discourse analysis, and conceptual-material culture) to join them in an assemblage of a decolonizing process. The chapter advances the argument that environmentality or narratives of a stewardship of nature can be strengthened by linguistic elements of indigenous knowledges. OLEN, Alteridad+, and the approach itself are ways of engaging pluralities and helping decolonize Western epistemologies.

CHAPTER 5: APPLYING DECOLONIALITY

Destructive exploitation has contributed so largely to the growth of "wealth" [in] the modern world, that it is accepted commonly as a normal process, excused and even approved as a "stage" in economic "development," which is supposed to give way in due time to balanced use and a permanently higher level of production. In so many cases, however, has the process of European expansion been achieved by impoverishment of the lands colonized that we must consider such as the rule rather than the exception. The thesis may well be set up for trial that the Industrial Revolution itself and the tremendous growth in population and wealth of [the] eighteenth and nineteenth centuries are based on a gutting of colonial lands. For centuries colonial wealth has poured into the entrepreneurial lands about the North Atlantic.

—Carl O. Sauer "Destructive Exploitation in Modern Colonial Expansion" in *Carl Sauer* on *Culture and Landscape, eds.* Mathewson and Denevan (2009 [1938], p. 246).

Language inaugurates the human domain, and the environment completes it. As seen in the previous chapter, programs like Christian missionary incursions and extractivist projects like Barro Blanco are contemporary methods that ease the cultural assimilation process. In opposition to national efforts of integration, the political and cultural implications for the new orthography are potentially groundbreaking. By identifying a unique set of idiographic elements, linguistic political ecology helps us study the Ngäbe decolonial movement, how it formed, becomes, and gives treatment to its respective environment. A global model can be built out of this case study. In general, political ecologists can look at the pedagogy of locals to inform their research with an increased emic approach. Specifically, political ecology needs linguistic analysis to understand the decolonization processes from the ground up. That is because language revitalization movements harbor political potential and their *raison d'être et de faire*. Replacing the idiographic elements in Figure 17 (Chapter 4), renders the model flexible in looking for understating of other indigenous resistance movements around the world. This dissertation brings forth a conceptual

structure for revitalization efforts to be considered seriously in relation to Latin American coloniality (Moraña, Dussel, and Jáuregui 2008).

The legacy of colonialism thus continues via epistemic conquest (Mignolo 2011, pp. 53-54). Scholars recognize this process as coloniality. The ramifications are complex but identifying them is possible, and necessary. The case of the Barro Blanco dam is unmistakable in this order. Analysis of landscape transformation involves social (conceptual) and biophysical (material) processes (Sluyter 1997), a particular blend of which can translate the testimony of indigenous peoples' struggle against such factors as cultural hegemony, resource extractivism, bureaucracies, and neoliberalism (Springer 2016). The successful recovery of indigenous communities likewise rests in the agency of spiritual, philosophical, and existential narratives. In this case, the Ngäbe orthography demonstrates an exemplary crossing between the political, ecological, and linguistic potentialities of an indigenous cognitive move towards decoloniality.

From the three inscriptions on the ground given to the Ngäbe by Besigó (Mamachi), they were able to create a writing system. "To study like the rest of the world cultures do," in Tido-Kri's words, "our historical humiliation," in the present landscape and rescue the knowledge still living in the Comarca. Religious narratives, mandates, and interpretations involving Mamatada and Christianity govern most relationships of decoloniality in Panama. These constitute the existential struggle for meaning and truth, retaining the possibility of lasting alterity surviving in one landscape. Seeking land tenure, for example, is a form of material well-being that translates to the management of a healthy environment, potentially securing the health of its occupants. The Ngäbe orthography is alive and is still becoming with the landscape. Even after being met

with the untimely flooding of their sacred petroglyphs, gardens, houses, and crops, the Ngäbe, especially the Mamatada of Kiad, can enact an alternative geography in contradiction to the *status quo*, that is, to Panamanian nationalism and cultural hegemony over them (e.g., global capitalism, the patriarchy, Latin American corporatism, and Christianity). Their alternative human geography appears to formulate a re-enchantment of "the world garden" (Weber 1946 [1917], p. 270). In other words, their ontology exists in part by departing from the bureaucratic logic of national public schooling, and extractivist projects. The pedagogy articulates the colonial landscape by revisiting the oppositional relationship between "native and non-native" history (Sluyter 2001).

The first chapter established the context of the study. It reviewed the relevant literature on indigenous people of Latin America, and Panama. The chapter also described the methods, a brief history of the cultural group, and the creation of the Comarca Ngäbe-Buglé. Here, I thought to look at borders and capital flows and the the neoliberal politics of development. Chapter two comprised the principal observation work surrounding the biophysical environment of place and the political-economy of its people. This second chapter urges readers to rethink the Panamanian landscape of hydroelectric infrastructure via a political ecology approach.

Chapter three moved into close participation with language learning, that in the end, reinforced the study of colonial landscapes in Panama. Language remains the core and pivot from whence politics and ecologies can be reconstructed. I found in linguistics the potential to inform the dynamics and reasons behind the resistance. Both chapters, 2 and 3, presented the resistance geographies of indigeneity, from the waters of the Tabasará river to the streets and

highways, and back to the schools. More so, Chapter three focused on the creation of Kiad's written language and the birth of an alternative pedagogy to national public schooling. Learning to write and speak Ngäbere was arguably the most rewarding activity of the study, allowing me to be taken seriously.

These two chapters introduced a multiplicity of concepts such as autonomy, Marxism, capitalism, discourse, literacy, and pedagogy, all of which intertwined and rendered a discussion on linguistic political ecology on the following chapter. Chapter four showed the idiographic elements of Kiad's version of Mamatada and its characteristic openness to the world. Contradictory to the more typical Mamatada philosophy of isolation, Kiad's version of Mamatada has made available more of its knowledge to the world. This chapter also took on a critique of the Latin-based Ngäbere script, in favor of OLEN's version. I then restated the Ngäbe process of decoloniality. The chapter explores the role of the active student, the linguisticpolitical-ecologist.

Altogether, the chapters in this study evidenced decolonial theory with the case-study of the Ngäbe of the Tabasará River basin. Furthermore, the study also sought to imply the necessity of being an active student by engaging the Panamanian public and fellow scholars in academic meetings (Association of American Geographers, Conference of Latin American Geographers, and forthcoming in the Second Biennial Conference of the Political Ecology Network) with multimedia projects, such as Alteridad+. This final chapter lists further avenues to explore with the Ngäbe, discusses contributions to the field of geography and anthropology, and lists some warnings and recommendations ahead. In all, the chapters seek to answer the overarching

questions: how is autochthony created in a colonial landscape and how does linguistics play a role in political agency and self-determination of indigenous people? This query must join the elements, their relationships and possible trajectories in the colonial landscape.

In a spectrum of conceptual to material phenomena, the academy, the courts, and the physical environment lay before them two opposing causal agencies of history. One moves towards coloniality, and the other against it. Choosing points along the spectrum can help students visualize a stage at any given time, and, a geography as it exists between the colonizer, the decolonizer, and the landscape. From the present case-study I can limn the following stage. Socio-cultural life has a shorter lifespan and a more complex politics than the biophysical environment. It should follow then that the relationships between these three nodes —colonizer, decolonizer, and landscape— have a better chance of recovering alterity (towards multiculturalism) over a return to anomie (towards colonialism) when there are more factors to use as leveling agents (e.g., stewardship when there is pollution or threats to the environment and critical literacy when there is nationalism or cultural hegemony).

The Ngäbe orthography began slowly but steadily to create the rubric for what today encompasses an invigorating pedagogy that gives new meaning to the material and conceptual transformations of the landscape. The maba that students use to study are examples of elements that add new nodes to the understanding of colonialism and landscape. The maba continue to evolve and adapt, to accommodate new vocabulary, punctuation rules, and alphanumeric standards, while simultaneously entwining these with an increasing compilation of oral histories and legends. Thus, the next generation resists modern coloniality through revitalization. It moves outwards, with a unique writing system illegible to Westerners until they show interest, care, and respect. Inwards, indigenous pedagogy teaches Ngäbe in Ngäbere the qualities of being Ngäbe working on self-esteem, a trait that is scarce in colonial landscapes. I have observed this endemic condition, and have also consulted with my peers in the field. What is left illegible in the Ngäbe landscape of decoloniality is necessary for indigenous autonomy to deconstruct themselves, so as to expose the networks of domination from their perspective of dwelling on the border. In the larger Panamanian society, with the explicit agency of decoloniality and the fact that Ngäbe have indeed primacy status by having cultivated the precolonial landscape (Gordon 1982, p. 142), the national narrative can be one of recovery rather than declension (Sluyter 2001, p. 414). I attempted to describe some key crossings between the social elements that pertain to indigenous politics to tie into the present the nodes and agencies of the Ngäbe cultural revitalization. My study seeks to reinforce the argument that indigenous ontologies and epistemologies present real alternatives to humanity's current problems with the global ecological catastrophe.

Drawing on fieldwork, language learning, ethnography, and qualitative analysis, this study traced the origins, development, and contemporary functioning of indigenous language, politics, knowledge, and ecologies. The study demonstrated how autonomous communities can potentially revitalize their politics through language pedagogy. The concept of "nature" in its dichotomous relationship with culture still continues to undermine indigenous peoples' mode of existence. Instead, the appreciation of language, or language learning as therapy, can help join nature and culture for a better informed politics of indigeneity. Constant therapy is required to rethink oppressive institutions (Maldonado-Torres 2016). Not only is the land and its fauna and

flora inherently valuable, so are the non-European epistemologies. The dissertation contributes to scholarship in geography and anthropology in four ways:

1) This project pioneers a linguistic political ecology approach that provides a conceptual structure to identify and aids decolonial projects that could potentially be inspired by the Ngäbe revitalization efforts.

2) For linguistic anthropology, this project provides a field example of an orthography built from bottom-up, and functioning without outside aid. At the forefront of a 50-year long campaign is the syncretic religion of Mamatada; they pose an ontological and epistemological revolution against the *status quo's* interpretations of poverty, education, energy, and ecology.

3) For political ecology and decolonial studies at large, the analysis of the Ngäbe orthography builds a conceptual framework adding to a praxis of decoloniality that considers extractivism and neoliberalism via discourse analysis of indigenous pedagogy. In so doing, the process works to add language communities to decolonizing modern development by advancing contemporary indigenous epistemologies.

4) Finally, the project contributes to practices and theories of how to engage with various publics didactically. With multimedia projects, students who investigate new methods can join in projects in the digital humanities, art installations, or video documentaries. These projects seek to reintroduce indigenous people like the Ngäbe of Kiad to the national and international stage. The hope is that with the right method, it is possible to sneak into the psychology of those in power.

The Earth is in a situation where there is an alarming loss of language and species in a short span of time. Can this calamity itself bring about the opportunity to map alternatives and claim new hearths where localities may teach global institutions —from idiographic to nomothetic? This study responds to the decline of the world's diversity of languages and eco-systems. For this reason, to ignore, or worse, to undermine indigenous creative potential, as was seen in the case of the present case study, means to choke opportunities for humanity as a whole. The colonizer's model remains closer to Richard H. Pratt's slogan, "kill the Indian, save the man," which should instead be, kill the man (patriarchy), save the Indian (Other). Panama currently works against the Amerindian. In this case, political leaders do not understand what to promote. Although not yet able to visualize it, the non-native must see the potential in friendship, rather than in relationships of paternalism.

Engaging the Public

We have the responsibility to make ourselves useful in gratitude for the knowledge, hospitality, and time shared together with locals who open their world to us. While immersed in the frustration of the constant return to injustice in such troubled landscapes, one can become lost in the search for methods upon methods to echo, practice, or aid the situation of indigenous people so that they can reach untapped members of the public. Not only saving endangered languages as linguist activists do, not only counter mapping land, but first and foremost paying attention to autochthonous ideas and linking opportunities with realization. Becoming respectful friends across cultural boundaries, and together originating methods to teach about otherness (Dussel 2004) to the public sphere (Habermas 1989).

In the Comarca Ngäbe-Buglé, there is a complex freedom to translate to the Panamanian city dweller. As described by Icaza (2014)'s story, *la ngäbe caminante*, one must wander the mountains and river basins of the Comarca for many days and weeks, staying in unknown hamlets, sharing stories, and learning the language, tropes, and idioms. Without the worry of being attacked or mistreated, the traveler of privilege holds the stance of the outsider visiting collective lands, including a whispering sensation of openness; "a pedagogy of the senses" (Deleuze 1994 [1968], p. 237). The reward comes only with the risk of leaving the comfort of expected events and city structure. Instead, a majority tells the Ngäbe that they are backward and poor, that they do not want to share with us their riches and their lands as they ought, given their relative area per capita. A majority tells them that they do not want to "improve" and become civilized. Conversely, one cannot generalize or romanticize the Ngäbe either. The Comarca Ngäbe-Buglé is diverse and has many internal problems such as malnutrition, poverty, and corruption —just like many areas in Panama City.

As such, linguistic political ecology is needed to make intelligent critiques and lay the foundations for innovative change. In a world of limited time and excess choice, we may find ourselves returning to the market for guidance in mass-mentality. Maybe indirectly at first, but directly when pressures on the land become unbearable, and people end up migrating. Gladly, to read and write in the Ngäbere orthography is one conceptual materiality that can survive, which, although not fully legible to the outside world, represents an attempt to revitalize what it means to be Ngäbe for the Ngäbe in a contemporary world. Decoloniality must build networks underneath national borders, while operating at a community level, maintaining and diffusing geographically the methods that best help improve the overall human-environment relations

(rural or urban or indigenous). The goal is to bring closer empathetic people to address the otherwise disjointed networks that can change old structures of colonial mentality.

The pedagogical program in Kiad is ambitious and tells the world "that Ngäbe identity matters in the 21st Century," says Tido-Kri. It matters because knowledge comes in multiple forms, and the Ngäbe language can teach alternative ways of living in the world. "To learn the Ngäbe worldview can diversify our ways to approach the earth and each other," I wrote down in my field notes, "It has for me." In Kiad, they will likely keep struggling to reassert themselves as relevant in the national conversation. "The process is slow," they tell me, "but we are patient." A five hundred year timeline is the Mamatada vision for the cultural strengthening of Kiad. The case of a "new orthography" constitutes an authentic new concept and tool, that is paradigmatic, edifying, meaningful, and sustained. Engaging the public constantly with creative, diverse didactic methods inspired by indigenous ontology is absolutely necessary for a healthier environment.

My research can inform the colonial landscape by adding linguistic elements to the complex flows of power in political ecology. The human-environment of the decolonization process in Latin America can recover with a diversity of alterity, or can collapse into an increasingly impoverished society. This Ngäbe case in Panama can teach us a lesson, that alternative geographies are possible, we, the society at large, just have to meet them half way. A post-colonial world must include the voice of the subaltern in their own language, so that these illegible landscapes can be allowed to breath-out their creative potential like the new orthography and pedagogy of OLEN.

Future Projects

Promising exploratory directions for the future (*jadaikore*) revitalization efforts concerning writing the Ngäbere language rests with OLEN, and its members. They have a council for its advancement and continuous improvement. There are three gatherings of this council every year: Keberi, Moneni (in Kiad), and Krawdo. Each meeting lasts three days. These meetings are devoted to conducting debates about the new vocabulary, holding student contests, and celebrations. For example, during the end of January of 2016, hundreds of people from at least six different districts traveled to Kiad for a gathering on the language. They held meetings and gave presentations about current developments and pressing political and religious matters. "We are just beginning, so we are not behind advanced learning methods yet" (OLEN 2016).

Plans for a Ngäbere dictionary are already in the works. Tido's revelations and process of devising the writing system are now part of folktales written in the maba, and told in Kiad, Krawdo, Keberi and probably in many other places around the Comarca. Tido does not take his work as being individually crafted, although it can seem like this as others praise him for his efforts; he is usually removed from a public center-stage. His work has been arduous, both spiritually and methodically. To create a new orthography rooted in faith, dreams and glyphs, reformulates the presentation of the Ngäbe language and re-appropriates its authenticity and grants it legitimacy. The following four projects will be a continuation of my work with Ngäbere pedagogy.

1) Create a debate with the EIB in Panama. With my research on Ngäbere I will seek to appeal to the proponents of the bilingual system. Latin characters present many problems, as they

are treated with carelessness. The new Ngäbe orthography eliminates this confusion by erasing the otherwise problematic EIB.

2) Update the digital version of the Ngäbe orthography and transferring it to unicode.⁵² OLEN members want to digitalize the letters in a setting where cellphones may reproduce them. The proto-digital orthography is installed in several computers that they have and others we were able to buy from the proceeds of Alteridad+1.0. This setup is far from ideal, given the incomplete characters and the limitations of installing the program by external drives. Popularized via Whatsapp, unicode can drastically raise interest in studying in a tödiba.

3) *Mount a website for OLEN* to show their work and as a place for them to receive donations with greater ease. I want to help Kiad to make OLEN operational online so that friends and supporters from around the globe can easily help their cause.

4) *Create more art installations and videos.* An art installation that re-formulates the gallery setting, as I have done with Alteridad+ 1.0, would serve to create greater awareness of OLEN in Panama. As pedagogy for anthropogenic Climate Change, I seek to raise funds for tödiba(s) and garebo(s). Following Stuart Hall (Schwarz 2007, p. 152), "I am also interested in how the Other operates inside people's heads." To investigate this, "you have to go to art," which is where we can find their imaginations, "where they fantasize, where they symbolize. You have to make the detour from the language of straight description to the language of the imaginary." We know not only one humanity but several, the Ngäbe being one of these ontologies.

⁵² Unicode is a computing industry standard for the consistent encoding, representation, and handling of text expressed in many of the world's writing systems (Anderson, D. 2005).

Conclusion

Beliyi and Debora look at the abyss while the stillness of a rising lake waits to engulf them. Behind their backs reads "Represa" (dam). The text, which is also in Latin script, is the telos of colonial extractivism, which defiles their fertile hearth, and is a cruel reminder of their status as the exotic dead. The stillness of the water is foreign to them, and the water itself, so dear to them, becomes an itchy killer of life. They hope that the river that once was alive will once more resurrect. In waiting, messianic time holds its subjects in a contract, giving them brief gasps of air after a ritual of capitalist punishment. In some cases, the injustices they seek to rebuke are perpetrated by the state that is just another face for the old colonial lords.

For a nation-state to pluralize its existence within its borders, it needs to create more spaces of mutual understanding (Kropotkin 1888) —not with a commercial goal as with the case of tourism—especially in a heterogeneous republic like Panama. Collins and Blot (2003, p. 139) have identified two opposing strategies taken by indigenous people about literacy: resistance or acquiescence. Resistance leaves natives illiterate and marginalized, while acquiescence carries the danger of assimilation. However, critical literacy also opens the third possibility: of adapting school literacy programs to their autochthonous cultural practices. The Ngäbe chose this third path, one of reinvention. They use Ngäbere script to teach in Ngäbere what it can mean to be Ngäbe with the potential to give pride to those demoralized or with low self-esteem. This pedagogy challenges the hegemony of Spanish and the Latin Script by developing emic materials and concepts, philosophy, and methods of teaching. The orthography has received increasing attention from urbanized Ngäbe youth. As Tido puts it, "This [orthography] is intended to help the Ngäbe come together as a distinctive culture struggling to survive in a very competent

colonization process: national public education." With the goal of empowering and bettering his kin and his culture group, Tido has worked until this day to expand his knowledge of the world, raise his standard of living, and provide a brighter future for his children and community.

REFERENCES

- Acosta, A. 2013. *Desarrollo Glocal: Con la Amazonía en la mira*. Ecuador: Corporación Editorial Nacional.
- (ACUN). 2011. Pueblos indígenas en Panamá: una bibliografía, eds. J. Velásquez-Runk, M. Martínez Mauri, B. Quintero Sánchez y J. Sarsaneda Del Cid. Panamá: Acción Cultural Ngóbe.
- Alfred, T. 2005. *Wasáse: Indigenous pathways of action and freedom*. Toronto, ON: Broadview Press.

_____. 2009. *Peace, power, righteousness: An indigenous manifesto*. Don Mills, ON: Oxford University Press.

- Alfred, T. and J. Corntassel. 2005. Being Indigenous: Resurgences against contemporary colonialism. *Government and Opposition* 40(4): 597-614.
- Aljazeera. 2012. Panama: Village of the damned: One indigenous tribe is engaged in a life and death struggle against the big business interests flooding their land. Web-link to documentary.
- Alphonse, E. 1956. Guaymi Grammar and Dictionary with some ethnological notes. *Bureau of American Ethnology*, Bulletin 162, Washington.
- _____. 1980. Gramática Guaymí. Panamá: Fe y Alegría.
- _____. 1987. Diccionario Guaymí-Español-Inglés. Panamá: Asamblea Baha'i.
- Anderson, B. 1983. *Imagined communities: Reflections on the origin and spread of nationalism*. London, UK: Verso.
- Anderson, G. L. & Irvine. P. 1993. Informing critical literacy with ethnography. In *Critical Literacy: Politics, Praxis, and the Postmodern*, eds, C. Lankshear and P. L. McLaren. Albany, NY: SUNY Press.
- Anderson, D. 2005. Recommendations for creating new orthographies. Unicode Technical Note 19. Unicode Inc, <u>http://www.unicode.org/notes/tn19</u> (accessed February 3, 2018).
- Anzaldúa, G. 2007 [1987]. Borderlands/La frontera: The New Mestiza. San Francisco, CA: Aunt Lute Books.
- Appadurai, A. 1988. Putting Hierarchy in its Place. Cultural Anthropology 3(1): 36-49.
- Arendt, H. 1970. On Violence. New York, NY: Harcourt.
- Arima, E. et al. 2013. Spontaneous colonization and forest fragmentation in the Central Amazon Basin. *Annals of the Association of American Geographers* 103(6): 1485–1501.

Bakker, K. 2000. Privatizing water, producing scarcity: The Yorkshire drought of 1995. *Economic Geography* 96(1): 4–27.

_____. 2005. Neoliberalizing nature? Market environmentalism in water supply in England and Wales. Annals of the Association of American Geographers 95(3): 542– 565

Baldwin, J. n.d. Remember this house. Unfinished manuscript.

Bangama, T. K. 2015 [1974]. Maba Kuadi. Kiad, Comarca Ngäbe-Bulgé, Panamá. Publisher: Ministerio de Gobierno's Milton Henríquez.

_____. [1976]. Maba Kubu. Kiad, Comarca Ngäbe-Bulgé, Panamá. Publisher: Ministerio de Gobierno's Milton Henríquez.

- Bangama, N. 2015 [2006]. Maba Tröro. Kiad, Comarca Ngäbe-Bulgé, Panamá. Publisher: Ministerio de Gobierno's Milton Henríquez.
- Barnes T. and Sheppard, E. 2010. Nothing includes everything: towards engaged pluralism in Anglophone economic geography. *Progress in Human Geography* 34(2): 193–214.
- Barnes, Peck, and Sheppard. 2016. *The Wiley-Blackwell Companion to Economic Geography*. Hoboken, NJ: Wiley.
- Barton, D. 2007. *Literacy: An introduction to the ecology of written language*. Malton, MA: Blackwell Publishing.
- Basso and Anderson. 1973. A Western Apache Writing System: The Symbols of Silas John. *Science* 180 (4090): 1013-1022.
- Basso, K. 1990. *Western Apache Language and Culture*. Tucson, AZ: University of Arizona Press.
 - ____. 1996. *Wisdom sits in places: Landscape and language among the Western Apache.* Albuquerque, NM: University of New Mexico Press.
- Batterbury, S. and Horowitz, L. 2007. *Engaged political ecology*. Durham, NC: Duke University Press, in press.
- Bebbington, A. 2002. Geographies of development in Latin America? *Conference of Latin Americanist Geographers Yearbook* 27: 105-48.

____. 2004. Movements and modernizations, markets and municipalities: Indigenous federations in rural Ecuador. In *Liberation ecologies: Environment, development, social movements*, eds. R. Peet and M. Watts. London: Routledge.

_____. 2007. Livelihoods and resource accessing in the Andes: desencuentros in theory and practice. In Gough, I. and McGregor, J.A., editors, *Wellbeing in development countries: new approaches and research strategies*. Cambridge, UK: Cambridge University Press.

- Bender, M.C. 2002. Signs of Cherokee Culture: Sequoyah's Syllabary in Eastern Cherokee Life. Chapel Hill, NC: University of North Carolina Press.
- Bennett, C.F. 1976. *Influencias humanas en la zoogeografía de Panamá*, traducción de M.J. de Meléndez. Editorial Universitaria, Panamá.
- Biersack, A. 2006. "Red River, Green War: The Politics of Place along the Porgera River." In *Reimagining Political Ecology*, eds. Biersack and Greenber. Durham, NC: Duke University Press.
- Blackbourn, D. 2007. *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany*. New York, NY: W. W. Norton & Company.
- Blaikie, P. 2016 [1985]. The political economy of soil erosion. New York, NY: Routledge.
- Blaut, J.M. 1987. Diffusionism: A uniformitarian critique. *Annals of the Association of American Geographers* 77: 30–47.

_____. 1993. The Colonizer's Model of the World: Geographical Diffusionism and Eurocentric History. New York, NY: Guilford Press.

Bort, J. R. and Young, P. D. 1982. New roles for males in Guaymi society.

_____. 2001. The Ngóbe of western Panama. In *Endangered People of Latin America: Struggles to Survive and Thrive,* ed S.C. Stonich, 121-136. Santa Barbara, CA: Greenwood Press.

- Bowman, I. 1942. Geography vs. geopolitics. Geographical Review 32 (4): 646-658.
- Brody, M.J. 1988. Incipient Literacy: From Involvement to Integration in Tojolabal Maya. *Oral Tradition* (3)315-352.
 - _____. 2016. Analyzing Interactive Discourse: conversation and dialogue. In *The Routledge Handbook of Linguistic Anthropology*. Nancy Bonvillain (ed). UK: Routledge.
- Bryan, J. 2015. Participatory Mapping. In *The Routledge handbook of political ecology*. New York, NY: Routledge.
- Bryan, J. and D. Wood. 2015. *Weaponizing maps: Indigenous peoples and counterinsurgency in the Americas*. New York, NY: The Guilford Press.
- Bryant, R. L., and S. Bailey. 1997. *Third World political ecology: An introduction*. London; New York: Routledge.
- Bryant, R.L. 1998. Power, knowledge and political ecology in the Third World: A review. *Progress in Physical Geography* 22:79–94

- Bryant, R.L. and Jarosz, L. 2004. Ethics in political ecology: a special issue of Political Geography: Introduction: thinking about ethics in political ecology. *Political Geography* 23, 807–812.
- Bush, M.B., and Colinvaux, P.A., 1990. A pollen record of a complete glacial cycle from lowland Panama. *Journal of Vegetation Science* 1: 105-18
- Butzer, K. W. and B. J. Williams. 1992. Addendum: Three Indigenous Maps from New Spain Dated Ca. 1580. *Annals of the Association of American Geographers* 82(3): 536–542.
- Cahill M. and K. Rice, eds. 2014. *Developing Orthographies for Unwritten Languages*. Dallas, TX: SIL International.
- Caicedo-Mendieta, J.C. 2016. "Topónimos como 'Barro Blanco'" La estrella de Panama. <u>http://</u> <u>laestrella.com.pa/opinion/columnistas/toponimos-como-barro-blanco/23962463</u> (last accessed Jan 24. 2017)
- Campbell, L., 1997. *American Indian Languages: The historical linguistics of Native America*. Oxford University Press.
- Cansari, R., Gausset, Q. 2013. Along the Road: The Ngäbe-Buglé Struggle to Protect Environmental Resources in Panama. *The International Indigenous Policy Journal* 4(3). Retrieved from: http://ir.lib.uwo.ca/iipj/vol4/iss3/5
- Carney, J. 2001. Black Rice: The African Origins of Rice Cultivation in the Americas Cambridge, MA: Harvard University Press.
 - _____. 2010. "Landscapes and Places of Memory: African Diaspora Research and Geography," in Tejumola Olaniyan and James H. Sweet (eds.), *The African Diaspora and the Disciplines*. Bloomington, IN: Indiana University Press pp.101-118
- Carney, J. and R. Rosomoff. 2012. *In the Shadow of Slavery: Africa's Botanical Legacy in the Atlantic World*. Berkeley, CA: University of California Press.
- Carta Orgánica de la Comarca Ngäbe-Buglé. Decreto Ejecutivo Nº 194 de 1999. Panamá: Gazeta Oficial.
- Castillero Calvo, A. 1995. Conquista, Evangelización y Resistencia, ¿Triunfo o Fracaso de la Política Indigenista? Instituto Nacional de Cultura, Panamá.
 - _____. ed. 2004. Los primeros europeos: El descubrimiento del istmo de Bastidas a Balboa. En *Historia General de Panamá*. Vol. 1, Tomo 1. Comité Nacional del Centenario de la República, Ciudad de Panamá.
- Castree, N. 2004. Differential geographies: Place, indigenous rights and 'local' resources. Political Geography (23): 133-167.

- Chambers, R. 2006. Participatory Mapping and Geographic Information Systems: Whose Map? Who Is Empowered and Disempowered? Who Gains and Who Loses? *Electronic Journal on Information Systems in Developing Countries* 25: 1–11.
- Chapin, M. et al. 2005. Mapping Indigenous Lands. Annual Review of Anthropology 34: 619–638.
- (CIAM et al.) (2013a, June 14) Request to James Anaya to meet about the Barro Blanco project during July 2013 visit to Panama.
- (CIAM et al.) (2013b, June 24) Letter to Mr. John Knox by 14 NGOs. Retrieved from http:// carbonmarketwatch.org/wp-content/uploads/2013/06/Letter-to-John-KnoxBarro-Blanco-24-June-2013.pdf
- (CIEL) Press release. (2013, August 29) Groups Support Challenge to Dam Project in Panama for Violating Indigenous Rights - Amicus brief highlights unlawful consultation process. Retrieved from http://www.ciel.org/Law_Communities/BarroBlanco_29Aug2013.html
- (CIEL) Press release. (2014, February 20). Groups Appeal to UN to Halt Imminent Forced Evictions of Indigenous Ngöbe Community. Retrieved from http://www.ciel.org/ Law_Communities/Panama_20Feb2014.html
- Cleaver, H. 1976. Internationalisation of Capital and Mode of Production in Agriculture. *Economic and Political Weekly*, Vol. XI, No. 13.

_____. 1998. The Zapatista effect: The internet and the rise of an alternative political fabric. *Journal of International Affairs* 51(2): 621-640.

___. 2000 [1979]. Reading Capital Politically. Austin, TX: University of Texas Press.

- (CMW). Massive Protests against Barro Blanco Hydropower Project in Panama Carbon Market Watch. 2011. Retrieved May 19, 2015, http://carbonmarketwatch.org/massive-protestsagainst-barro-blanco-hydropowerproject-in-panama/
- Collins, J. and Blot, R. K. 2003. *Literacy and Literacies: Texts, Power, and Identity*. Cambridge, UK: Cambridge University Press.
- (DDHH). Commission on Human Rights, Defensoría del Pueblo de Panamá. 2016. *Informe de derechos humanos sobre la crisis de Barro Blanco: Llenado de la respresa*. Comarca Ngäbe-Buglé, Panamá.
- Commission on Human Rights, UN Doc. E/CN.4/2006/79. (2006, March 22) Indigenous Issues Human Rights and Indigenous Issues, Report of the Working Group Established in Accordance with Commission on Human Rights Resolution 1995/32 of 3 March 1995 on its eleventh session.

- Commission on Human Rights, UN Doc. E/CN.4/Sub.2/1997/7. (1997, July 2) Annex: The Practice of Forced Evictions: Comprehensive Human Rights Guidelines on Development-Based Displacement.
- Conklin, H.C., Lupaih, P., and Pinther, M.1980. *Ethnographic atlas of Ifugao: A study of environment, culture, and society in northern Luzon*. New Haven, CT: Yale University Press.
- Constenla, U.A. 1989. La Subagrupación de las Lenguas Chibchas: Algunos Nuevos Indicios Comparativos y Lexicoestadísticos. *Estudios de Lingüística Chibcha* 8:17-72.
 - ____. 1991. *Las lenguas del área intermedia: introducción a su estudio areal*. San José, Costa Rica: Editorial de la Universidad de Costa Rica.
 - . 2008. Estado actual de la subclasificación de las lenguas chibchenses y de la reconstrucción fonológica y gramatical del protochibchense. *Estudios de Lingüística Chibcha* 27: 117-35.
- Constenla U.A., y E. Ibarra Rojas. 2009. Mapa de distribución territorial aproximada de las lenguas indígenas habladas en Costa Rica y en sectores colindantes de Nicaragua y de Panamá en el siglo XVI. *Estudios de Lingüística Chibcha* 28: 109-112.
- Cooke, R. 1982. Los Guaymíes sí tienen historia. En *El pueblo Guaymí y su futuro*, eds. Foro Guaymí y Ceaspa. Panamá.

. 2005. Prehistory of Native Americans on the Central American land bridge: Colonization, dispersal, and divergence. *Journal of Archaeological Research* 13(2): 129-187.

Cooke, R. y L.A. Sánchez Herrera. 2004a. Arqueología en Panamá (1888-2003). VV.AA. Panamá: Manfer.

. 2004b. Panamá Prehispánico. En *Historia General de Panamá Volumen I, Tomo I: Las Sociedades Originarias, El Orden Colonial: 47-78*, ed. A. Castillero Calvo. Ministerio de la Presidencia de la República de Panamá, Panamá.

_____. 2004c. Panamá indígena: 1501 - 1550. En *Historia General de Panamá Volumen I, Tomo I: Las Sociedades Originarias, El Orden Colonial: 47-78,* ed. A. Castillero Calvo. Ministerio de la Presidencia de la República de Panamá, Panamá.

- Cooke R. and A.J. Ranere. 1992. Prehistoric Human Adaptations to the Seasonally Dry Forests of Panama. *World Archaeology* 24 (1):114-133.
- Corbett, J.M., and C.P. Keller. 2005. An Analytical Framework to Examine Empowerment Associated with Participatory Geographic Information Systems (PGIS). *Cartographica* 40(4): 91–102.

- Corbett, J. 2011. Discourse and intercultural communication. In *The Bloomsbury companion to discourse analysis*, eds. Hyland, K. and B. Paltridge. New York, NY: Bloomsbury Academic306 320.
- Corbridge, S. 1993: Marxisms, modernities, and moralities development praxis and the claims of distant strangers. *Environment and Planning: Society and Space* 11, 449–72.
- Crampton, J. W. 2009. Cartography: Performative, Participatory, Political. *Progress in Human Geography* 33(6): 840–848.
- Cresswell, T. 1997. Weeds, Plagues, and Bodily Secretions: A Geographical Interpretation of Metaphors of Displacement. *Annals of the Association of American Geographers* 87(2): 330-345.
 - . 2013. Geographic thought: A critical introduction. Malden, MA: Wiley-Blackwell.
- Critchley, S. 1999. *The Ethics of Deconstruction: Derrida and Levinas*. Edinburgh: Edinburgh University Press.
- Cronon, W. 1983. *Changes in the land: Indians, colonists, and the ecology of New England*. New York: Hill and Wang.
 - _. 1991. Nature's metropolis: Chicago and the Great West. New York: W.W. Norton.
- Crosby, A. 1972. *The Columbian exchange: Biological and cultural consequences of 1492.* Westport: Greenwood Publishing.
- Davis, S. H. and Wali, A. 1993. Indigenous territories and tropical forest management in Latin America. *Policy*, Research working papers; no. WPS 1100. Environmental assessments and programs. Washington, DC: World Bank.
 - _____. 1994. Indigenous Land Tenure and Tropical Forest Management in Latin America. *Ambio* 23(8): 485–490.
- Davis, W. 2007 [2001]. *Light at the edge of the world: A journey through the realm of vanishing cultures.* British Columbia: D & M Publishers.
- De Gracia Taylor, B. 2004. Evolución administrativa y política de la Comarca Ngöbe Buglé en cien años de República, Tesis de Licenciatura, Universidad de Panamá.
- Del Casino Jr., V.J. and S. Hanna. 2011. Beyond the 'binaries:' A methodological intervention for interrogating maps as representational practices. In *The map reader: Theories of mapping practice and cartographic representation*, eds. Dodge, M., R. Kitchin, and C. Perkins. Online: John Wiley & Sons, Ltd.
- Deleuze, G., and F. Guattari. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis, MN: University of Minnesota Press.

Deleuze. 1994 [1968]. Difference and Repetition. New York, NY: Columbia University Press.

- Demerritt, D. 2005. Hybrid geographies, relational ontologies, and situated knowledges. *Antipode* 37, 818–823.
- Denevan, W. M. 1992. The pristine myth: The landscape of the Americas in 1492. *Annals of the Association of American Geographers* 82: 369–85.

_____. 2001. *Cultivated landscapes of Native Amazonia and the Andes*. Oxford, UK: Oxford University Press.

Derrida. 1997. Of Grammatology. Baltimore, MD: John Hopkins University Press.

Descola, 2013. Beyond nature and culture. Chicago, IL: University of Chicago

- Doel, M. 1999. Poststructuralist geographies. Lanham, MD: Rowman and Littlefield.
- Doolittle, W.E. 2000. *Cultivated landscapes of Native North America*. Oxford, UK: Oxford University Press.
- Dunn, C. 2007. Participatory GIS A People's GIS? *Progress in Human Geography* 31(5): 616–37.
- Dussel, E. 1995. Eurocentrism and modernity. In *The postmodernism debate in Latin America*, eds. Beverley, J., Oviedo, J. and M. Aronn. Durham, US: Duke University Press.

____. 2004. Deconstruction of the Concept of "Tolerance": From Intolerance to Solidarity. *Constellations* 11(3):326-333.

- (EIB). Plan Nacional de Educación Intercultural Bilingüe. 2005. D. Binns Söri (Consultant). Ministerio de Educación, Panamá. www.binal.ac.pa/panal/kuna/downloads/eib.pdf
- Elwood, S. 2010. Thinking outside the box: Engaging critical geographic information systems theory, practice and politics in human geography. *Geography Compass* 4(1): 45–60.
- Escobar, A. 1992. Imagining a Post-Development Era? Critical Thought, Development and Social Movements. Social Text No. 31/32, *Third World and Post-Colonial Issues* pp. 20-56.

____. 1995. *Encountering Development: The Making and Unmaking of the Third World.* Princeton, NJ: University of Princeton Press.

____. 2008. *Territories of difference: Place, movements, life, redes*. Durham: Duke University Press.

Evans, K.R. 2015. "Tabasará Libre: A Case Study of Carbon Colonialism in Panama's Barro Blanco Hydroelectric Project". Honors Theses - All. 1522. Fanon, F. 1963 [1961]. Wretched of the Earth New York, NY: Grove Press.

- _____. 1967 [1952]. Black Skins White Masks. London, UK: Pluto Press.
- Finley-Brook, M. and C. Thomas. 2010. From malignant neglect to extreme intervention: Treatment of displaced indigenous populations in two large hydro projects in Panama. *Water Alternatives* 3(2): 269-290.
 - . 2011. Renewable Energy and Human Rights Violations: Illustrative Cases from Indigenous Territories in Panama. *Annals of the Association of American Geographers* 101(4): 863–872.
- Foucault, M. 2005 [1966]. The Order of Things. London, UK: Taylor & Francis.
- Freire, P. 1970. Pedagogy of the oppressed. New York, NY: Bloomsbury Publishing.
 - . 1993. *Pedagogy of the City*. New York, NY: Continuum.
- Galeano, E. 2010 [1971]. *Venas abiertas de Latino America*. Madrid, ES: Siglo XII de España Editores S.A.
- Gallup-Diaz, I. 2005. The Door of the Seas and Key to the Universe: Indian Politics and Imperial Rivalry in the Darién, 1640-1750. New York, NY: Columbia University Press.
- Gandy, M. 2004. Rethinking urban metabolism: Water, space and the modern city. City (8)4.
- Gaur, A. 1995. Scripts and writing systems: A historical perspective. In *Scripts and literacy: Reading and learning to read alphabets, syllabaries and characters*, eds. Taylor, I. and D.R. Olson. Springer Netherlands.
- Gee, J. P. 1996. Social Linguistics and Literacies. London, UK: Taylor and Maxwell.
- Geertz, C. 1964. Ideology as a cultural system. In *Ideology and Discontent*, ed. D. Apter. New York, NY: Free Press.
 - _____. 1984. From the native's point of view: On the nature of anthropological understanding. In *Culture theory: Essays on mind, self, and emotion,* eds. R. A. Shweder and R. LeVine. New York, NY: Cambridge University Press.
- (GENISA). 2011. GENISA Project Management Report, Environmental and Social Summary Report.
- Gjording, C.N. 1991. Conditions not of their choosing: The Guaymí Indians and mining multinationals in Panama. Washington, D.C.: Smithsonian Institution Press.
- Google. 2018. Google Earth Pro 7.3. Computer Software. https://www.google.com/earth/ (last accessed 10 February 2018).

- Gordon E.T. and CR. Hale. 2003. Rights, resources, and the social memory of struggle: Reflections and black community land rights on Nicaragua's Atlantic Coast. *Human Organization* 62 (4): 369-381.
- Gordon, L.R. 1982. A Panama forest and Shore: Natural History and Amerindian Culture in Bocas del Toro. Pacific Grove, CA: Boxwood Press.
- Gramsci, A. 1971. Selections from the Prison Notebooks of Antonio Gramsci. London, UK: Lawrence & Wishart.

_____. 2000 [1935]. *The Gramsci Reader: Selected Writings (1916-1935)*. New York, NY: The New York University Press.

Gudynas, E. 2009. El mandato ecológico: Derechos de la naturaleza y políticas ambientales en la nueva Constitución. Quito, Ecuador: Editorial Abya-Yala. Kindle Edition.

____. 2011. Buen vivir: Germinando alternativas al desarrollo. *América Latina en Movimiento* (462):1-20.

_____. 2013. Extracciones, Extractivismos y Extrahecciones: Un marco conceptual sobre la apropiación de recursos naturales. *El Observatorio del Desarrollo*. CLAES: Centro Latino Americano de Ecología Social.

- Guionneau-Sinclair, F. 1987. Movimiento profético e innovación política entre los Ngobe (Guaymí) de Panamá: 1962-1984. Panamá, PA: Universidad de Panamá.
- Habermas, J. 1989. *The structural transformation of the public sphere: An inquiry into a category of bourgeois society.* Cambridge, MA: The MIT Press.
- Hale C.R. 2005. Neoliberal multiculturalism: the remaking of cultural rights and racial dominance in Central America. *Political and legal anthropology review* 28(1): 10–28.
- Hall S. and B. Schwarz. 2007. Living with difference: Stuart Hall in conversation with Bill Schwarz. Queen Elizabeth Hall: South Bank Centre Talks Department.
- Haraway, D. 1991. *Simians, cyborgs, and women: The reinvention of nature*. New York, NY: Routledge.

Hardt, M. and A. Negri. 2000. Empire. Cambridge, MA: Harvard University Press.

Harvey, D. 2005. A brief history of neoliberalism. Oxford, UK: Oxford University Press.

- _____. 2014. Seventeen contradictions and the end of capitalism. Oxford, UK: Oxford University Press.
- Hecht, S., A, Cockburn. 1989. *The Fate of the Forest: Developers, Destroyers and Defenders of the Amazon*. London, UK: Verso.

Heckadon, S. 1994. Panamá en sus Usos y Costumbres. Panama: Editorial Universitaria.

- Heidegger, M.1962 [1927]. Being and Time. Translated by J. Macquarrie & E. Robinson. London, UK: SCM Press.
- Herlihy, P. 1989. Opening Panama's Darien Gap. Journal of Cultural Geography 9(2): 42-59.
- Herlihy. 2010. Self-Appointed Gatekeepers Attack the American Geographical Society's First Bowman Expedition. *Political Geography* 29(8): 417–419.
- Herlihy, P. and Knapp G. 2003. Maps of, by, and for the Peoples of Latin America. *Human Organization*. (62)4: 303-314.
- Herlihy, P., J. Dobson, M. Aguilar Robledo, et al. 2008. A digital geography of indigenous Mexico: Prototype for the American Geographical Society's Bowman expeditions. *Geographical Review* 98(3): 395–415.
- Heynen, N., M. Kaika & E. Swyngedouw, eds. 2005. In the nature of cities: The politics of urban metabolism. London, UK: Routledge
- Hinton, L. 2014. Orthography Wars. *In Developing Orthographies for Unwritten Languages*. Dallas, TX: SIL International.
- Hofbauer, J. 2017. Operationalizing extraterritorial obligations in the context of climate project finance – the Barro Blanco case. *Journal of Human Rights and the Environment* 8(1): 98-118.
- Hofbauer, J. and Mayrhofer. 2016. Panama "Barro Blanco" Case Report. COMCAD Arbeitspapiere: Working Paper No. 144.
- Hughes, T. 1988. *Networks of power: Electrification in western society, 1880-1930.* Baltimore, MD: John Hopkins University Press.
- Hunter, M. 2012. Geography and critical development studies. *Annals of the Association of American Geographers* 102(2): 503–505.
- Icaza, M. 2014. "Story of the Ngäbe Wanderer" (sept. 7, La Estrella Newspaper of Panama) <u>http://laestrella.com.pa/estilo/cultura/historia-ngabe-caminante/23802578</u> (last accessed 10 September 2017).
- (INEC). 2010. Instituto Nacional de Estadística y Censo. Contraloría de Panama.
- Jaffe, A. 2012. Transcription in practice: Nonstandard orthography. In Orthography as social action: Scripts, spelling, identity and power, eds. A. Jaffe, J. Androutsopoulos, M. Sebba, S. Johnson. Boston, MA: De Gruyter Mouton.

- Jopling, C.F., 1994. Indios y Negros en Panamá en los Siglos XVI y XVII: selecciónes de documentos del centro de Investigaciones Regionales de Mesoamérica, Antigua, Guatemala y Plumsock. Mesoamerican Studies, Woodstock VT.
- Kaika, M. 2003. Constructing Scarcity and Sensationalising Water Politics: 170 Days that Shook Athens. *Antipode* 35(5).
 - _____. 2005. *City of Flows*. London, UK: Routledge.
- Katz, C. 2009. Social Systems: Thinking about Society, Identity, Power and Resistance. In *Key Concepts in Geography*, N. J. Clifford, S.L.Holloway, S.P. Rice, and G. Valentine. London: Sage.
- Kelly, J. H., P. Herlihy, A. R. Viera, et al. 2010. Indigenous Territoriality at the End of the Social Property Era in Mexico. *Journal of Latin American Geography* 9(3): 161–181.
- Kertzer, D. I. 1988. Ritual, politics, and power. In *Readings in ritual studies*, ed. R. L. Grimes. Upper Saddle River, NJ: Prentice Hall.
- Kim, A.M. 2015. Critical cartography 2.0: From participatory mapping to authored visualizations of power and people. *Landscape and Urban Planning* 142: 215–25.
- Kindon S. 2010. Participation. In *The SAGE handbook of social geographies*, eds. Smith S., R. Pain, S. Marston et al. London, UK: SAGE.
- Knapp, G., and P. Herlihy. 2001. Mapping the Landscape of Identity. *Latin America in the 21st Century* 27: 251.
- Kohn, E. 2013. *How forests think: Toward an anthropology beyond the human*. Berkeley: University of California Press.
- Koopman, S. 2017. Should academics make videos? Response to Ghosts of the Future. *Antipode* 16(1): 156-160.
- Kopesec, M. 1975. Los elementos verbales y sustantivos y la oración en Guaymí. *En Lenguas de Panamá*, ed. S. Levinsohn, vol. 2, 19-82. Panamá: Instituto Lingüístico de Verano.
- Kristeva, J. 1986 [1966]. Word, dialogue and novel. In *The Kristeva Reader*, ed. T. Moil. Blackwell.
- Kroeber, A.L. 1947. *Cultural and natural areas of Native North America*. Berkeley, CA: University of California Press.
- Kropotkin, P. 1888. Mutual aid: A factor of evolution. Boston, MA: Porter Sargent.
- LaDuke, W. 2016. Lannan Foundation. <u>http://www.lannan.org/events/winona-laduke-with-</u> <u>mililani-trask/</u> (last accesed 20 June 2017)

Lansing, J.S, P.S. Lansing, and J.S. Erazo. 1998. The value of a river. *Journal of Political Ecology*, 5(1): 1-22.

Latour, B. 1987. Science in Action. Cambridge, MA: Harvard University Press.

_____. 1993. We have never been modern. Cambridge, MA: Harvard University Press.

. 1999. Circulating reference: Sampling the soil in the Amazon forest. In *Pandora's hope: Essays on the reality of science studies*. Cambridge, MA: Harvard University Press.

_____. 2005. Resembling the Social: An Introduction to Actor-Network-Theory (Clarendon Lectures in Management Studies). Oxford, UK: Oxford University Press.

_____. 2013. *An Inquiry into Modes of Existence: An anthropology of the Moderns*. Cambridge, MA: Harvard University Press.

Léger, M. 1994. *Des peuples enfin reconnus: La quête de l'autonomie dans les Amériques.* Canadá: Les Editions Ecosociété.

- Levinas, E. 1999 [1995]. Alterity and transcendence. London, UK: The Athlone Press.
- Ley No. 10. of Mach 7, 1997 that creates the Comarca Ngäbe-Buglé. Panamá: Gazeta Oficial.
- Lijphart, A. 2012. Patterns of Democracy: Government Forms & Performance in Thirty-six Countries. New Haven, CT: Yale University Press.
- Linares, O.F. 1977. Ecology and the Arts in Ancient Panama: On the Development of Social Rank and Symbolism in the Central Provinces. Studies in Pre-Columbian Art & Archaeology, no. 17. Washington, DC: Dumbarton Oaks Research Library and Collection.
- Lorde, A. 1984. The master's tools will never dismantle the master's house. In *Sister outsider: Essays and speeches,* by A. Lorde. Santa Cruz, CA: The Crossing Press.
- Lozano Long Workshop. 2014. Critical Reflections on Participatory Mapping of Indigenous Territory: <u>https://www.youtube.com/watch?</u> <u>v=mFRIRT5GhF4&feature=youtube_gdata_player</u>.

Luke, A. 2012. Critical literacy: Foundational notes. *Theory into practice* 51(1): 4-11.

- Lyotard, J.F. 1984. *The postmodern condition: A report on knowledge*. Minneapolis, MN: University of Minnesota Press.
- MacCabe, C. 2007. An interview with Stuart Hall. Critical Quarterly. 50 (1-2): 12-42

Mackinder, H. J. 1904. The geographical pivot of history. *The Geographical Journal* 2(3): 4.

- Malabou, C. 2012 [2009]. Ontology of the accident: And essay on destructive plasticity. Translated by Carolyn Shread. Malden, MA: Polity Press.
- Maldonado-Torres, N. 2007. On the Coloniality of Being: Contributions to the Development of a Concept. *Cultural Studies* 21(2-3): 240-270.

. 2016. Decolonization. In *Critical Transitions: Genealogies and Trajectories of Change*, eds. M. Botha and P. Waugh. Londong, UK: Bloomsbury Press.

- Mead, M. 1928. *Coming of Age in Samoa: A Psychological Study of Primitive Youth for Western Civilization*. New York, NY: William Morrow and Company.
- Martin, G. J. 2005. *All possible worlds: A history of geographical ideas*. 4th ed. New York, NY: Oxford University Press.
- Martin, J.R. and D. Rose. 2003. *Working with discourse: Meaning beyond the clause*. Open Linguistics series. Continuum International Publishing Group, Ltd.
- Martin, J.R. 2008. Genre Relations: Mapping Culture. London, UK: Equinox.
- Mathewson, K. and W. Denevan. 2009. *Carl Sauer on Culture and Landscape: Readings and Commentaries*. Baton Rouge, LA: Louisiana State University Press.
- Mayo, C. 2013. El descubrimiento de un cementerio de élite en El Caño: indicios de un patrón funerario en el valle de Río grande, Coclé, Panamá. *Arqueología Iberoamericana* 20: 3–27.
- McNeill, J.R. 2000. Something New Under the Sun: An Environmental History of the Twentieth-Century World. New York, NY: W. W. Norton & Company.
- McSweeney, K. 2005. Indigenous Population Growth in the Lowland Neotropics: Social Science Insights for Biodiversity Conservation. *Conservation Biology* 19(5): 1375–1384.
- McSweeney, K. and S. Arps 2005. A "Demographic Turnaround": The rapid growth of indigenous populations in lowland Latin America. *Latin American Research Review* 40(1): 3–29.
- (MEDUCA). 2005. Plan Nacional de Educación Intercultural Bilingüe.
- Michon, A. 2012. "Conservation of Natural Resources within Mature Tropical Forests: How an Indigenous Community Uses and Manages Wild Plants in the Comarca Ngöbe-Buglé, Panama." MA thesis, Carleton University, Ottawa.
- Mignolo, W. 2000. Local histories/global designs: Coloniality, subaltern knowledges, and border thinking. Princeton, N.J.: Princeton University Press.
 - _____. 2007. Delinking: The Rhetoric of modernity, the logic of coloniality and the grammar of de-coloniality. *Cultural Studies* 21(2): 449-514.

_____. 2011. *The darker side of western modernity: Global futures, decolonial options*. Durham, NC: Duke University Press.

- Mignolo, W. and R. Vázquez. 2013. Decolonial AestheSis: Colonial wounds/decolonial healings. In *Social Text*. <u>http://socialtextjournal.org/periscope_article/decolonial-aesthesiscolonial-</u>woundsdecolonial-healings/
- Mollett, S. 2006. Race and natural resource conflicts in Honduras: The Miskito and Garifuna struggle for Lasa Pulan. *Latin American Research Review* 41 (1): 76–101.

____. 2013. Mapping Deception: The Politics of Mapping Miskito and Garifuna Space in Honduras. *Annals of the Association of American Geographers* 103(5): 1227–1241.

Monmonier, M. 1996. How to lie with maps. Chicago, IL: University of Chicago Press.

- Moraña, M., E.D. Dussel, and C.A. Jáuregui. 2008. *Coloniality at large: Latin America and the postcolonial debate*. Durham, NC: Duke University Press.
- Moseley, C. ed. 2010. *Atlas of the World's Languages in Danger*, 3rd ed. Paris. UNESCO Publishing. Online version: <u>http://www.unesco.org/culture/en/endangeredlanguages/atlas</u>
- Munro, P. 2014. Breaking Rules for Orthography Development. *In Developing Orthographies for Unwritten Languages*. Dallas, TX: SIL International.

Murillo Miranda, J.M. 2009. La frase nominal Ngäbere. Forma y Función 22 (2): 43-69.

- Murphy, A.B. 2013. Territory's continuing allure. *Annals of the Association of American Geographers* 103(5): 1212–1226.
- Neilson B. and S. Mezzadra. 2013. *Border as method, or, the multiplication of labor*. Durham, NC: Duke University Press.
- Nietschmann, B. 1995. Defending the Miskito Reefs with maps and GPS: Mapping with sail, SCUBA, and satellite. *Cultural Survival Quarterly* 18 (4): 34-37.
- Olwig, K. 1996. Recovering the substantive nature of landscape. *Annals of the Association of American Geographers* 86 (4): 630-653.
- Offen, K. 2009. O mapeas o te mapean: Mapeo indígena y negro en América Latina. *Tabula Rasa* 10: 163-189.
- Oviedo, G.F. 1986. *Sumario de la natural historia de las Indias*; edición de Manuel Ballesteros: Madrid.
- Pavlovskaya, M. 2006. Theorizing with GIS: A Tool for Critical Geographies? *Environment and Planning* 38(11): 2003–2020.

- Payne, T. 1982. Subject in Guaymí. En *Estudios varios sobre las lengua chibchas de Costa Rica* (vol. 1). San José, Costa Rica: Programa de Investigación del Departamento de Lingüística de la Universidad de Costa Rica.
- Peet, R. and Watts, M. 1996. *Liberation ecologies: environment, development, social movements*. London, UK: Routledge.
- Peluso, N. L., and P. Vandergeest. 2011. Political Ecologies of War and Forests: Counterinsurgencies and the Making of National Natures. *Annals of the Association of American Geographers* 101(3): 587–608.
- Peluso, N.L. 1995. Whose Woods Are These? Counter-mapping Forest Territories in Kalimantan, Indonesia. *Antipode* 27(4): 383–406.
- Peralta, M.M. 1883. Costa-Rica, Nicaragua, Panamá en el Siglo XVI: Su historia y sus límites según los documentos del Archivo de Indias de Sevilla, Del Simanca, etc. Recogidos y publicados con notas y aclaraciones históricas y geográficas. Madrid, ES: Librería de M. Murillo.
- Pérez, B.F., J.A. Hofbauer, M. Mayrhofer, and P.V Calzadilla. 2016. Rethinking the Role of Development Banks in Climate Finance: Panama's Barro Blanco CDM Project and Human Rights. *Law, Environment, and Development Journal*. 12(1): 1-17.
- Perreault, T., G. Bridge, and J. McCarthy, eds. 2015. Introduction. In *The Routledge handbook of political ecology*. New York, NY: Routledge.
- Pinart, A.L. 1885. Chiriquí: Bocas del Toro, Valle Miranda. *Bulletin de la Societe de Geographie*, 7(6): 433-453.
 - . 1887. Les Indiens de l'Etat de Panamá. *Revue d'Ethnographie* 33(56): 117-32.
- Porter, P.W. and Sheppard, E.S. 1998. *A world of difference: Society, nature, development*. New York, NY: Guilford.
- Procter, J. 2004. Stuart Hall. London, UK: Routledge.
- Quijano, A. 2005. The challenge of the "indigenous movement" in Latin America. *Socialism and Democracy* 19 (3): 55–78.
 - _. 2007. Coloniality and Modernity/Rationality. *Cultural Studies* 21(2): 168-178.
- Quijano, A. and I. Wallerstein. 1992. Americanity as a concept, or the Americas in the modern world-system. *International social science journal* 44(4): 549-557.
- Quinn, N. ed. 2005. *Finding culture in talk: A collection of methods*. New York, NY: Palgrave Macmillan.

- Reina-Valera. 1960. Sociedades Bíblicas en América Latina. Renovado © Sociedades Bíblicas Unidas, 1988.
- Robbins, P. 2012 [2004]. *Political ecology: A Critical Introduction*. Malden, MA: Wiley Blackwell.
- Rocheleau, D. 2005. Maps as power tools: locating "Communities" in space or situating people(s) and ecologies in place? In *Communities and Conservation, eds.* Brosius, P., A. Tsing, and C. Zerner. Altamira Press, Lanham, MD.

_____. 2008. Political ecology in the key of policy: From chains of explanation to webs of relation. *Geoforum* 39: 716–727

- Rocheleau, D., B. Thomas-Slayter, and E. Wangari, eds. 1996. *Feminist Political Ecology: Global Issues and Local Experiences*. New York, NY: Routledge.
- Rockwell, E. 2005. Indigenous Accounts of Dealing with Writing. In *Language, Literacy, and Power in Schooling,* ed. T.L. McCarty. New York, NY: Routledge.
- Rose, D. 2010. Genre in the Sydney School. In *The Routledge Handbook of Discourse Analysis*, eds. J.P. Gee and M. Handford. London, UK: Routledge.
- Rothery, J. 1994. Exploring Literacy in School English (Write it Right Resources for Literacy and Learning). Sydney: Metropolitan East Disadvantaged Schools Program.
- Ruhlen, M. 1987. A guide to the world's languages. Stanford, CA: Stanford University Press.
- Rundstrom, R.A. 1995. GIS, Indigenous Peoples, and Epistemological Diversity. *Cartography and Geographic Information Science* 22(1): 45–57.
- Sachs, W. 1999. *Planet dialectics: Explorations in environment and development*. New York, NY: Zed books.
- Said, E. 1978. Orientalism. New York, NY: Pantheon.
- Sánchez-Arias, G.A. 2015. Alternative geographies in the age of globalization: On contradiction and simultaneity. Revista Panameña de Política N° 19.
- Santos, B. de S. 2004. *Reinventar la democracia, reinventar el estado*. Quito, Ecuador: Ildis-Fes y Abya Yala.

_____. 2014. *Epistemologies of the South: Against Epistemicide. Border*. CO: Paradigm Publishers.

- Sapir, E. 1924. Culture, Genuine and Spurious. American Journal of Sociology 29(4): 401-429.
- Sarsaneda Del Cid, J. and ACUN. 2009. *Ni ngóbe tó blitde ño / Como Hablan los Ngóbe*. Ciudad de Panamá, PA: Acción Cultural Ngóbe.

_____. 2012. Frases Ngäbere-Español para los centros de salud.* Panamá: Acción Cultural Ngóbe.

Sauer, C.O. 1925. *The morphology of landscape*. University of California Publications in Geography 2(2): 19-53.

_____. 1941. "Foreword to Historical Geography." *Annals of Association of American Geographers* 31: 1-24. Address given in Baton Rouge, LA: September 4.

. 1956. "The agency of man on the Earth." In *Man's role in changing the face of the Earth*, ed., W. L. Thomas, 49-69. Chicago, IL: University of Chicago Press.

. 1966. The Early Spanish Main. Berkeley, CA: University of California Press

. 2009 [1938]. Destructive Exploitation in Modern Colonial Expansion. In *Carl Sauer on Culture and Landscape*, eds. Mathewson and Denevan. Baton Rouge, LA: LSU Press.

- Scardigno, R. and G. Mininni. 2014. Rhetorics of (un)certainty in religious discourse. In *Certainty-uncertainty - and the Attitudinal Space in Between*, S. Cantarini, W. Abraham, and E. Leiss. Philadelphia, PA: John Benjamins Publishing Company.
- Schwartz, S. ed. 2000. Victors and Vanquished: Spanish and Nahua Views of the Conquest of Mexico. Boston, MA: Bedford/ St. Martin's.
- Scott, J.C. 1976. *The moral economy of the peasant: Rebellion and subsistence in Southeast Asia.* New Haven, CT: Yale University Press.

____. 1985. *Weapons of the weak: Everyday forms of peasant resistance*. New Haven, CT: Yale University Press.

____. 1998. Seeing like a state: How certain schemes to improve the human condition have *failed*. New Haven, CT: Yale University Press.

_____. 2009. The art of not being governed: An anarchist history of upland Southeast Asia. New Haven, CT: Yale University Press.

Sebba, M. 2007. *Spelling and society: The culture and politics of orthography around the world.* Cambridge, UK: Cambridge University Press.

____. 2012. Orthography as social action: Scripts, spelling, identity and power. In Orthography as social action: Scripts, spelling, identity and power, eds. A. Jaffe, J. Androutsopoulos, M. Sebba, S. Johnson. Boston, MA: De Gruyter Mouton.

(SNE). Secretaría Nacional de Energía de Panamá. 2016. *Compendio estadístico energético*. Panama City, Panama. <u>http://www.energia.gob.pa/Compendio-Estadistico-Energetico</u> (last accessed 2 March 2018).

Semple, E. C. 1911. Influences of Geographic Environment. New York, NY: Henry Holt.

- Sheppard, E. 2014. "Thinking Geographically: Globalizing Capitalism and Beyond," AAG Past President address, Tampa, FL: Thursday, April 10, 2014.
- Sheppard, E., P. W. Porter, D. R. Faust, and R. Nagar. 2009. *A world of difference: Encountering and contesting development*. New York, NY: Guilford Press.
- Sherzer, J. 1990. *Kuna ways of speaking: an ethnographic perspective*. Austin, TX: University of Texas Press.
- Sletto, B. 2009. 'Indigenous peoples don't have boundaries': Reborderings, fire management, and productions of authenticities in indigenous landscapes. *Cultural Geographies* 16(2): 253–77.

_____. 2014. Cartographies of Remembrance and Becoming in the Sierra de Perijá, Venezuela. *Transactions of the Institute of British Geographers* 39(3): 360–72.

Sluyter, A. 2001. Colonialism and Landscape in the Americas: Material/Conceptual Transformations and Continuing Consequences. *Annals of the Association of American Geographers* 91(2) p. 410–428

___. 2002. *Colonialism and Landscape: Postcolonial Theory and Applications*. Lanham, MD: Rowman & Littlefield Publishers.

_____. 2005. Blaut's early natural/social theorization, cultural ecology, and political ecology. Antipode 37 (5): 963-980.

. 2010. The Hispanic Atlantic's tasajo trail. Latin American Research Review 45(1): 98-120.

. 2012. Black ranching frontiers: African cattle herders of the Atlantic World, 1500-1900. New Haven, CT: Yale University Press.

- Smith, D. A., P. H. Herlihy, J. H. Kelly, and A. Ramos Viera. 2009. The Certification and Privatization of Indigenous Lands in Mexico. Journal of Latin American Geography 8(2): 175–207.
- Smith, D. A., P. H. Herlihy, J. H. Kelly, and A. Ramos Viera, et al. 2012. Using Participatory Research Mapping and GIS to Explore Local Geographic Knowledge of Indigenous Landscapes in Mexico. *American Geographical Society's Focus on Geography* 55(4): 119–124.
- Smith, D.A., A. Ibañez and F. Herrera. 2017. The Importance of Context: Assessing the Benefits and Limitations of Participatory Mapping for Empowering Indigenous Communities in the Comarca Ngäbe-Buglé, Panama Cartographica (52)1: 49–62.

- Soares, P., L. Ermini, N. Thomson, M. Mormina, T. Rito et al. 2009. Correcting for purifying selection: an improved human mitochondrial molecular clock. Am J Hum Genet (84) 740–759.
- Spivak, G.C. 1983. Can the Subaltern Speak? In *Marxism and the intepretation of culture*, eds., C. Nelson and Grossberg. (1988: pp. 271-313). Basingstoke, UK: Macmillan Education.

- Springer, S. 2016. *The discourse of neoliberalism: An anatomy of a powerful idea (Discourse, Power and Society)*. London, UK: Rowman & Littlefield.
- Steward, J. 1937. Linguistic distributions and political groups of the Great Basin Shoshone. *American Anthropologist* 39(4): 625–643
- Strauss, C. 2005. Analysis for cultural complexity. In *Finding culture in talk: A collection of methods*, ed. N. Quinn. New York, NY: Palgrave Macmillan.
- Street, B. 2003. What's "new" in New Literacy Studies? Critical approaches to literacy in theory and practice. Current issues in comparative education, 5(2), 77-91.
- Suarez, O. J. 1981. *Hombres y Ecología en Panamá*. Panama, PA: Editorial Universitaria & STRI.
- Sundberg, J. 2014. Decolonizing posthumanist geographies. Cultural Geographies 21(1): 33-47.
- Swyngedouw, E. 2004. Social power and the urbanization of water: flows of power. Oxford: Oxford University Press.
 - ____. 2006. Circulations and Metabolisms: (Hybrid) Natures and (Cyborg) Cities. *Science as Culture* 15 (2):105-122.
 - _____. 2009. Troubled Waters: The Political Economy of Essential Public Services. In Water and Sanitation Services: Public Policy and Management, eds. Castro J.E., Heller, L., 22-39. London: Zed Books
 - _____. 2015. Liquid Power: Contested Hydro-Modernities in Twentieth-Century Spain. Cambridge, MA: MIT Press.
- Szwed, J. 1981. The ethnography of literacy. In *Writing: Development, and teaching of written communication*, ed. M.F. Whiteman. Mahwah, NJ: Lawrence Erlbaum Associates.
- Taylor, I. and D.R. Olson, eds. 1995. *Scripts and literacy: Reading and learning to read alphabets, syllabaries and characters*, eds. Taylor, I. and D.R. Olson. Springer Netherlands.
- Teubner, G. ed. 1997. Global bukowina: Legal pluralism in the world society. In *Global law* without a State. Aldershot, UK: Ashgate

^{. 2009.} Nationalism and the Imagination. *Lectora* 15: 75-98.

Thomason, S. 2001. Language contact. Washington, D.C.: Georgetown University Press.

- Thrift, N. 1997. The Still Point. In *Geographies of Resistance*, eds. Pile, S. and M. Keith London, UK: Routledge.
- Torres de Araúz, R.1980. Panamá Indígena. Instituto Nacional de Cultura, Panamá.
- Tuhiwai-Smith, L. 2012. *Decolonizing methodologies: Research and Indigenous peoples*. New York, NY: Zed Books.
- Turner, B. L. 2002. Contested identities: Human-environment geography and disciplinary implications in a restructuring academy. *Annals of the Association of American Geographers* 92 (1): 52-74.
- (TVN). "Acuerdo de la mesa de dialogo del proyecto hidroeléctrico de Barro Blanco." 2016. Retrieved from: https://www.tvn-2.com/2016/08/22/Acuerdo_Barro_Blanco.pdf? hash=1bef7ed1399fff5f0b066b9e5f1c49b544f036fc
- Velásquez Runk, J. 2012. Indigenous land and environmental conflicts in Panama: Neoliberal multiculturalism, changing legislation, and human rights. *Journal of Latin American Geography* 11: 21-47.

. 2014. Enriching indigenous knowledge scholarship via collaborative methodologies: Beyond the high tide's few hours. *Ecology and Society*. 19(4): 37.

- Viveiros de Castro, E. 2015. The Relative Native: Essays on Indigenous Conceptual Worlds. Chicago, IL: HAU Press.
- Vygotsky, L. 1997. Thought and Language. Cambridge, MA: The MIT Press.
- Wainwright, J., and J. Bryan. 2009. Cartography, territory, property: Postcolonial reflections on indigenous counter-mapping in Nicaragua and Belize. *Cultural Geographies* 16(2): 153– 178.
- Wallace, A. 1956. Revitalization Movements. American Anthropologist 58 (2): 264-281.
- Walsche A. and W. Marcelo (comps). 2008. *Territorios y recursos naturales: el saqueo versus el buen vivir*. Quito, Ecuador: Broederlijk Denle y ALAI.
- Walsh, C. 2010. Development as Buen Vivir: Institutional arrangements and (de)colonial entanglements. *Development* 53 (1): 15–21.
- Watkins, C. 2011. *Dendezeiro*: African oil palm agroecologies in Bahia, Brazil, and implications for development. *Journal of Latin American Geography* 11 (1): 9-34.
 - _____. 2015. African oil palms, colonial socioecological transformation and the making of an Afro-Brazilian Landscape in Bahia, Brazil. *Environment and History* 21 (1):13–42.

- Watson, A. and O. H. Huntington. 2008. They're here, I can feel them: The epistemic spaces of Indigenous and Western knowledges. *Social & Cultural Geography* 9 (3):257–281.
- Watts, M.J. 1983. Silent Violence. Berkeley, CA: University of California Press.
 - . 2015. Now and then: The origins of political ecology and the rebirth of adaptation as a form of thought. In *The Routledge handbook of political ecology*, eds. T. Perreault, G. Bridge, and J. McCarthy, 19–50. New York, NY: Routledge.
- Weber, M. 1946 [1917]. *Science as vocation*. Translated and edited by H. H. Gerth, and C. Wright Mills. New York, NY: Free press.
- Whatmore, S. 2002. *Hybrid geographies: Natures, cultures, spaces*. London, UK: Sage Publications.
- White, R. 1995. The Organic Machine. NewYork, NY: Macmillan
- Whitmore, T.M. and Turner, B.L. 2001. *Cultivated landscapes of Middle America on the eve of conquest*. Oxford, UK: Oxford University Press.
- Wickstrom, S. 2003. The politics of development in indigenous Panama. *Latin American Perspectives* 131(4): 43-68.
- Wickstrom, S. and P. D. Young, eds. 2014. *Mestizaje and globalization: Transformations of identity and power*. Tucson, AZ: The University of Arizona Press.
- Wisner, B., P. Blaikie, T. Cannon and I. Davis 2003. *Risk: Natural hazards, people's vulnerability and disasters.* New York, NY: Routledge.
- Wolf, E. 1972. Ownership and political ecology. Anthropological Quarterly 45 (3): 201-205.
 - _____. 1982. *Europe and the people without history*. Berkeley, CA: University of California Press.
- Worster, D. 1985. *Rivers of Empire. Water, Aridity, and the Growth of the American West.* New York: Pantheon.
- Young, P. D. 1970a. A structural model of Ngawbe marriage. *Ethnology* 9 (1): 85-95.
 - ____. 1970b. Notes on the Ethnohistorical Evidence for Structural Continuity in Guaymí Society. *Ethnohistory* 17 (1/2): 11-29.
 - ___. 1971. *Ngawbe: Tradition and Change among the Western Guayami of Panama.* Urbana, IL: University of Illinois Press.
 - _____. 1978. La trayectoria de una religión: El movimiento de Mamá Chi entre los Guaymíes y sus consecuencias sociales. *La Antigua* 7 (11): 45-75.

Young, P.D. and T. Bassett. 1999. Ngóbe adaptive responses to globalization in Panama. In, *Globalization and the rural poor in Latin America, ed* W.M. Locker, pp. 111-136. Boulder, CO: Lynne Rienner.

APPENDIX A: TIMELINES

Timelines: each timeline narrows events from geographically broad to specific.

A.1: Political-Economy

1526 *New Kingdom of Granada.* The wide plains and central western hills of Panama are quickly conquered by the Spaniards. "People who have caused many indian deaths have gone to those parts" —Oviedo

1750 *Viceroyalty of New Granada.* Panama as land bridge shifts importance. Cape Horn is a better route.

1840 Republic of New Granada. Gold Rush. Royal West India Mail Steam Packet Company" South Hampton to Chagres "Pacific Steam Navigation Company" Panama to Valparaíso.
1848 New Orleans to Chagres. "Arrivals. Steamers Falcon and Crescent City with two Brigs and a Barque from New York, one Brig from Philadelphia, and two from New Orleans, with about one thousand passengers in all, have arrived at Chagres within the last few days. It is supposed there are about fifteen hundred persons now on the Isthmus waiting for vessels." "The California. —The Steamer California left here on the 31st of January, with about four hundred passengers for San Francisco." Panama Star Saturday February 24, 1849.
1914-1921 Republic of Panama Porras Inclusionary policies. Road to David. Modernization + Nationalism.

1968 *Panama City.* Coup d'état. Omar Torrijos (alphabetization/castellanización) **1999** *Panama Canal Zone* given to Panama.

A.2: Indigenous Resistance

1531 Urracá (Ubarragá Maniá Tigri) dies in Natá de los Caballeros.

1925 Dule Revolution.

1962 Mamatada messianic movement.

1996 Ngäbe-Buglé march to demand a comarca.

2007-2016 M10 & #TabasaráLibre.

A.3: Legal

1717 Viceroyalty of New Granada under the Spanish Empire.

1821 Gran Colombia's independence from Spain.

1903 Separation from Colombia.

1972 New Constitution adopts definitions for collective lands (art. 120, 122 y 123).

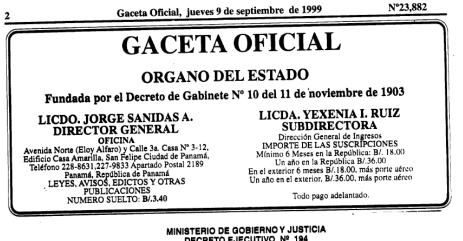
1997 Comarca Ngäbe-Buglé.

2014 OLEN is created.

APPENDIX B: SUPPORTING DOCUMENTS

B.1: Carta Orgánica

Carta Orgánica de la Comarca Ngäbe-Buglé (1999):



MINISTERIO DE GOBIERNO Y JUSTICIA DECRETO EJECUTIVO № 194 (De 25 de agosto de 1999)

"Por el cual se adopta la Carta Orgánica Administrativa de la

Comarca Ngöbe-Buglé" EL PRESIDENTE DE LA REPUBLICA en usos de sus facultades constitucionales y legales,

CONSIDERANDO:

Que mediante Ley Nº10 del 7 de marzo de 1997, se crea la Comarca Ngöbe-Buglé, que dispone que el Organo Ejecutivo adoptará la Carta Orgánica de la Comarca Ngöbe-Buglé, en la cual se establezcan las normas de trabajo para los organismos y las autoridades instituidas en esta Comarca, con el propósito de permitir la integración y participación conjunta en el desarrollo y bienestar colectivo de la misma.

Que mediante esta Carta se reconoce el derecho a la autonomía indígena y autogestión del pueblo Ngöbe-Buglé en permanente y armónica colaboración con las entidades gubernamentales instituidas en la Comarca, procurando mantener la forma y cosmovisión de la vida cultural y el equilibrio del ambiente y la biodiversidad en que se desarrolla el pueblo Ngöbe-Buglé.

DECRETA:

TITULO I CREACION Y DELIMITACION CAPITULO I TERRITORIO Y LINDEROS

Carlos Díaz Galindo Arias & López cedula: N°.8-848-1011	Sofort de Panana Control 2002015 (0) Sofort de Panana Citation de Pananana Citation de Panana Citation de Panana Citatio	22-7-15
	NOTARÍA OCTAVA DEL CIRCUITO, DE PANAMÁ	
	Victor Manuel Aldana Aparicio	
NOTARIO PÚBLICO OCTAVO		
Edificio Plaza Ob Oficina 108 Ave. Samuel Lew Urb. Obarrio Apartado 0819*0 El Dorado ##967 COPIA 4) 6	vis 264-3676 213-8028 Fax: 264-3506 Email: notariaoctava@c	wpanama.net
ESCRITU	RA No 8,440 DE DE Julio DE	20_15_
• • •	POR LA CUAL: se protocolizan los documentos relativos a la Personería Juríd de la Asociación denominada ORGANIZACIÓN DE LECT Y ESCRITURA DEL IDIOMA NGÄBE (O.L.E.N.)	
	Calificación5	28.00 50.00 78.00

REPUBLICA DE PANAMA PAPEL NOTARIAL





NOTARIA OCTAVA DEL CIRCUITO DE PANAMA

E

1	ESCRITURA PUBLICA NUMERO OCHO MIL CUATROCIENTOS CUARENTA
2	(8,440)
3	POR LA CUAL se protocolizan los documentos relativos a la Personería Jurídica de la
4	Asociación denominada ORGANIZACIÓN DE LECTO Y ESCRITURA DEL IDIOMA
5	NGÄBE (O.L.E.N.)
6	Panamá, 20 de julio de 2015
7	
8	En la Ciudad de Panamá, Capital de la República y Cabecera del Circuito Notarial del
9	mismo nombre a los veinte (20) días del mes de julio del dos mil quince (2015), ante mí,
10	VICTOR MANUEL ALDANA APARICIO, Notario Público Octavo del Circuito de
11	Panamá, portador de la cédula de identidad personal número cuatro-ciento siete-seiscientos
12	veintisiete (4-107-627), compareció personalmente el señor RAMÓN RICARDO ARIAS
13	PORRAS, varón, mayor de edad, panameño, casado, abogado, vecino de esta ciudad,
14	portador de la cédula de identidad personal número ocho- doscientos treinta y dos -
. 15	doscientos treinta y siete (8-232-237), persona a quien conozco, actuando en su condición de
16	miembro de la firma forense GALINDO, ARIAS Y LOPEZ, Apoderados Especiales de la
17	Asociación denominada ORGANIZACIÓN DE LECTO Y ESCRITURA DEL IDIOMA
18	NGÄBE (O.L.E.N.), quien me presentó para su protocolización, y al efecto agrego al
19	protocolo de esta Escritura Pública, los documentos relativos a la Personería Jurídica de la
20	Asociación denominada ORGANIZACIÓN DE LECTO Y ESCRITURA DEL IDIOMA
21	NGÄBE (O.L.E.N.)

APPENDIX C C.1: IRB APPROVAL

ACTION ON PROTOCOL APPROVAL REQUEST

- TO: Andrew Sluyter Geography and Anthropology
- FROM: Dennis Landin Chair, Institutional Review Board
- DATE: September 22, 2017
- RE: IRB# 3880



Institutional Review Board Dr. Dennis Landin, Chair 130 David Boyd Hall Baton Rouge, LA 70803 P: 225.578.8692 F: 225.578.5983 irb@lsu.edu Isu.edu/research

TITLE: Alteridad+: Linguistic Political Ecology among the Ngäbe indigenous people of Panama

New Protocol/Modification/Continuation: New Protocol

Review type: Full X Expedited Review date: 8/11/2017

Risk Factor: Minimal X Uncertain Greater Than Minimal

Approved X Disapproved

Approval Date: <u>8/11/2017</u> Approval Expiration Date: <u>8/10/2018</u>

Re-review frequency: (annual unless otherwise stated)

Number of subjects approved: 30

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable)

By: Dennis Landin, Chairman

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING – Continuing approval is CONDITIONAL on:

- Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
- Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
- 3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
- 4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
- Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
- 6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
- 7. Notification of the IRB of a serious compliance failure.
- 8. SPECIAL NOTE: Make sure you use bcc when emailing more than one recipient.

*All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at http://www.lsu.edu/irb

VITA

Ginés Alberto Sánchez Arias (born in 1989, Panama City, Panama) received his Bachelor of Arts at The Colorado College in International Political Economy. After visiting Tibet in 2010, where settler colonialism and genocide is openly displayed by military presence, Sánchez sought to look at the status of colonial legacy back home, among the indigenous people. In 2013, Sánchez went to the Comarca Ngäbe-Buglé and stubbled upon an indigenous culture undergoing a cultural revitalization process. As a student of Ngäbere, Sánchez has learned the orthography and cosmology hoping to uncover new ways to engage the publics about Otherness and alterity. Sánchez' work seeks to establish a conversation between scholarship, political art, and activism, by constantly seeking new methods to communicate with a broader audience, academic concepts and views. Some projects include, "The Unreported Voices from Tourist Destinations" (Four episode documentary) "Lucha por #TabasaráLibre" (Indiegogo), "TabasaráLibrePTY" (Parque Urracá), "Únete por #TabasaráLibre" (anti-propaganda video) "Alteridad+ 1.0," (an art instalation), "Alteridad+ 2.0" (short documentary film), and "toolkit" for the anthropocene (forthcoming at POLLEN18).