

GeoHumanities



ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rgeo20

The Exile of Juyá: Decolonial Geonarratives of Water

José Quintero-Weir, Pablo Mansilla-Quiñones & Andrés Moreira-Muñoz

To cite this article: José Quintero-Weir, Pablo Mansilla-Quiñones & Andrés Moreira-Muñoz (2023): The Exile of Juyá: Decolonial Geonarratives of Water, GeoHumanities, DOI: 10.1080/2373566X.2022.2155561

To link to this article: https://doi.org/10.1080/2373566X.2022.2155561

- 1 -

View supplementary material



Published online: 27 Mar 2023.

C	-
	07
-	

Submit your article to this journal 🖸



View related articles



View Crossmark data 🗹

The Exile of Juyá: Decolonial Geonarratives of Water

José Quintero-Weir

Universidad Autónoma Indígena, Venezuela; Universidad del Zulia, Venezuela Pablo Mansilla-Quiñones i and Andrés Moreira-Muñoz Pontificia Universidad Católica de Valparaíso, Chile

The anthropocene and its contemporary environmental crisis are symptomatic of an exhausted phase and space of modern rhetoric regarding a nature/culture dichotomy. Its consequences are especially evident in indigenous territories, where it imposes a hegemonic vision of nature as an object of conquest; it affects ways of being, knowing, and existing with(in) the territory, and justifies ecocide and epistemicide. Other epistemologies and geonarratives are timely needed in the transit from the anthropoce towards an imaged new epoche of conviviality between humans (indigenous and non-indigenous) and more-than human species. This work addresses that challenge from a decolonial and transdisciplinary perspective based on Wayúu indigenous knowledge and their relationship with the hydrosocial territory in the Venezuelan Guajira. Wayúu geonarratives, based on the memory of their elders, are applied to reconstruct the climate calendar and the transformations it has undergone. These geonarratives of water trace a path toward knowledge that contributes to the design of pluriverses articulated from the edges of modernity across indigenous perspectives. **Key Words: collective memory, convivality, hydrosocial territories, pluriverse, socionature relations, transdisciplinary geography.**

To Begin, a Jayeechi¹

The Wayúu know from the word of their most distant ancestors that before the world was born only two great immensities revolved in space: The great light and the great darkness; both spun and met again and again, and nothing was born of them separately as they were, and so they collided with each other, until they began to share each other, and it was then that from the explosive union of the immensities, from the great light came the Sun (Ka'ikai), the Earth (Mmakat) and the wind (Joutai), and from the great darkness came the Moon (Kachikat), the waters (Wiinkat) and all the constellations. Thus, the elements: air, earth, water, and fire were the first generation to emerge into the world.

But behold, the Sun of the great light liked to heat the waters, which were the offspring of the great darkness, and so it was that from this union was born the Rain (Juyákai or Juyá) as the son of the waters and who, rising to the heights, confronts his father Ka'ikai by appeasing the fire of its heat. But, from up there Juyá saw Mmakat (the Earth), and marveled at its sinuous beauty and tranquility. Then, he fell upon it and from that first union the plants were born, the jungle and the mountains of great trees, and every plant and every vegetation giving origin in this way, to the second generation that emerged to the world.

Thus, Juyákai, the son of the sun and the waters, took the mountains as his seat and continued raining on those lands. It was then that the rivers were born with their fish, but also the birds

2 QUINTERO-WEIR, MANSILLA-QUIÑONES, AND MOREIRA-MUÑOZ

and the monkeys that populated the trees, and every animal that walks or crawls on the land of those forests. Ants also sprouted, and bees and mosquitoes and all the insects flew, because the animals were the third generation born into the world.

Thus, the life of the world was happening. Juyá traveled through the heavens frightening his father Sun from those places on earth where he burned more with his heat; then, he would come and fall with his waters and cool them making life be born there. It was on one of those trips that Juyá saw the land of La Guajira, beautiful, lonely, with its skin burned by the Sun and harassed by the wind; then, he decided to stay there for a while and fell on that land that sang happily, while from its bowels sprang men and women who, when they came to the surface, shouted their names, as if they were presenting themselves before their father the Rain, and said: Jusayú! others, Uraliyú!, others, Sapuana!, and so, they were born to the world as flesh of the land that gave birth to them in Wopumüin, further on in Jalala and even higher up in Wiinpümüin, which is all the land of the Wayúu, the people, who thus were the fourth generation born to the world (Figure 1).

La Guajira as an Hydrosocial Territory in Gradual Process of Drought

For the Wayúu people, and for all the indigenous peoples of the Maracaibo basin (Añuu, Bari, Yukpa and Sapreye), the space of the basin is understood as an inseparable geographical totality. A good part of the Guajira Peninsula on both sides of the Colombian-Venezuelan border can be characterized as semi-desert, with scarce rainfall, populated with tropical dry forest and confronted on its northern and eastern sides by the winds and the Caribbean Sea. This landscape converges at its southern base with the mouth of the Sierra de Perijá which, in effect, forms part of the division of the Andean mountain range as it enters Venezuela, forming two branches: one that goes to the east (and which is the continuity of the mountain range itself) with heights of more than 5,000 m.a.s.l.; and a western branch that transforms itself into a tropical and rainy humid forest. Both arms cradle and feed the water of their rivers to the great Lake of Maracaibo. But it is the Sierra de Perijá, with heights of up to 3,000 m.a.s.l. (Cerro Tétari, Yukpa territory) which descends until it ends right at the base of the Wayúu territory in La Guajira with two large basins: that of the Socuy-Wasaalee (Guasare) rivers, and on the Colombian side, coming from the Sierra Nevada de Santa Marta, the Ranchería river and all its tributary streams. This great semi-desert space of La Guajira, in truth, has always been surrounded by water. The ancestral territory of the Wayúu people, also known as *Woumain* (the heart from which the Wayúu emerge), extends over the entire Guajira peninsula and is divided by the borders of the nation states of Colombia and Venezuela.

The lands of La Guajira are part of a region of confluence of diverse geo-environmental and ecological formations of very different biodiversities and energies that converge into a harmony of periodic climate and water cycles – and thus the generation and reproduction of life in a region that, at first sight, appears inhospitable.

In the context of this harmonious complementarity of formations, the Wayúu were well aware of the movement of *Juyá* from his place of settlement in the mountains and jungles of the *Sierra de Perijá* in what seemed to be its eternal journey around the basin, until he reached the thirsty lands of La Guajira, through which he moved on his journey home, beyond the heights of the *Wasaalee*, marking his journey with rain in its various manifestations, all the places of water in its vast territory; so the whole of the Wayúu territory (*Woumainkat*) (Figure 2), was also the territory of *Juyá* (*Nüchakammakat*- his beloved land).



FIGURE 1 The sempitern return of Juyá: Illustration by Juan Carlos La Rosa, *Wayúu Wainjirawa* Organization.

However, even with capricious $Juy\dot{a}$, the Wayúu were able to follow their traditional climate map and carry out traditional *community making* actions, such as planting, building *casimbas*, and caring for the natural ponds (Quintero Díaz 2010), gullies, and waterfalls – even their collective celebrations of coexistence follow the calendar. Despite the fact rains no longer seem to coincide with their calculations, when $Juy\dot{a}$ appeared, even out of time, Wayúu communities were prepared to receive their waters and manage them according to their autonomous forms of organization in family clans.

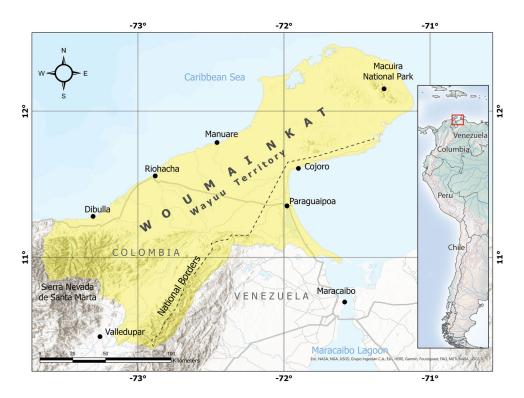


FIGURE 2 Wayúu territory (*Woumainkat*) crossin the limits of Colombia and Venezuela, to the west of the great Lake of Maracaibo.

But the *Yolujá* of "progress" is a being of incalculable ambition and greed: in the late 1970s and early 1980s, a new developmental-extractivist project exploited open-pit coal mines in the subsoil of the Wasaalee river basin (Guasare) on the Venezuelan side and – at the so-called *Cerrejón* mines- the *Ranchería* river basin on the Colombian side (Ulloa 2020). Both defore-stated hundreds of thousands of hectares of forest, right at the base of what for the Wayúu is the original seat of *Juyá*; this has imposed upon the great father of the Wayúu an exile of unpredictable duration.

Yolujá, Oil, Mines, and Climate Change

Historically, the close territorial relationship between the Wayúu and the rain allowed them precise knowledge of its manifestation in La Guajira. The relationship implies family or communitarian organization (*Yanama* = communitarian work) for tasks of *inhabiting* (repair of houses, shelter for animals, roads, etc.); the production of *food* (directing waterfalls to natural *jagüeyes*², building and/or repairing family or community *casimbas*³, preparing the land for sowing, etc.); or for *living together* (organizing community meetings to celebrate, welcome, or thank *Juyá*). Indeed, the rain was given names, a state of mind in which *Juyá* is present and recognized. The periodic fulfillment of *Juyá's* journey around the basin and over Wayúu territory remained the same during the first three decades of the 20th century. At this time, the oil exploitation in Lake Maracaibo (1900-1930) accelerated to what seemed an unstoppable emanation (*Zumaque* and *Barrosos* oil exploitations), which boosted explorations and exploitation inside the waters of the lake and *Sierra de Perijá* foothills. New wells required the construction of infrastructure such as water platforms, storage fields, gas burning chimneys, and shipment ports; and system of pipelines, warehouses, and workshops for metal-mechanical production, berths, and shipyards. Construction took place close to the wells and on the shores of both sides of the lake, so that the landscape and geography of the lake changed radically.

Particularly, the outbreak of World War II increased demand for oil; production in Lake Maracaibo, in the hands of Anglo-Dutch and American companies, became a vital strategic holding for the Allies. However, maintaining the rhythm and speed of the flow of production and exports was subject to the geographical conditions present at the entrance to the lake known as *La Barra*. The entrance is narrow, and blocked by three islands that limit sea water into the interior of the lake, leaving only a narrow margin for navigation between the sea and the lake – it was an obstacle proper to the confrontation between nature and culture, and ended up being subjected to destructive channel digging.

The harmful effects of extractivism generated by the exploitation of hydrocarbons and mining continue in Wayuú territories, causing depopulation, dispossession, and exclusion of access to water (Ulloa et al. 2020); however, the problems of access to water in *La Guajira* tend to be minimized in official discourse, which emphasizes the benefits of coal exports to Colombia. Moreover, it is often argued that transnational capital cannot be blamed for any of the problems associated with its investments (Avilés 2019).

In this sense, the physical effects of human induced climate changes - such as droughts, temperature rises and changes in rainfall systems - is explained by, first, the replacement of the hydrological cycle by a hydro-social model co-opted by political and economic powers that have appropriated water, depriving communities of their access (Porto-Gonçalves 2006; Swyngedouw 2005; Boelens et al. 2016; Morgan 2017); and second, by the modification of cultural relations with water landscapes (Budds and Hinojosa 2012), and - as has been pointed out from a feminist perspective – modified relations between body-territory-water (Caretta and Zaragocin 2020). In this way, the process of accumulation through dispossession (Hall 2013), which operates on water, threatens a community good on which the life of those who inhabit these hydrosocial territories is sustained (Boelens et al. 2016; Rocha et al. 2019; Mills-Novoa et al. 2020).

However, the exposure to the negative effects generated by the anthropocene in relation to water does not affect all of society in the same way; they are unequally distributed, generating forms of injustice and environmental racism that further affect and systematically violate the living conditions of certain groups (Martinez-Alier 2014; Soja 2014); consider the exclusions of social groups because of their intersectionalities (Caretta and Zaragocin 2020; Zaragocín 2019). In Latin America, it is possible to identify an important number of environmental transformations occuring in territories of indigenous, afro-descendant and rural populations, living structural traces of colonialism-capitalism (Banks 2017). The consequences of the anthropocene and the consequent environmental transformations on the native peoples of *Abya Yala* (Latin America) can be understood in the framework of what has been called the result of the "coloniality of nature" (Alimonda 2011), to point out how modern colonial reason creates a "subaltern space,

which can be exploited, razed, reconfigured, according to the needs of the current regimes of accumulation."

These manifestations of colonized nature cut across the practice of all Latin American governments, independent of political position, in what has been called neo-extractivism (Gudynas 2020). Even progressive leftwing governments maintain systems of capitalist exploitation based on the extraction of natural resources on indigenous territories. This situation is especially visible in the case of the Wayúu (Ulloa 2020), whose ancestral territory is fragmented by national state borders of Colombia and Venezuela, which, despite following different political and economic paths, exploit mining and hydrocarbon resources on both sides of the border. This generates severe effects on access to water and severely affects the livelihoods of the territorial clans (Uriana 2008; Avilés 2019; Ulloa 2020), generating also food insecurity and child mortality (Contreras 2019).

Studying whith the Wayúu –a people who have historically had to face the problem of access to water– allows us to suggest elements of greater scope and importance to outline biocultural conservation (Maffi and Dilts 2014; Moreira-Muñoz et al. 2019) and conviviality based on indigenous cosmovision (Gahman, Greenidge, and Team 2020).

METHODS

The hydrosocial transformations of the Anthropocene require, first, concrete actions that maintain territorial control of native peoples; and second, disputing hegemonic cultural representations of nature imposed by modernity-coloniality-capitalism and its institutions – in this case, through the Wayúu cultural perspective itself (Ulloa 2016a; Daza-Daza, Rodríguez-Valencia, and Carabalí-Angola 2018). Geonarratives regarding their relationship with water may aid in designing alternative pathways to the Anthropocene, and also a path towards transdisciplinary Geography (Pretorius and Fairhurst 2015; Sarmiento and Frolich 2020). As Donna Haraway (2015) points out, "we need stories (and theories) that are just big enough to gather up the complexities and keep the edges open and greedy for surprising new and old connections." We call these "other stories" about the nature-culture relationship from the perspective of decolonial methodologies (de Leeuw and Hunt 2018; Daigle and Ramírez 2019) such as decolonial geonarrative and oralities, built from other worldviews and feelings about the world to act on the contemporary environmental challenge (Bawaka Country et al. 2020).

This entails exploring, in a schema of knowledge co-production (Norström et al. 2020), the pluriverse (Querejazu 2016) and the possibilities of resilience and adaptation to climate change of the communities most affected by it (Muir, Rose, and Sullivan 2010; Löf 2013; Petheram, Stacey, and Fleming 2015; Vidal et al. 2018). Here geonarratives of water become symbolic strategies that accompany the practices and concrete actions to address the problem of water.

We seek to build a decolonial proposal for geonarratives (Tuhiwai Smith 2016), as a narrative practice with thinkings/feelings and thoughts of native peoples, which preserve them with(in) the world as an expression of their territoriality (Haesbaert 2012; Quintero-Weir 2016). In this sense, the concept of 'orality' or 'oraliture' seems more appropriate from a decolonial perspective. 'Geostorytelling' has been already proposed as an alternative to European oriented ethnographies⁴. This questions the colonial distinction between the written word and culture, justified by Western sciences that have relegated indigenous knowledge and stories to a secondary, "invalid"

source due to its orality (Mires Ortiz and Red de Bibliotecas Rurales de Cajamarca 2017). In this perspective, orality is informal, non-systematized knowledge; writing, a tool of Western and Eurocentric culture. As a counterpoint to colonial narratives, this decolonial narratives consider memory discourse in various expressions of language transmission such as singing, storytelling, drawing or even weaving (Millaleo 2011; Cameron 2012; Fernández-Llamazares and Cabeza 2017).

In searching for a specific concept, we preferred to use 'decolonial geonarratives' that may overcome colonial perspectives deployed by western sciences, which term indigenous narratives with labels like "oral literature," "oral tradition," "folklore," etc., and exercise epistemological violence loaded with disqualifying and disdainful contradictions, suggesting these knowledges are simple anecdotes or inferior metaphors that are not capable of constituting knowledge (Mires Ortiz and Red de Bibliotecas Rurales de Cajamarca 2017). These decolonial geonarratives favor methodologies where knowledge dialogue takes a transcultural perspective among native peoples and indigenous researchers based on horizontality, reciprocity, and respect for the discourses of the world to address the pluriverse (De la Cadena and Blaser 2018; Kothari et al. 2019).

Decolonial geonarratives do not only include orality, but strategically contribute political and cultural perspectives to the permanence, transmission and fertilization in reproducing the experience and communitarian existence of the original people; and catalize the co-construction of bridges with the non-human life in new forms of conviviality (Wise and Noble 2016; Costa 2019; Hemer, Povrzanović Frykman, and Ristilammi 2020).

In this way, we propose to understand decolonial geonarratives as a particular form of ethnotext or "oraliture" (Niño 1998; Toro Henao 2014), that express seeing/feeling/being with(in) the territory and/or nature from the indigenous cosmovision (Escobar 2014), towards a convivial and balanced socionature (Escobar 1999; Büscher and Fletcher 2019; Kolinjivadi, Vela Almeida, and Martineau 2019).

Many of the discourses of memory correspond to stories about the original conformation of the universe and the world in the context of the territorial space and, of course, of the human community in relation to that original universal conformation of the territory. They also include stories that explain the formation of places, the appearance or disappearance of hills, mountains, forests, rivers, lakes and even of significant geographic accidents to the process of territorialization of the group (Uzendoski 2012; Melin, Mansilla, and Royo 2019).

In this way, songs, songlines (Bawaka Country et al. 2020) and stories are created as discourses about the relations of the community with the changes in climate, rain cycles, and seasons; and about the presence or absence of certain flora, fauna, vegetation, insects and other visible and invisible beings. Their respective actions are shared and complemented, and make "place" as constitute the territory through time and action, where culture is finally shaped through community action (Figure 3).

From the perspective of indigenous people, the territorial experience takes shape through stories and songs/sagas, which are generally condensed into the names given to places/time (Caquard and Cartwright 2014). The territory is not just its toponymy–rather, it is contained in the narrative as a body of territorial memory of the peoples (Berg and Vuolteenaho 2009; Molden 2020). Therefore, of the subject's bodies themselves, memory goes beyond "memory"; it becomes a subject-territory relationship condensed in the original image-experience, expressed in a name and a story, as a kind of imaged cartography. In this way, as we propose in Figure 3, we understand the relationship between the Wayúu worldview and decolonial geonarratives as a

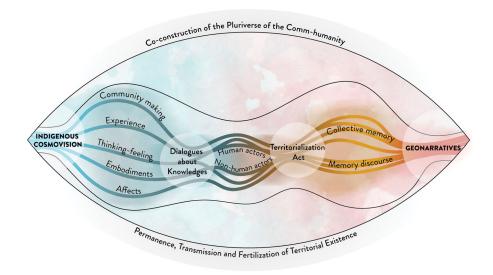


FIGURE 3 The eye of Juyá, *Eirare; "the place of seeing"*: as the process of decolonial geonarratives emerging from indigenous cosmovision.

change in point of view that promotes the deconstruction of the sense of sight that has prevailed in modern western Eurocentric science (Haraway 2015). We take as reference from the worldview of the Añuu people, the concept of "*Eirare*" or the "*place of seeing*," where a point of view is established where the world is thought of as a great eye that we see, and that at the same time sees us (Figure 3).

Our work within the Wayúu community in La Guajira addresses geonarratives of climate change based on the stories of Wayúu elders and their reconstruction of the *Juyá* calendar. This research is a systematization of extensive experience of intercultural work with young people from the indigenous organization *Wainjirara* and the Autonomous Indigenous University since 2013. It is a dialogue among indigenous knowledge, language and geography to investigate the knowledge of territory.

RESULTS

Elder Geonarratives (Oralities) and Climate Change in La Guajira

In the years 1910-1921, Tüü Juyá Anasü sumaka Wayúu pa sumaiwa, the good rain, so called by the Wayúu in past times. The months of December were always a time of celebration, because there was an abundance of it in La Guajira. On the day of the month Sükalia Kashika there was no misery, it rained in the first months. First of all, in the month of December, there were many gatherings in La Guajira, which is what today they call Christmas dinner; they were days of abundance, they made comelonas [feasts], ate sheep, goats, beans, sorghum, watermelon, it was a good time of rain. There were no Alíjunas in La Guajira, there were very few. The memory of elder *Rafael Jusayú* clearly indicates the last historical period in which the Wayúu were certain about the displacement of *Juyákai* as the symbolic and material father of all the generations that have territorialized those semi-desert lands for millennia. He had been known to have a home in the *Sierra de Perijá* mountains and to regularly travel around the basin of Lake Maracaibo in a cycle that led him to the thirsty lands of La Guajira and, with his waters, enable Wayúu life.

This is the last period in which both the Wayúu and Añuu peoples had predictability toward climatic behavior of the world in their territories, precise knowledge of rain and drought periods. They had been able to organize productive, social, material and symbolic activities. This was in spite of the intense oil exploration started in the whole basin of the Maracaibo Lake at the beginning of the 20th century (1902); and the subsequent exploitation starting in 1914 "when the Caribbean Petroleum Co [a subsidiary of Royal Dutch Shell] extracted from the Zumaque [Sümaka] well in the Mene Grande field... an average of 256 barrels" (Rincón et al. 2016; brackets not in original). With the subsequent bursting of the Barrosos wells on the eastern coast of the lake, exports intensified where, by 1927, "the commercial value of the export of hydrocarbons surpasses that of the traditional agricultural exports of coffee and cocoa" (Rincón et al. 2016). This was a radical change in the economic structure of the country; opened geo-environmental transformations in the basin; and influenced gradual and sustained change in the climate chart of the entire region.

In this sense, elder Rafael Jusayú tells us:

Chii Juyá, the rain called Patunajanaikai came, as did rain called Karraisi. Karraisi is February (Patunaisi). Irruaka is August; October Sainjuyá is the real rain; another called Juya Oummala Lautusumain Nütüralaka (strong and thick voice), strong lightning and thunder, and the one who accompanies him is called Kayarajain: very brave, scolding, he comes with much anger, people are afraid of him when he arrives, he does it with strength, he imposes himself by destroying trees, his enemy is found among the trees, inside the heart of the tree or inside the heart of man, his enemy is an evil being called Yolujá; so he chases and destroys him, and tends to do so by destroying the trees, he shoots anything where the Yoluja is, cows that are possessed by Yoluja die, Juyá destroys them like this, just like the Wayúu that has Yoluja inside his heart. It is nothing else, has no other enemy, but the evil of that man who has Yoluja, so in La Guajira we warn them: be wise Wayúu, have good houses, take care of your flocks – that was the advice of the Wayúu in those days, good advice.

The memory of the elder specifies the different months⁵ in which Juyá, in its different manifestations, was present in the lands of La Guajira. Thus, in January, he presented himself as *Patünajanaikai* as the rains of the sower, watering the already ploughed land. In February, the sun warms up and then *Karrai* - a bird that, according to the Wayúu cosmovision, dared to take a hair of fire from the sun to give it to the *Wayúu*, so that they could cook their food - sings to call the rain: *Karraisi*, which falls to scare the sun and make crops grow.

It is not until April when *Juyá* reappears with gentle breezes and light rain called *Iiwa*. Plants bloom and crops of beans, maize, sorghum, watermelon, and *auyama* gourds show their fruits, and even yucca is almost ready for harvest. It is the time of the so-called spring (*Iiwa*). These rains spread throughout La Guajira, wetting the whole land, refreshing the environment and lowering temperatures. By the month of June, these rains are gone,

and it is time to move animals to their shelters near *jagüeyes* and *casimbas*, where the *Wayúu* have collected rain water.

August is harvest time; however, it was possible that *Juyá* might appear in its *Irrualaka* form, an ill omen that interrupted harvest and indicated that *Juyá* had perceived the presence of its enemy *Yolujá*: ambition, greed and bad ways rolling over his people. Here *Juyá*may present himself as *Ounmala*, accompanied by *Kayarajain* with thunder and sparks, shooting at everything where *Yolujá* may hide: trees, stones, animals and people.

But, when October comes, *Juyá* returns as it did in the beginning: as *Saa'inñamma* ("pure spirit on earth"), that is, "*the true rain*," says the elder. Here everyone would prepare to gather and celebrate the time when the Wayúu were born to the world, right from the union of mother earth and *Juyá*. According to Wayúu thinking/feeling and knowledge, *Juyá* accompanies them in their construction of habitat, the production of food, the generation of healing, the celebration of coexistence in the exercise of territoriality ((Porto-Gonçalves 2009) and in community making (Quintero-Weir 2016). It never abandoned its presence to the thirsty lands of La Guajira (Figure 4).



FIGURE 4 Recreation of Wayúu calendar, superposed to traditional monthly timeframe.

The Exile

Searching in his memory, elder Jusayú believes he has found the moment when *Juyá* began his exile from the lands of La Guajira. In this sense, he tells us:

I was not an old man but I listened to advice at that time. In 1947, I think Marco Pérez Jiménez was ruling, in 1949 there was a war, you could hear that it was in a land called Great Britain and in the East, the rains damaged and as a result of that war there was a contamination that brought a great plague to La Guajira, Aleyajawa, caused by the poison of the Sutkaya Alijuna bombs, weapons from the alijunas from other parts of the world, brought plague to La Guajira, brought headache, vomiting, diarrhea, flu, the animals were also contaminated. There were no doctors, the Wayúu cured themselves, they made hot drinks with all kinds of medicinal herbs, they worked Piachi on them, curing the sick. Place by God, Chi Wayúu Asijaikai), the Wayúu healers, made therapies to counteract the diseases, they were knowledgeable of traditional medicine, like today.

Since then there is no good rain, it does not rain in January, February, much less March or April. Even sometimes May passes without rain, I can tell you that it is from 47 that the summer has multiplied.

The apparent confusion of dates in the memory of grandfather Jusayú is not surprising: Wayúu culture does not value dates and calendars, but events contextualized in a specific cycle of world time and transcendent occasions that maintain the course of their historical memory oral narratives. However, between 1937 and 1939, the opening of the so-called Navigation Channel as a result of the dredging and breaking of the mouth of the lake in *La Barra* was in full operation for the entry and exit of ships and tankers of ever greater depth to guarantee oil for an England at war (and which intensified when the United States joined the conflagration in 1941).

Thus, oil production in the lake and fields located in the *Sierra de Perijá* foothills added new permanently burning chimneys, emitting gases into the atmosphere in the basin. The dredging of the *Barra* produced a change in the currents and the penetration, now free, of sea waters into the fresh water pocket of the lake, rupturing into an imbalance of the natural geo-environmental, ecological and climatic conformation of the basin. This imbalance was gradually perceived, and increased in evidence, by all the inhabitants of the region, particularly by the Wayúu in their Guajira territory.

DISCUSSION

Geonarratives of Water

The Wayúu people's cultural geonarrative of their relationship with water through Juyá contrasts with the exhausted western-Eurocentric rhetoric on nature. This consideres nature as an aggregate of resources; organisms and beings as simple machines (Ferry 2009); it establishes hierarchies among the multiple forms of life present in nature, and places human beings at the top to justify his domination (Bookchin 1999). This promotes ecocide and epistemicide of the environmental knowledge and actions articulated at the edges of modernity from indigenous perspectives

(de Sousa Santos and Meneses 2010; de Sousa Santos 2017; Mansilla-Quiñones, Quintero-Weir, and Moreira-Muñoz 2019).

The crisis of the modern narrative on nature becomes evident in the global environmental imbalances and the threat to the existence of all forms of life on our planet, including that of the human species (Porto-Gonçalves 2009; Escobar 2011; Svampa 2019). The anthropocene as a geological and climatic footprint of Eurocentric modernity (Zalasiewicz et al. 2011; Steffen et al. 2018), must be questioned and, from its ruins, reformulated through alternative geonarratives that propose a transmodern dialogue among multiple knowledges (Leff 2004; Escobar 2011; Haraway 2015) affections, and embodiments that unfold in the ontological relation between nature and culture, and among human and non-human actors (Haraway 2015; Caretta and Zaragocin 2020). This implies going beyond the universalist conceptions of the nature-culture relationship and opening multiple geonarratives, knowledge dialogues, and pathfinding in a pluriverse of many (lived and imagined) worlds (De la Cadena and Blaser 2018; Kothari et al. 2019).

The anthropocene is of a particular temporality regarding the original people of Latin America (=Abya Yala). The *longue durée* begins with material intervention and symbolic representation of its territory and nature (Braudel 1969; Porto-Gonçalves 2006; Mansilla-Quiñones, Quintero-Weir, and Moreira-Muñoz 2019) deployed by European colonialism; then by the practice of internal colonialism exercised by nation-states (Rivera Cusicanqui 2012); and again through the joint action of capital and its violence on the multiple forms of life present in the territories (Boelens et al. 2016; Méndez and Romero 2020).

Current epoche is symptomatic of generalized, systemic chaos of an environmental reasoning stemming from a capitalist political-economic model (Porto-Gonçalves 2006), the environmental expressions of which are evident in diverse geographical processes such as: ecological disasters, drastic modifications of land uses for extractive forestry and agro-industrial purposes, loss of ecological niches and the annihilation of biodiversity, oceanic and coastal ecosystem transformations, among countless others. In short, there are extensive negative consequences for the environmental conditions that make the various manifestations of life possible.

Prospects of Re-Territorialization, and New Water Territorialities of the Wayúu

Dispossession implies a community threat, leaving two options for social movements: the articulation of local communities with the objective of deploying strategies to dispute for the control of resources and the social reappropriation of, in this case, water; or simply to succumb to the inability to organize, and prepare to initiate forced displacement and consequently uninhabit the hydro-social territories in which they have ancestrally inhabited. Because the deprivation of water nullifies the possibility of life reproduction, as Ulloa (2020) points out, a significant number of the Wayúu population in Colombia has been displaced to urban areas due to the effects of climate change and the pressures of extractivism, including in this the effects of air pollution (see Chancleta and the Cerrejón Mine - ABColombia).

This is not just a migration process; it is a change in subsistence strategies in the face of environmental transformations generated by the lack of water in Wayúu territory. It is a configuration of a mobile territoriality of men towards other cities and territories on both sides of the border in search of any economic opportunity - whether in more precarious enterprises, or in established businesses – while women continue to inhabit the ancestral territories and support the home, working in crafts and other ways of survival (Isaacman, Frias-Martinez, and Frias-Martinez 2014).

Wayúu society is matrilineal and matrilocal, so women are the centre of family territory and clan. They are, so to speak, the human body of the earth (*mmakat*) which originally gave birth to a clan in a space within the *Wouma'in*. That space constitutes the territory of the clan which the women fix with each of the conjugal residences at the moment of joining a couple from another or the same clan.

Thus, each clan is the owner of an ancestral territory that is symbolically sustained through the memory of the ancestors that rest in their cemeteries; women are the guarantors of its maintenance. Further, the establishment of territorial limits between Colombia and Venezuela corresponded to only a strip of the peninsula; although normally ignored by the Wayúu, the ancestral territories of the clans are divided. Finally, as women are representative of the land, men are symbolically considered in the role of $Juy\dot{a}$; their displacement, in their cosmovision, reflects $Juy\dot{a}$'s eternal travels around the basin.

Women are those who remain in their territories, resisting, while men have displaced in search of sources of resources. Wayúu organizations have confronted coal mines in Colombia and Venezuela. Of these, the Wayúu women's force (*Sütsuin Jieyuu*) in Colombia is considered the strongest and with the greatest local, national and international relevance. It has developed containment campaigns for the *Cerrejón* Mine Corporation, which has plans to expand into some of the streams that flow into the *Ranchería* River; indeed, some involved have fled the country after receiving death threats (Avilés 2019). The Wayúu Women's Force bases its struggle precisely on their condition as protectors of the land they symbolize, as guardians of their ancestral territories, and the memory of their ancestors buried in their clan cemeteries. In this sense they also carry the politica dynamics of territorial feminisms against capitalist development (Ulloa 2016b; Dengler and Seebacher 2019; Gay-Antaki 2020).

On the Venezuelan side, the most relevant Wayúu organization, called *Maikiraalasalii* ("Those that are not exchanged for a bag of corn," i.e., not sell-outs), has confronted the *Guasare* Mines. Most of its members previously lived in the space where coal exploitation began, and became displaced upon accepting Company offers; they later lived the negative consequences of the exploitation, and so now are not willing to give up their places on the margins of the *Socuy* and *Cachiri* rivers.

These two Wayúu organizations have emerged under different conditions and from equally different bases, but, in any case, face continuous exploitation that contributes to *Juyá's* exile from their lands.

A Great Struggle in Times of Darkness - Juyá Versus Yolujá

Readings of the systemic anthropocene crisis in dialogue with Wayúu geonarratives invites us to ask ourselves what may emerge from the clash between the great darkness and the great clarity of our time; how to confront the *Yolujá* that today hides behind climate change. The harsh reality of the Wayúu people's difficult adaptation to climate change, the epistemicide and ecocide of environmental knowledge, doings and thinkings/feelings; and the general disarray of the capitalist project of modernity (Tsing 2015; de Sousa Santos 2017) raises an obvious question: "How is life sustained in ... *Abya Yala*" (Gabbert and Lang 2019).

14 QUINTERO-WEIR, MANSILLA-QUIÑONES, AND MOREIRA-MUÑOZ

Addressing indigenous understandings of weather and climate through the spirals of song (Bawaka Country et al. 2020) present in their narratives (Fernández-Llamazares and Cabeza 2017) shows us a path; shows us the limits and barriers to climate change adaptation for indigenous communities (Löf 2013; Galindo Montero, Pérez Montiel, and Rojano Alvarado 2017; Contreras, Junghardt, and Voets 2018) and shows us the possibility of a natural-communal land-scape between humans and non-humans (i.e. socionature/natureculture), intertwined with sets of formal adaptation actions (Galindo Montero, Pérez Montiel, and Rojano Alvarado 2017; Bartolini and Desilvey 2020).

CONCLUSIONS

Among territorial and environmental reconfiguration processes, one of the most significant problems in Latin America is currently related to access to water, where an important part of the population is deprived of its access for human consumption, generating an insurmountable sociometabolic fracture (Panez-Pinto, Mansilla-Quiñones, and Moreira-Muñoz 2018), which affects the territorial and environmental ways of being (De la Cadena and Blaser 2018), and which has given rise to social mobilization and severe territorial response processes in the struggle for territorial re-existence (Porto-Gonçalves 2009).

First, in the Wayúu narrative, *Juyá* builds its own territoraliality: it expresses itself through arrangements of sounds, movements, and forces in each seasonal change, and in climate and water landscapes. These expressions are read from a Wayúu perspective as signs that announce events and require specific actions. This reading, observing, and communicating with nature is a broadening of perspectives with(in) the pluriverse and the broaden of transdisciplinary Geography. Relearning to relate to nature and so design territorialities other than those of the exhausted horizon of modernity requires changing our ways of seeing and understanding the announcements that nature communicates regarding contemporary environmental change. We must assume other points of view and positionalities outside scientific, masculine, modern, and western thought.

Second, community geonarratives cross, permeate, and inscribe indigenous territories and territorialities in the modern world system and its contradictions. Community experience is relational and recedes to local spatial scales where interactions occur. The Wayúu cosmovision (and, we would dare to say, that of all the indigenous peoples of the basin) complementarily shares everything present in the world; each element corresponds to a part of the living body of the world. In a relational perspective, everything has to do with everything. Effects caused in one place, no matter how far, generate consequences for us and our relationship with the environment (sense of place) (Masterson et al. 2019). There is no doubt that war and the use of the *Sutkaya Alíjuna* (weapons of the whites) were, for the Wayúu, part of the climatic imbalance manifesting itself; that the millions of human beings who died in that war manifested themselves as unexpected epidemics and diseases in other regions of the world. As an elder states:

All the clans know that history, even those who ruled at that time; beyond all that, we Wayúu understand that the plagues, the diseases have come because of the lack of rain, Mojusü Juyá, because of the bad rain, I don't know what its origin is. The Alíjunas must know more than us because they have caused it.

Third, the dispossession of colonial capitalist modernity generates material restructurings of territory - which sometimes deeply transforms its ontological dimensions and expressions of communitarian territoriality - ruptures narratives. Wayúu (and, generally, original peoples) strategies imply a double task: disputing material territorial control of natural resources for their subsistence; and struggles against hegemonic representations of the nature – culture relationship, the modern colonial epistemicide and ecocide that generates denials. The epistemological separation between nature/culture must be questioned, as should the dichotomy between material and subjective dimensions of nature. The effects of mining and oil extraction not just affect water social justice (Ulloa 2020), but also affect material territorial references to sites of cultural significance that encompass community territorial memory of Juvá.

Fourth, although recovering the Wayúu climate calendar is unattainable, some actions may maintain collective community practices regarding Juyá's cycles; these are indispensable in maintainging Wayúu ways of life. For example, in the good times, the narrative prescribed actions are moments of celebration, sharing, and abundance; or, when Juyá entered into conflict with *Yolujá*, times of shelter and community care. Community calendars are necessary to investigate social manifestations and practices that are threatened by climate change. The strategies against climate changes and drougth become fights for life, and fights for territorial re-existence.

Fifth, the positive otherness that recognizes nature as an "other" is a teachable strategy. Here, water is a living element in constant flow and flowering (Cattelino, Drew, and Morgan 2019), like a living non-human agent with which it is important to develop a dialogue (Donald 2019). While men and women recreate the dialogue between *Juyá* and *Mmá* (and redefine territorialities based on community memory knowledge), a cultural and political strategy is to be like water. Be like a river, where each drop joins to form a torrent that acquires an unstoppable force, capable of crossing where *Yolujá* is present. This implies *Eiña ayunkaru je Ayunka eiñaru* (Doing in thinking, and thinking in doing), an *Añuu* expression for the process of creating knowledge in terms of the community.

Adaptation to climate change must be through co-constructed (Galindo Montero, Pérez Montiel, and Rojano Alvarado 2017) or co-produced knowledge (Norström et al. 2020), through a community-based adaptation scheme (Reid 2016), in which women are showing increasing empowerment (Todd 2016; Gabbert and Lang 2019). Notwithstanding the intricate aspects of legal mobilization (Maida 2018; Romero Díaz 2018; Parra 2019), integrating the embodiments and affects that unfold in the ontological relationship between nature and culture - and between human and non-human actors (Adams 2021)–will potentially move us towards a true dialogue of knowledge (Leff 2004).

For the Wayúu cosmovision, everything present in the world is shared in a complementary manner, and each element corresponds to a part of the living body of the world. This cosmovision is shared by many indigenous communities - geographically distant, but spiritually or "rhizomatically" connected (Varvarousis 2020). Different visions or conceptualizations of water management in these critical space-times may thus converge (Coscieme et al. 2020). The struggles to preserve indigenous cultural identities, their territories, and geonarratives are not only for local-scale communities; they are for the system at a global scale (Garnett et al. 2018), for the co-construction of the pluriverse of a new convivial humanity.

16 QUINTERO-WEIR, MANSILLA-QUIÑONES, AND MOREIRA-MUÑOZ

ACKNOWLEDGMENTS

Two anonymous reviewers made substantial improvements to the manuscript, we are especially grateful for this. We are deeply in dept with all the people that opened their home space for this investigation. Project Anillos ANID PIA SOC 180040 "GeoHumanities and Creative (Bio)geographies" (www.biogeoart.cl).

FUNDING

This work was supported by ANID (Agencia Nacional de Investigación y Desarrollo de Chile): Project Anillos ANID PIA SOC 180040 "GeoHumanities and Creative (Bio)geographies" (www.biogeoart.cl).

NOTES

- 1. Wayúu oral expression can adopt a form of a song/story/talk. A glossary is provided as Supplementary Material 1.
- 2. Jagüey: place of natural formation that in times of rain are transformed into water reservoirs.
- 3. Casimba: a jagüey or pond built to receive the rain; it is generally community work, where waters benefit the whole community and its animals.
- 4. https://news.mongabay.com/2020/08/new-indigenous-storytelling-platform-brings-community-perspectives-to-the-world/
- 5. It is important to note that for Wayúu there is no calendar, as such; there are rather inflection points in world making and their manifestation as time changes. As part of the process of colonial submission and coloniality, the Wayúu have accepted to make them correspond with the so-called "months" of the "year." We discuss these time and world making changes (and their respective names) in another section.

ORCID

Pablo Mansilla-Quiñones D http://orcid.org/0000-0001-8479-7560 Andrés Moreira-Muñoz D http://orcid.org/0000-0002-9136-1391

REFERENCES

- Adams, M. 2021. Indigenizing the Anthropocene? Specifying and situating multi-species encounters. *International Journal of Sociology and Social Policy* 41 (3/4):282–97. doi:10.1108/IJSSP-04-2019-0084.
- Alimonda, H. 2011. La naturaleza colonizada. Ecología Política y Minería en América Latina. Ediciones CICCUS y CLACSO, Buenos Aires
- Avilés, W. 2019. The Wayúu tragedy: death, water and the imperatives of global capitalism. *Third World Quarterly* 40 (9):1750–66. doi:10.1080/01436597.2019.1613638.
- Banks, E. 2017. We are bruno: Citizens caught between an absentee state and a state-like corporation during water conflicts in La Guajira, Colombia. Urban Anthropology 46:1–34.
- Bartolini, N., and C. Desilvey. 2020. Making space for hybridity: Industrial heritage naturecultures at West Carclaze Garden Village, Cornwall. *Geoforum* 113:39–49. doi:10.1016/j.geoforum.2020.04.010.

- Bawaka Country, S. Wright, S. Suchet-Pearson, K. Lloyd, L. Burarrwanga, R. Ganambarr, M. Ganambarr-Stubbs, B. Ganambarr, and D. Maymuru. 2020. Gathering of the Clouds: Attending to Indigenous understandings of time and climate through songspirals. *Geoforum* 108:295–304. doi:10.1016/j.geoforum.2019.05.017.
- Berg, L. D., and J. Vuolteenaho. 2009. Critical toponymies: The contested politics of place naming. Ashgate: Routledge.
- Boelens, R., J. Hoogesteger, E. Swyngedouw, J. Vos, and P. Wester. 2016. Hydrosocial territories: a political ecology perspective. *Water International* 41 (1):1–14. doi:10.1080/02508060.2016.1134898.
- Bookchin, M. 1999. La ecología de la libertad. Madrid: Nossa y Jara Editores.
- Braudel, F. 1969. Écrits sur l'histoire. Paris: Flammarion.
- Budds, J., and L. Hinojosa. 2012. Restructuring and rescaling water governance in mining contexts: The co-production of waterscapes in Peru. *Water Alternatives* 5:119–37.
- Büscher, B., and R. Fletcher. 2019. Towards convivial conservation. Conservation and Society 17 (3):283–96. doi: 10.4103/cs.cs.
- Cameron, E. 2012. New geographies of story and storytelling. *Progress in Human Geography* 36 (5):573–92. doi: 10.1177/0309132511435000.
- Caquard, S., and W. Cartwright. 2014. Narrative cartography: From mapping stories to the narrative of maps and mapping. *The Cartographic Journal* 51 (2):101–6. doi:10.1179/0008704114Z.00000000130.
- Caretta, M. A., and S. Zaragocin. 2020. Women's resistance against the extractive industry: embodied and water dimensions. *Human Geography* 13 (1):3–5. doi:10.1177/1942778620910893.
- Cattelino, J. R., G. Drew, and R. A. Morgan. 2019. Water flourishing in the anthropocene. *Cultural Studies Review* 25:135–52.
- Contreras, D. 2019. The integrated spatial pattern of child mortality during the 2012–2016 Drought in La Guajira, Colombia. *Sustainability* 11 (24):7190. doi:10.3390/su11247190.
- Contreras, D., J. Junghardt, and A. Voets. 2018. Assessment of climate change impacts for project planning in La Guajira, Colombia. CIGIDEN and CARITAS, Switzerland. Accessed July 10, 2021. https://core.ac.uk/download/ pdf/327369001.pdf
- Coscieme, L., H. da Silva Hyldmo, A. Fernández-Llamazares, I. Palomo, T. H. Mwampamba, O. Selomane, N. Sitas, P. Jaureguiberry, Y. Takahashi, M. Lim, et al. 2020. Multiple conceptualizations of nature are key to inclusivity and legitimacy in global environmental governance. *Environmental Science & Policy*. 104:36–42. doi:10. 1016/j.envsci.2019.10.018.
- Costa, S. 2019. The neglected nexus between conviviality and inequality. *Novos Estudios CEBRAP* 38:15–32. https://www.scielo.br/j/nec/a/zxmJqDDPDBVtmCXym3NMJMb/abstract/?lang=en
- Daigle, M., and M. M. Ramírez. 2019. Decolonial geographies. In Keywords in Radical Geography: Antipode at 50, 1st ed. ed. A. E. Collective, 78–84. Sussex: John Wiley & Sons.
- Daza-Daza, A. R., N. Rodríguez-Valencia, and A. Carabalí-Angola. 2018. El recurso agua en las comunidades indígenas wayuu de la Guajira Colombiana. Parte 1: Una mirada desde los saberes y prácticas ancestrales. *Información Tecnológica* 29 (6):13–24. doi:10.4067/S0718-07642018000600013.
- De la Cadena, M., and M. Blaser. 2018. A World of Many Worlds, 1st edn. Durham and London: Duke University Press.
- de Leeuw, S., and S. Hunt. 2018. Unsettling decolonizing geographies. Geography Compass 12 (7):e12376–14. doi: 10.1111/gec3.12376.
- de Sousa Santos, B. 2017. Justicia entre Saberes: Epistemologías del sur contra el epistemicidio. Madrid: Morata,
- de Sousa Santos, B., and M. Meneses. 2010. Epistemologias do Sul. 1st ed. Sao Paulo: Almedina.
- Dengler, C., and L. M. Seebacher. 2019. What about the global South? Towards a Feminist decolonial degrowth approach. *Ecological Economics*. 157:246–52. doi:10.1016/j.ecolecon.2018.11.019.
- Donald, M. 2019. Guddling about: An ecological performance practice with water and other nonhuman collaborators. *Geohumanities* 5 (2):591–619. doi:10.1080/2373566X.2019.1652106.
- Escobar, A. 1999. After nature: Steps to an antiessentialist political ecology. *Current Anthropology* 40 (1):1–30. doi: 10.1086/515799.
- Escobar, A. 2011. Epistemologías de la naturaleza y colonialidad de la naturaleza. Variedades de realismo y constructivismo. In *Cultura y Naturaleza*, 1st edn., ed. L. Montenegro Martínez, 49–74. Bogotá: Jardín Botánico José Celestino Mutis.
- Escobar, A. 2014. Sentipensar con la tierra: Nuevas lecturas sobre desarrollo, territorio y diferencia. Medellín: Unaula.

- Fernández-Llamazares, Á., and M. Cabeza. 2017. Rediscovering the potential of indigenous storytelling for conservation practice. *Conservation Letters* 11 (3):1–12. doi:10.1111/conl.12398.
- Ferry, L. 2009. A nova ordem ecológica: a árvore, o animal e o homem. Rio de Janeiro: DIFEL.
- Gabbert, K., and M. Lang. 2019. ¿Como se sostiene la vida en América Latina? Feminismos y re-existencias en tiempos de oscuridad. Quito: Fundación Rosa Luxemburg, Ediciones Abya-Yala.
- Gahman, L., A. Greenidge, J. Team. 2020. This present relationship and its beauty...: Indigenous Youth Activism and Desire-based Research in the Postcolonial Caribbean. *Antipod Online* 23:1–7.
- Galindo Montero, A., J. Pérez Montiel, and R. Rojano Alvarado. 2017. Medidas de Adaptación al Cambio Climático en una Comunidad Indígena del Norte de Colombia. *Revista U.D.C.A Actualidad & Divulgación Científica* 20: 187–97.
- Garnett, S. T., N. D. Burgess, J. E. Fa, Á. Fernández-Llamazares, Z. Molnár, C. J. Robinson, J. E. M. Watson, K. K. Zander, B. Austin, E. S. Brondizio, et al. 2018. A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability* 1 (7):369–74. doi:10.1038/s41893-018-0100-6.
- Gay-Antaki, M. 2020. Feminist geographies of climate change: Negotiating gender at climate talks. *Geoforum* 115: 1–10. doi:10.1016/j.geoforum.2020.06.012.
- Gudynas, E. 2020. Climate change, extractive activities and gender: Interlinked crises within development. In Indigenous women & climate change, ed. R. S. Santisteban, 43–63. Lima: Servicios de Comunicación Intercultural, Organización Nacional de Mujeres Indígenas Andinas y Amazónicas del Perú, Consejo Harakbut, Yine y Matsiguenka.
- Guèze, M., I. Díaz-Reviriego, R. Duda, A. Fernandez-Llamazares, S. Gallois, L. Napitupulu, P. Perez, A. A. Pyhälä, and V. Reyes-Garcia. 2015. A biocultural approach to conservation: What can conservationists learn from forest use by contemporary indigenous peoples? Policy Br 2, LEK Project. Accessed July 12, 2021. http://icta.uab.cat/ Etnoccologia/Docs/%5B489%5D-pb2en.pdf
- Haesbaert, R. 2012. El mito de la desterritorialización: del fin de los territorios a la multiterritorialidad. Mexico DF: Siglo Veintiuno,
- Hall, D. 2013. Primitive accumulation, accumulation by dispossession and the global land grab. *Third World Quarterly* :37–41. doi:10.1080/01436597.2013.843854.
- Haraway, D. 2015. Anthropocene, capitalocene, plantationocene, chthulucene: Making kin. Environmental Humanities 6 (1):159–65. doi:10.1215/22011919-3615934.
- Hemer, O., M. Povrzanović Frykman, and P. Ristilammi. 2020. Conviviality at the Crossroads. *The Poetics and Politics of Everyday Encounters*. Palgrave Macmillan, Cham
- Isaacman, S., V. Frias-Martinez, and E. Frias-Martinez. 2014. Modeling human migration patterns during drought conditions in La Guajira. In *Proceedings of the 1st ACM SIGCAS Conference on Computing and Sustainable Societies*. New York: Association for Computing Machinery. doi:10.1145/3209811.3209861.
- Kolinjivadi, V., D. Vela Almeida, and J. Martineau. 2019. Can the planet really be saved in Time? On the temporalities of socionature, the clock and the limits debate. *Environment and Planning E: Nature and Space* 3:1–23. doi: 10.1177/2514848619891874.
- Kothari, A., A. Salleh, A. Escobar, et al. 2019. *Pluriverse. A Post-Development Dictionary*, 1st edn. New York: Columbia University Press.
- Leff, E. 2004. Racionalidad ambiental y diálogo de saberes: Significancia y sentido en la construcción de un futuro sustentable. P Rev Latinoam 7:1–35.
- Löf, A. 2013. Examining limits and barriers to climate change adaptation in an Indigenous reindeer herding community. *Climate and Development* 5 (4):328–39. doi:10.1080/17565529.2013.831338.
- Maffi, L., and O. Dilts. 2014. Biocultural Diversity Toolkit. Terralingua: Swift Foundation
- Maida, K. 2018. Extractivism & Indigenous rights: A case study of the Wayuu people and their struggle for water. Master thesis, Brandeis University. Accessed January 5, 2022. https://hdl.handle.net/10192/35677
- Mansilla-Quiñones, P., J. Quintero-Weir, and A. Moreira-Muñoz. 2019. Geografía de las ausencias, colonialidad del estar y el territorio como sustantivo crítico en las epistemologías del Sur. Utop y Prax Latinoam 24:148–61. doi: 10.5281/zenodo.3370675.
- Martinez-Alier, J. 2014. El ecologismo de los pobres: conflictos ambientales y lenguajes de valoración. Santiago: Quimantú.
- Masterson, V. A., J. P. Enqvist, R. C. Stedman, and M. Tengö. 2019. Sense of place in social ecological systems : from theory to empirics. *Sustainability Science* 14 (3):555–64. doi:10.1007/s11625-019-00695-8.

- Melin, M., P. Mansilla, and M. Royo. 2019. Cartografia Cultural del Wallmapu: Elementos Para Descolonizar el Mapa en Territorio Mapuche, 1st edn. Santiago: LOM Ediciones.
- Méndez, M., and H. Romero. 2020. Territorios hidrosociales en las geografías altoandinas del Norte de Chile: modernización y conflictos en la región de Tarapacá. *IdeAs Idées Ideas* 15 (15):1–28. doi:10.4000/ideas.7512.
- Millaleo, A. 2011. Chile: El Witral, la escritura ancestral de las mujeres mapuche. Temuco. Accessed February 10, 2022. https://www.servindi.org/actualidad/41425.
- Mills-Novoa, M., R. Boelens, J. Hoogesteger, and J. Vos. 2020. Governmentalities, hydrosocial territories & recognition politics: The making of objects and subjects for climate change adaptation in Ecuador. *Geoforum* 115: 90–101. doi:10.1016/j.geoforum.2020.06.024.
- Mires Ortiz, A., and Red de Bibliotecas Rurales de Cajamarca 2017. La Tierra cuenta. Oralidad, lectura y escritura en territorio comunitario. *Revista Interamericana de Bibliotecología* 40 (1):95–103. doi:10.17533/udea.rib. v40n1a09.
- Molden, O. C. 2020. Short Take: Story- mapping Experiences. Field Methods 32 (2):131-9. doi:10.1177/ 1525822X19877381.
- Moreira-Muñoz, A., F. Carvajal, S. Elórtegui, and R. Rozzi, 2019. The Chilean biosphere reserves network as a model for sustainability? Challenges towards regenerative development, education, biocultural ethics and ecosocial peace. In UNESCO Biosphere Reserves: Supporting Biocultural Diversity, Sustainability and Society, ed. M. Reed, M. Price, 61–75. Routledge.
- Morgan, R. A. 2017. The anthropocene as hydro-social cycle: Histories of water and technology for the age of humans. ICON 23:37–53.
- Muir, C., D. Rose, and P. Sullivan. 2010. From the other side of the knowledge frontier: Indigenous knowledge, social–ecological relationships and new perspectives. *The Rangeland Journal* 32 (3):259–65. doi:10.1071/ RJ10014.
- Niño, H. 1998. El etnotexto: Voz y actuacion la oralida. *Revista de Crítica Literaria Latinoamericana* 24 (47): 109–21. doi:10.2307/4530969.
- Norström, A. V., C. Cvitanovic, M. F. Löf, S. West, C. Wyborn, P. Balvanera, A. T. Bednarek, E. M. Bennett, R. Biggs, A. de Bremond, et al. 2020. Principles for knowledge co-production in sustainability research. *Nature Sustainability* 3 (3):182–90. doi:10.1038/s41893-019-0448-2.
- Panez-Pinto, A., P. Mansilla-Quiñones, and A. Moreira-Muñoz. 2018. Agua, tierra y fractura sociometabólica del agronegocio. *Bitácora Urbano Territorial* 28 (3):153–60. doi:10.15446/bitacora.v28n3.72210.
- Parra, S. V. 2019. The water rights-based legal mobilization of the wayúu against the cercado dam : An effective avenue for court-centered lawfare from below ?*
- Petheram, L., N. Stacey, and A. Fleming. 2015. Future sea changes : Indigenous women 's preferences for adaptation to climate change on South Goulburn Island, Northern Territory (Australia). *Climate and Development* 7 (4): 339–52. doi:10.1080/17565529.2014.951019.
- Porto-Gonçalves, C. W. 2009. De Saberes y de Territorios: diversidad y emancipación a partir de la experiencia Latino-Americana. *Polis Revista Latinoamericana* 8:121–36.
- Porto-Gonçalves, C. W. 2006. El agua no se niega a nadie.
- Pretorius, R., and J. Fairhurst. 2015. The Role of Geography in Multi-inte-trans-disciplinary Study Programmes for Environmental Sustainability. In *Transformative Approaches to Sustainable Development at Universities*, ed. W. Leal Filho, 435–48. Bern: Springer International Publishing.
- Querejazu, A. 2016. Encountering the pluriverse: Looking for alternatives in other worlds. *Revista Brasileira de Política Internacional* 59:e007.
- Quintero-Weir, J. 2016. El último despojo después de la tormenta. Cambio climático, desaparición de la casa y extinción de la territorialidad añuu. Cuatro advertencias y un camino, ed. C. W. Porto-Gonçalves, 23–42. Abya Yala, Buenos Aires: Despojos y resistencias en América Latina.
- Quintero Díaz, R. 2010. Simbolismo del agua en el jagüey "Chino Julio": aproximación fenomenológica del espacio. Opción 26:80–92.
- Reid, H. 2016. Ecosystem- and community-based adaptation : learning from community-based natural resource management. *Climate and Development* 8 (1):4–9. doi:10.1080/17565529.2015.1034233.
- Rincón, E., N. Acosta, C. Añez, and J. Rincón. 2016. Petróleo y desarrollo en Venezuela: Un balance a 100 años de su explotación. Período 1914–2014. *Multiciencias* 16 (1):28–38.
- Rivera Cusicanqui, S. 2012. Violencias (re)encubiertas en Bolivia. Santander: Otramérica.

- Rocha, R., P. Hoogendam, J. Vos, and R. Boelens. 2019. Transforming hydrosocial territories and changing languages of water rights legitimation: Irrigation development in Bolivia's Pucara watershed. *Geoforum* 102:202–13. doi:10.1016/j.geoforum.2019.04.012.
- Romero Díaz, M. P. 2018. Derecho al agua y al territorio como derecho fundamental de las comunidades wayúu, vulnerado por la mineria colombiana. Bogotá: Universidad Militar Nueva Granada.
- Sarmiento, F. O., and L. M. Frolich. 2020. *The Elgar Companion to Geography, Transdisciplinarity and Sustainability*, 1st edn. Massachussets: Edward Elgar Publishing.
- Soja, E. 2014. En busca de la justicia espacial. Madrid: Tirant Humanidades.
- Steffen, W., J. Rockström, K. Richardson, T. M. Lenton, C. Folke, D. Liverman, C. P. Summerhayes, A. D. Barnosky, S. E. Cornell, M. Crucifix, et al. 2018. Trajectories of the Earth System in the Anthropocene. *Proceedings of the National Academy of Sciences of the United States of America* 115 (33):8252–9. doi:10.1073/pnas.1810141115.
- Svampa, M. 2019. Antropoceno. Lecturas globales desde el Sur. La Sofía cartonera. Facultad de Filosofía y Humanidades. Universidad Nacional de Córdoba. pp. 5–44.
- Swyngedouw, E. 2005. Dispossessing H2O: The Contested Terrain of Water. *Capitalism Nature Socialism* 16 (1): 81–98. doi:10.1080/1045575052000335384.
- Todd, Z. 2016. An indigenous feminist's take on the ontological turn: 'ontology' is just another word for colonialism. Journal of Historical Sociology 29 (1):4–22. doi:10.1111/johs.12124.
- Toro Henao, D. C. 2014. Oralitura y tradición oral. Una propuesta de análisis de las formas artísticas orales. *Lingüística y Lit* 65:239–56.
- Tsing, A. L. 2015. The mushroom at the end of the world: On the possibility of life in capitalist ruins. Princeton, New Jersey: Princeton University Press.
- Tuhiwai Smith, L. 2016. A descolonizar las metodologías: Investigación y Pueblos Indígenas. Santiago: LOM Ediciones.
- Ulloa, A. 2016a. Feminismos territoriales en América Latina: defensas de la vida frente a los extractivismos. Nómadas 45:123–39. doi:10.30578/nomadas.n45a8.
- Ulloa, A. 2016b. Procesos históricos de exclusión/apropiación de Astrid Ulloa Working Paper Series. doi:10.13140/ RG.2.1.2519.4484
- Ulloa, A. 2020. The rights of the Wayúu people and water in the context of mining in La Guajira, Colombia: demands of relational water justice. *Human Geography* 13 (1):6–15. doi:10.1177/1942778620910894.
- Ulloa, A., G. Damonte, C. Quiroga, and D. Navarro. 2020. Gobernanzas plurales del agua: formas diversas de concepción, relación, accesos, manejos y derechos del agua en contextos de gran minería en Colombia y Perú. Lima
- Uriana, G. M. 2008. Impactos ambientales de la extracción de recursos naturales y el rol de la mujer wayuu frente a los cambios climáticos en el departamento de la Guajira, Colombia. In *Mujeres indígenas y cambio climático. Perspectivas latinoamericanas*, 1st edn., ed. A. Ulloa, E. M. Escobar, L. M. Donato, P. Escobar, 117–22. Bogotá: UNAL-Fundación Natura de Colombia-UNODC.
- Uzendoski, M. A. 2012. Beyond orality: Textuality, territory, and ontology among Amazonian peoples. Hau: Journal of Ethnographic Theory 2 (1):55–80. doi:10.14318/hau2.1.005.
- Varvarousis, A. 2020. The rhizomatic expansion of commoning through social movements. *Ecological Economics* 171:106596. doi:10.1016/j.ecolecon.2020.106596.
- Vidal, M., D. Sietz, F. Jost, and U. Berger. 2018. Archetypes of Climate Vulnerability : a Mixed-method Approach Applied in the Peruvian Andes. *Clim Dev* 0:1–17. doi:10.1080/17565529.2018.1442804.
- Wise, A., and G. Noble. 2016. Convivialities: An Orientation. Journal of Intercultural Studies 37 (5):423–31. doi: 10.1080/07256868.2016.1213786.
- Zalasiewicz, J., M. Williams, A. Haywood, and M. Ellis. 2011. The Anthropocene: a new epoch of geological time? *Philosophical Transactions. Series A, Mathematical, Physical, and Engineering Sciences* 369 (1938):835–41. doi: 10.1098/rsta.2010.0339.
- Zaragocín, S. 2019. La geopolítica del útero: hacia una geopolítica feminista decolonial en espacios de muerte lenta. In Cuerpos, Territorios y Feminismos. Compilación latinoamericana de teorías, metodologías y prácticas políticas, ed. D. T. Cruz, M. Bayón Jiménez, C. M. C del T desde el Feminismo, 81–98. Instituto de Estudios Ecologistas del Tercer Mundo, Bajo Tierra Ediciones y Libertad bajo palabra: Abya Yala.

JOSÉ QUINTERO-WEIR is Lecturer at the Facultad de Humanidades, Universidad del Zulia, Venezuela. E-mail: jqarostomba@gmail.com. He is an indigenous intellectual, harboring a PhD, of the Añu people, recognized both in his country, Venezuela, as in other Latin American countries where he has given workshops and talks. He his commitment to intercultural education from the founding experience of the Autonomous Indigenous University - UAIN and the Indigenous Education Center - CEIN for the training of indigenous students in the secondary cycle.

PABLO MANSILLA-QUIÑONES is Lecturer in Human Geography in the Institute of Geography at the Pontificia Universidad Católica de Valparaíso, Chile. E-mail: pablo.mansilla@pucv.cl. Pablo's research focuses in depopulation processes associated to environmetal conflicts in South America and especially Patagonia, with a special interest in social geography and territorial studies (www.territoriosalternativos.cl...)

ANDRÉS MOREIRA-MUÑOZ is Full Professor in Physical Geography in the Institute of Geography at the Pontificia Universidad Católica de Valparaíso, Chile. E-mail: andres.moreira@pucv.cl. Andrés is developing projects in biogeography and sustainable systems, and the borderline between natural and cultural heritage (www.biogeolab.cl...).