



## The Paths of Water and Their Relations: A Dialogue Between Brazil and Norway

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**Abstract** The formation of ethnic groups is a result of interactions among group members and those from the outside, influencing criteria for valuation. Ethnicity, considered a part of human interaction, shapes the cultural specificities of ethnic groups through the experiential nature of ethnic relations. However, it is not only human interaction that shapes culture—the analysis of human societies should take into account interactions between humans and non-humans, challenging the modern view that attributes agency solely to humans. The environment, with an emphasis on the human-water relationship, plays a crucial role in human life and territory construction, reflecting a recent ontological shift in sociology and parallels with indigenous worldviews. The article explores the profound relationships between humans and non-humans, focusing on two Indigenous communities in Latin America and the Arctic. The two cases include the Aldeia (Village) Maraka'nà in Rio de Janeiro, Brazil and the Alta case in Northern Norway (Sápmi), illustrating issues of ethnicity, autonomy, and territory. Emphasising water's integral role, it challenges traditional notions of territory, offering a richer understanding rooted in Indigenous cosmogonies. The study enriches existing sustainability frameworks, notably the SDGs, highlighting the importance of including Indigenous knowledge in sustainability research. Promoting a decolonising approach to research and an inclusive approach to planetary health, the chapter advocates for the recognition of Indigenous perspectives.

**Keywords** Human-water relationship · Decolonising approach · Planetary health

## 1 INTRODUCTION

### 1.1 *The Interactions That Shape Human Society*

The history of human societies is a history of their interactions. The formation of social groups, such as ethnic groups, is based upon interactions established within the group itself, sharing valuation and judgement criteria, and between actors outside the group, from where distinctions

are fixed.<sup>1</sup> The concept of ethnicity itself can be understood as an aspect of human interaction, in addition to a property of this particular social formation, which is ethnic groups. The cultural specificities—also understanding culture as an aspect of this continuous interaction—of these ethnic groups are influenced by the experiential nature of ethnic relations.<sup>2</sup>

Some of these interactions also occur in the relationship between human and non-human beings. Humans and non-human beings interact daily, from something as simple as turning on the shower to the intricacies of the hunting and gathering practices that Indigenous communities carry out and rely on for their sustenance. Despite these interactions, from a Western perspective, it is only human actors who are endowed with agency and are considered as producers of knowledge.<sup>3</sup> However, to better understand humans and their societies, especially in the context of implementing sustainable behaviours and actions to limit environmental degradation, it is necessary to understand their multiple relationships with non-humans. An analysis of the interactions that form ethnic groups, focused only on human relationships, does not necessarily consider the reality of all human communities since many define themselves based on their relationships with the non-humans that make up their surrounding environment as well.<sup>4</sup>

Human reality is enveloped by the environments in which it unfolds.<sup>5</sup> This environment threatens, involves, allows life, creates differentiation and belonging, or, in other words, establishes relationships between its (non-human) elements and with humans. A fundamental aspect and element of this environment is water and the interaction that humans establish with it. The human-water relationship can be understood as providing a natural resource that is essential to life, placing water as a central non-human element that maintains a constant relationship with

<sup>1</sup> Barth, F. (1976). *Los grupos étnicos y sus fronteras* (Vol. 197, No. 6). México: Fondo de cultura económica.

<sup>2</sup> Eriksen, T. H. (1991). Os contextos culturais das diferenças étnicas. *Revista Man, New Series*, 26(1), 127–144.

<sup>3</sup> Latour, B. (2012). *Reagregando o social: uma introdução à teoria do ator-rede*. Edufba.

<sup>4</sup> Houdart, S. (2015). Humanos e não humanos na antropologia. *Ilha Revista de Antropologia*, 17(2), 013–029.

<sup>5</sup> Ibid. (see footnote 4).

human actors. This perception of non-humans as being in constant relationship with humans is a relatively recent ontological turn in sociology that moves beyond the traditional views of human society as defined by the Anthropocene and modernity. However, it is important to note that special attention to the relationships between humans and non-humans has been present in different native cosmogonies since time immemorial.

These relationships between humans and non-humans are usually the very basis of native or Indigenous worldviews and cosmogonies which shape their territories, ways of knowing, culture and collective identities. However, such a view does not involve a legal-political notion of territory and ownership, which results from a specific conception inherited from the Modernity of the nation-state. Rather, it is a concept of territory as a set of objects and actions, synonymous with human and inhabited space, which can be formed in the contemporary period by contiguous places and networked places. Therefore, this territory is a political and historical construction, it is the ground plus the identity, with territoriality being a quality of belonging to this ground added to the identity.<sup>6</sup> In other words, non-human elements such as water constitute what some human communities consider as territory but not in an individualistic sense that implies ownership—water is territory that forms part of their cultural identity, language, and ways of knowing.

This article seeks to explore the relationship between humans and non-humans to highlight the interconnectedness between humans and the natural environment, a concept that is clear within a planetary health framework and among Indigenous communities but not entirely present or obvious within the Sustainable Development Goals (SDGs). Despite the interconnectedness of the SDGs and the awareness of the complex interplay between economic, social, and environmental factors that impact human societies, the failure to include other types of knowledge (i.e., Indigenous knowledge) in sustainability frameworks does not uphold the promise of leaving no one behind. Indigenous peoples across the globe have lived in harmony with the natural environment and have been protecting and preserving ecosystems since time immemorial, yet their knowledge and worldviews have not been given the platform they rightfully deserve. Focusing on two cases that are situated in Indigenous communities in South America and the Arctic, the relationship between

<sup>6</sup> Santos, M. (2002). *Por uma outra globalização. Do pensamento único à consciência universal*.

humans and a non-human element (i.e., water) will be defined and explored to demonstrate how human society and culture are heavily influenced by interactions with non-human beings. The first case will look at the relationship between the Sámi population of Máze (the Arctic, Sápmi) and the Alta River. The second case will explore the relationship between Aldeia Maraka'nà and the Maracanã River (Brazil). Understanding how these relationships shape issues of ethnicity, autonomy, and territory (which all contribute to the make-up of human society) is crucial to building awareness of the integral role the natural environment plays on shaping human communities and the central aspect these relations play in Indigenous culture.

In this chapter, I will present the relationship between the two communities and the rivers within their territory, travelling between the Sapmi territory, the Alta's case, and the Aldeia Maraka'nà, in Rio de Janeiro. The structure of the chapter also aims for an ontological shift where the focus of the narrative is not on the human aspect of the water-human relationship but on water itself. As a result, the organisational structure of the article follows the physical states of water, flowing from the solid state, snow, to the liquid state, rivers, and finally to evaporation. This, however, does not mark the end, as it is a cycle, but also a new beginning.

## 1.2 *Aldeia Maraka'nà and the Maracanã River*

The South American case study focuses on Aldeia Maraka'nà<sup>7</sup> (“aldeia” is Portuguese for “village”), an urban multi-ethnic Indigenous occupation located in the north of the city of Rio de Janeiro. Neighbouring the Maracanã stadium, this occupation has been taking place in an old building known as the “Old Indian Museum” since 2004, although the space's connection with Indigenous culture predates the museum's creation.

The occupation began, albeit in its early stages of gaining traction and support, in 2004. The year marks the first attempt to occupy the land, motivated by a search for “relatives”, as other Indigenous people commonly call them, and in search of a space to discuss public policies

<sup>7</sup> The name, Maraka'nà refers to the football stadium to which the *aldeia* is neighbouring, the Estádio Journalista Mário Filho, better known as Maracanã. This is a name of indigenous origin, meaning the bird that made a noise similar to the *maraca*, a native instrument played through shaking. It also names the entire surrounding neighbourhood because of the Maracanã River, which bathes the region.

for native peoples in the city of Rio de Janeiro. However, due to a lack of adhesion among the organising group,<sup>8</sup> it only came to fruition in October 2006 after an Indigenous congress at the State University of Rio de Janeiro, next to the building of the former Indian Museum, was conducted by a group of Indigenous people and supporters. Since then, the occupation has gone through several stages: in 2010, the government of the state of Rio de Janeiro began making plans to demolish the mansion to reformulate the Maracanã stadium, neighbouring the occupation of the same name. The construction works were necessary to carry out the 2014 Football World Cup. At the time, the occupation received its current name of “Aldeia Maraka'nà”. In 2013, the building was vacated by police forces and then it was once again occupied by Indigenous people in 2017. The status of the occupation and those present have ebbed and flowed since its inception, but the Indigenous community has continued to persist and show resistance.

Neighbouring the polluted Maracanã River, which has the Tijuca Massif as its mouth and flows into Guanabara Bay, the issue of access to water has always been an important point in the life and permanence of the occupation. Before the eviction, the Indigenous people depended on the donation of water and electricity by LANAGRO, a unit of the National Agricultural Laboratory (LANAGRO), linked to the former Ministry of Agriculture, Livestock and Supply (MAPA), which shared the former land of the Indian Museum with the occupation. However, after the eviction in 2013 and the demolition of the LANAGRO unit as part of the urban plan for the region, the Indigenous people, upon returning to occupation in 2017, began to depend on water trucks for their activities. As a result, daily bathing, cooking, and use of the bathroom were dictated by the availability or otherwise of water from the water truck, which was periodically shared between Indigenous people and supporters of the Aldeia.

### 1.3 *The Sámi and the Alta River*

The case of human and non-human relations in the Arctic region narrows in on the area of Alta in northern Norway, which has been inhabited by the Sámi since at least the sixteenth century, according to records from the

<sup>8</sup> Santos, V. P. D. (2016). A resistência da Aldeia Maracanã: um ponto de oxidação pela “revolução ferrugem”.

early 1700s of commercial fish exchanges between Sámi and the western part of northern Finnmark. During this period, the Sámi economy began the process of modifying its structure, combining fishing with reindeer herding, changing the ancient custom of hunting these animals.<sup>9</sup>

It is also possible to find even older records of the Sámi presence in the Alta region, especially in the Alta River, where migration records from 1593 indicate the Sámi migration from the Alta fjords to the river for salmon fishing.<sup>10</sup>

It can be noticed, then, that the Sámi's relationship with the Alta region is very old and deeply intertwined in their culture and ways of knowing. The Sámi collective identity itself is intimately related to the narratives created about these common spaces where the Sámi circulated in Sápmi, their territory, and go beyond a national identity that is linked to the modern concept of the nation-state.<sup>11</sup>

This special relationship between the Sámi and the Sápmi territory of Alta was the motivation for a series of protests between 1979 and 1982 against the creation of a hydroelectric plant in the region, which would imply the construction of a large dam in the place of a Sámi community, the village of Mazé. This act of resistance was the first great act for the right to Sámi self-determination and is considered a landmark for the formation of contemporary Sámi collective identity.<sup>12</sup>

Unfortunately, the hydroelectric plant was eventually built, after intense protests and legal battles, but on a much smaller scale than originally planned. Furthermore, the mobilisation and formation of Sámi political activism was considered to be a great political victory, gaining high visibility within Norway and across the globe.

<sup>9</sup> Hansen, L. I. (2017). Perspectives on Sámi historiography. *Arktika i Sever* (27), 103–126. <http://doi.org/10.17238/issn2221-2698.2017.27.117>.

<sup>10</sup> Ibid. (see footnote 9).

<sup>11</sup> Viallon, M. (2018). “We Are the Land and the Land Is Us”—Analyzing the Construction of Sami National Identity in Sami Political Discourse on Land and Natural Resources.

<sup>12</sup> Viallon, M. (2018). “We Are the Land and the Land Is Us”—Analyzing the Construction of Sami National Identity in Sami Political Discourse on Land and Natural Resources.

## 2 MUOHTA<sup>13</sup>: THE SNOW ON THE GROUND AND WHAT IT TELLS

Glaciers can be understood as history books. The different layers of ice in an ancient glacier show us climatic, soil, and temperature conditions from distant times. This happens because ice forms differently depending on temperature, pressure, pollution, solar radiation, winds, and other weather conditions.

Ice, snow, frost, glaciers, freezing, and blizzards are an important part of the Sámi culture and way of life. According to them, the location of the Sápmi ancestral territory, on the northern border of Norway, Sweden, Finland, and Russia, favours this close relationship with water in its most solid state and low temperatures and has enabled their traditional way of life since time immemorial.

This relationship with ice has yielded an ancient traditional knowledge system about the region's climatic conditions that underpins and enables the Sámi way of life in the place. The climate and snow are decisive for the survival condition of reindeer, an animal whose herding is fundamental in the Sámi social organisation, and for this reason, they are watched very closely.<sup>14</sup>

Knowledge about ice and snow, the ability to read the weather daily, predict the snowfall season, and observe the herd's relationship with the snow and their grazing location are essential for successful reindeer herding. This knowledge, passed from generation to generation, forms a system of knowledge about ice and snow that is unique to the Sámi.

To communicate this system, they use the Sámi language, which expresses all the complexities of traditional knowledge regarding ice. It has at least 318 concepts related to ice and snow, with words to designate different types of snow and snow conditions.<sup>15</sup> In this sense, this relationship established between the Sámi people and the snow in their territory influences the cultural specificities of their ethnic group, influencing their way of life, their traditional system of knowledge, and their language.

<sup>13</sup> Muohta is a northern Sámi word that can be translated as “snow in the ground”.

<sup>14</sup> Eira, I. M. G. (2022). Understanding Sámi reindeer herders' knowledge systems of snow and ice. *The Sámi World*, 181–196.

<sup>15</sup> Eira, I. M. G. (2022). Understanding Sámi reindeer herders' knowledge systems of snow and ice. *The Sámi World*, 181–196.



Understanding ice also includes the knowledge system about reindeer herding, as this would not be possible without a deep awareness of the climatic conditions. They shape a Sámi way of thinking, encompassing a range of disciplines such as geology, geography, meteorology, hydrology, biology, topography, animal welfare, herding, and adaptation strategies to climate and terrain.<sup>16</sup>

Therefore, each type of snow conceptualised by the Sámi language provides unique knowledge about the environment in which they are and how this snow affects the herd, bearing in mind that snow is enormously affected by climatic conditions such as wind, temperature, atmospheric pressure, and solar radiation. Accurate analysis of the first snowfall of the season, for example, is essential to understanding what winter will be like, since the conditions in which the snow first precipitates provide distinctive layers of ice on the ground. This affects the pasture where the snow falls in different ways. In addition, reading the different layers of snow and ice that cover the ground in different areas during different times of the year is also essential. It is worth highlighting that both snow and ice are dynamic concepts that vary concerning time, climatic conditions, and location, reflecting the holistic understanding of Sámi regarding these elements in their territory.<sup>17</sup>

The freezing of lakes and rivers is also an important part of this knowledge system. For years, Sámi groups have monitored the freezing of these bodies of water in their territories, categorising different types of phenomena, according to the possibility of commuting over the ice or danger to livestock and their shepherds.<sup>18</sup>

This close relationship with ice and snow, as well as the observance of the climatic conditions in which they form, makes the Sámi a group especially attentive to climate change. Such variations in the Arctic Circle tend to be greatly felt by communities and their animals, affecting the period of snowfall, the temperature at which the ice that covers the ground forms, the freezing of bodies of water, and the depth and duration of snow layers on the ground.

<sup>16</sup> Ibid. (see footnote 13).

<sup>17</sup> Ibid. (see footnote 13).

<sup>18</sup> Ibid. (see footnote 13).

According to interviews held with Sámi, there is a consensus that the thickness of snow layers, the freezing of bodies of water, and the temperatures at which the first snowfalls occur have been greatly affected in the last 20 years. These changes affect both Sámi history, considering the melting glaciers as lost history books, and the ability of the Sámi to maintain their territory within a traditional way of life.

### 3 YBY<sup>19</sup> AND JOHKTA<sup>20</sup>: THE RIVER AND ITS RESOURCES

As seen so far, access to water is a condition for survival and building autonomy for any given indigenous community over its territory. However, it is important to note that the view of water as a mere natural resource to be used is closer to a modern and anthropocentric worldview, to which elements of nature matter to the extent that they serve human communities.

In the context of Indigenous communities outlined in this chapter, the meaning of water goes beyond the capitalistic, western notion of a “natural resource”; water is a non-human element in close relation to humans that is capable of influencing how people experience the territory, and how they conceptualise their collective identities and define their belonging to it. The interactions between people and water, as seen with the Aldeia Maraka’na and the Sámi people, contribute to the culture, community values, and social organisation of their societies, in addition to its property as a natural resource. This section intends to tell the story of the relationship between people and water, highlighting the interconnectedness between humans and the environment and the impact they both have on the well-being of each other.

<sup>19</sup> Yby is the Tupi word for river.

<sup>20</sup> Johkta is the northern Sámi word for river.

### 3.1 *Yby*

Water and bodies of water have always played an important role in the lives of Indigenous peoples, especially Tupi groups<sup>21</sup> living in the tropical forest. Rivers were and are a privileged habitat, providing food and means of transport. An example of this relationship is demonstrated by the Tupinambá, one of the Tupi groups from the Rio de Janeiro region, in the sixteenth century, considered by missionaries and colonisers to be excellent swimmers and fishermen. The *piracema* season—the time for the reproduction of fish—was associated with a period of festivals in the *aldeias*, highlighting the river as a source of food.<sup>22</sup>

This characteristic of *piracema* being associated with festivals in the *aldeia* also highlights the influence that this non-human actor had on the cultural specificities of this group. In addition to the festivals associated with *piracema*, we could also cite as an example the Enchanted of rivers and bodies of water that populate the narratives of coastal Tupi groups regarding their relationship with rivers, seas, lakes, and lagoons, such as Ipujiara,<sup>23</sup> Iara,<sup>24</sup> and Baétata.<sup>25</sup>

The influence is also seen in the toponyms of places, as is the case of the Maracanã region, named after the Maracanã River that bathes the entire area. Despite being a polluted river nowadays, it is possible to imagine the importance of this watercourse for the Tupi populations that inhabited the Guanabara region during the Portuguese invasion, the Temiminós and Tamoios groups.

In this sense, the pollution of the Maracanã River is also an obstacle to the construction of collective autonomy in Aldeia Maraka'nà. The lack of access to the river as a source of food, water, and transportation, and the denial of access to the municipal water and sewage network after

<sup>21</sup> Indigenous groups along the coast of Brazil who spoke languages from the same linguistic family (Tupi-Guarani) and often shared similar cultural traits.

<sup>22</sup> Prezia, B. A. G., & Dick, M. V. D. P. D. A. (1997). Os indígenas do planalto paulista: etnônimos e grupos indígenas nos relatos dos viajantes, cronistas e missionários dos séculos XVI e XVII.

<sup>23</sup> According to Tupi oral tradition, Ipujiara was a seaman who lived on the coast of Brazil. His name can be translated as “he who is in the water”.

<sup>24</sup> According to Tupi oral tradition, Iara or Mãe d'Água, meaning “mother of water”, seduced men and drowned them in rivers.

<sup>25</sup> According to Tupi oral tradition, Baétata is a creature resembling a fire snake that appeared on beaches at night. Its name can be translated as “fire thing”.

the demolition of LANAGRO imposed the need to purchase water from water trucks for consumption, altering the cultural specificities of ethnic groups that occupy the space. A recurring joke among them is the need to “go fishing on the Extra River”, in reference to buying fish at the nearby supermarket instead of fishing them.

Even so, despite some of the occupants’ disbelief in the viability of river water, a well was built in the *aldeia* and is capable of capturing groundwater. Despite not being suitable for human consumption, it is not as contaminated as river water and can be used for household chores, the bathroom, watering plants, and offering it to pets, reducing the need to purchase water trucks.

However, even with access to water through the well, the occupation still faces difficulties. As stated by one of the occupants, it is possible to tell the story of Aldeia Maraka’nà only through the water. Pumps, considered the “heart of the Village” and necessary to take water from the well to water tanks that supply the bathrooms, are frequently stolen. Hence, building autonomy becomes a dynamic process both from the relational point of view of collective construction and from the practical point of view of the need to obtain resources for the survival of the occupation.

### 3.2 *Johkta: Ellos Eatnu*

The Johkta River in Alta, Sápmi region, shared a comparable history with the Yby. Similarly to the Yby River, The construction of the dam on the Alta River affected both the reindeer herds, salmon fishing, and the quality of the river, and impacted the lives of the residents of the Mazé village and the local ecosystem.

The dam construction project represents both this difference in the modernist worldview of the Norwegian state, of the river only as a resource to be used, and the developmental and neo-colonial project undertaken by this state in the Sápmi region, marginalising other world-views and knowledge.

The Norwegian State understood the Alta River valley as an empty area, not used for agriculture, not linked to any particular form of life,

and, therefore, worthless. With that, flooding wouldn't be a problem.<sup>26</sup> This point of view is contested by Sámi in the region:

Sometimes land is not used for some time, but it may be used again at some point. It does not cease to be part of the territory because it is not used. Sometimes it is used only as a passage, but it also has its importance.—E.V., 73 years old, Sámi resident<sup>27</sup>

The village of Mazé was responsible for large reindeer herds, a pastoral activity closely linked to the Sámi identity, and the Alta River was part of the migration route of approximately 40,000 reindeer. The flooded areas were used as a nursery by these reindeer.<sup>28</sup>

Furthermore, the construction of the hydroelectric plant involved the construction of transport infrastructure, roads, and highways, which had secondary effects on the migration route of reindeer in the area.<sup>29</sup>

The Sámi notion of territoriality is notably distinct from the 'Western' concept. For the Sámi, tracing boundaries between different places is a complex task, as their activities are intrinsically linked to the changing circumstances of nature. This means that the areas in which they carry out their activities can extend and overlap with territories belonging to other groups. Furthermore, social reciprocity plays a fundamental role in everyday life and activities.<sup>30</sup>

*Siida*, understood as a territorial concept, represents this deep connection with the environment and the community. Within Sámi circles, ecological factors such as animal behaviour, climatic conditions, snow, and pastures are essential elements in defining the territory. Likewise, social factors such as kinship and partnerships play a significant role in

<sup>26</sup> Briggs, C. M. (2006). Science, local knowledge and exclusionary practices: Lessons from the Alta Dam case. *Norsk Geografisk Tidsskrift/Norwegian Journal of Geography*, 60(2), 149–160.

<sup>27</sup> Interview conducted by Natalia in November 2023.

<sup>28</sup> Briggs, C. M. (2006). Science, local knowledge and exclusionary practices: Lessons from the Alta Dam case. *Norsk Geografisk Tidsskrift/Norwegian Journal of Geography*, 60(2), 149–160.

<sup>29</sup> Briggs, C. M. (2006). Science, local knowledge and exclusionary practices: Lessons from the Alta Dam case. *Norsk Geografisk Tidsskrift/Norwegian Journal of Geography*, 60(2), 149–160.

<sup>30</sup> Helander, E. (1999). Sami subsistence activities—Spatial aspects and Structuration. *Acta Borealia*, 16(2), 7–25.

how the Sámi understand and establish their territory. Combining these aspects shape a unique perspective on territoriality, where the relationship between the natural environment and social relations is intrinsically intertwined.<sup>31</sup>

However, the slogan of Sámi activists against the construction of the dam was not so much about the impact on human life, but rather the impact on the river itself. The words “Ellos Eatnu” in Sámi, or “la elva leve” in Norwegian, can be translated as “river runs”, exemplifying this other Sámi relationship with the river.

Sámi spirituality emphasises the physical and spiritual relationship and connection between humans and elements of nature. It understands the human not as opposition, but as part of the so-called nature, which, for them, is a relational concept that implies reciprocity and indivisibility of the human being with nature.<sup>32</sup>

The need for movement is also a very present idea in Sámi cultural specificities. Originally a semi-nomadic people who followed the migration of wild reindeer, even after their sedentarisation, influenced both by the colonisation of the Scandinavian states and by socioeconomic changes, they continue to follow the migration of their herds.

Nomadism in the Arctic is closely linked to the issue of indigeneity. This way of life generates a different relationship with the territory, understanding humans as part of that territory, whereas the relationship established between sedentary settlers is fixed and centralised in the metropolis.<sup>33</sup>

The sedentarisation of the Sámi population was also a state enterprise. In the eyes of the public authorities, sedentarisation in the nineteenth century separated the Sámi population from the “civilized” population. This sedentarisation occurred in an intergenerational process of assimilation.<sup>34</sup>

<sup>31</sup> Ibid. (see footnote 28).

<sup>32</sup> Porsanger, J. (2010). Indigenous Sámi religion: General considerations about relationships. In *The diversity of sacred lands in Europe: Proceedings of the third workshop of the delos initiative–Inari/Aanaar* (pp. 37–46).

<sup>33</sup> Weld, S. P. (2020). Sámi Selves in the Northern Landscape: Nomadism and indigeneity in Swedish classics for children. *Barnlitterært forskningsstidskrift*, 11(1), 1–12.

<sup>34</sup> Kortekangas, O. (2020). The nomads, the settlers and the in-betweens: Nordic clergymen on Sámi livelihoods in the early nineteenth century. *History and Anthropology*, 31(4), 510–525.

We can also understand *joik* as a phenomenon of this understanding of the need for movement. *Joiks* are specific Sámi ways of singing and talking about a relationship. A *joik* attempts to represent the essence of a person, place, or animal through a vocal expression, a melody, not necessarily a fixed lyric.<sup>35</sup>

When you are joiking you are not joiking about the mountain or the wolf, you are joiking the wolf itself. That's why the joik is unique, each one has their own, like a fingerprint. Whether I joik for you is different than how I joik for my mother. Joik also has a lot of its relationship with joiking.—E. V., 73 years old, Sámi resident<sup>36</sup>

The lyrics of a *joik*, if any, change, but not its melody. The lyrics may change depending on who sings and who imprints on them their relationships with what is being sung, be it a place, a person, plants, or animals, but the melody remains the same. *Joik* is a way of both singing and talking about the lives and relationships of these *singers* with the melody and the object of the song.

Like a river, the waters change but their route remains the same; fluidity and permanence go together, as do the migratory flows of the reindeer and Sámi population in the region.

#### 4 EVAPORATION: A DROUGHT THAT BRINGS RAIN

This chapter has demonstrated how the effects of Anthropogenic climate change are felt most abruptly in latitudes in the extreme north and south of the globe, impacting the daily lives of Indigenous communities and the way they relate to the land and water (i.e., non-human elements). The effects of climate change are especially noticeable in these regions due to the increased acceleration of rising water temperatures, biodiversity loss, and changing weather patterns in the north and south.

Aside from the scientific evidence that supports climate change and the rising surface and sea temperatures, this sentiment is deeply felt and experienced by the communities who inhabit these places such as

<sup>35</sup> Hämäläinen, S., Musial, F., Salamonsen, A., Graff, O., & Olsen, T. A. (2018). Sami yoik, Sami history, Sami health: A narrative review. *International Journal of Circumpolar Health*, 77(1), 1454784. <http://doi.org/10.1080/22423982.2018.1454784>.

<sup>36</sup> Interview conducted by Natalia Medici in November 2023.

the Sámi people in northern Norway. The increase in temperature and, consequently, the reduction in frozen areas and the thickness of snow layers affect the reindeer herds cared for by the Sámi. The harsh climatic conditions of the Arctic have created natural selection that is unique and very sensitive to change. The people who live in these environments also develop unique knowledge systems about the territory they inhabit and build their collective identities based on their relationship with the environment. These changes affect both the climate and the social organisation of these communities.

The changes are also felt in different ways in latitudes closer to the Equator. In particular, the population is affected by the effects of river pollution that mark the relationship of modern society with the non-human elements of its environment, seen as resources. Pollution, consequent sedimentation, and reduction of the Maracanã River are obstacles to the construction of collective autonomy for Aldeia Maraka'nà. It changes the way of life and cultural specificities of groups that were once fishermen and are now forced to buy fish and water from external suppliers.

These Sámi and Aldeia Maraka'nà experiences with climate change also refer to other common experiences of these two groups: colonisation, marginalisation, exploitation, and forced assimilation. The changes brought about by colonisation, both environmental and societal, resulted in the marginalisation of these minority groups, exploitation of land and people, and involuntary assimilation of these people. However, as Mignolo<sup>37</sup> points out, the oppressive logic of coloniality also produces energy in marginalised, invisible, and expropriated peoples of distrust and reaction to domination. This energy can be expressed in different forms of resistance, more or less open to colonial logic.

Some of these forms of resistance common to both the Sámi and the Aldeia Maraka'nà are ethnic resurgences, resumptions, and revitalisations of culture. In recent years, the Sámi have experienced a movement to revalue cultural specificities and relations with the territory. Likewise, the Indigenous movement in Brazil has carried out actions to regain territory, also structured by recovering ethnic identity.

<sup>37</sup> Mignolo, W. (2008). El pensamiento des-colonial, desprendimiento y apertura: un manifiesto. *Revista Telar* ISSN 1668-3633, (6), 7–38.



These movements imply a change in the way we see the world. It is no longer a Modern and anthropocentric way of looking at the environment, seeing it as a resource. It is a more relational and holistic logic of understanding the world, overcoming the hierarchical opposition between man and nature. With this, they establish other relationships with the environment that affect non-human elements and shape the collective identities of human groups. Considering the need to combat climate change to guarantee the survival of humanity as a species, this change in perspective is increasingly urgent and necessary.

This chapter set out to follow the path of water in its varied physical states: ice, water, and, finally, evaporation. It is clear how evaporation and resulting drought affect life in different parts of the globe. However, more than the drying up of rivers and the sublimation of glaciers, the Anthropocene also brought drought and the disappearance of forms of life through colonialism and the forced assimilation of peoples.

Recent indigenous mobilisations for recovery and revitalisation, however, remind us that evaporation is not the end of water, but part of a cyclical movement that brings precipitation. Hence, movements to resume and revitalise other forms of life can show the way towards establishing new sustainable relationships with nature and, like rain, allow the continuity of life on the planet.

## 5 CONCLUSIONS

This chapter delves into the intricate dynamics between human societies and non-human beings, emphasising the interconnectedness that is foundational to Indigenous worldviews. By undertaking a comparative exploration of two distinct Indigenous realities, situated in the Arctic region and Latin America, the study sheds light on the profound implications of human interactions with a vital non-human element: water.

In the realms of Indigenous cosmogonies, the relationships between humans and non-humans extend far beyond mere resource provision.<sup>38</sup> These relationships form the very essence of Indigenous territories, ways of knowing, language, culture, and collective identities. This perspective challenges conventional notions of territory as a legal-political construct,

<sup>38</sup> Napoleon, V. (2012). Thinking about Indigenous legal orders. In *Dialogues on human rights and legal pluralism* (pp. 229–245). Dordrecht: Springer Netherlands.

introducing a richer understanding of territory as a dynamic dimension of objects, actions, and identity. The articulation of the human-water relationship is paramount in this research, portraying water not merely as a natural resource but as a constant and integral participant in the human experience.<sup>39</sup> This approach aligns with the ontological shift in ecological legal research that recognises the inextricable ties between humans and their environments, surpassing the Western-centric views rooted in the Anthropocene and the dominance of human beings over nature.<sup>40</sup>

This research proposes a re-reading and enriches the ultimate goal of the Agenda 2030, striving to leave no one behind. By spotlighting Indigenous cosmovisions and their significance in shaping human society and non-human interactions, the study contributes to the ongoing discourse on decolonising research. It calls for a re-evaluation of sustainability frameworks to include Indigenous knowledge, recognising its pivotal role in fostering an integrated and inclusive understanding of planetary health.

As a crucial component of future research endeavours, it is recommended to continue amplifying Indigenous voices, ensuring their knowledge and worldviews are given due recognition and influence. This approach aligns with the principles of inclusivity and acknowledges the valuable contributions Indigenous communities can make towards a sustainable and interconnected future for all.

<sup>39</sup> Along these lines, see Archambault, D. (2021). The indigenous perspective on water: A source of life, not a resource. *Sustainable Industrial Water Use: Perspectives, Incentives, and Tools*, 15.

<sup>40</sup> Poto, M. P. (2022), *Environmental Law and Governance: The helicoidal pathway of participation. A study of a nature-based model inspired by the Arctic, the Ocean, and Indigenous views*, Giappichelli, Torino, p. 159.

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