

Introduction: Water and the Anthropocene in Latin America from the Mid-Nineteenth Century to 1950

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If the eighteenth century can be recognized as the century of the Enlightenment, the nineteenth century must be seen as when Europe materialized the ideas of the project of modernity into practices that visibly transformed the paradigm of the society-nature relationship. Raymond Williams gives an account of the many ideas around nature that have arisen from the fact that human beings think of themselves as entities that can observe and know nature; while presuming they are not a part of it (Williams 1980). Discursively, there were still no references to the “environment” as it is now perceived during this period, but instead, to the natural surroundings: “nature” was dissociated from the human and conceived as an external set of possibilities and resources.

Nature – cleaved into one of the living and one of the phenomena of the surroundings (Foucault 2010) – was thought of as both a supplier of resources and a threat, and what was known about it through the nascent modern sciences demonstrated both an ability and a need to control and subdue it. Technological development, industry, incipient urbanization, and population growth – stemming, among other factors, from scientific advances in medicine – increased the demand for food, water, energy, and materials, creating conditions for the extreme exploitation of natural goods that would result in multiple imbalances and stresses on the Earth System in the twentieth century (Steffen et al. 2005). The period from the second half of the nineteenth to the first half of the twentieth centuries was a space of dizzying change in the relationship with the environment and the conceptualization and imaginaries about nature and water. It was also a period in which, due to the symbolic separation of human beings and nature, the conditions for the great global crises of the late twentieth and early twenty-first centuries were fermented and brewed.

The emergence and consolidation of modernity in Europe had its correlate in the world-colonial system, that is, the world-system that originated with the conquest of America and gave rise to a colonial/modern and Eurocentric capitalism, with a racialized pattern of power (Quijano 2019) based in particular on the coloniality of nature in Latin America and the Caribbean. In the nineteenth century, within the

context of the dominant European nations and the ascendant power of the United States, an international division of nature began to take shape that would result by the turn of the century in the natural world's commodification, inequitable and unequal, inherent in the forms of capitalist relations. The transformation processes of the human-nature relationship were simultaneous with the unequal integration of Latin American societies into the international economic system between the end of the nineteenth and the beginning of the twentieth centuries.

The region of Latin America and the Caribbean – with its newly configured nations that derived from European colonies being still oppressed and inevitably economically dependent due to what Aníbal Quijano has called the coloniality of power and knowledge (Quijano 2019) – was placed in this international division of labor and nature as a supplier of primary goods. Vast stretches of native forests, lush jungles, and other biomes were transformed into plantations or pastures, resulting in a radical modification of ecosystems and the imposition of ways of relating to nature alien to the various groups inhabiting the region.

In this context of reconfiguring territories and changing practices, the perception and conceptualization of water underwent radical transformations. These ways of thinking about and referring to water in the context of nature's scientification have been integrated into the concept of modern water proposed by Linton (2010), which suggests that science allows one to think of water as an object of study and as a quantifiable entity, with characteristics and properties that are independent of the social and cultural relations of human groups and the natural and ecological surroundings in which waterways and bodies are located.

This process of water scientification, within the framework of the consolidation of an international division of nature, led to projects of control and domination in Latin America and the Caribbean, both of the water and the population. This moment constituted the first steps toward a trend of privatizing and regulating water. It would gradually acquire the character of an indispensable resource to sustain the growing production of export agriculture and the demands of urban life that, in the capitals, were increasingly more densely populated. Science and technology became the ways to transform the immense amount of water in the region into a useful and manageable good. During the second half of the nineteenth century, in the nascent liberal Latin American nations, these processes materialized in the construction of dams for water harvesting and later for hydroelectric power generation, the desiccation and modification of river channels for agriculture, the creation of irrigation systems in the countryside, the use of rivers for transportation, and the establishment of distribution and sanitation networks in cities. An extreme case of environmental transformation due to technological intervention was the construction of the Panama Canal, epitomizing the capacity to control nature and displace and force human groups into submission for the sake of progress. These processes are also associated with uprooting local sociocultural contexts and erasing or making invis-

ible other practices and visions of water relations originating from the Indigenous populations.

Together with this vision, the conception of the natural territory of the continent as wild lands of swamps and unhealthy waters populated by disease-carrying Indigenous peoples and Afro-descendants persisted. The ideas stemming from European hygienism led to the modification of domestic and urban practices and the search for regulatory frameworks that would result in the enactment of water laws that, on the one hand, aimed at guaranteeing access to water resources for agricultural producers, fledgling industries, and city dwellers and, on the other hand, sought to regulate both the supply and eviction of waste in urban areas. Inequality and inequity in extractive and consumption processes, access to good quality water, and healthy territories were made real in norms and laws that were, in turn, based on the discourse of progress.

In the interwar period of the 1920s and 1930s and the context of the

widespread social disenchantment after the First World War and the international socioeconomic crisis [...] such essential foundations as universal progress – economic, intellectual, social– that had been established during the nineteenth century in free trade and scientific-technological development [were] called into question. [...] The role of science [was] now a condition of possibility for a massive and standardized mode of production, dependent on the instrumentation of knowledge using technology. (Herrera-Lima 2018: 153–154).

It was during this period that the scientific and technical foundations for what would later be the polymer industry developed in Europe and the United States, resulting in the mass production of plastics in different forms and manifestations (Watson 2007). During this same period, there were also advances in industrial applications of chemical processes that would result in the ability to produce highly toxic insecticides, pesticides, and fertilizers. The automobile's integration into urban areas as an essential means of transport was also introduced. These advances in science and technique were shown at the 1939 New York World's Fair with spectacular displays and speeches that heralded the possibility of mastery and control; above all, however, was the idea of going "beyond nature": of emulating, designing, and challenging it by producing elements that had not previously existed in the natural surroundings (Herrera-Lima 2018; Rydell 1993). In this way, the massive production of non-biodegradable waste and pollutants began, which would lead, in the medium term, to large-scale pollution and degradation of air, land, and bodies of water, from oceans to groundwater. Also, fossil fuel use for transportation and production became more widespread and normalized towards the first half of the twentieth century, which resulted in acute atmospheric CO₂ pollution in the decades since.

The consequences of these actions were inequitably distributed globally, the greatest manifestation of their damages occurring in Latin America and the Caribbean – along with Africa and Asia – which, in the race to development, would later offer favorable conditions for transnational corporations to produce with cheap labor without environmental restrictions in general or regulations for water quality and availability in particular. Monumental sums of plastic and toxic wastes were now arriving by land and water to the most disadvantaged regions of Latin America and the Caribbean without national or international regulatory frameworks to address the problem, thus disrupting the balance of ecosystems and radically changing the practices and ways of life of Indigenous and Afro-descendant population. The vast majority of water bodies in the region now have high pollution levels from agROTOXIC and industrial waste (Garcés Ordoñez et al. 2021).

The second part of the nineteenth and the first half of the twentieth centuries were times of development and configuration of a new paradigm in the relation of human societies with nature in general and with water in particular, leading to the critical conditions that characterize the Anthropocene today. In these dependent regions – being economically subordinate suppliers of primary goods and subject to predatory and extractive practices – socio-water crises resulting from the articulation of multiple factors that constitute the modern water paradigm were exacerbated. Many resistances, social movements, conflicts, material struggles, and symbolic disputes over water also took shape. While modernity and Anthropocene are not synonymous, they are indeed of the same substance.

Translated by Eric Rummelhoff and revised by Luisa Raquel Ellermeier.

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