Land Use in the Southern Cone from the Mid-Nineteenth Century to 1950

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This chapter analyzes the genesis of legal and agronomic "modernity" in a territory that generally had low density human occupation and exploitation during the colonial period until the middle of the twentieth century. The chapter discusses the role of the state, the private sector, and Indigenous groups, differentiating the forms of land use in relation to productive activities in the subregions. It should be noted that the period under study coincides with the fall of the colonial empires (Spanish and Portuguese) and the birth and consolidation of the nation states. For this reason, the chapter focuses on explaining the modalities in which a system of exploitation was established in four countries: Chile, Argentina, Uruguay and Brazil.

Within this framework, it presents a critical view of the process of insertion of the Southern Cone into the world market and the impacts this has had on the natural and human environment of these territories. Native groups and ecosystems were extinguished or profoundly modified. These transformations occurred with such magnitude, accompanying a set of changes in global and planetary ways of life and consumption, that they are considered as defining a new geological era: the Anthropocene. It can be noted that the Spanish Empire's logic of territorial occupation was challenged by the other European powers from the seventeenth century onwards. This situation intensified in the eighteenth century when large areas of formal domain became contested and, in some cases, occupied by the French and English. The pressures exerted by these powers – mainly England – and by the new economic theories on the role of agriculture and trade led Spain to redefine the colonial spaces and their functions. Metallism no longer reigned unanimously as an economic theory. This is evidenced by the creation of the viceroyalty of the Río de la Plata (1776), the encouragement of slavery, and the "plantation" model for Cuba and Puerto Rico. Although the transformation that began to be envisioned in government treaties, took a long time to occur, it indicated a change of direction that involved a new understanding of the American territory, its spatial occupation, and the role of natural resources.

In the second half of the eighteenth century, Spain and Portugal were involved in boundary treaties that sought, finally, to discern and differentiate their American

domains. Although the territorial delimitation policy covered the entirety of both empires, it had one of its most difficult chapters in the Río de la Plata in the southern part of Portuguese America. The Treaty of Madrid of 1750, its annulment in 1761, the Treaty of San Ildefonso of 1777, and the occupation of Santa Catarina and the Colonia de Sacramento all involved disputes for the control of this portion of the continent and the resources contained therein: men, herds, yerba mate, etc. This, additionally, entailed rights to the accessibility to the interior of the continent through the network of rivers that make up the La Plata basin. The border treaties also included territorial water rights. Spain had lost access to the waters of Newfoundland, a fishing area dominated by England since the Treaty of Utrecht. Thus, the disputes over the American territories also included the possibility of exploiting maritime resources such as whales and gadiformes that could replace cod, imported in large quantities by Spain. The interoceanic passage was also disputed towards the end of the eighteenth century because it allowed access to the Pacific and, therefore, the possibility of connecting the East Coast of the United States with the Pacific Coast of the same continental block. For this reason, the Captaincy General of Chile gained strategic value in this period. In 1795, Spain and the United States signed a treaty on borders and navigation. The United States, in whose seas whales were becoming scarce, was very interested in marine mammals such as seals and sea lions, which were abundant in the Atlantic and South Pacific.

The independent states adopted Enlightenment ideas about the wealth of nations linked to both trade – perhaps the most widespread among the balance of ideas that fueled the revolutions –, agriculture and livestock, and the legal forms that were to accompany the process of putting land into production: private property (Moraes 2015). At the time when the independence movements were gaining strength in the first decades of the nineteenth century, the reconversion of the political-administrative divisions of the colonial era into nation-states began to be at stake. However, at the same time, a period of internal rearrangements began to take place in the viceroyalties and territorial subdivisions, with the oligarchies being decisive in the disputes over the distribution and nomination of these territories.

Thus, notions of land use began to change. New economic ideas, such as those disseminated in the Río de la Plata by Hipólito Vieytes, proposed an agriculture practiced in modern terms from an agronomic and legal point of view. From the time of independence, individual private property was sought to guarantee exclusively economic uses, devoid of the symbolic and economic prestige of the former regime or the "wild" uses of the native peoples. But the very revolution that propelled these ideas hindered their realization. The prolonged war created unavoidable urgencies. The set of liberal "postponements" between 1810 and 1850 was called a "long wait" by Tulio Halperín Donghi (2008). Although this idea is relativized and criticized today, from the perspective of environmental impact, a real transformation in land

use took place in the mid-nineteenth century, for which the instruments of liberal rationality were necessary: agronomic science and private property.

As Jason Moore (2010) puts it, every major wave of capitalist development has been paved with cheap food. As industrialization in core countries deepened in the 1850s, the demand for raw materials and food intensified. Would it be appropriate to place the starting date of this process in 1846, when England abolished the Corn Laws? Up to that date, England had protected its landowners by limiting grain imports and forcing the industrial sector to "subsidize" rural income through factory wages. The grain trade liberalization in England opened a new stage in the world food trade.

In the mid-nineteenth century, the countries of the Southern Cone reconfigured the forms of land appropriation, legislating on the modalities of transferring public equity to the private sector, supported by internal colonization processes. Land legislation was passed, and the lands occupied by native peoples were included in the new stocks transferable to private individuals. In the new institutional arrangement, national territories – and their populations – were defined as homogeneous and available for capitalist production, making invisible the Indigenous presence and their particular land use practices. During the first half of the nineteenth century, while liberal ideas and proprietary concepts strengthened – exclusivism, inviolability, and free use –, ancestral forms of land tenure persisted throughout the territory.

The second half of the century reconciled legal innovations with agronomic developments. New practices for cultivation and soil utilization, species improvement, and the incorporation of productive technologies mark the insertion of the region's countries in the international market. Likewise, each territory began a process of productive specialization, which in many cases was the continuation of what was already being done in colonial times. This process was accompanied by a transformation in social and productive relations. In both cases, these two moments precisely mark the beginning of the global process of capitalist acceleration and the moment of consolidation of the Anthropocene. The transformation of nature was intensified as modern conceptions of private property and agronomic science solidified.

Brazil, the Mercantile Use of Land from the Colonial to the Independent Period

In the second decade of the nineteenth century, when Brazil became independent, the land actually occupied by the empire was a more or less narrow coastal strip, with some deeper penetrations, such as those caused by the mining exploitation in the early eighteenth century, fluvial transportation – such as in the Amazon and Paraná basins, or the Plata basin –, and the extensive cattle raising that widened the terri-

tory towards the *sertões*. When the constituent deputies met in 1823, after independence was declared, to produce the country's most important body of law, they did not risk defining its western boundary. They defined the territory of the empire as that between the mouth of the Oyapock River to the north and 33 degrees south. It is worth clarifying that this constitution was never valid, because the emperor overthrew it and sanctioned another body of fundamental laws.

In 1850, when the parliament discussed the first public land law, the deputy Baptista de Oliveira said that the occupied area in that moment should not exceed 8 percent of the Empire's territory. It is clear that Brazil, like other Latin American countries, entered independent life with sovereignty over a territory much larger than that which was effectively under its dominion, explored, populated, or occupied. By the second decade of the nineteenth century, large areas of the nation's territory, relatively close to the major population centers, were under Indigenous control and occupied by economically invisible populations. These territories were called "empty spaces" by the colonizers, vacant lands that would be incorporated into the capitalist land tenure regime. This made it possible for the legislator to state that only 8 percent of the territory was occupied, counting only the areas occupied by agriculture for the domestic and export markets.

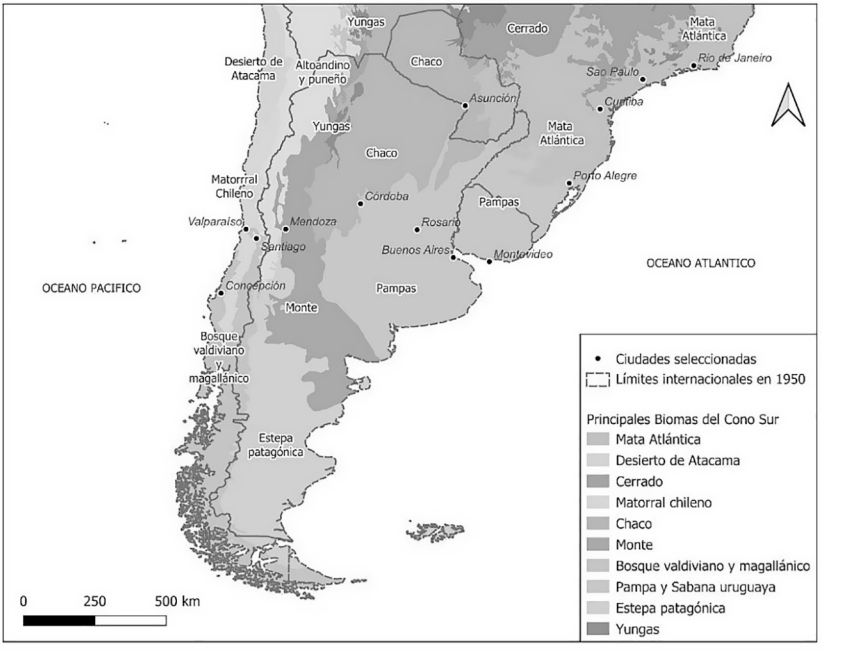
Colonial agrarian systems had allowed the existence of two models living side by side, systems that were in some way mutually supportive and that lasted until the end of the nineteenth century. These were, on the one hand, large slave properties producing exportable goods such as sugar and coffee and, on the other hand, the small and medium-sized plots that supplied the domestic market and also used slave labor, although on a smaller scale.

The agrarian frontiers moved in step with the advance of both systems. The nineteenth century saw export products opening up agricultural spaces in the Atlantic Forest, a forest biome present in the current states of Alagoas, Bahia, Ceará, Goiás, Mato Grosso, Minas Gerais, Paraíba, Paraná, Pernambuco, Piauí, Sergipe, Rio Grande do Norte, Rio Grande de São Pedro, São Paulo, Rio de Janeiro, Espírito Santo, Santa Catarina.

For a very long time, humans lived in tropical and subtropical forests. The relationship between the native peoples and these biomes was durable, although it involved practices of deforestation and controlled fire management. The Portuguese occupation created a pronounced imbalance by increasing the rate of logging. The exploitation of the native brazilwood (the name given to several species of the genus *Paubrasilia*) and its near extinction is one example of the relationship that was established with the flora after the conquest. This southern portion of South America was called the land of Santa Cruz but later received the name Brazil, given its identification with the dye wood. The red pigment derived from the bark of this tree was in great demand in Europe. Great painters such as Raphael, Rembrandt, Pietro da Cortona, and Van Gogh used the red obtained from the bark of brazilwood. These

pigments were used until the nineteenth century, when synthetic pigments replaced them. As in other extractive forestry exploitations, production was taken to the extreme, causing the near extinction of the species.

Fig. 1: Main Biomes of the Southern Cone and Contiguous Regions



Source: Facundo Rojas (2023).

It was not only in extractive activities that this relationship of destruction of the natural environment was seen. The sugar plantation model was highly devastating. The forest was the "fuel" first for the Portuguese colonial agricultural model and later for the Brazilian State. The land was prepared for cultivation on its ashes, and its firewood fueled the mills to produce refined sugar. The boundaries of sugar production did not constitute a continuous or homogeneous frontier, rather its bounds were composed of a group of territories located on the northeast and southeast coast. The cultivation areas were not far from the coastal ports that connected to the slave trade routes and the markets for tropical goods. The scales of these farms could be very different, but they all developed around the use of slave labor. Thus, it created a doubly devastating agriculture for the environment and for humans. Parallel to the plantations, livestock activity developed and became internalized. The mobil-

ity of livestock allowed this activity to develop in regions where export agriculture could not do so due to transportation difficulties. This vocation was first present in the so-called *sertões* in the northeast and the pampas in the south. This livestock activity aimed at supplying, through cabotage, the domestic consumption of salted meat. The mining center of Minas Gerais became very attractive as a consumer pole for food, promoting a supply-oriented hinterland and driving more distant productions. During the Empire, there were no major technical transformations in livestock breeding and processing; extensive grazing and the expansion of the interior frontiers were maintained. It was not until the end of the nineteenth century that some "improvements" were introduced to modernize the sector, which was to undergo major development in the twentieth century, becoming one of the main causes of deforestation since 1970.

By 1760, coffee, originally from the Middle East, was already acclimatized to the environment of Rio de Janeiro. In the nineteenth century, almost coinciding with independence, it expanded, climbing the slopes of the hillsides. In environmental terms, coffee was even more devastating than sugar. Its cultivation at high altitude on the slopes of the sierras caused rapid soil erosion. In the vicinity of Rio de Janeiro, the Tijuca massif was the scene of deforestation on such a scale that it endangered the city's water supply. On the one hand, the aforementioned coffee occupied its slopes. On the other, wealthy courtiers built their residences inside the forest, seeking refuge from the torrid carioca summers. The pressure on the massif responded to the pronounced demographic growth caused by the transfer of the court from Portugal to the American lands. Numerous fugitives arrived from the Napoleonic wars who disputed the scarce urban real estate and the lands surrounding the city. The first measure prohibiting new logging in the water springs of the Tijuca Forest dates back to 1817 (Drummond 1988: 285), and the following year the possibility of expropriation to protect the springs was already being investigated. The effects of coffee cultivation were immediately felt in the city: in 1824, 1829, 1833, and 1844, there were droughts, and the water supply for human beings was limited. After the crisis in 1844, the most fragile areas were expropriated for reforestation. The city's needs brought to light the consequences of coffee monoculture. However, the diagnosis of its effects did not inhibit its spread. By the middle of the century, coffee had already become widespread in the valley of the South Paraíba River, both in the area of Fluminense and São Paulo. Between 1850 and 1900, it further occupied the Zona da Mata Mineira, the region of Campinas, and part of Espírito Santo. Between 1900 and 1950, it occupied central-western São Paulo and northern Paraná (Vale do Ivaí). The expansion of coffee was tremendous and accompanied by great transformations.

In the 1840s, the naturalist Félix Emile Taunay painted a picture entitled *Mata reduzindo a carvão*. In it, one can see the tropical forest being reduced to firewood, to be transformed into charcoal. In one half of the painting, there is the lushness of the forest; in the other, the devastation of logging and fire. In the lush middle,

two people collect water in jars in a stream. On a path that leads through the trees, a man can be seen carrying a mule with barrels of water, while others peek out from behind the large tree trunks. In the other half, on the left side of the painting, the devastated landscape is depicted, where two groups of men, probably enslaved, are at work. Some of the men control the fire on a pyre and others arrange the logs in a pit to later burn them. José Augusto Pádua has reviewed the representative writings of Lusobrazilian political thought between 1786 and 1888 in search of elements that attest to an environmental concern. The author found an expression of concern regarding the possibilities and limitations to guarantee the permanence or durability of economic activities that made use of certain natural resources. The textual concerns raised by Pádua were quite similar to those depicted in Taunay's paintings (Pádua 2002).

Fig. 2: Mata reduzindo a carvão by Félix Emile Taunay (1848).

Source: National Museum of Fine Arts, Rio de Janeiro.

Mule transportation, characteristic of the transport of goods until the middle of the nineteenth century, was replaced by railroads that arose due to the demand from coffee planters who sought land further west and, therefore, farther away from the ports of export. The railroads constituted a new investment opportunity for the capital coming from the São Paulo coffee industry. From 1867 to 1930, a transportation network on steel tracks, consisting of 18 lines, made the export of coffee and the

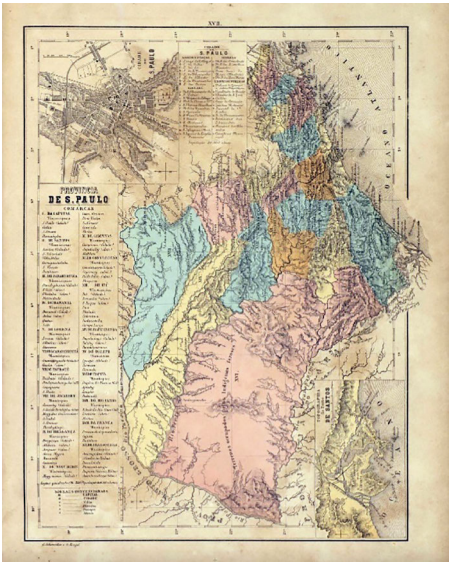
movement of merchandise and passengers possible. This form of transportation allowed the incorporation of lands from the "far" west of São Paulo. The centrality of São Paulo in the production of coffee is evident in the following data: in 1870 its production represented 16 percent of the national total of the rubiaceae, in 1885 the proportion rose to 40 percent. While the railroad lines served the network of the largest population and production centers at the beginning, by the end of the century and into the next, the railroad opened new areas to production and accelerated the advance of the agricultural frontier.

In 1868, Cândido Mendes de Almeida published an Atlas of the Empire of Brazil, dedicated to the emperor and intended for public education (Almeida 1868). In it, the province of São Paulo appeared with its western end inhabited by "fierce Indians" (a huge area colored in pink on Fig. 3). Eighteen years later, the *Sociedad Promotora de la Inmigración* made and published a map of the same province; in that case, however, the western end appeared as "uninhabited land" (portion colored in green on Fig. 4). It may be that, in the span of almost two decades, the Indigenous population had considerable declines, given the pressure of the core of export agriculture; nevertheless, the propaganda effect of a map that intended to attract immigrants to the province should not be underestimated. The 1886 map might not have reflected the truth of that moment, but it made clear where the actions of the São Paulo Immigration Promotion Society were aimed: to draw the attention of immigrants to the possibility of having access to land.

After World War II, the coffee frontier expanded further south through the State of Paraná, which involved the movement of a large population. In 1920, the state had 685,711 inhabitants; in 1960, it had 4,268,239. This growth was due to the large internal migrations that were motivated by the opening of new lands for coffee in the state.

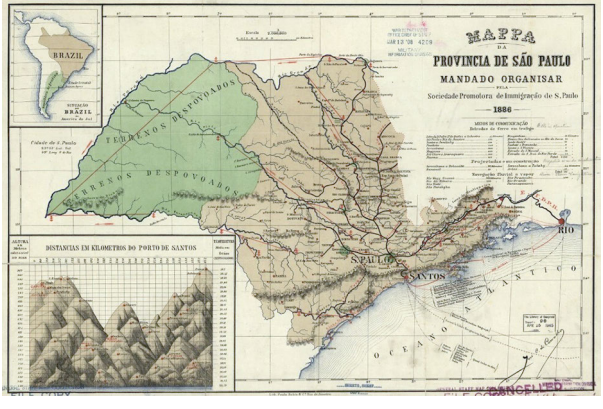
Until 1920, little land had passed from public to private ownership and most of the forests (Atlantic forest and Araucaria forest) were still standing. Between 1922 and 1932, the state of Paraná made numerous concessions of public lands to private colonization companies. Among these companies, the *Compañía de Tierras Norte de Paraná* stands out, receiving more than 12,000 square kilometers. The colonization of the north and west of Paraná was the greatest development of the 1940s and 1950s, and as such, an area of numerous agrarian conflicts.

Fig 3: Province of São Paulo (1868)



Source: Atlas do Império do Brazil. Lithographia do Instituto Philomathico map XVII.

Fig. 4: Map of the Province of São Paulo (1886)



Source: Sociedade Protetora da Immigração de São Paulo.

The Southern Cone of Spanish America

The Spanish empire underwent a major transformation between the end of the eighteenth century – a product of the Bourbon Reforms – and the beginning of the nineteenth century with the outbreak of the wars of independence. The juridical institutional scheme of the Spanish government in South America had placed the production of metals in the territories of the current states of Peru and Bolivia at the center. However, with the creation of the Viceroyalty of the Río de la Plata (1776) and the strengthening of the Captaincy General of Chile (1798) – together with the recovery of silver mining in Potosí – the occupation of the space south of present-day Peru began to develop significantly. These measures, among many others, guaranteed the provision of the necessary inputs for the extraction and processing of silver from Upper Peru and transformed the entire area. This, in turn, was favored by the development of the transatlantic trade and livestock activity destined for the export of dried meats and hides through the port of Buenos Aires and Montevideo. In the corridor of the Pampean coast and the Guaraní aquifer, much of the livestock production – which would set the pace of the local economy in the first decades of the nineteenth century – was based on large properties and, to a lesser extent, the cereal production, horticulture, and livestock raising of medium-sized family farmers. The western slope of the Pacific Ocean began to develop in relation to the supply and demand of the colonial settlements between the ports of Callao and Valparaíso (Cavieres 1999). The internal and external markets articulated the space in an unequal manner. For example, in the Banda Oriental, there were two differentiated social formations, one to the north of the Río Negro and the other to the south. The southern formation was linked to the Atlantic markets and the northern one to the internal colonial market. The former based on individual rights over the main resources and the latter on common rights (Moraes 2015).

The crisis of the colonial order and the wars for independence created an institutional, economic, and social crisis throughout the territory formerly dominated by the Viceroyalty of Peru, the Viceroyalty of the Río de la Plata, and the Captaincy General of Chile. The wars conditioned economic performance, disarticulating the colonial commercial and credit circuits. This reconfigured migratory flows and signified the beginning of a process of privatization of the territory that forcibly displaced the native peoples. These changes suggest the first steps towards the consolidation of the capitalist system in the region and the progressive elimination of other forms of land occupation and production developed by ancestral peoples.

In the case of the Captaincy General of Chile, agricultural activity was concentrated at the beginning of the nineteenth century in the central valley. This was the name given to the territory between Santiago de Chile and Concepción's areas of influence. Its southern border corresponds to the area of La Frontera, where the Bío-Bío River stands as a geographical, cultural, and political landmark (Bengoa 2015).

It is precisely this region that was most affected by the battles for independence. Consolidated during the colonial period, the large property system (*hacienda*) was practically unchangeable and the economic matrix remained focused on supplying regional markets – except for silver mining that was beginning to gain strength in the north. The ports that had already been conducting smuggling with the English and/or North American markets allowed the entry and exit of products related to agriculture: wheat, tallow, and hides traveled through the Pacific to the north, and plows and iron tools for the exploitation of the land began to enter (Sepúlveda 1959).

On the other side of the Cordillera, especially in the humid pampa region, the wars of independence and, later, the civil wars affected cattle stock, the region's main export activity. This caused export prices to rise while manufacturing prices fell as a result of industrial development in Europe. This "comparative advantage" boosted the production of raw materials on the humid pampas. This region is one of the largest plains in the world and stands out for its temperate climate, fertile soil, and proximity to surface watercourses that cross it from west to east, favoring river navigation. Thus, throughout the first half of the nineteenth century, cattle, sheep, and cereal production began to develop in order to supply an international market that increasingly demanded foodstuffs to sustain industrial growth in Europe.

Livestock use modified the landscape, anticipating agricultural use. Cattle domesticated the grasslands, and it was only after this transformation that agricultural work was introduced. Although the transformation was not as dramatic as that of tropical and subtropical deforestation, it involved a major alteration of an already anthropized landscape.

In the mid-nineteenth century, the formation of nation states definitively consolidated the hegemony of capitalist land occupation throughout the region, extending to the ends of the American continent. This can be seen in the case of Patagonia, where the new states of Chile and Argentina imposed private property and appropriated territories previously dominated by native communities. Although the sectors most favored by this process were large ranchers (*grandes estancieros*) and landowners (*terratenientes*), there were also small and medium-sized proprietors – largely European immigrants – who benefited from the state's land privatization policies. These settlers, in general, dedicated themselves to intensive agriculture coexisting with large landowners. Thus, extensive agriculture accompanied by a strong wave of European immigration that quickly outnumbered the inhabitants of the native villages followed the cattle ranching (sheep and cattle) of the first half of the nineteenth century.

The forms of land use between these two social formations were very different. In the areas dominated by the nation states, private property prevailed in its different forms: *estancias*, haciendas, or agricultural colonies. To a large extent, they all aimed to supply the international market that demanded raw materials to sustain capitalist development in the context of the Anthropocene. These individually con-

trolled productive units were organized according to mercantilist logics, with their productions progressively becoming more and more integrated into international markets. On the other hand, depending on the Indigenous frontier, different organization and very different land uses will be found. Raúl Madrini (1987), when studying the Indigenous societies of the Pampean region, emphasizes their pastoral vocation, where sheep, cattle, and horse breeding related to a use and exchange value. According to this author, these were tended and controlled herds of livestock, whose mobility was determined by seasonal rhythms and the need for pasture and water. The circuits of breeding, reproduction, protection, and commercialization involved hundreds and thousands of kilometers, including the penetration of "transnational" borders.

Nation states used different practices to relate to Indigenous populations. During the first half of the nineteenth century, they sought negotiated forms of coexistence as the Spaniards had done in some cases (Contreras Painemal 2022). Negotiations involved exchanges of favors and merchandise. But after the second half of the century, when the lands inhabited by these populations became more coveted, these agreements began to thin. The ideology of civilization and the superiority of maximizing land use became a dominant discourse. Julio Argentino Roca's military campaign between 1878 and 1885 is a crude and clear example of the relationship that the Argentine state would come to have with those considered "others" within the nation. Populations of native peoples such as the Mapuches, Ranqueles, Pampas, and Tehuelches were annihilated or, in the best of cases, expelled from their territories and corralled in marginal spaces of the new nation states. To a large extent, they were expelled from the most productive lands. These lands were passed into the hands of the European immigrant groups that arrived – or were from the colonial period – in these territories. The "war" against the Indians implied, as Alimonda and Ferguson have said, the physical and symbolic production of the desert, "the material elimination of the peoples that inhabit it, but also the denial of their own existence" (Alimonda 2004).

The "Conquest of the Desert" in Argentina's case involved the advance of military forces from Buenos Aires to the south. In various campaigns between 1878 and 1885, the Argentine army occupied the territory, displacing and annihilating native inhabitants from Buenos Aires to Cape Horn. On the Chilean side, Patagonia was subjected to control from the extreme south with the installation of the colony of Punta Arenas and the extermination of the Selk'nam, Kaweshkar, and Yaganes peoples on the large island of Tierra del Fuego and the channels surrounding the Strait of Magellan (Harambour 2019). The geopolitical control of the canal that connected the Atlantic Ocean with the Pacific Ocean was one of the main reasons for this occupation. However, the two newly created states were unable to have effective control over these territories. This allowed some native communities to survive, the formal boundaries of the two states remaining in dispute for more than a century. The first

boundary agreement between the two nations was issued in 1881 and revised in 1904. It was only recently in 1998 that the political boundaries of the two countries were defined by the agreement on "continental ice." At the same time, livestock companies – most of foreign origin – were set up in these territories, taking advantage of the large extensions of pastures to carry out a mainly sheep industry.

In the area of Aysén in Chile, a different scenario took place. Its abrupt geography did not allow the establishment of a definitive connection with the rest of the national territory until late in the twentieth century. Although certain *Sociedades Explotadoras* (Exploitation Societies) established themselves, such as those of Aysén and Baker, the region's occupation was much more sporadic and undertaken by settlers coming from the Chiloé archipelago or through the Argentine pampas, who gradually moved into the Patagonian valleys. Here, there was no hegemony of large estancias as in the southernmost area of Magallanes, but there was a great process of anthropization to convert the closed temperate forest into open fields for cattle ranching. A series of fires were lit here with that aim in mind that mold the landscape to this day.

Production to supply European markets led to an increase in herds. From the last quarter of the nineteenth century onwards, the transformations in the sector through genetic modification, the introduction of technology – first wire fences and then the mechanization of agricultural tasks – and the improvement of crops required increasing investments of capital and labor.

This whole process was framed by a social and demographic rearrangement of the countries, which in the case of Chile and Argentina meant a silent dispute for productive spaces. As the republics consolidated, the market for land and its privatization followed suit. One of its main consequences is found in different moments and intensities of depopulation in central areas and the search for survival in the spaces that became available. In the Chilean case, those expelled from the central valley settled in the recently colonized areas of Llanquihue and – after the military occupation– the Araucanía. However, once this process was established and after economic and production crises, other groups were expelled and the Patagonian territory became their new option. In the Argentine case, the annihilation and the later invisibilization of native peoples meant that only a few small Indigenous groups were pushed to marginal areas on the Andes. There, they managed to survive until the present day, maintaining contact between the communities on both sides of the mountain range.

Although the Andes Mountains had not been a barrier for human beings, the consolidation of nation states transformed it into a "natural" frontier. The Cordillera became a political border dividing Argentina and Bolivia on one side and Chile on the other. Thus, something that had not been experienced as a frontier by humans and non-humans began to change progressively. The more traditional settlements began

to reorient their production for the domestic markets, which grew at the same pace as immigration.

In parallel, this process of occupation by nation states, accompanied by a certain political stability, gave way to the massive arrival of European immigration. These immigrants came to these lands displaced by capitalist development in Europe, yet another consequence of the effects of the Anthropocene in the Southern Cone. Although these immigrants occupied various territories, there was a rapid concentration in port cities (Buenos Aires, Montevideo, Santa Fe, and Asunción, among others). Large cities began to grow significantly based on the development of services (banks, commerce, etc.) that linked primary production with the international market. The port-cities grew with the expansion of world trade and the demand for raw materials from expanding European economies. Initially, in the first decades of the nineteenth century, the cities exported dried beef and hides. Next, they shifted production to sheep and cattle to supply the English textile industry's growing demand for wool and hides. Finally, by the end of the nineteenth century, they started producing beef and cereals, becoming the "breadbasket of the world."

In the case of Argentina and, to a lesser extent, Uruguay, the introduction of the railroad – which took place between the 1860s and 1870s – accelerated the process of land occupation and facilitated the expansion of livestock and agriculture throughout the fertile plains region. This technology also allowed the development of other regions, further away from the ports, which began to transform their environment. For example, since the end of the nineteenth century, sugar production has spread throughout the northwest of Argentina, wine production in the semi-desert regions west of the Andes, and tannin and cotton production in the Gran Chaco region. The introduction of industrial processes for the domestic market – such as sugar and wine – or for the international market – tannin, cattle, and cotton – transformed the original biomes. The exploitation of quebracho for the construction of railroad sleepers and later for the production of tannin and sugarcane led to the devastation of native forests, as had happened in the Portuguese region of South America. To a lesser extent, significant changes were observed in semi-arid regions associated with the expansion of grapevine for wine production (Abraham and Prieto 1999).

In the Chilean case, large property in the central valley was consolidating, a process that closed in on itself and looked for a way out through the ports. The fluid trans-Andean exchange, which allowed traffic according to geographical proximity and had several crossings to Argentina, shifted towards the ports of exit such as Valparaíso and Concepción as national economies consolidated. The Pacific route became more dynamic. This made it possible to move towards a specialization in wheat production for the South American and, gradually, North American markets. The railroad also played a key role in this territorial reorganization, as the north-south direction of the country was transformed into a new organization of production.

All of this meant greater pressure on the land that could be converted into fields for sowing. On the one hand, land that was previously used for cattle raising was practically naturalized grasslands. Progress was made towards clearing that land, taking advantage of its natural fertility, a product of ancient processes of anthropization. However, there was also an advance on certain areas of native forest that surrounded the large haciendas and had served for many years as a reserve for obtaining fuel – wood and charcoal – and other resources such as fiber or foodstuffs.

In contrast to the region of former Portuguese occupation, this region of the Southern Cone had a few large companies that concentrated vast landholdings (for example, the British-owned La Forestal, dedicated to the exploitation of tannins, or sugar mills). The case of La Forestal has been one of the most studied because its exploitation of the subtropical forests for more than fifty years led to the loss of more than 10 million hectares (Zarrilli 2016). The company's manufacturing units, numbering more than 30, significantly changed the Gran Chaco biome.

The rest of the land remained, to a large extent, in the hands of the states and the European population that arrived during the colonial or post-colonial period. In the latter case, nation states guaranteed private property on the basis of their constitutions. It was the state that carried out the privatization process through direct sale, direct assignment, and/or colonization. In all cases, native peoples were excluded – if not annihilated by the state – leaving behind all forms of ancestral land tenure.

At the end of the nineteenth century, nation states – with a liberal and capitalist vision – saw the environment as just another low-cost or directly "available" factor of production and, therefore, one that could be privatized and intensively exploited. This was part of the "growth" of nations and, especially, a requirement to supply the demand created in other latitudes by the second Industrial Revolution. In this sense, Latin America in general and the Southern Cone in particular, were incorporated into this process as producers of raw materials, strengthening an agrarian structure that would remain more or less stable until the middle of the twentieth century.

The beginning of the twentieth century saw increased immigration and with it a consolidation of urban spaces, which began to cause multiple environmental problems. The concentration in confined spaces created large cities with numerous sanitation and land use issues. Urban conglomerates are often located in spaces that are not very conducive to human life and have therefore been significantly modified. Watercourses are diverted; wetlands are dried up; and semi-arid regions begin to be irrigated in order to be put into production.

Conclusion

From the middle of the nineteenth century, there was a notable acceleration in the change in land use in the Southern Cone that oriented towards the production of raw materials to supply the demand of the European market. The combination of this boom and a sparse population led states to promote immigration. Although the "possibility" of access to land was often a factor of attraction for immigrants, the truth is that both subsidized and spontaneous immigration in the three countries encountered several obstacles to land access. To a large extent, land had already been distributed in the colonial or post-colonial period and had remained in the hands of the ruling classes. This immigration played a key role in a specific conjuncture of the expansion of internal borders, of urban centers, of the production of manufactured goods, and of consumption. The internationalization of the labor market was part of the global process of capitalist expansion. Both push and pull factors were an intrinsic part of this expansion that marked the beginning of the Anthropocene.

During this period, new agricultural techniques began to be developed and deployed in different countries. Whether of external origin or pushed by the states themselves, these developments created a tension with the extensive and traditional forms of production. During this period, research on genetics, improvement of irrigation systems, soil fertilization – both organic and inorganic –, and the development of synthetic saltpeter became prominent. All of them gave shape to a commercial agriculture that would redefine the scales and intensities at the pace of capitalist development.

All these transformations are part of the prelude to what has become known as "The Great Acceleration." In the mid-twentieth century, through a strategy of modernizing the territories, the Southern Cone was at a turning point in terms of redefining the social, productive, and power structures that sustained land tenure. Social demand and technical advances gave way to a system that managed to multiply productive yields but also intensify demands on the material and energy required to implement this plan. At this juncture, capitalism managed to re-impose its logic and its rationality in the sense proposed by Moore. Land became a valuable commodity for industrialized agriculture and livestock, establishing a new system where land, water, and capital were concentrated.

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