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A Panorama of Parks: Deep Nature, Depopulation, and the Cadence of Conserving Nature

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Chapter 11

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During the twentieth and early twenty-first centuries, Latin American countries set aside nature for conservation in thousands of parks and reserves. Today, such designations cover more than one-fifth of Latin America's territory (see map 11.1). Parks range from Costa Rica's tiny coastal Manuel Antonio National Park, consisting of a mere sixteen square kilometers, to those as large as Brazil's Tumucumaque National Park, at nearly fifteen thousand square kilometers, a size larger than Belgium. Conservation areas famously include some of the region's and even the world's largest tropical forests, but also its driest deserts, highest mountain ranges, biggest waterfalls, deepest marine reserves, and even parts of urban landscapes. Political and economic circumstances, social pressures, cultural preferences, scientific theories, development mandates, and individual personalities shaped how, when, and why Latin American nations have conserved nature.

< Insert Map 11.1 about here >

Map 11.1: Designated conservation areas in Latin America, 2015. Map includes all conservation areas in Latin America within the World Database of Protected Areas (WDPA). Copyright Ryan Dammrose, Map Lion LLC. Used with permission.

Precisely what conservation meant, whom it appealed to, and why it proved politically palatable depended on the time and the place. In the 1920s, Chilean conservationists acted on their desires to restore and protect temperate forests, while at the same time Argentina's National Park Service placed tourism and border security high on their agenda. Many of Mexico's national parks have their origins during the social revolution of the 1930s, while Costa Rica's owe their existence to peaceful and deliberate state-building in the 1970s. The conceptual simplicity of the idea of national parks has driven their ubiquity, and sometimes parks have been only symbolic, with few actual changes on the ground. For instance, in 1956, Guatemala simply declared every volcano a national park with little lasting effect. Conservation is nearly always contested, reflecting internal hierarchies of power, including those grafted along colonial lines, but in Latin America there is little reason to believe that parks were external creations imposed by a "global conservation aristocracy."[1] More accurately, conservation worked like an echo that refracted society onto nature, furthering the mutually intertwined relationship between the two. Parks did not merely enclose a piece of nature away from society; by designating a particular space as part of a national or international protected area, the landscape was set on a different ecological trajectory through a societal action. To choose one place and not another altered the evolutionary path of human and nonhuman communities along the way. This means conservation areas form artifacts of the past, present, and future.

To see conservation as simply a phenomenon of the twentieth century is to misunderstand the effects of history on both landscape and culture. In some ways, the deep past, especially the Pleistocene extinctions of more than ten thousand years ago, shaped nature's dynamic course and determined what remained to be conserved. Mass extinctions of large animals coincided with the arrival of humans and transformed prairies into forests, among other effects. Other absences also mattered to the landscapes and the cultures that conserved them. Five hundred years ago, when another group of humans arrived, the disease and violence they brought decimated native populations and created a cascade of changes socially and environmentally. Forests resurged in fields that went unplanted, and new species emerged where fires were no longer set. These transformations set nature on new paths. Nature alone does not determine conservation; conservation's contours are unleashed by human conceptions of whether a forest or a desert has special value, or if some places retain sacred attributes that deserve to exist beyond the reach of commerce. To explain how this played out, this chapter explores some ways deep histories of extinction and shared experiences of colonialism shaped nature. The chapter then offers four possible origin stories for national parks before providing a rough timeline summarizing twentieth-century conservation efforts.

Deep Nature, 16,500 to 10,000 Years Ago

The contours of the peopling of the Americas are commonly known, yet the specifics remain controversial and dynamic, changing with new techniques and discoveries. Most likely, bands of people crossed the Bering Strait during periods of low sea levels caused by glacier expansion. People then either followed animals into and across North America, hunting and leaving clues such as the Clovis point, or they followed the bountiful Pacific coastlines as far south as Chile.[2] What people did as they spread across the continents remains debated but that these migrations transformed the landscape is obvious: by the Late Pleistocene, mammals exceeding a hundred pounds were reduced by more than seventy percent and only relatively small species survived.[3] It is likely that climate change, disease, and other factors played a role but the Americas were already relatively depauperate in large mammals, and these extinctions further depleted the stocks. Glaciation, human distribution, and large animal extinction combined over thousands of years to bequeath a particular configuration of nature.

The consequences of these processes for twentieth-century conservation may seem far removed, but the cascading effects of mass extinction remade nature. Grasslands became forests without large grazers to browse back seedlings and fertilize fields. Medium-sized animals such as white-lipped peccaries, anteaters, and capybaras took refuge in tropical forests and changed the forests' composition as they foraged and spread seeds. Because evolution is a process that takes place over generations through species interactions with each other and with their environment, Pleistocene extinctions altered the course of plant and animal evolution. As a result, parks protect birds and monkeys rather than enormous animals such as giant ground sloths (Mylodons) or automobile-sized armadillos (Glyptodonts). Similarly, big game hunting has had a minimal influence on the creation of conservation areas—quite unlike the trajectory of conservation in sub-Saharan Africa.[4]

The Pleistocene matters for more than the past interactions between humans and fauna; it has shaped the scientific theories that drove conservation programs. Pleistocene temperatures ranged much cooler than today, and in the tropics, rainfall likely decreased. Many areas that are today tropical forests were then savannahs due to lower precipitation. Some areas remained forested, and in the 1970s, scientists began to think of these sites as "Pleistocene Refuges," theorizing that the refuges help account for the high species diversity of ecosystems in the Amazon. First published by the German petrochemical engineer Jürgen Haffer in 1969, but also developed by Brazilian zoologist Paulo Vanzolini, this theory posited that the refuges were places species (specifically certain plants, birds, butterflies, and lizards) maintained their populations during the period of precipitation decline.[5] When temperatures warmed and rainfall returned, a new wave of speciation took place as flora and fauna moved outward from the refuges into new niches. A lovely, if all too simple, theory that has today largely been disproved, the notion of Pleistocene Refuges nevertheless drove conservation planning in Brazil in the late 1970s as a way of determining sites of high diversity and endemism. Millions of hectares of parks were designated because certain territories appeared to harbor these natural refuges. The Pleistocene has mattered to how nature in the Americas unfolded and to how societies used their understanding of the ancient past to conserve that nature.

Colonial Canvas

Just as there is no consensus on exactly how and when peoples arrived in the Americas, there is no certainty to the numbers of people who lived in the hemisphere in 1492. It is clear that human societies found and created modes of subsistence, survival, and sophistication in nearly every biome and habitat.[6] From ancient civilizations in Aspero, Peru that plucked protein out of the Humboldt Current to Mexica warriors that feasted on grasshoppers and lizards in their lakebed metropolis of Tenochtitlán, indigenous peoples employed complex strategies of using nature. Agricultural prowess created maize, squash, and potato varieties, and the productivity of cultivation supported tens of millions of people, especially in Mesoamerica and the Andes. Plants stood out as the basis of indigenous farming practices as few animals were domesticated. The development of agriculture and sedentary societies shaped nature, as it did in fertile valleys around the world, but it was the interruption of this process by colonialism—rather than the process itself—that set the Americas apart.

Europeans' arrival was ecologically cataclysmic. It devastated native peoples through disease and warfare and set cultural and spiritual systems into chaos. This reverberated in the landscape. Massive ecosystems, vast beyond the size of European nations, were abandoned to their own processes. The cessation of farming and reduction of fire use led to the regeneration of over fifty million hectares of forest, woody savanna, and grassland by the mid-eighteenth century.[7] Today's "old growth" trees are, at least in part, products of how nature resurged when humans were removed.

Colonial depopulation further shaped nature's exuberance by ensuring that many species hardly interacted with humans for centuries. What does it mean, then, to say that wild nature, abundant animals, and prolific forests are products of colonialism? This makes resplendent nature an artifact of human calamities.

Imagining conservation as a colonial concept, as much recent literature on conservation tends to do, oversimplifies the fact that colonialism and conservation did not coincide in Latin America. While colonizers sometimes engaged in conservation—including restrictive but ineffective Portuguese forestry policies—formal colonial powers did not enact the first nature reserves in South America as they did in Southern Africa or South Asia.[8] This discrepancy matters to questions about the sovereignty or intentions of conservationists. Seeking a global synthesis, scholars have argued that "the rapid growth of protected areas prior to 1960 owes something to the anxiety of colonial rulers to set aside land before they lost power."[9] Colonial forces shaped nature and society, but in this region they did not define or even begin conservation. To overlook or dismiss the actions of independent Latin American nations in the realm of nature conservation is to discount the nationalist struggles waged for political and economic autonomy. Rather than critique it, such an argument resurrects a colonial mentality.

In a global context, the colonial experience in Latin America was earlier, longer, deeper, and more systematic, thus leaving shards scattered everywhere. But independence was also sooner, fiercer, and shot through with mixed-caste, cross-class, and popular or intellectual appeals for authority.[10] The temporal distance—from decades to more than a century—between formal colonial rule and national park programs meant that nations had decades to contend with the development of a state capable of managing nature and to struggle through the articulation of national identities. International ideas and norms, and especially those tied to the United States, came to shape and inspire many parks. And yet, rather than a colonial imposition or a direct importation of North American ideas, nature protection in the region proceeded at a disjointed pace and left an uneven patchwork of parks with no progression toward a singular goal. In many instances, parks were tied to the charisma and commitment of specific individuals or small groups who came to have a great influence over official designations.[11]

Diverse Cosmopolitan Roots

While many cultures engaged in conservation at diverse moments, there are at least four places to start the history of national parks in Latin America: Argentina, Brazil, Chile, and Mexico. The first known suggestion for a national park occurred in 1876, when the Brazilian military engineer and abolitionist, André Rebouças, recommended the creation of two national parks, one on the fluvial Bananal Island in the Araguaia River and another of the Seven Falls cataracts on the Paraná River near Iguaçu Falls.[12] While traveling in the United States, Rebouças heard about Yellowstone National Park and imagined similar parks for Brazil, mainly to justify tourism.[13] Brazil created its first official park, Itatiáia, in 1937, and Rebouças' idea was heeded in 1959 with the creation of Araguaia National Park.

By then, Mexico had created many national parks. During the late nineteenth century, concerns over deforestation drove scientifically oriented political advisors, or *científicos*, toward conservation. Miguel Ángel de Quevedo was the most prolific of these, and his European training and elite upbringing earned him the nickname "Apostle of the Tree." Although Quevedo left the country during the first decade of the Mexican Revolution (1910–1940), his championing of conservation influenced the nation's first national park, Desierto de los Leones, which was declared around a popular urban forest in the same year as the new Constitution of 1917. By the mid-1930s, when the constitution's social aims reached their fullest implementation, Quevedo would oversee the creation of a series of parks linked to revolutionary ideas of social justice.[14]

Another beginning is 1903, when Francisco P. Moreno donated three leagues of land to the Argentine government with the explicit demand they be incorporated as the National Park of the South. His donation was immediately accepted, but a formal national park, now called Nahuel Huapi, was not established on the site until 1922, and actual administration developed in the mid-1930s, when several other parks in the region were proposed and created.[15] A fourth origin story is the request of the forester Federico Albert, who insisted that the Chilean government create its first national park, named after the intellectual Benjamin Vicuña Mackenna, to protect hillsides from logging and erosion. The park was created on paper in 1925 but subsequently annulled in 1929 because of conflicts over land tenure. In 1926, the government established Vicente Pérez Rosales National Park, named after the state agent in charge of colonization in the region, directly adjacent to Moreno's donated land in Argentina.[16]

Who, then, merits recognition as the founder of conservation in Latin America? Brazil's black son of a slave, who traveled insatiably within and beyond his native land valuing nature along the way? Mexico's elite *científico*, who worked for four decades and through various regimes until Mexico had more national parks than any country in the world? Argentina's trilingual scientist, frontier explorer, and museum director, who donated private land back to the state for a park? Chile's first official forester, who emigrated from Germany and spent his life guiding conservation decrees and laws in his adopted country? Each of these individuals point to conservation's diverse and cosmopolitan roots. One thing is certain: there was no single hero and no native "Yellowstone" on which to model other parks. These men, and later several women, point to the ubiquity and commonality—but also the diversity—of conservation's history. Parks in the region were initially driven by charismatic individuals who themselves represent distinct experiences and orientations. As the origin stories indicate, the chronology of conservation is hardly straightforward. National pulses were irregular, yet their combined cadence reveals a possible regional timeline, articulated next. I hope others will later expand, refine, and contest this chronology as more is learned.

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Illustration 11.1: Families enjoying the central plaza of Huaraz, Peru, during the International Glacier Forum in June 2013. Large billboards such as the one pictured explained the role of glaciers in the national system of protected areas. Photo by author.

A Suggestive Sequence

Given the contours of deep nature, the features of colonial rule, and the idiosyncrasies of individual champions, a rough chronology of conservation actions in Latin America during the twentieth century can provide a useful tool for understanding regional trends. The general timeline consists of two surges with a lull in between. Some caveats about the quantitative data used to sketch out this timeline are in order. Conservation's statistics are notoriously difficult to compile, but the World Database of Protected Areas (WDPA), a joint project of the International Union for the Conservation of Nature and the United Nations Environment Program, collects and updates worldwide information monthly.[17] Although it ultimately relies on reporting by individual countries, which can lag, this is the most reliable way to gather basic dates, places, and sizes. The WDPA includes any area considered by a reporting government to be a conservation unit (with 182 different designations)—including national parks, forest reserves, wetland sites, faunal reserves, and much more. The WDPA is prone to counting areas more than once if they have dual designations, for example a Ramsar wetland might be inside a National Park, so it has two listings. Furthermore, this data does not include most state or local conservation areas. However, it shows general trends clearly.

In a timeline, three eras stand out. A trickle of conservation areas emerged scattered around the region by the early twentieth century. Conservation surged forward in the 1930s, when several countries began putting parks into place alongside administrative bureaucracies such as ministries of agriculture or forestry departments. This initial era might be thought of as an intensely nationalist period, when countries experimented with conservation. Advocates heard about conservation programs elsewhere or observed their necessity and had the autonomy to try them out. This slowed around 1940, and park creation remained minimal—with the exception Guatemala's 1956 volcano frenzy—until the late 1960s. A second era can be characterized as a hiatus, when conservation hovered with little support and developmentalism forged ahead, accelerating the destruction of nature. The third era began in 1970 with a rapid swell tied to the increased sophistication of international institutions and new interest in tropical environments. This era marked a global turn and the consolidation of standardized conservation principles. This rapid pace accelerated every few years through the end of the century. Future studies may differentiate more recent trends of the twenty-first century.

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Figure 11.1: Total conservation areas created per year in Latin America. Compiled from data from the World Database of Protected Areas (WDPA) and used with permission, 2015. Data available at www.protectedplanet.net. Chart by author. Please note the decline from 2010 is due to reporting lags, not to a cessation of conservation areas.

Nationalism's Nature: Conservation's Arrival, 1920–1940

The first significant era for conservation occurred from roughly 1920 to 1940 and was largely a response to concerns over degradation combined with a curiosity about the notion of protecting land. Justifications for action included largely elite ideas about scenery and tourism potential, intellectual suggestions of the need for scientific study, or strategies to secure frontier lands with national claims. That is, scarcity, scenery, and security shaped early approaches toward conservation. In general, temperate and alpine landscapes of conifers, mountains, and glaciers were preferred for protection, and countries with these landscapes were the first to create conservation areas. As a rule, countries with both tropical and temperate landscapes protected the higher, cooler, more forested areas first. In some countries, such as Mexico or Brazil, these areas hosted the largest populations of people. For example, the pine and fir forests surrounding Mexico City—the nation's undisputed political and economic center—were seen by early conservationists as worthy and in need of protection.

In Chilean and Argentine Patagonia, mountainous and forested landscapes were, and still are, a distant frontier with few settlements and sparse populations. Indeed, only about five percent of Argentina's population lives in the region that takes up more than a third of the country's territory. Exequiel Bustillo, director of Argentina's first Park Service, believed in the authority of the national government to "conserve nature in its virgin state, preserve the beauty of the landscape, and create rapid public access."[18] He prioritized Patagonia, focusing his efforts on roads and amenities for tourism. Parks were also largely stacked along the international borders to fortify territorial claims. If Argentines were preoccupied with security, Chileans had different motives. Chilean parks in the 1920s similarly occupied a frontier region, but one that had experienced disastrous colonization schemes to grow wheat. The resulting deforestation and erosion raised concern in the national government, which turned to forestry as an industry. Concern with erosion led to parks as a strategy to guarantee forests rather than showcase scenery.[19] Tree plantations, state-run nurseries, forest reserves, and national parks formed a portfolio of possible arrangements designed by and managed for state purposes under the umbrella of conservation. These motivations were obviously influenced by connections to the global economy, but were also shaped by domestic agendas. The Valley of Mexico and the Patagonian Andes received some of the first park dedications, again reflecting regional preferences for alpine settings.

Unique, scenic, and economically unviable lands were usually the first to earn conservation status. The creation of Iguazú/Iguaçu Falls National Parks are paradigmatic cases that solidified the argument for monumental scenery. Brazil and Argentina had different reasons for protecting the falls and creating a park, but for both, the falls' immensity as a symbolic landmark gave obvious cause. Argentina moved first. On 9 October 1934, President Augustín Justo signed a law creating the Dirección de Parques Nacionales within the Ministry of Agriculture. The law spelled out the duties, finances, and jurisdiction of the new agency and officially created Parque Nacional Iguazú (alongside formalizing Moreno's donation as Parque Nacional Nahuel Huapi).[20] After the creation of the park on the Argentine side, members of the Brazilian government feared an influx of Argentine settlers, and viewed economic development and territorial control as a way to incorporate a peripheral region. Brazil created Parque Nacional do Iguaçu in 1939 as a culminating change after more than fifty years of measures to nationalize the area that bordered both Argentina and Paraguay. In both countries, the military played a strategic and important role in the creation of the park, as did the idea of state-led development through the colonization of a hinterland.[21] No small bit of posturing and competition drove the policies that shaped the dual park, as both countries went about figuring out what a park was and what it might do.

Park creation appears related to the expansion of stable state institutions because official conservation schemes relied on such institutions for management and legitimacy.[22] Parks echoed important social and economic changes, especially the emergence of political nationalism and the effects of the Great Depression. This marked a shift among the largest economies away from an export-driven model of production and toward policies of import-substitution industrialization (ISI). With the collapse and withdrawal of U.S. and British capital, a space for state growth opened and more robust bureaucracies developed. Personnel, budgets, and tangible structures (such as roads, signs, and maps) turned an official decree into an actual park. Increased nationalist and populist political strategies in Brazil, Argentina, Chile, and Mexico meant advocates latched on to the idea of a national park and adapted it to their own state systems. The more the state had developed, the easier it was to accommodate national parks. Some nations housed their park bureaucracies within their ministries of agriculture or grouped them with forestry departments, while others saw them belonging within secretariats of tourism. Often dismissed or ignored, these early parks and the visions they represent provide a useful historical record that confirms diverse roots.

The Hiatus: Developmentalism Above Conservation, 1942–1968

The articulation of nationalist politics and ISI policies opened the door for conservation, but the implementation of these policies created competing demands. A second period, dominated by promises of economic development, started around 1942. Since parks contradicted the message of industrialization, few parks were created in this era, and administration generally languished. There were two years that saw over twenty protected areas designated, but most saw fewer than five. In most countries, politicians focused on industrialization, infrastructure, and integrating newly organized and powerful groups (urban workers, middle-class professionals, etc.) into political systems. While conservation had some popular appeal, it was more associated with intellectuals strengthening the institutional role of science in the region. Parks were not created in meaningful numbers during this period but some investments were made in institutions that would later steward conservation. For example, two internal research institutes that blended scientific and social research, Brazil's National Institute of Amazonian Research and Chile's Institute of Patagonia, were created during the hiatus and signified the continual evolution of formal scientific thinking and research.[23]

Perhaps one of the most fitting examples of the hiatus is the minimal influence of the 1940 Pan-American Convention on nature protection, and the failure of half of regional countries to ratify or accept it initially.[24] Modeled on wildlife treaties such as the London Convention, the treaty for the western hemisphere had less influence in part because of the start of the war and the eagerness of politicians to demonstrate their independence from U.S. influence.[25] Another example of this bristling autonomy comes with the role of the U.S. scientist William Vogt. As one of the last biologists involved with the Guano Commission in Peru, Vogt had decades of experience in the region before he served as a Latin American representative to the Pan-American Union with a primary goal of convincing countries to create national parks.[26] A skilled and prolific writer, he nevertheless had little success with this. Vogt quickly shifted to issues such as erosion and soil conservation, and it was not until the late 1960s that countries responded to outside requests for national parks, largely by inviting consultants from international bodies.[27] If external demand and models for conservation had an outsized influence, this should have been a time when they expanded.

World War II and the successes of ISI had contradictory impacts that sidelined conservation. U.S. demand for resources shifted some communities back into export-driven activities, especially for woods, fibers, and fuels. Industrialization policies made workers the centerpiece of economic policies, pivoting attention away from the countryside. Food prices needed to be kept low in order to facilitate urban living, and state intervention in food production overrode conservation efforts. Population numbers surged in this period, increasing demands on land and shuffling political priorities. Conservation disappeared inside developmentalism, with a few exceptions that merit more research. For instance, the Guatemalan dictator Castillo Armas created thirty-two conservation areas to protect as many volcanoes in 1956. It is not clear if these were a hedge against land reform efforts, an expression of elite demands, or an attempted populist measure.

There is some evidence to suggest that although park creation lagged in this period, the actual use of conservation areas increased. Argentina, under President Juan Perón, developed a mass tourism industry that incorporated the national parks. Perón added a few new parks, but more importantly initiated state subsidies for excursions to Nahuel Huapi and Iguazú. In 1948, the peak year for this initiative, more than twenty-six hundred people, largely workers and students, participated in these trips. Nationalist celebrations—such as an official "National Park Day" on the day Moreno donated his lands—heightened campaigns for conservation, and Perón used the parks for international as well as internal prestige.[28] The defense of nature and the development of tourism seemed to nicely coexist by appealing to elite, middle, and working-class patrons in different ways, thus diversifying the panorama of protection.

The International Turn: Amplifying Global Trends, 1970–2000

By the early 1970s, international organizations took the initiative in organizing and standardizing conservation around the world. Conservation reemerged as a global priority and a reaction to the developmental mandate. For instance, the Nature Conservancy opened their "Latin America Desk" in 1966 at the behest of Maria Buchinger, a resident of Argentina born and educated in Europe. She argued that the desk would serve as an information clearinghouse, promote public understanding, and assist in the establishment of similar organizations.[29] The first international meeting of conservation in Latin America took place in late March of 1968 in the location where Moreno proposed Argentina's first national park. The conference was organized by the International Union for Conservation of Nature (IUCN) and sponsored by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Food and Agriculture Organization (FAO).[30] One hundred and fifty-five people participated in the conference and this

included representatives from thirteen Latin American countries. The United States, the United Kingdom, and the sponsoring institutions were well represented (it is hard to say how many of the FAO or IUCN representatives were from Latin American countries). Conference panels included prominent scientists, foresters, and wildlife specialists, many of whom would go on to have long and distinguished careers leading their national conservation systems. Topics ranged from conservation laws and education to landscape planning and tourism. Although forestry or tropical forests were notably absent, migratory birds, sea turtles, primates, vicuña, and vampire bats all made the program. The longest sessions were dedicated to forging a regional agreement for coordinating conservation efforts. If nations were reluctant to commit to conservation in 1940, by 1968 this new generation of conservationists was ready to act. Instead of a comprehensive agreement, most developed their own national strategies. Conference participants looked to the past and the future to set forth new relationships for conservation in the region, especially through the coordination of national managers and scientists with international institutions.

Meetings provide historical barometers—they are moments of exchange that allow insight into how people communicated over a particular topic. For instance, Ian Grimwood, a British scientist born in Kenya, represented the U.K. at the meeting but was based at the time in Lima, Peru, where he served as a consultant to professors at the National Agrarian University, La Molina. One interpretation might see this relationship as colonial, given the context of conservation in Africa, but to men like Marc Dourojeanni—a professor at La Molina and Peru's director of general forestry and fauna, who administered national parks—Grimwood and other experts were welcome assets and sources of perspective that often simply confirmed what was already known for Peruvians.[31] A wealth of knowledge and experience within the region was represented at the conference: there were over one hundred professionals working in conservation. They likely met each other for the first time at this meeting and developed friendships that were reinforced at subsequent meetings and endeavors. Global bodies sponsored the conference, but in practice, the meeting helped forge intraregional connections.

The combination of international support, scientific interest, and national policy changes dramatically increased the footprint of conservation in this era. Costa Rica is the paradigmatic case. The Forestry Law of 1969 was the principal milestone in the country's conservation history, and it set into place a General Forestry Directorate and within it a system of national parks.[32] This law, despite changes in subsequent decades, formed the cornerstone of conservationist responses to environmental problems, and it outlined national parks as sites for protecting flora and fauna, but also promoting recreation, tourism, and scientific research. In 1970, Costa Rica had no national parks or protected areas, and six years later it was used by the United Nations as a model for how to create plans to protect flora and fauna. Nearly a hundred thousand people visited the first parks by 1972, and such popularity persists today, forming a key component of Costa Rican's identity and economic development strategy. Professional administrators, international consultants, and volunteers—from the Boy Scouts to the Peace Corps—contributed to a surge in parks that catapulted the country to a position on the cutting edge of conservation strategies. By 1980, it conserved a greater percentage of its territory than did the United States.[33]

Perhaps the largest ideological change affecting conservation was the creation of a scientific framework for studying tropical nature as a specific subfield of ecology. Since Darwin, scientists had been interested in the prodigious forests of the tropics, but the notion of biodiversity, which generally refers to the range of life in a particular place, emerged formally in the late 1970s. This gave new force to the tropics as a place of value for scientific study. As David Takacs has noted, the generation and dissemination of the term "biodiversity" was intended to change the way people viewed nature.[34] The emergence of conservation biology as a field in the 1980s was designed to put biology at the service of conservation, and biodiversity became a rationale for creating conservation areas and a source of pride for promoting them. It seems this idea has had a more widespread influence in justifying conservation than did the older notion of wilderness.

More parks created a situation in which the vast majority of conservation areas have had people residing within them.[35] Who these people are and how they live is a matter of continual debate, but cohabitation rather than evictions have been the norm. To be sure, evictions have occurred—sometimes with land exchanges and more often without—but they appear to have happened less frequently than in other regions of the world. As much as tools of dispossession, parks must also be seen as tools of distribution. They provided an alternative for people (local and otherwise) who would rather throw in their lot with intact nature than oil drilling, gold mining, or lumbering. In some cases, people within conservation areas have made specific demands on the state, and some groups, such as rubber-tappers, have appropriated conservationist discourse to further their assertions of the right to livelihoods on vast tracts of land. In

1978, Peru declared the "Law of the Jungle," which recognized the rights of indigenous populations in the Peruvian Amazonia to use natural resources on their territories.[36] This led to the creation of communal reserves, a useful instrument of management similar to Brazil's extractive reserves.

By the 1970s, many countries began focusing on specific environments with special attention to the areas that had been left out of their earlier efforts. Peru adopted a plan to create a major national park that showcased each area of the country—the coast, the sierra, and the jungle. Under the leadership of the politically astute and ruthlessly committed María Tereza Jorge Pádua, Brazil set about a program of plotting conservation areas across the tropical Amazon that resulted in the protection of nearly eleven million hectares of territory in Amazonian parks.[37] The plan, which drew on the notion of Pleistocene Refuges, was likely the first worldwide to use a synthesis of biological literature to attempt to locate the most promising sites for conservation. In many ways, the plotting of these parks across the Amazon epitomized the new era of conservation informed by science and collaboration across bureaucratic institutions.

Economic reorganization and political shifts also influenced the distribution of conservation. Mexico had a surge of park creation during the presidency of Carlos Salinas de Gortari (1988–1994), a president whose term is otherwise recognized for the implementation of neoliberal policies and downsizing state-run agencies. Newly valued environments became protected in this era, including deserts of the north and tropical forests of the south. Neoliberalism has had a contradictory influence as many new parks were designed with foreign, rather than domestic, tourists in mind. Concerns over resident peoples and conservation grew in the 1990s, and various scholars from within the region critiqued the notion of pristine nature as a justification for conservation.[38]

The emergence of social concerns for park inhabitants, paired with the creation of a scientific concept for measuring the biological value of lands, occurred within a shifting neoliberal economic context. In some countries, such as Costa Rica, these forces could be melded into a national identity that capitalized on protecting nature. In others, conservation areas were little more than disparate patches camouflaging landscape conversion at a breakneck pace. When Latin American countries increased their conservation activities, many had a deep and long—if not coordinated and comprehensive—past to draw upon.

Conclusion

Latin America's conservation history is both connected to and distinct from other world regions. Scholar Rob Nixon contends that South African conservation systems have been driven by the lucrative, easy sell of spectacular megafauna rather than the "boring" aesthetics of biodiversity.[39] There, large animals oriented nature reserves toward the desires of foreign tourists, who saw domestic and familiar scenes as anathema. For much of Latin America, where the spectacular megafauna disappeared in the Pleistocene, biodiversity became one of the drivers of conservation by the 1980s. This influenced the location and persistence of nature protection and its relationship with local, national, and international communities. Biodiversity may seem dull compared to trophy hunting, but it has likely contributed to the cohabitation of people and other animals within parks, which remains the norm. The widespread experience of people living within parks and the close territorial and ideological relationship between parks and formally recognized indigenous territories have made parks part of landscapes layered with overlapping claims and meanings.

Conservation is one of the most classic and conventional topics covered by environmental historians, yet we still lack a clear understanding of the social, cultural, and political contours of nature conservation for nearly all individual countries.[40] Nations have their own conservation culture, but regional perspectives matter in a comparative global context. Argentinean's approach to national parks was shaped by the fear of losing territory. Mexicans created parks as part of their defining social revolution.[41] Costa Ricans proudly boast of their "green republic," and Peruvians point out that their parks have the world's highest concentrations of biodiversity.[42] National parks often had charismatic founders, and it is clear that conservation's cadence is linked to the features that help define the region and the forces that circulate beyond it.

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Notes

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1. Mark Dowie, Conservation's Refugees: The Hundred-Year Conflict between Global Conservation and Native Peoples (Cambridge, MA: MIT Press, 2009), xxvii.
2. Brian Kemp et al., "Genetic Analysis of Early Holocene Skeletal Remains from Alaska and Its Implications for the Settlement of the Americas," American Journal of Physical Anthropology 132 (2007): 605–621; Antonio Arnaiz-Villena et al., "The Origin of Amerindians and the Peopling of the Americas according to HLA Genes: Admixture with Asian and Pacific People," Current Genomics 11, no. 2 (2010): 103–114.
3. The classic paper is Paul S. Martin, "Pleistocene Overkill," Natural History 76, no. 10 (1967). More recently, see A. D. Barnosky et al., "Assessing the Causes of Late Pleistocene Extinctions on the Continents," Science 306 (2004): 70–75. Megafauna decreased everywhere, but the rates of extinction were most dramatic in the Americas and Australia.
4. Jane Carruthers, The Kruger National Park: A Social and Political History (Pietermaritzburg: University of Natal Press, 1995); William M. Adams, Against Extinction: The Story of Conservation (London: Earthscan, 2004).
5. Jürgen Haffer, "Speciation in Amazonian Forest Birds," Science 165, no. 3889 (1969): 131–37. For a recent critique see Paul Colinvaux, Amazon Expeditions: My Quest for the Ice-Age Equator (New Haven: Yale University Press, 2007). See discussion by David Cleary, "Extractivists, Indigenes and Protected Areas: Science and Conservation Policy in the Amazon," in Global Impact, Local Action: New Environmental Policy in Latin America, ed. Anthony Hall, (London: Institute for the Study of the Americas, 2005), 199–216, especially 204–210.
6. A useful summary of the literature on this is in Charles Mann, 1491: New Revelations of the Americas before Columbus (New York: Vintage, 2005).
7. J. O. Kaplan et al., "Holocene Carbon Emissions as a Result of Anthropogenic Land Cover Change," Holocene 21 (2001): 775–791; and Simon L. Lewis and Mark A. Maslin, "Defining the Anthropocene," Nature 519, no. 7542 (2015): 171–180. The authors note that the decline in atmospheric carbon dioxide caused by this plant growth is the most prominent feature in preindustrial atmospheric records (Antarctic ice cores) over the past two thousand years.
8. Shawn William Miller, Fruitless Trees: Portuguese Conservation and Brazil's Colonial Timber (Palo Alto: Stanford University Press, 2000).
9. Dan Brockington, Rosaleen Duffy, and Jim Igoe, Nature Unbound: Conservation, Capitalism and the Future of Protected Areas (London: Earthscan, 2008), 32; Mac Chapin, "A Challenge to Conservationists," World Watch Magazine (2004).
10. John Charles Chasteen, Americanos: Latin America's Struggle for Independence (New York: Oxford University Press, 2009).
11. José Luiz de Andrade Franco and José Drummond, "Nature Protection: The FBCN and Conservation Initiatives in Brazil, 1958–1992," HALAC 2, no. 1 (2013): 338–367, and "História das preocupações com o mundo natural no Brasil: da proteção à natureza à conservação da biodiversidade," in História Ambiental: fronteiras, recursos naturais e conservação da natureza, ed. José Luiz de Andrade Franco, Sandro Dutra e Silva, José Augusto Drummond, and Giovana Galvão Tavares (Rio de Janeiro: Garamond, 2012), 333–366.
12. André Rebouças, "Notas e considerações geraes pelo engenheiro André Rebouças, Excursão ao Salto do Guayra," Revista Trimensal de História e Geographia ou Jornal do Instituto Histórico e Geográphico Brasileiro 61, no. 1 (1898 [1876]): 74–87.
13. José Augusto Pádua, Um sopro de destrucáo: pensamento político e critica ambiental no Brasil escravista, 1786–1888 (Rio de Janiero: Jorge Zahar Editor, 2002), 270.
14. Emily Wakild, Revolutionary Parks: Conservation, Social Justice, and Mexico's National Parks, 1910–1940 (Tucson: University of Arizona Press, 2011); Christopher R. Boyer, Political Landscapes: Forests, Conservation, and Community in Mexico (Durham: Duke University Press, 2015).
15. Eduardo V. Moreno, ed., Reminiscencias de Francisco P. Moreno: Versión Propia (Buenos Aires: Plantié Talls. Gráficos, 1942); Eduardo Miguel E. Bessera, "La nacionalización de las fronteras patagónicas. Los Parques Nacionales como herramienta estatal de ocupación e integración territorial," in Procesos históricos, transformaciones sociales y construcciones de fronteras: Aproximaciones a las relaciones interétnicas, ed. Graciela Maragliano Sebastián Valverde, Marcelo Impemba, and Florencia Trentini (Buenos Aires: Universidad de Buenos Aires, 2012), 67–88.
16. Chile had previously created forestry reserves at Malleco (1908) and Villarica (1912) in the same general area as these national parks. Gary Bernard Wetterberg, "The History and Status of South American Parks and an Evaluation of Selected Management Options" (Ph.D. diss., University of Washington, 1974), 37–42; and Minsterio de Agricultura, Corporación Nacional Forestal, Décima Región de Los Lagos, Plan de manejo parque nacional Vicente Pérez Rosales (Chile: Ministerio de Agricultura, Gobierno de Chile, 1994), 217.
17. See www.protectedplanet.net, where information is available by country. There were 4861 conservation units listed for the region at this writing (9 September 2016).
18. Salvador San Martin, "Preface," in Exequiel Bustillo, El despertar de Bariloche, 2nd ed. (Buenos Aires: Casa Pardo, 1971).
19. Thomas Klubock, La Frontera: Forests and Ecological Conflict in Chile's Frontier Territory (Durham: Duke University Press, 2014), 20, 72; Pablo Camus Gayán, Ambiente, bosques, y gestión forestal en Chile 1541–2005 (Santiago: Dirección Bibliotecas, Archivos y Museos, 2006), 150.
20. Dirección de Parques Nacionales, Ley de Parques Nacionales (Buenos Aires, Argentina, 1935).
21. Frederico Freitas, "A Park for the Borderlands: The Creation of the Iguaçu National Park in Southern Brazil, 1880–1940," Revista de Historia IberoAmericana 7, no. 2 (2014).
22. Claudia Leal, "Behind the Scenes and Out in the Open: Making Colombian National Parks in the 1960s and 1970s," in The Nature State: Rethinking the History of Conservation, ed. Wilko Graf von Hardenberg, Matthew Kelly, Claudia Leal, and Emily Wakild (London: Routledge, 2017), 135–156.
23. Instituto Nacional de Pesquisas da Amazônia was created in 1952, and Instituto de la Patagonia in 1969.
24. The entire name was the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere. For treaty text and ratification dates see http://www.oas.org/juridico/english/sigs/c-8.html. For a brief discussion, see Marc Cioc, Game of Conservation: International Treaties to Protect the World's Migratory Animals (Athens, OH: Ohio University Press, 2009), 94–97.
25. Juan Carlos Godoy in IUCN, Proceedings of the Latin American Conference on the Conservation of Renewable Natural Resources (San Carlos de Bariloche, Argentina: International Union for Conservation of Nature and Natural Resources, 1968), 416.

[26.] William Vogt Papers and Annette L. Flugger Papers, Conservation Collection, Denver Public Library, Denver, CO, USA.
[27.] Kenton Miller and Gary Wetterberg are two examples of U.S. consultants for the UN-FAO who advised park creation in the 1970s in Colombia, Chile, and Brazil.
[28.] Eugenia Scarzanella, "Las bellezas naturales y la nación: Los parques nacionales en Argentina en la primera mitad del siglo XX," Revista Europea de Estudios Latinoamericanos y del Caribe/ European Review of Latin American and Caribbean Studies 73 (2002): 5–21, esp. 17.
[29.] Maria Buchinger, "Why the Latin American Desk" (1966), Conservation Collection, Denver Public Library.
[30.] IUCN, Proceedings.
[31.] Marc J. Dourojeanni, Crónica forestal del Perú (Lima: Universidad Nacional Agraria, La Molina: Editorial San Marcos, 2009), 136–141.
[32.] Sterling Evans, Green Republic: A Conservation History of Costa Rica (Austin: University of Texas Press, 1999), 71; The forestry law came after a long history of forest extraction. See Anthony Goebel McDermott, Los Bosques del "Progreso" explotación forestal y régimen ambiental en Costa Rica: 1883–1955 (San José, Costa Rica: Editorial Nuevas Perspectivas, 2013).
[33.] Evans, Green Republic, 7. By 1999, Costa Rica conserved twenty-five percent of its territory.
[34.] David Takacs, Idea of Biodiversity: Philosophies of Paradise (Baltimore: Johns Hopkins University Press, 2003), 2 and 35.
[35.] Stephan Amend and Thora Amend, National Parks without People? The South American Experience (Gland, Switzerland: IUCN, 1995) estimated 85 percent; Janis B. Alcorn, "Noble Savage or Noble State?: Northern Myths and Southern Realities in Biodiversity Conservation," Ethnoecologica 2, no. 3 (1994). Others argue that displacement rarely occurs; see Alejandro Velazquez, and David Bray, "From Displacement-Based Conservation to Place-Based Conservation," Conservation and Society 7, no. 1 (2009): 11–14.
[36.] DLN 20653 of 24 July 1978, Ley de Comunidades Nativas y de Promoción Agropecuaria de las Regiones de Ceja de Selva y Selva, called "Ley de Selva." See discussion, Dourojeanni, Crónica, 108.
[37.] Gary Bernard Wetterberg, Maria Teresa Jorge Padua, Celso Soares de Castro, and José Manuel Carvalho de Vasconcelos, An Analysis of Nature Conservation Priorities in the Amazon, Technical Series No. 8 (Brasilia: Forestry Development and Research Project, UNDP/FAO/IBDF/Bra-545, 1976); José Augusto Drummond, "From Randomness to Planning: The 1979 Plan for Brazilian National Parks," in National Parks beyond the Nation: Global Perspectives on "America's Best Idea," ed. Adrian Howkins, Jared Orsi, and Mark Fiege (Norman: University of Oklahoma Press, 2016).
[38.] Antônio Carlos Sant'Ana Diegues, O mito moderno da natureza intocada (São Paulo: NUPAUB, 1994); Arturo Gómez-Pompa and Andrea Kaus, "From Pre-Hispanic to Future Conservation Alternatives: Lessons from Mexico," Proceedings of the National Academy of Sciences of the United States of America 96, no. 11 (1999): 5982–5986.
[39.] Rob Nixon, Slow Violence and the Environmentalism of the Poor (Cambridge, MA: Harvard University Press, 2011), 197.
[40.] Mark Carey, "Latin American Environmental History: Current Trends, Interdisciplinary Insights, and Future Directions," Environmental History 14, no. 2 (2009): 221–252.
[41.] Scarzanella, "Las bellezas naturales," 6.
[42.] Evans, Green Republic; Enrique Ortiz, "Una joya del mundo en el Perú," El Comercio, Lima, 26 May 2013.