

## AUTOMOBILE TOURISM, ROAD BUILDING, AND NATURE IN THE UNITED STATES AND BRAZIL, C. 1915-1935

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In 1923 the Californian real estate developer David Charles Collier visited Rio de Janeiro during Brazil's 100-year anniversary of independence from Portugal. Collier came to Rio as head of the U.S. delegation to the International Exposition that the Brazilian government had organized to celebrate the anniversary. In the aftermath of the exposition, Collier gave an interview to *A Noite*, one of Rio de Janeiro's most read newspapers, and emphasized how much he was enjoying his stay: "Let me say, so that all Brazilians might know, that I am absolutely delighted with the unique beauty of Rio de Janeiro, the everlasting enchantment of this city, the most appealing of so many cities I have seen ... ." <sup>1</sup> Collier said that Rio de Janeiro had the potential to become the most popular tourist destination in the Americas, provided that Brazil would establish a professional tourism industry. He compared the country to his homeland and concluded: "Brazil needs to take the same path California has taken. This state, where I have been living for forty years, spent a lot of time and money, advertising its fruits, gardens and mountains [...] Nowhere in California are there more attractive sites than in Rio de Janeiro."<sup>2</sup>

In its July issue of the same year, the auto magazine *A Estrada de Rodagem*, which was published in São Paulo, reprinted parts of the interview and added that journeys to other parts of the country would have left Collier even more enthusiastic, especially if he had "seen and admired the beautiful landscapes of other state capitals [...] and travelled on some of the many new highways."<sup>3</sup> Looking at a road map of Brazil from the early 1920s, one might say that the claim that there were many new highways to travel on was an exaggeration. However, at the time when Collier visited Rio de Janeiro, Brazilian proponents of automobility, road building, and leisure driving were gaining momentum, as were road backers in the United States.

In this article, I will examine early automobile tourism, road building, and the creation of car-friendly nature in the United States and Brazil in the early twentieth century. In the 1910s and 1920s, both countries saw a significant increase in automobiles and the rise of full-fledged car cultures. By 1929 the United States had become what the Americanist Cotton Seiler has termed a republic of drivers.<sup>4</sup> In

1 "O Rio pôde ser o maior centro de turismo da America do Sul," in *A Noite* (Rio de Janeiro, July 4, 1923): 1.

2 Ibid.

3 "As nossas possibilidades no Turismo," in *A Estrada de Rodagem* (July 1923): n.p.

4 Cotton Seiler, *Republic of Drivers: A Cultural History of Automobility in America* (Chicago, 2008), 68.

- 5 Rudy J. Koshar, "Driving Cultures and the Meaning of Roads: Some Comparative Examples," in *The World Beyond the Windshield: Roads and Landscapes in the United States and Europe*, eds. Christof Mauch and Thomas Zeller (Athens and Stuttgart, 2008), 16.
- 6 See Christof Mauch and Thomas Zeller, "Introduction," in *The World Beyond the Windshield: Roads and Landscapes in the United States and Europe*, eds. Christof Mauch and Thomas Zeller (Athens and Stuttgart, 2008), 1.
- 7 Thomas Zeller, "Editorial: Histories of Transport, Mobility and Environment," *The Journal of Transport History* 35, no. 2 (2014): iii; see also the essays in *Moving Natures: Mobility and the Environment in Canadian History*, eds. Colin M. Coates, Jay Young and Ben Bradley (Calgary, 2016).
- 8 Paul S. Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle, 2009, first published in 2002).
- 9 David Louter, *Windshield Wilderness: Cars, Roads, and Nature in Washington's National Parks* (Seattle, 2006).
- 10 Christopher Wells, *Car Country: An Environmental History* (Seattle, 2012).
- 11 Joel Wolfe, *Autos and Progress: The Brazilian Search for Modernity* (Oxford, 2010); Michael K. Bess, "Routes of Conflict: Building Roads and Shaping the Nation in Mexico, 1941-1952," *The Journal of Transport History* 35, no.1 (2014):

Brazil, many still could not afford a car at the time, but automobility's power to shape social relations and culture did not depend on high ownership rates.<sup>5</sup> During the interwar years, initiatives to construct infrastructures for motorized tourism and the transformation of remote natural areas into accessible and designed landscapes flourished in both countries. U.S. and Brazilian automobile and touring clubs, tourism associations, road builders, car manufacturers, government representatives, highway engineers, transportation planners, and environmentalists all engaged in debates about road building. My comparative approach aims to identify similarities and differences in those debates and the early development of automobile tourism in the United States and Brazil.

For a long time, historians largely ignored the relationship between cars, roads, and nature.<sup>6</sup> Recent scholarship, however, has pointed to the importance of environmental concerns in the history of transport and mobility.<sup>7</sup> Several U.S. scholars have approached automobility through the lens of environmental history. Paul S. Sutter (2002) explored how the rapidly increasing use of automobiles and motorcycles for leisure touring in National Parks and Forests turned the preservation of roadless and car-free areas into a major concern for the U.S. wilderness movement.<sup>8</sup> Focusing on three iconic National Parks in Washington state, David Louter (2006) examined the National Park Service's changing attitudes toward road building and automobile tourism between the 1910s and the 1960s.<sup>9</sup> Christopher Wells's *Car Country* (2012) is the most comprehensive environmental history of automobility in the United States to date. Wells described how urban and rural spaces across the country were refashioned, first, into car-friendly and then into car-dependent landscapes, discussing many different aspects of this process including suburbanization, the zoning of towns and cities, and the engineering of highways.<sup>10</sup>

Recently, the social and cultural history of automobility in Latin America has sparked growing interest among historians and scholars from neighboring disciplines. Scholars from several Latin American countries as well as Latin Americanists from other countries have made road building the subject of their research. Most studies focus on the significance of roads for state-led modernization projects and nationalist cultural politics.<sup>11</sup> Others

78-96; Michael K. Bess, "Revolutionary Paths: Motor Roads, Economic

Development, and National Sovereignty in 1920s and 1930s Mexico,"

*Mexican Studies/Estudios Mexicanos* 32, no.1 (2016): 56-82.

explore the emergence of automobile and touring clubs in the early twentieth century and the efforts of these associations to put pressure on local and national governments to invest in automotive infrastructures.<sup>12</sup> Almost no one has looked into the environmental aspects of automobility in Latin America.<sup>13</sup> Moreover, there are no comparative studies on the environmental history of automobility in the Americas.

Debates about road building and the creation of car-friendly nature are best explored through a comparative analysis of places that had an influential car lobby, spectacular landscapes which were attractive for touristic development, and a growing number of tourists taking to the road. Based on the findings of U.S. scholarship and the analysis of sources such as automobile magazines, essays written by highway engineers, and publications by environmentalists, all of which I found in Brazilian archives and libraries, I propose to compare the creation of material mobility infrastructures and the promotion of automobile tourism in the United States and Brazil. I will focus on the early development of automobility and road building in both countries, the images of nature and outdoor recreation that were employed to justify the construction of touristic routes, as well as the emergence of criticism of car travel into nature.

I will also discuss Brazilian perspectives on automobility in the United States and the importance of U.S. cultural and economic influence on road building in Brazil. Brazilian and U.S. automobile clubs, businesses, and government officials cooperated closely with each other and employed similar discourses on roads, driving, and exploring the beauty of the national landscape. Examining roads, cars, and nature in two different countries, my study expands on the linkages between historical mobility studies, environmental history, and cultural inter-American relations. My transnational comparison also allows me to take a step toward overcoming the often nationally centered narratives of automotive history.<sup>14</sup>

no. 2 (2015): 170-187; J. Brian Freeman: "Los Hijos de Ford": Mexico in the Automobile Age, 1900-1930" in *Technology and Culture in Twentieth-Century Mexico*, ed. Araceli Tinajero and J. Brian Freeman (Tuscaloosa, 2013), 214-232.

<sup>13</sup> One exception is Rodrigo Booth, "Turismo, Panamericanismo e Ingeniería Civil: La Construcción del Camino Escénico entre Viña del Mar y Concón (1917-1931)," *Historia* 47, no. 2 (2014): 277-311. Booth analyzed how and why Chilean automobile clubs and highway engineers celebrated the scenic road between Viña del Mar and Concón as a symbol for the successful integration of modern technology into nature. See also the recent book by environmental historian Shawn W. Miller, *The Street is Ours: Community, the Car, and the Nature of Public Space in Rio de Janeiro* (Cambridge and New York, 2018). Miller discusses how a motorized social elite worked to transform Rio de Janeiro's streets from a public space into motor thoroughfares over the first half of the twentieth century. See also the same author's article on the hazards of the Central American environment and the vibrancy of North American environmentalism as explanations for the failure to complete the Pan-American Highway. Shawn W. Miller, "Minding the Gap: Pan-Americanism's Highway, American Environmentalism, and Remembering the Failure to Close the Darién Gap," *Environmental History* 19 (2014): 189-216.

<sup>12</sup> Melina Piglia, "Motor Clubs in the Public Arena: The Argentine

Automobile Club, the Argentine Touring Club, and the Construction of

a National Roads System (1910-1943)," *The Journal of Transport History* 36,

<sup>14</sup> See also Mauch and Zeller, "Introduction," 10.

## I. Automobility and road building in the early twentieth century

The origins of initiatives for urban street improvement and paved roads in the United States go back to the pre-automobile era. Since the late 1880s, the country's most important bicycle association, the League of American Wheelmen, and bicycle manufacturer Albert Augustus Pope were at the forefront of a nationwide "good roads" campaign. Supported by railroad companies, whose interest lay in improving the conditions for freight transport to train stations, Pope and the Wheelmen touted proper roads and streets as a key element for prosperity and public welfare. The establishment of the Office of Road Inquiry at the U.S. Department of Agriculture in 1893 and the appointment of college-educated engineer Logan Weller Page as its director in 1905 bore witness to the growing influence of the campaign and the professionalization of American road building. Yet, by 1908 road boosters still lamented that outside of the country's main cities the conditions for motorized transportation were awful and the actual results in terms of construction of new overland routes were very meager.<sup>15</sup>

As the first decade of the twentieth century ended, the good roads campaign gained new force. Coinciding with the launching of Ford's Model T in 1908, the American Automobile Association (AAA), which had been established a few years earlier, the National Road Builders Association, and the National Garage, an agricultural organization, joined forces in a new Good Roads Movement. Pope had lobbied for federal funding of highway construction in the 1890s; the AAA, motorists, and automobile manufacturers now pressed for the same cause and succeeded. The Federal Highway Act of 1916 determined that Washington would oversee the planning and funding of road building throughout the United States. After the end of the First World War, which had convinced the military that motorization and highways were essential for national defense, the development of an extensive road building program by the Bureau of Public Roads (BPR) marked the beginning of a new era of expanded American automobility.<sup>16</sup>

As Christopher Wells has pointed out, the urban street reforms of the late nineteenth century and the expansion of road building after 1908 were initial steps in the remaking of the American transportation system around the car and the creation of car-centered landscapes. Beginning in the 1870s, new transportation technologies and infrastructures had changed the ways in which

15 Eric Rutkow, *The Longest Line on the Map: The United States, the Pan-American Highway, and the Quest to Link the Americas* (New York, 2019), 155-178.

16 *Ibid.*, 180-195.

people thought about and interacted with nature. Horse-drawn street cars, commuter railroads, and electric streetcars seemed to offer solutions to pressing urban problems like filth, pollution, disease, and overcrowded housing, though they soon caused new trouble as cities began to suffer from increasing traffic congestion. The reformers regarded roads as man-made instruments for the achievement of social and economic goals rather than entities governed by nature. Street improvements seemed to prove the human capability to exercise control over nature through administrative and technological knowledge. Such thinking and the physical changes wrought upon the landscape literally prepared the ground for the rapid growth of automobility in the early twentieth century.<sup>17</sup>

Environmental historian William Cronon argued that the diffusion of the automobile and the rise of U.S. car culture was “one of the most sweeping cultural and environmental revolutions in human history.”<sup>18</sup> Indeed, even before the creation of a vast highway network started to impact the natural world across the country, automobility was closely intertwined with the larger cultural-political project of evoking patriotic feelings among the population. The lack of passable roads was a major theme in travelogues written by leisure drivers who ventured upon transcontinental automobile trips across the United States in the first decade of the twentieth century. However, rather than complaining, these early automobilists who, in Rudy J. Koshar’s words, drove in the “pioneering mode,” celebrated themselves as trailblazers.<sup>19</sup> Driving on rough paths and roads in imperfect cars was seen as a strenuous form of leisure that made up for the decline of character-through-work which, in the opinion of many Americans, had marked daily life in the Gilded Age. Motorized travel writers, mostly white upper-class men and women, saw themselves as successors of nineteenth-century pioneers crossing the country and reopening the frontier which Frederick Jackson Turner had just declared closed in 1893.<sup>20</sup>

The description of the landscapes through which motorists traveled was an important element in the construction of such narratives. Accounts of early automobile journeys transmitted images of empty yet historically important landscapes and wild nature, which readers were supposed to associate with adventure. In fact, as Cotton Seiler has argued, these would-be conquerors drove through largely domesticated landscapes and the real danger they encountered was getting stuck in the mud in their unreliable cars.<sup>21</sup> As early as 1915,

17 See Wells, *Car Country*, xxx-xxxii, 22-34.

18 William Cronon, “Foreword,” in Christopher Wells, *Car Country: An Environmental History (Seattle, 2012)*, x.

19 Koshar, “Driving Cultures and the Meaning of Roads,” 18.

20 Seiler, *Republic of Drivers*, 47-48.

21 *Ibid.*, 47-50.

novelist and socialite Emily Post, on a road trip from New York to San Francisco, struggled with the standardized character of towns in the Midwest, which made seeking authenticity and adventure difficult.<sup>22</sup> In the years to come, the increasing standardization and commercialization of roadside landscapes would lead many automobilists to lament the lack of authenticity. However, throughout the 1910s and 1920s, images of motorized pioneers conquering a wild America prevailed as automobile manufacturers sponsored most of the early cross-country trips, and the car lobby, including the Good Roads Movement, emphasized the links between touring the country and loving it in their advertising of roads and automobiles.<sup>23</sup>

In Brazil, urban elites were the main proponents of an early car culture. In Rio de Janeiro and São Paulo, the lucky few who could afford imported cars from Europe used their vehicles to display their wealth as well as for business and joyriding. Those who were not riding in cars, including many journalists, observed the new machines and their drivers with mixed feelings. On the one hand, accidents and traffic conflicts caused opposition to the automobile and antipathy towards motorists.<sup>24</sup> On the other hand, many were fascinated by speed and associated driving and automobilism with progress, science, challenge, and adventure.<sup>25</sup>

The main proponents of such ideas were automobile associations like the Automóvel Clube do Brasil (ACB), established in Rio de Janeiro in 1908, and automobile magazines, published since the early 1910s. The automobile clubs and magazines worked to make car culture popular and aimed at broader car ownership. Initially, they addressed an urban audience but soon turned their attention to the fact that the infrastructures of automobility barely reached beyond the limits of the country's largest cities. Automobile clubs and touring associations, which soon became powerful forces in municipal and state politics, were among the most ardent defenders of road building. In 1916, the ACB hosted the First National Roads Congress in Rio de Janeiro. During the congress, proponents of motorization, or *automobilistas* in their own words, criticized the rough conditions for driving outside of urban areas and presented road building as a matter of urgency. Magazines and journals like *Auto-Propulsão*, *A Estrada de Rodagem*, and *Boas Estradas* also promoted highway construction. They argued that roads promised physical speed, political freedom, and economic prosperity. Furthermore, they described automotive infrastructures as an

22 Andrew S. Gross, "Cars, Postcards, and Patriotism: Tourism and National Politics in the United States, 1893-1929," *Pacific Coast Philology* 40/1 (2005): 77-97, here 89-94.

23 See Seiler, *Republic of Drivers*, 49-50.

24 On urban traffic conflicts in Brazil in the early days of automobility see Miller, *The Street is Ours*, 149-190; see also, Mario Peters, "Desastre!: Accidents, Traffic Conflicts, and U.S. Influence in the Construction of Automobile Hegemony in Brazil, 1910-1930," *Canadian Journal of Latin American and Caribbean Studies/Revue Canadienne des études latino-américaines et caraïbes* 45, no. 1 (2020): 104-121.

25 Wolfe, *Autos and Progress*, 14.

instrument to settle important social issues, particularly the regional disparities between the cities on the Atlantic coast and the country's vast hinterland.<sup>26</sup>

Brazilian auto aficionados believed that broader car ownership and good roads were key elements in the construction of a national identity. Automobile journeys beyond their home region would put people into contact with their compatriots and allow them to discover historical sites. Driving through impressive landscapes would give rise to patriotic sentiment and make citizens love their country. Like their U.S. counterparts, members of automobile clubs and road backers portrayed themselves as successors of eighteenth-century pioneers (*bandeirantes*). In 1925, a group of auto enthusiasts founded the Clube dos Bandeirantes (Pioneers Club) in Rio de Janeiro. In its October issue of the same year *Boas Estradas* explained that these modern pioneers were doing their country a great service by bringing progress to the vast hinterland through exploration on four wheels and highway construction.<sup>27</sup>

The Brazilian road campaign was clearly inspired by the contemporary discourse on roads and automobility in the United States. Beginning in the late 1910s, Brazilian auto enthusiasts closely studied U.S. highway construction and presented it as a model, especially with respect to construction techniques, machinery, and the national funding of road infrastructure. In contrast to the United States, Brazil did not have a domestic auto industry at the time, but the *automobilistas* were a small yet powerful minority. Moreover, as historian Richard Downes has explained, U.S. auto-related businesses eagerly invested in the expansion of automotive infrastructures in Brazil. Close ties to its namesake in the United States strengthened the Brazilian Good Roads Movement (Movimento de Boas Estradas), and the Permanent Highway Association (Associação Permanente de Estradas de Rodagem, APER), established in São Paulo in 1917, also received a great deal of support from U.S. automotive businesses. The American Chamber of Commerce, which opened a branch in São Paulo in 1920, had considerable influence in the APER, particularly after its general manager, Charles M. Kinsolving, also assumed office as secretary of the Highway Association in August 1921. Both organizations had common commercial interests and cooperated in pressing for the extension of road networks in the state of São Paulo.<sup>28</sup> Representatives of the American auto industry and Thomas H. MacDonalld, the chief of the Bureau of Public Roads, visited Brazil several

26 *Ibid.*, 36-38.

27 "Clube dos Bandeirantes" in *Boas Estradas* (São Paulo, October 1925): 18.

28 Richard Downes, "Autos Over Rails: How US Business Supplanted the British in Brazil, 1910-1928," *Journal of Latin American Studies* 24, no. 3 (Oct. 1992): 551-583, here 561-567.



times during the 1920s and published articles on road building in Brazilian auto magazines and newspapers. North American road building entrepreneurs moved to Brazil, joined the ACB, the APER, and the Clube dos Bandeirantes and soon became the spearhead of the Movimento de Boas Estradas.

In the United States, the transformation of the nation's ecosystems through automobility and its material infrastructures was well underway by the early 1920s. In Brazil, actual construction of overland routes was still very limited at the time. However, two iconic road building projects, the highway between Rio de Janeiro and São Paulo and the construction of a road from Rio to Petrópolis, a mountain resort and former summer home of Emperor Dom Pedro II, 80 kilometers north of the city, fascinated the *automobilistas* and attracted investment by U.S. businesses. Soon, both highways would also become subjects of debates that addressed nature as a space to be discovered and appreciated through the windshield.

## **II. Knowing nature through leisure**

The early development of automobile tourism in the United States and Brazil was profoundly influenced by the belief that the best way for people to get to know nature was outdoor recreation on four wheels. In both countries, road enthusiasts and supporters of motorization justified the construction of touristic routes by arguing that only roads and cars would allow tourists to discover the beauty of the national landscape. Scenic roads seemed to display the successful integration of nature and technology.

In the United States, the idea that outdoor leisure activities promised relief from the pressures of the urban industrial world figured prominently in public discourse since the last quarter of the nineteenth century. For a long time, most Americans had neither the necessary resources nor the time for weekend outings or the like, but things changed significantly during the interwar years. According to environmental historian Paul S. Sutter, the expansion of automobility, the willingness of the federal government to invest in automotive and recreational infrastructures, and the parallel development of car- and consumer cultures led to a mass embrace of outdoor recreation. During the 1920s, a growing number of Americans enjoyed the unprecedented access to nature their cars gave them and went auto camping. Many shared the belief that, contrary to the predetermined



destinations of nineteenth-century railroad tourism, nature was an open space to visit. Road builders, car manufacturers, and the American tourist industry warmly embraced this view and worked to foster the image of cars and roads as harbingers of a more democratic form of tourism.<sup>29</sup>

The transformation of natural areas into car-centered landscapes in the interwar era followed two major trends. First, beginning in the late 1910s, state agencies and the National Park Service started to build roads to and through National Parks.<sup>30</sup> Mount Rainier National Park in Washington state, which was opened in 1899, was one of the first parks to be refashioned into what environmental historians have called windshield wilderness. Roads were designed to make even the most remote areas of Mount Rainier accessible to tourists. They structured visitors' experiences of the park allowing them to appreciate scenic views of mountains, valleys, meadows, forests, and streams.<sup>31</sup> Mount Rainier's road system illustrated not only the central role of automobility in park design but also the conviction that the presence of automobiles in park areas did not threaten the preservation of nature. Some voices even claimed that the future of National Parks depended on cars and roads. Indeed, thousands of American citizens only came to know Mount Rainier and other parks due to their automobiles. However, as David Louter has emphasized, the landscapes they drove through were carefully engineered playgrounds for motorists.<sup>32</sup> National Park roads did not only offer spectacular views; in most cases they also gave access to hiking trails, canoe docks, picnic areas, campsites and other amenities that catered to tourists.<sup>33</sup>

The construction of parkways was the second major trend in the creation of car-friendly nature in the United States. The design of these roads borrowed from concepts developed by landscape architect Frederick Law Olmsted Sr. in the mid-nineteenth century.<sup>34</sup> The adaption of Olmsted's ideas to the automobile age first found expression in New York's Bronx River Parkway in 1925. Soon, parkways, whose main purpose was to offer a respite from urban life and make driving a pastime, began to crisscross the countryside, where drivers were supposed to engage in recreation while traveling through pastoral landscapes.<sup>35</sup> These roads were designed not only

29 Sutter, *Driven Wild*, 23-35; see also Wells, *Car Country*, 201-227.

30 William Cronon, "Foreword," in David Louter, *Windshield Wilderness: Cars, Roads, and Nature in Washington's National Parks* (Seattle, 2006), x.

31 See Wells, *Car Country*, 220-222.

32 Louter, *Windshield Wilderness*, 19-35.

33 Wells, *Car Country*, 221-222; see also Sutter, *Driven Wild*, 30. According to Sutter, contemporary sources estimated that in the mid-1920s ten to fifteen million Americans visited campgrounds for automobile tourists each year. I did not find any reliable information on how many tourists went beyond just appreciating scenic views from their cars, experiencing nature by using hiking trails, swimming, hunting, or going on canoe trips. As historian Maude-Emmanuelle Lambert has shown for the case of Ontario, Canada, road builders and tourism associations often used images of automobile tourists partaking in such activities in their advertising. Such representations left the impression that cars and roads were essential for people to get to remote areas where they could enjoy non-motorized forms of outdoor recreation. See Maude-Emmanuelle Lambert, "Automobile Tourism in Quebec and Ontario: Development, Promotion, and Representations, 1920-1945," in *Moving Natures: Mobility and the Environment in Canadian History*, eds. Colin M. Coates, Jay Young and Ben Bradley (Calgary, 2016), 313-314.

34 On Olmsted's ideas see Christopher Wells, "Rebuilding the City, Leaving it Behind:

Transportation and the Environmental Crisis in Turn-of-the-Century American

Cities," *The Journal of Transport History* 35, no. 2 (2014): 183-199.



**Figure 1: Highway from White River to Sunrise in Mount Rainier National Park, WA, 1932. Roads that were extended into the heart of National Parks afforded automobile tourists access to remote areas and the opportunity to appreciate spectacular views. Source: National Park Service Archives, Records, and Research, NPS Historic Photograph Collection (HFCA 1607). Photo: George A. Grant. Public domain.**

to introduce motorists to beautiful landscapes but also to tell selected versions of American history. Thus the Mount Vernon Memorial Highway, and the Colonial, Blue Ridge, and Natchez Trace parkways all led to historically significant sites and afforded views of log cabins, bridges, fences, and other features that were carefully engineered to evoke images of the nation's glorified past.<sup>36</sup>

In early twentieth-century Brazil, there was no comparable parkway movement, and the country did not inaugurate its first National Park until 1937. However, like their U.S. counterparts, Brazilian automobilists were impressed with the overwhelming sceneries that they could observe from behind the wheel. In the 1920s, they used images of their country's tropical nature to justify the investment of public funds in road construction and argued that only good roads would make mountains, forests, beaches, and lakesides accessible to the nation's citizens. Businessmen, automobile clubs, and state and federal government actors aimed to boost tourism. Auto magazines encouraged Brazilians to discover the great diversity of the country's sites of outstanding beauty<sup>37</sup> and sought to convince wealthy foreign tourists to spend their vacation traveling through Brazil by road.<sup>38</sup>

The automotive press bragged of the road from Rio de Janeiro to Petrópolis as one of the most beautiful scenic drives in the world. The idea for this road had been proposed by Brazil's foreign minister José Paranhos, known as Baron of Rio Branco, in 1906. The ACB pushed for its construction since 1916 and soon started roadwork, funded by donations from its members and local businesses. Over the following years, car journals published numerous articles, most of which included picture series, stating that the highway stretch in the Serra dos Orgãos mountain range, once finished, would offer superb views.<sup>39</sup> In 1923, a group of local businessmen established a tourism association in Petrópolis which cooperated with the ACB and

35 Wells, *Car Country*, 223-226.

36 For a detailed analysis of how parkways were conceived of as public history enterprises see Timothy Davis, "The Rise and Fall of the American Parkway," in *The World Beyond the Windshield: Roads and Landscapes in the United States and Europe*, eds. Christof Mauch and Thomas Zeller (Athens and Stuttgart, 2008), 35-58, here 45-50.

37 "As bellezas naturales da Estrada Rio-Petropolis," in *O Automovel* (April 1, 1924): n.p.

pressured the Rio state government to invest in the completion of the Rio-Petrópolis highway. Their efforts were supported by U.S. investors like David Charles Collier. In São Paulo, the local highway association stressed that future car travel depended on the Rio-São Paulo highway, established a tourism section, and pursued the mission of making the federal state's roads and the beauty and power of its landscapes known to the public.<sup>40</sup>



**Figure 2. Automobile tourists at a campground in Mount Rainier National Park, WA, 1941. Source: National Park Service Archives, Records, and Research, NPS Historic Photograph Collection (HFCA 1607). Photo: George A. Grant. Public domain.**

Brazilian auto enthusiasts and road backers did not always appreciate nature. Complicated geography and the tropical climate presented very serious challenges to roadbuilding. As early as 1913 the magazine *Revista de Automoveis* had predicted that the Rio-Petrópolis road would soon be a reality.<sup>41</sup> But over the following years, frequent heavy rainfalls, quagmires, difficulties in disposing of surpluses of excavated soil, the large number of streams and rivers, and flooded terrain made roadwork difficult and led to the failure of several attempts to build the highway.<sup>42</sup> In 1925, *O Automovel* reported that vast stretches were still impassable.<sup>43</sup> In May 1926, the ACB organized a motorcade to celebrate the opening of the Rio-Petrópolis highway, but trouble continued. In a paper on the highway presented at the Second Pan American Highway Congress in 1929, the engineer J.T. Oliveira Penteadó emphasized that keeping the roadbed in conditions that allowed car traffic cost the state government a fortune. Road workers had started paving stretches of the highway some years earlier, and Penteadó concluded that only paving kept the road from being damaged by inundations in lowlands and torrents in the mountain range.<sup>44</sup> Once the Rio-Petrópolis road was open for traffic, it became a symbol for supposed human might over nature. At the time, Brazilian

43 "A estrada de rodagem Rio-Petropolis," in *O Automovel* (May 1925): 18.

44 *Guia Rodoviário Brasileiro: contribuição do Segundo Congresso Panamericano de Estradas de Rodagem,*

*aprovado pela Comissão organizadora*, ed. Levi Autran (Rio de Janeiro, 1929), 72-75.

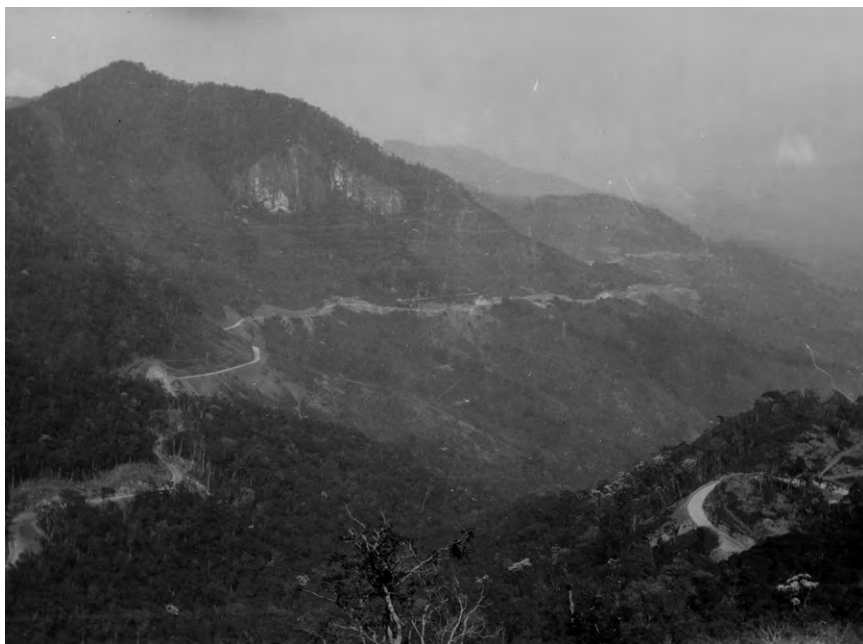
38 Alves de Souza, "O turismo como industria e propaganda," in *A Estrada de Rodagem*, (June 1923): n.p.

39 *O Automovel* (1 April 1924); *Boas Estradas* (October/November 1927); *Auto-Sport* (December 15, 1926): 3; *Automovel Club* (March 1926): 12 and (May 1926): 19; *Automobilismo* (September 1928): 19.

40 *A Estrada de Rodagem* (March 1924): n.p.; "Quando teremos o Touring Club do Brasil?," in *Automobilismo* (June 1926): 13.

41 "A grande Avenida Rio-Petropolis," in *Revista de Automoveis* (April 1913): 567.

42 "Do Rio a Petropolis," in *Auto-Propulsão* (September 1916): n.p.



**Figure 3: A stretch of the road from Rio de Janeiro to Petrópolis in the Serra dos Orgãos mountain range. Date unknown. In the 1920s, the Rio-Petrópolis highway was one of the two most important road building projects in Brazil. Source: U.S. National Archives and Records Administration. RG 30: Records of the Bureau of Public Roads, 1892-1972. 169141554. Public domain.**

45 “O bom automobilista,” in *Boas Estradas* (June 1925): 27.

46 Candido Mendes de Almeida: “Estrada Rio-Petropolis,” in *Automovel Club* (May 1926): n.p.; “Estrada de Rodgem Rio-Petropolis,” in *Boas Estradas* (November/December 1927): 315.

auto enthusiasts continued to admire U.S. road builders for constructing arteries of civilization.<sup>45</sup> They criticized the poor state of transportation infrastructure in Brazil and emphasized that most Brazilians still traveled by horse or oxcart. Yet this line of reasoning, which aimed at federal aid for road infrastructure, did not prevent them from celebrating the Rio-Petrópolis highway and other new roads as symbols of national progress and proof for the advanced state of Brazilian highway engineering.<sup>46</sup>

In September 1925 Américo R. Netto, a member of the Clube dos Bandeirantes, went on a driving tour from São Paulo to Rio de Janeiro with several fellow club members. The road trip, which they referred to as *Bandeira*, was one of many long-distance trips which Brazilian *automobilistas* organized at the time to create public support for the Good Roads cause. They usually published detailed travel reports in auto magazines and so did Netto.<sup>47</sup> In his report, he remembered how wildlife had impressed him. Moreover, Netto explained how close contact with nature had brought the *bandeirantes* new vitality and energy. He portrayed driving, even on rough paths, as a refreshing escape from the comfort of office chairs and the artificiality and rush of modern city life. Netto’s





report also transmitted visions of beautifully designed roadside landscapes, which featured tamed animals and picnic spots in picturesque settings.<sup>48</sup> Contrary to the United States, however, Brazil did not afford drivers such recreational wonderlands at the time. While drivers in the U.S. traveled on improved roads but also felt the negative impact of increasing roadside commercialization and standardization, Brazilian motorists faced quite different challenges. As Netto's *Bandeira* entered the lowlands and swampy areas of the Baixada Fluminense northeast of Rio de Janeiro, their experience of the environment changed. Netto wrote that for the first time, he and his fellow automotive pioneers found nature to be hostile. He called this stretch the most unpleasant part of their journey and complained about the unbearable heat, the unattractive roadside landscape, giant swarms of mosquitoes, and numerous quagmires on the way. For the first time, Netto felt that their trip had been a bad idea. The Baixada Fluminense drove the *bandeirantes* to despair and led some of them to quench their thirst by drinking brackish water from swamps.<sup>49</sup> Netto also lamented the withering of vegetation in the Baixada Fluminense and said that due to the dry and hot climate, slash and burn, and the devastation of

**Figure 4: Roadwork at the Rio-Petrópolis highway. Date unknown. Source: U.S. National Archives and Records Administration. RG 30: Records of the Bureau of Public Roads, 1892-1972. 169141550. Public domain.**

<sup>47</sup> Netto was the director of *Boas Estradas* and an editor of the *Estado de São Paulo* newspaper, which shows the influence that automobilistas had in the press at the time.

<sup>48</sup> "A história da "Bandeira," in *Boas Estradas* (October/November 1925): 44.

<sup>49</sup> *Ibid.*, 40.

forests, Brazil was turning into a desert. In fact, he borrowed this argument from prominent members of the Brazilian environmental movement, who fought against deforestation and, in the 1920s, started to deal with the roads question.

### **III. Environmentalism and critical perspectives on roads and car travel**

The construction of roads and the growth of motorized traffic imposed enormous environmental costs. It is important to consider how contemporary observers perceived the transformations wrought upon landscapes and ecosystems by the expansion of road networks and leisure driving. In what follows I will focus on environmentalists' perspectives on automobile tourism and road building. During the interwar years the United States and Brazil both had very active environmentalist movements whose members closely observed recreational infrastructure developments and commented on the impact of cars and roads on nature. A transnational comparison illustrates how diverse and sometimes inconsistent reactions to the expansion of automobility were.

The U.S. environmental historian Christopher Wells has argued that the ecological changes brought about by roads were often less obvious than the impact of automobile production, which caused pollution and extensive consumption of raw materials. Yet, roadwork and car traffic have profound impacts on ecosystems in the immediate roadside landscape. Roads divide landscapes, cause noise pollution, and destroy natural habitats. They also lead to profound changes in the natural world by affording access to remote areas and attracting commerce and new forms of land use.<sup>50</sup>

In the United States, the interwar boom in road construction and leisure driving created complex environmental problems: campgrounds for automobile tourists consumed enormous amounts of water and wood and caused soil compaction. Improper sanitation resulted in water pollution, and campers sullied roadsides with waste. The establishment of hot dog and ice cream stands, restaurants, and gas stations, all of which catered to the needs of tourists, added to pollution and profoundly altered the landscape experience of leisure motorists.<sup>51</sup>

50 See Wells, *Car Country*, 212-214.

51 Sutter, *Driven Wild*, 35-37.

During the interwar years, U.S. highway engineers studied the interaction between automotive infrastructures and their environments

but focused on soil studies, surfaces, foundations, and other aspects that were essential for the construction of good roads. While many engineers became proponents of roadside beautification, they did not consider the impact of roads and motor traffic on landscapes, fauna, and flora.<sup>52</sup> In the early twentieth century, most American naturalists had not been too worried about the destructive potential of roads and cars either. John Muir and the Sierra Club had been supporters of motorization because they believed that car travel would increase people's interest in nature and create support for the establishment of National Parks. Like many at the time, these advocates of wilderness protection were convinced that automobility and nature could be mutually beneficial.<sup>53</sup>

As U.S. environmental historian Paul S. Sutter has shown, ecologist and forester Aldo Leopold, who became known as the "Father of the National Forest Wilderness System," was among the first who voiced criticism of the rapid diffusion of automobiles, unchecked road building, and the recreational development of public lands.<sup>54</sup> Leopold graduated from Yale's forestry school in 1909 and soon started working for the recently established U.S. Forest Service in New Mexico and Arizona. In the early 1920s he developed a proposal to declare the Gila National Forest (NM) the first wilderness area in the United States, and his efforts were successful.<sup>55</sup> Since the early years of his career, Leopold was particularly concerned about the rampant increase in summer homes, municipal and private camps, resorts, and hotels in National Forests. He understood that the Highway Act of 1916 and the subsequent construction of forest roads and highways had facilitated such developments and fueled motorized tourism. Leopold also worried about the industrial extraction of natural resources, but from his point of view, road building and recreational development presented the most imminent threat to forest preservation.<sup>56</sup> At the Second National Conference on Outdoor Recreation held in Washington, D.C. in 1926 as well as in many of the articles which he wrote for popular magazines and academic journals, Leopold lashed out at the Good Roads Movement and automotive interest groups and did not spare the National Park Service, whose policies had furthered the consumerist trends of car travel.<sup>57</sup> He denounced the devastating effects of motorization and commercialization, arguing that roads, cars, and hotels also violated the rights of hikers and others who sought a retreat in nature through non-motorized forms of recreation. During the years that followed, Leopold's negative perception of roads and cars did not change. In 1938, commenting on the ongoing expansion of transportation

52 Wells, *Car Country*, 215.

53 See Louter, *Windshield Wilderness*, 26-35.

54 Paul S. Sutter, "A Blank Spot on the Map": Aldo Leopold, Wilderness, and U.S. Forest Service Recreational Policy, 1909-1924," *Western Historical Quarterly* 29, no.2 (1998): 187-214, here 187-189. The quote is from James P. Gilligan, "The Development and Administration of Forest Service Primitive and Wilderness Areas in the Western United States" (Ph.D. diss., University of Michigan, 1953), 82, quoted in Sutter, "A Blank Spot on the Map," 187.

55 The Aldo Leopold Foundation: Aldo Leopold. <https://www.aldoleopold.org/about/aldo-leopold/> (last accessed February 18, 2021). See also, Sutter, "A Blank Spot on the Map," 189-190.

56 Sutter, "A Blank Spot on the Map," 209.

57 *Ibid.*, 212; see also Sutter, *Driven Wild*, 46-47.





**Figure 5. Auto-stages at the Paradise Inn in Mount Rainier National Park, WA, 1926. Aldo Leopold and other U.S. wilderness advocates harshly criticized motorized tourism and the construction of hotels and other recreational infrastructure in National Parks and Forests. Source: National Park Service Archives, Records, and Research, NPS Historic Photograph Collection (HFCA 1607). Photo: Asahel Curtis. Public domain.**

infrastructures in National Parks and Forests, he insisted that “recreational development is a job not of building roads into lovely country, but of building receptivity into the still unlovely human mind.”<sup>58</sup> By that time, other wilderness preservationists, who joined forces in the Wilderness Society, which had been established in 1935, had come to share Leopold’s conviction that it was essential to keep protected areas free from automotive infrastructures.

Over the following decades, the creation and defense of roadless areas became a central cause for U.S. environmentalists, and their efforts resulted in the Wilderness Act of 1964, which determined that wilderness areas should have no motorized travel.<sup>59</sup>

Like their colleagues from North America, Brazilian highway engineers in the 1920s promoted roadside beautification projects. Planting trees along transportation corridors was nothing new; railway companies had been obliged to do so to gain concessions since the nineteenth century. At the 1916 National Roads Congress, participants discussed ideas to plant eucalyptus and other “industrial trees” for commercial use along traffic routes.<sup>60</sup> A few years later the botanist and ardent defender of forest protection Frederico Carlos Hoehne also called for the embellishment of roadside landscapes. In an article published in the December 1923 issue of *Boas Estradas*, Hoehne voiced his support for road building in remote areas, which he, like many auto enthusiasts, described as an essential factor of progress and development. Forested roadsides, he argued, would reduce dust swirled up by cars. Hoehne wrote that roadside beautification was cheap, as it could be done by planting indigenous trees, and would increase the comfort, well-being, and pleasure for car travelers.<sup>61</sup> The following month, in another article in the same magazine, Hoehne again pushed for new roads. Writing about a forest reserve on the margins of the recently built São Paulo-Mato Grosso highway, he stressed that the highway had done no harm to the natural

58 Aldo Leopold, “Conversation Esthetic,” *Bird Lore* 40 (March-April 1938): 101-109. Reprinted in Aldo Leopold, *A Sand County Almanac* (New York, 1949), 176-177, quoted in Sutter, “A Blank Spot on the Map”, 214.

59 Cronon, “Foreword,” in Louter, *Windshield Wilderness*, ix-xiii.

60 “Primeiro Congresso Nacional de Estradas de Rodagem,” in *Auto-Propulsão* (November 1916): n.p.

world, rather, it had made the forest accessible and revealed its outstanding beauty. Taking Yellowstone as a role model, Hoehne called for the creation of a national park and emphasized that it was necessary to construct more roads into the reserve in order to allow people to appreciate its most picturesque sites. Hoehne's article included a series of pictures showing the new highway, and one of the captions read: "it is easy to see how the road brought a touch of civilization to the landscape without depriving it of its rustic character."<sup>62</sup>

Whereas Hoehne did not see any conflict between road building and forest protection, other environmentalists soon became aware of the negative impact of the broadened access to nature provided by automotive infrastructures. In a letter to President Getúlio Vargas, Luis Simões Lopes, an agricultural economist and government official, wrote: "Your Excellency surely did not fail to notice the criminal devastation of forests on the margins of the Rio-Petrópolis highway, where beautiful trees, which constitute one of the main attractions of this region privileged by nature, are being transformed into coal." Lopes asked Vargas to authorize the national forest service (Serviço Florestal) to plant new trees in the affected areas and called for the foundation of a forest reserve in the Serra dos Órgãos.<sup>63</sup> In 1933, the journalist and agronomist José Marianno Filho published his book *O problema florestal de Petrópolis*, in which he wrote that the opening of the Rio-Petrópolis highway had led to a sudden increase in logging. A few years later, Filho was appointed president of the new federal forest council (Conselho Florestal Federal), and during his term the protection of forest environments along that road would become one of the council's main objectives. The Friends of Trees Society (Sociedade dos Amigos das Árvores) and the National Museum organized the First Brazilian Conference on Nature Protection in Rio de Janeiro in 1934. In his opening address to the conference, the society's chairman, Leônico Corrêa, also denounced forest degradation along the Rio-Petrópolis highway: "Where roads are constructed into the backlands, forests are being destroyed, and you can be sure, that remains unpunished. To see an example of this kind of crime, it is enough to go from here to Petrópolis, or, just to Mangaratiba [100 km west of Rio de Janeiro]. These are recently inaugurated highways. On their margins there are no forests left. Everything has been destroyed without mercy. Everything transformed into coal or firewood."<sup>64</sup>

61 Frederico Carlos Hoehne, "O embelezamento das estradas de rodagem," in *Boas Estradas* (December 1923), n.p.

62 Frederico Carlos Hoehne, "A reserva florestal 'Washington Luis'," in *Boas Estradas* (January 1924), n.p.

63 Letter from Luis Simões Lopes to Getúlio Vargas, 1931/1932, Fundação Getúlio Vargas, Archive of the Centro de Pesquisa e Documentação de História Contemporânea do Brasil, Rio de Janeiro, Brazil. CPDOC, LSL\_apu\_1928.08.03. The Serra dos Órgãos was declared a National Park in 1939. Unless otherwise noted, all translations are the author's.

64 *Boletim do Museu Nacional* (Rio de Janeiro, March 1935): 16-17.

These sources show that in the early 1930s some Brazilian environmentalists saw a connection between the opening of new roads and the destruction or degradation of forests. Yet, the quotations above also reveal that they did not criticize the presence of roads and cars in nature per se. Instead, Lopes, Filho, Corrêia, and others worried about the fact that roads offered access to once remote areas and facilitated the exploitation of natural resources. They demanded that federal and state governments limit such exploitation and act against non-compliance with environmental protection laws. Contrary to the founders of the U.S. Wilderness movement, however, Brazilian environmentalists did not oppose road building and some even justified their call for the stricter enforcement of environmental laws by pointing to the connection between deforestation, soil erosion, landslides, and the threats that the latter presented to “the beautiful [Rio-Petrópolis] highway.”<sup>65</sup>

#### **IV. Conclusion**

We have seen that road backers in the United States and Brazil used similar arguments to promote the construction of new roads and motor travel into nature. At the same time, there were significant differences in the early development of road building and automobility in both countries. In part, these differences were rooted in the decades that preceded the accommodation of cars in daily life. In the United States, a powerful and influential cyclist movement had demanded the paving of roads since the 1880s. In the early twentieth century, leaders of the rising American auto industry backed the Good Roads cause and successfully campaigned for federal aid. In Brazil, by contrast, there was no turn-of-the-century bicycle culture and it would take decades for the country to have a domestic car industry. However, car aficionados in South America’s largest country soon found the support of U.S. businessmen and investors who worked eagerly to reshape the car debate and touted all the good things that new roads would bring. At home, the latter had successfully shifted public opinion toward the notion that bad roads did not correspond to images of American exceptionalism and the position of the United States as one of the great powers of the world. In Brazil, auto enthusiasts likewise insisted that national progress and modernization depended on the construction of a vast network of highways. Road backers in both countries understood that the use of such abstract terms as progress, modernization, and civiliza-

<sup>65</sup> *Ibid.*, 16.

tion would not be enough to win people over to their cause. Making use of a glorified past, they propagated the notion that driving was a patriotic duty and portrayed early motorists as modern pioneers. In the United States, such images focused on reopening the frontier; in Brazil, adventurers on four wheels were laying the groundwork for the integration of the national territory and the reduction of regional disparities.

If U.S. scholarship has called the creation of car-centered landscapes an environmental revolution, it is safe to say that in Brazil things did not go that far, at least not until the 1930s. In the United States, the refashioning of the nation's ecosystems through automobility was most visible in parkways and the roads that extended into National Parks, which were the main routes for early American leisure driving and car travel. Although Brazil did not have such infrastructures at the time, the "Knowing Nature Through Leisure" theme was as important to the expansion of automobility in Brazil as it was in the United States. Like U.S. boosters, Brazilian auto backers claimed that the power and beauty of the national landscape were unique and that driving afforded an authentic outdoor experience. During the interwar years, however, the conditions that leisure motorists encountered in both countries often did not correspond to the road propaganda, be it due to the increasing commercialization and standardization of U.S. roadside landscapes or to the challenges that impassable roads, geography, and the tropical climate presented to motor tourists in Brazil.

The transnational comparison of early automobility sketched in this article has revealed one major difference: Whereas in the 1920s and 1930s some U.S. environmentalists took a clear stand against road building, in Brazil there was no such opposition. U.S. wilderness advocates like Aldo Leopold regarded cars and roads as a central issue in their disputes with proponents of motorization; and their crusade against automobiles was ultimately successful. In Brazil, foresters railed against rampant deforestation and resource extraction, which they saw as consequences of the broadened access to once remote areas. But they did not question road building and motor travel into nature. Until well into the twentieth century, many

Brazilian environmentalists shared the widespread belief that people's chances to appreciate nature depended on cars and roads.

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