

Eduardo Bacani
Ribeiro

b

ETWEEN ARMS AND COATS
OF ARMS: A LOOK AT THE
RAILROAD DEVELOPMENT
IN THE INTERIOR OF SÃO
PAULO

pós- | 1

ABSTRACT

This paper seeks to carry out a brief historiographical review of the process of railway development that took place in the interior of the state of São Paulo between the end of the 19th century and the beginning of the 20th century – the flowering period of coffee crop. Through the production of classic authors and more recent researchers, the text, in addition to addressing aspects that over the years have been frequent in studies when referring to this trajectory, also seeks to punctuate little explored terms that still require investigation.

KEYWORDS

Railways – São Paulo – Coffee-growing



[HTTP://DX.DOI.ORG/10.11606/ISSN.2317-2762.POSFAU.2020.162737](http://dx.doi.org/10.11606/ISSN.2317-2762.POSFAU.2020.162737)

Pós, Rev. Programa Pós-Grad. Arquit. Urban. FAUUSP. São Paulo, v. 27, n. 51, e162737, 2020.

ENTRE BRAÇOS E BRASÕES:
UM OLHAR SOBRE O
DESENVOLVIMENTO
FERROVIÁRIO NO
INTERIOR PAULISTA

RESUMO

O presente trabalho procura realizar uma breve revisão historiográfica do processo de desenvolvimento ferroviário ocorrido no interior do estado de São Paulo entre finais do século XIX e início do século XX – período de florescimento da cultura cafeeira. Por meio da produção de autores clássicos e pesquisadores mais recentes, o texto, além de abordar aspectos que ao longo dos anos têm sido frequentes nos estudos sobre tal trajetória, procura pontuar, também, termos pouco explorados e que ainda demandam investigação¹.

PALAVRAS-CHAVE

Ferrovias – São Paulo – Cafeicultura

The first railway models that appeared in Europe were simple tracks made with wooden rails and trailed by animated traction, like those used in the plants of New-Castle, England. Then, in 1770, they became made of cast iron and only later, in 1820, they became iron rails, traversed by the first locomotive machines (PINTO, 1977).

Considering that the first public service railway was inaugurated in 1825² between Stockton and Darlington, at the initiative of George Stephenson, it was the inauguration of the railway between Liverpool and Manchester, the first to transport cargo and passengers, which effectively marked the beginning of the railroad era.

In Brazil, a few years after that, on October 31, 1835, o the Regent of the Empire, Father Diogo Antônio Feijó, sanctioned the so-called "Feijó Law", aiming to link Rio de Janeiro to the captaincies of Minas Gerais, Rio Grande do Sul and Bahia. However, this network, which would have 5,500 km, took more than a century to be completed, with the Rio – Bahia connection being completed in the 1950-60 (MATOS, 1974).

For Fernando de Azevedo (1950), one of the pioneers in the study of the implementation of railways in western São Paulo, the railway seemed to arrive in Brazil at the ideal moment for a country of great territorial extensions, cluttered by obstacles and which would have the basis of its independence assured, according to the author, by a vast communication and transport system. However, in the perception of the important text of the early 20th century by Adolfo Augusto Pinto (1977 – 1st ed. 1903), the problem to be solved was considerably greater than the strengths and resources of the country, which was still in the first steps of its economic development and with an insufficient population in view of its territorial greatness.

William Summerhill (2018), when discussing the railways in the growth of the Brazilian economy (1854-1915), reiterates this view and specifies it with more arguments, considering that, according to the author, the high investments with high fixed costs that demanded rail projects led Brazil to enter the railroad era late, only in the second half of the 19th century, so that the development of the railway lines depended heavily on financing conditions, local or foreign, and on public incentive, which could be in two ways: subsidy to private investors or direct state control.

Pinto (1977) recognizes four distinct phases in the period between the first initiatives for the introduction of railways and the full development of this means of transportation in São Paulo. According to the author, the first phase (1835-1852) was the period of precursors, of unsuccessful initiatives. The second phase (1852-1880), with positive results, is characterized by the railway concession from privileged zone favors and guaranteed interest. In

the third phase (1880-1892), the roads are still built with zone privilege, but without guarantee of interest. In the fourth phase, from 1892, is when the regime of full freedom begins and the railway industry reaches its complete development and emancipation of the state protection.

Pinto (1977) notes that in the state of São Paulo, on March 18, 1836, one year after the publication of the "Feijó Law", the Provincial Legislative Assembly³ decreed a grandiose road plan, a system of railways and waterways. Law that was revoked even before its execution and replaced, according to the author, by Law No. 115 of March 30, 1838, which reproduced the former with minor changes and authorized the president of the province to grant exclusive privilege to the Companies Aguiar, Viúva, Filhos & Cia. and the Platt & Reid, granting authorization to link Santos "to the then villages of São Carlos,⁴ Constituição,⁵ Itu or Porto Feliz and Mogi das Cruzes, adding that it would also take care of the connection between Paraíba and Tietê" (MATOS, 1974, p. 49). It is not by chance, as the author recalls (PINTO, 1977), that the municipalities mentioned in the law were inserted in the main nucleus of agricultural production in the state of São Paulo, especially sugar cane.⁶ Such a region is referred to by Petrone (1968), who investigated the sugarcane crop in the state of São Paulo, as a "sugar quadrilateral",⁷ given the expressiveness of the product in that territory at that time.

On the question of the aforementioned railway that would connect the port region to the interior of São Paulo, Soukef Jr. (2006), when he investigates the railway in the context of the city of Bauru, explains that the engineers Alfred and Edward de Mornay were hired for the project, the first to carry out the technical surveys necessary to indicate the best route for the railway line between Santos, São Paulo and the interior. It was concluded that the connection between Santos and Cubatão would be made by steam boats, the mountain range by means of inclined planes and the plateau by a line with simple adherence. However, according to the author, the concession expired without such work being carried out.⁸

Thus, ending the initial phase of the precursor tests and inaugurating in the country the second railway phase – the effective period of construction of the railways –, on June 26, 1852, General Law n° 641 was promulgated, which, according to Pinto (1977), it was organized in a more practical model, which made it possible to grant "more solid and positive favors", such as the privilege of the zone and the guarantee of interest. For Azevedo (1950), it was the aforementioned law that "practically started the railway industry" (AZEVEDO, 1950, p. 36), enabling the development of the railway from Recife to São Francisco (Decree of October 19, 1853) and, in the south, the railway Estrada D. Pedro II (Decree of October 9, 1853).⁹ However, the author that, without any government favor, through his personal initiative, Irineu Evangelista de Sousa, Barão de Mauá¹⁰ established, on the slopes of Serra do Mar, the 17 km of the Estrada de Ferro Príncipe do Grão-Pará, the country's first railway stretch, opened on April 30, 1854.

In this way, frustrated the first railway attempt to connect the port of Santos to the interior of the province, in the middle of the 19th century, the concern with establishing a railway in this stretch gained the attention of the general and provincial authorities because of the strengthening of agriculture in the

interior of São Paulo, not only of sugar but also of coffee, which was beginning to gain the municipalities of the west of São Paulo and that, thus, motivated such authorities to endeavor to endow the province with this “important improvement” (PINTO, 1977).

Thus, over the years, many studies have been dedicated to observing the São Paulo railways and the relationship they established with coffee,¹¹ a product that, from the 1830s onwards, came to occupy the first place in the context of Brazilian exports and, between 1870-80, the position of “moving center” of the development of Brazilian capitalism (SILVA, 1995; MARTINS, 2019), becoming responsible for promoting the installation of the rails in a considerable part of the state of São Paulo.

In this context, Flávio Saes and Sérgio Milliet were two of the important researchers who addressed the issues surrounding coffee and railways in the state of São Paulo. According to Milliet (1982), for more than a century, the prospect of growth and development in São Paulo was limited to a horizon streaked by coffee plantations, so that “everything revolves around the ‘green gold’, everything emanates from it and everything is intended to it: men, animals, machines” (MILLIET, 1982, p. 11). Saes (1981), when analyzing the railway expansion in the interior of São Paulo, points out that the railway replaced in São Paulo the old transport system: the *Tropeira de Muares* road, which proved to be unable to meet the growing economic demands of the state, as a result of the high cost and the delay in transportation that, according to the author, in addition to being carried out on inefficient road,¹² it had to undergo the difficult descent of the Serra do Mar, a delicate and indispensable stretch for sustaining the growing economy of the State of São Paulo, which was based on interchange with the port of Santos.

For some authors, the two laws were responsible for offering conditions for the installation of the first railway in São Paulo, a general one, from September 12, 1855, and a provincial one, from March 17 of the same year, which stipulated guarantees of interest¹³ and privileges for the concession of railways seeking to stimulate initiatives in this segment. Thus, on June 6, 1860, the Imperial Government approved the articles for the construction of a railway that would connect Santos to Jundiaí, a project developed by a company incorporated in London¹⁴ with the incentive of Mauá: the São Paulo Railway Company, which inaugurated its section in 1867.

As a result of the advancement of coffee culture around Campinas, and even beyond that city, through the perception of Pierre Monbeig (1984), who studied the pioneering march through the interior of São Paulo, a double difficulty was created: getting the troops to cross 200 km (or more) and equipping the port of Santos to maintain an increasing tonnage. In view of this, Beatriz Kühl (1998), when resuming to this question when investigating iron architecture and railway architecture in São Paulo, recognizes that the progression of coffee crop was benefited by the railway expansion in the interior of São Paulo – which economically repositioned the state of São Paulo, which, according to the author, until that moment, was displaced from the main economic axes and on the margins of the country’s economy¹⁵ – and, in the same way, promoted significant demographic growth, an aspect that is also pointed out by other authors when dealing with this process.

However, based on this observation, important points need to be noted: first, this population density, due to the easy access and attractive potential generated by the installation of the tracks is, among other aspects, a consequence and not an objective, considering that the main purpose of railway undertakings in the state of São Paulo, as studies show in this regard, was economic:¹⁶ to cheapen the flow of agricultural production. Also, in view of a smaller scale, this idea of densification based on the binomial coffee-railway should be taken with caution when referring to the entire interior of São Paulo, because, according to Martins (1990), a researcher who dedicated herself to issues that involved the *Rubiaceae*, there were contrasts between cities touched by the coffee, which progressed, and stagnant villages with few resources.¹⁷

From another angle, Flávio Saes (1986), when revisiting the coffee-railway relationship, even though he did not deny a correspondence between these two sectors, notes divergent points between them, one because, according to the author, the railway companies took positions that oscillated between ensuring profitability for their investors or expanding their lines as a way to ensure a transport monopoly, thus seeking profitable interests for the company. In other words, companies should not be seen only as extensions of the coffee economy (GRANDI, 2010).

It is also important to note that, if coffee was undeniably the product that stood out the most in agricultural production in the interior of São Paulo and caused consequences in several fields, it was not only it that developed relations with the railways, considering that they also transported from cereals to animals, from letters to telegraphed messages and greatly impacted their surroundings. That is, it is also necessary to consider, in addition to coffee, other products and activities that, although on a smaller scale, also impacted the regions covered by the railway lines and contributed to eventual transformations.

In view of this, considering that the English company that built the connection between the coast and the plateau¹⁸ had no interest in extending its tracks beyond Jundiaí,¹⁹ it was up to the farmers, capitalists and public men of São Paulo to introduce the trails in new areas hit by the “green wave” (MATOS, 1974).²⁰ As an example of the local interest of the new coffee producing regions in the interior of São Paulo on the trails, Guilherme Grandi (2005), when historically analyzing the Rio-Clareense, a railway company founded in 1884 in the municipality of Rio Claro, points out that, in the 1870s, the farmers in the west of São Paulo already demanded that the government grant the approval of a railway that would pass through the region and reduce the cost of transporting their agricultural products.

Thus, according to Soukef Jr. (2005), between 1867 and 1880, several railway companies were formed in São Paulo and, around them, small companies²¹ and branches were added, whose configurations that denoted conflicts that involved the issue of zone privilege, which preserved the areas of influence of companies, gauges and paths that were linked to rural properties and, therefore, conditioned to the interests of those involved.

The São Paulo farmers of that period, mentioned by the literature as fundamental financial agents for the railway expansion in the interior, given the interest they had, also need to be observed as agents that orbited and influenced other sectors at that time, given that, with the profits arising mainly from coffee production, these farmers²² have become increasingly influential figures from an economic and political point of view.

In view of this, Ary França, when investigating the coffee march and the pioneer fronts, indicates that the “First Republic would rely on coffee farmers and coffee producing states would exercise unquestionable command in federal policy” (FRANÇA, 1960, p. 12-13). Pierre Monbeig, returning to this question, points out that the railway development in the interior of the state of São Paulo was “driven by the interests of administrators, producers and coffee traders” (MONBEIG, 1984, p. 175). Grandi (2010), when taking the Companhia Paulista as an object of study, also reiterates this observation and describes in more detail the figure of these farmers, stating that the great coffee grower was, at the same time, the owner of the largest portions of land, the entrepreneur with productive and financial investments and, eventually, the political agent himself through the Legislative or Executive Power.²³

Thus, citing a speech by Batista Pereira²⁴ in relation to Viação Férrea Rio-Grandense, Fernando de Azevedo (1950) highlights the political character around the railway structures:

The railway (about Pelotas, in the Borges de Medeiros government²⁵) is not created here for the people [...]. It is not an administrative and economic institution; it is a political instrument. Voter nursery, such is its mission. [...] and the states that own their railways have often built or derived them from branches, outside of any plan, to meet political commitments or electoral commitments, in the successive and contradictory game of the particular interests of states or municipalities covered by its railways. (PEREIRA, 1924, p. 19, apud AZEVEDO, 1950, p. 42)

Therefore, when dealing with the interiorization of railways in the São Paulo territory, it is also important to point out aspects less explored by the studies that encompass this process: the burden generated by the installation of the tracks, as Monbeig (1984) recalls, from the point of view of accelerated and unrestricted deforestation;²⁶ the violent and dishonest strategies for land control by farmers, land-grabbers and surveyors, to the detriment of indigenous²⁷ and local inhabitants;²⁸ or the difficulties faced by immigrants in coffee farms.²⁹ Furthermore, the abuse surrounding the workforce responsible for effectively installing the tracks in this territory. Following the example of this last point, Moratelli, observing the operability of contractors who worked in the interior of the state of São Paulo at the beginning of the 20th century, states that:

“[...] the exploitation of the workforce was good business for contractors. The wages paid to workers could be low [...]. In addition, payments to workers were made after a long period of work or only after the contract was concluded. This condition allowed contractors and the railway company to further appropriate the workforce”. (MORATELLI, 2013, p. 41)

From a close perspective, Maria Lamounier (2012), when analyzing recruitment policies for workers from railway companies engaged in the construction of railways, points out that, in certain cases, the wages³⁰ offered to workers³¹ in railway undertakings needed to be more attractive³² than those in export agriculture to gain a workforce willing to withstand harsh working conditions. However, it can be observed that some contractors who worked in the interior of São Paulo presented strategies to overcome this issue:

As in large farms or isolated regions, it was common to use the truck system, that is, the presence of warehouses providing food and utensils in advance to workers at high prices. More than a profitable commercial establishment, the warehouse also served as an instrument to maintain the workforce at the construction site through the permanent release of negative balances to workers. (MORATELLI, 2013, p. 41)

Between the end of the 19th century and the beginning of the 20th century, when the railways expanded greatly in the interior of São Paulo, the workers' arms carried out activities such as the arduous task of laying the iron tracks and heavy wooden railroad ties, executing works of art, in addition to the movement of earth necessary for the production of large cuts and embankments in different lands, aided by hand tools and vehicles powered by animal traction to transport the material, as can be seen in the images below (Figures 1 and 2), dated September 2, 1935 and carried out during the construction of the new line from Dois Córregos to Jaú:



Figure 1 – Cutting excavation, stretch Dois Córregos-Jaú, 1935 (new line), 1935
Source: São Paulo State Public Archive.



Figure 2 – Cutting excavation, stretch Dois Córregos-Jaú, 1935 (new line), 1935
Source: São Paulo State Public Archive.

Based on the images, it can be observed that in the first decades of the 20th century, workers still carried out their activities in railway undertakings in São Paulo in a similar way as they were done in the late 19th century, either by equipment or by the technique employed, which can denote the little instruction of this labor, some difficulty in obtaining more specialized material coming from abroad or the limited resources for the execution of these projects during the referred period.

According to Lamounier (2012), engineer Fox, of the São Paulo Railway, recorded several accidents during the construction works of the railway. Based on the text presented by the aforementioned engineer in the “Office of Engineers” reports, the author indicates that:

“[...] in December 1865, ten people injured in accidents in the construction of the SPR [São Paulo Railway] were listed, four seriously injured; in May 1866, engineer Fox listed six people seriously injured, two of whom had died and one seriously injured. Accidents were generally caused by landslides. For Fox, these were ‘trivial accidents that can happen in any job or railway under construction’, caused ‘by the workers’ lack of caution’”.³³
(LAMOUNIER, 2012, p. 258)

Environmental and human aspects are still little explored today by studies dealing with railway development in the interior of the state of São Paulo, which tend to reinforce a historiographic construction that links the railways in this territory predominantly to the concept of development, progress and colonization. The very popular expression that was consolidated to refer to the last regions affected by the railway line – “hinterland access” – suggests the railway as the element that delimited and opposed the civilized to the non-civilized world, the capitalist to that of primitive airs and, at the limit, connotes the places beyond the railway as depopulated areas, disregarding

the natives and individuals of these spaces not affiliated with this new technology, who, by chance, inhabited these environments with their practices before and independently of the tracks. An image that is evident in the observation – today, somewhat contradictory – present in the book *History of Engineering in Brazil*, published in the 1980s and authored by Pedro Telles:

In the first decades of this [20th] century, some lines of penetration were launched boldly, crossing the interior of Brazil. These roads had a pioneering and pioneering function, as has already been observed with regard to the extension of the "Sorocaba" in western São Paulo. Railways predated civilization and colonization [...]. The interior of Brazil was depopulated and largely unknown. In 1905, the entire western half of the State of São Paulo appeared on the maps as "poorly known regions, inhabited by natives", and even in 1932, on the commemorative map of the Constitutionalist Revolution, natives and jaguars were indicated as present in much of the State. (TELLES, 1984, p. 73)

The predominance of a progressive meaning can also be found in recent publications related to railways, such as the work by Summerhill (2018), entitled *Development trails*, which, in an observation of economic content, makes an analysis of the Brazilian railway development and the role of the State in this process, concluding that, among other positive aspects indicated by the author, "the Brazilian railways contributed, and a lot, to boost the pace of economic growth in turn of the [20th] century" (SUMMERHILL, 2018, p. 217), changing the social, economic and political map. However, Summerhill (2018) does not point to a possible burden behind this economic growth, nor what would be the change in the social, economic and political map outside the predictable benefited agents.

Thus, considering São Paulo's road condition between the 16th and early 19th centuries, which, according to Odilon Nogueira Matos (1974), had a little expressive qualitative evolution and the though the statement of the German traveler Ischudi, who in 1860 observed that "it was impossible to plant beyond Rio Claro, because the distance to overcome, to reach Santos, was very large" (ISCHUDI *apud* MONBEIG, 1984, p. 98), it can be concluded that, in a country with expressive dimensions, proposed by the coast, monoculturist, landowner and agro-exporter by nature, the railway lines in the interior of São Paulo were material instruments, connoted to an elitist dimension, which optimized and reinforced, based on Prado Jr. (1956), the traditional structure of the Brazilian economy. Railroads that were driven and directed by an agricultural product of interest to capitalism – highly profitable³⁴ – and that in a short period, between the end of the 19th century and the beginning of the 20th century, was able to cause substantial changes in various sectors of São Paulo society, many of them, which have been extensively explored and consecrated over the years when referring to this process and others still little evidenced, which demand investigation.

NOTES

- ¹ This reflection is based on the master's work (RIBEIRO, 2019b) carried out at the Faculty of Architecture and Urbanism of the University of São Paulo (FAUUSP), under the guidance of Prof. Dr. Beatriz Mugayar Kühl.
- ² For this topic and complementary bibliography see, for example, Kühl (1998).
- ³ According to Pinto (1977), the additional act of 1934 declared the Provincial Legislative Assemblies to legislate on public works, roads and navigation within the respective province.
- ⁴ Current municipality of Campinas.
- ⁵ Current municipality of Piracicaba.
- ⁶ Petrone (1968) states that sugarcane produced on a large scale in the interior of São Paulo – production that started, above all, from the the government of Morgado de Mateus (1765-1775) – lasted until 1850-1851, when the export of sugar was exceeded in volume by that of coffee.
- ⁷ The term “sugar quadrilateral” was first used by Caio Prado Jr.; however, Petrone (1968) takes up this expression updating and expanding it to include the region among the municipalities of Mogi Guaçu, Jundiaí, Porto Feliz and Sorocaba. When using this expression in the text, reference is made to the region determined by Petrone (1968).
- ⁸ However, according to Soukef Jr. (2006), the studies and surveys developed and not used at that time were kept by Frederico Foom, one of the partners of the company Aguiar, Viúva, Filhos & Cia, until 1847, the year of his death. Subsequently, they were entrusted by his widow to the Marquis of Monte Alegre, his relative, who gave them to the Barão de Mauá, responsible for ordering the engineer Robert Milligan, who had already provided him with services of this nature, new studies related to this route, which, then, confirmed the viability of an iron undertaking in that location, which only materialized in 1867.
- ⁹ As a result of the private initiative, it was the first railway to penetrate the territory of the state of São Paulo. According to Pinto (1977), its works began in 1855 and were completed in 1875. According to Azevedo (1950), it was inaugurated in 1858 and in 1865 it was taken over by the Imperial Government and renamed the Central Railway of Brazil, being the second to establish itself in the country.
- ¹⁰ According to Azevedo (1950), Mauá was responsible for inaugurating the “era of railways in Brazil” and for implementing the first and third railways in the country, respectively, the E. F. Príncipe do Grão-Pará and the E. F. Santos-Jundiaí, because the baron not only ran a train from Rio de Janeiro to the root of Serra da Estrela (E. F. Grão Pará) but also organized in London the São Paulo Railway Company, which received the concession in 1856 for the connection of Santos to Jundiaí (E. F. Santos-Jundiaí). According to the author, Mauá carried out the studies on his own and financed the construction entrusted to the English company.
- ¹¹ On the coffee economy, see Taunay (1939), Prado Jr. (1956), Furtado (1987), Silva (1995) and Martins (1990 and 2019).
- ¹² Several authors mention the poor quality of land paths, especially in the state of São Paulo, for example Pinto (1977, 1st ed. 1903), Taunay (1927), Prado (1934), Ellis Jr. (1951) and Holanda (1957). However, based on Summerhill (2018), this poor quality, which made traveling expensive, time-consuming, dangerous and uncomfortable, did not prevent the transit of goods and people, but, as a result of the high costs, according to the author, restricted marketing.
- ¹³ According to Kühl (1998), the provincial law guaranteed additional interest of 2% for the company, domestic or foreign, that developed the railway for the coast and for the interior.
- ¹⁴ According to Sória (2005), the guarantee of profit (interest of at least 5%), exclusivity (ninety years and, later, 50 years) and the inexperience of Brazilians in railway matters made foreign entrepreneurs see great deals on Brazilian railways.
- ¹⁵ According to Milliet (1982), there is a shift in the country's economic axis, which migrates from the hand of authorities from Bahia and Rio de Janeiro to the enriched São Paulo leaders. According to the author, with the proclamation of the Republic, the São Paulo leaders become the “owners of the national economy”, having as main consumer market the Americans, who would be the reference, even, for many aspects of our “political clothes”.
- ¹⁶ Which is not to say that there were no General Road Plans. According to Ghirardello (2002), they happened with some regularity from the 1870s onwards, trying to rationalize, according to the author, the economic

character that founded them. Chirardello (2002) notes that Christiano Benedito Ottoni, in 1859, wrote a book entitled *The Future of Railways in Brazil*, in which he developed a general road plan that influenced later works, according to the researcher. A few decades earlier, Azevedo (1950), for example, had already punctuated the plans prepared by Horácio Bicalho (1881) and Antônio de Oliveira Bulhões (1882).

¹⁷ It is in this sense that Martins (1990) questions the use of the term “coffee civilization”.

¹⁸ The São Paulo Railway Company determined the first step towards São Paulo’s railway development, because its importance is not restricted only to the fact that it is the pioneer or a remarkable engineering work, but also because the connection between Santos, São Paulo and the interior would become the section with the highest traffic intensity in Brazil and would allow the emergence of other companies in the interior of São Paulo (AZEVEDO, 1950 and MATOS, 1974).

¹⁹ According to Matos (1974), the privilege of almost a century ensured it the monopoly of the São Paulo-Santos funnel, a mandatory stretch for any production in the interior, so that any railway that was formed in the interior of the State would be its tributary and that was enough for it.

²⁰ It is in this context of the creation of railway companies from the capital of large landowners in São Paulo that Chirardello (2002) observes the emergence of important railways such as the Companhia Paulista de Estradas de Ferro (1872), the Companhia Mogiana de Estradas de Ferro (1875) and the Estrada de Ferro Sorocabana (1875).

²¹ Sória (2005) indicates that, in the state of São Paulo, short-length railways accounted for about 3% of the total network length, but they were of fundamental importance because they act as collection roads that lead the agricultural product to a more important railway

²² On the differentiation between the farms in the Paraíba Valley and those of the new coffee producing regions to the west, which also denote the change in the profile of farmers, see Monbeig (1984).

²³ Coffee growers in the new producing regions of São Paulo, unlike the first producers in the Paraíba Valley region, cannot be reduced to the condition of farmers, as they, according to Monbeig (1984), caused a revolution in rural society in São Paulo because they were financially ubiquitous: they were also in the urban scene with investments in commerce and industry, which indicates the entrepreneurial spirit of this class. According to the author, at a time when coffee growers saw that there was no lack of virgin soils in the interior of São Paulo, they had the characteristic care of a businessman and a trader rather than a farmer (MONBEIG, 1984).

²⁴ Antônio Batista Pereira (1879-1960) was a historian from Rio Grande do Sul, son-in-law of Rui Barbosa, author of books and director of *Revista Brasileira* (Brazilian Journal) from 1934 to 1935. This publication currently works as the *Revista da Academia Brasileira de Letras* (Journal of the Brazilian Academy of Letters).

²⁵ He refers to Borges de Medeiros’ second term as governor of Rio Grande do Sul, from 1913 to 1928.

²⁶ Monbeig (1984) notes that the destruction of the forest cover in the new areas affected by coffee in the interior of São Paulo was so rapid and complete that sometime later the railway companies found it difficult to supply their own locomotives with this fuel. In the municipalities of Alta Araraquarense, for example, the author indicates that sawmills were on the verge of disappearing, making it necessary to bring trucks with wood from other locations, which forced railway companies to form forest gardens in the same places where fifteen or twenty years ago there were forests.

²⁷ Monbeig (1984, p. 132) indicates that “the modern pioneering march ended the work of destruction of the natives, started in the colonial era. Nothing remains of the old inhabitants, except in a very indirect way” (1984, p. 132).

²⁸ Monbeig indicates that, With the end of the Gold Rush in Minas Gerais, many miners came to São José do Rio Preto region and, being poorly supported from the legal and intellectual point of view, they ended up losing the right to their land in favor of coffee farmers: “they were simple people, lacking support, with no other wealth than the vastness of their fields. They could be stripped and the coffee growers understood it well” (1984, p. 115).

²⁹ Monbeig (1984) points out that there were countless texts in which the Italians complained about the difficult conditions to which they were subjected when crossing to Santos and the despotic attitude of coffee growers. According to the author, the children of these immigrants were not literate and were on the margins of society, in addition to complaints about fines imposed by farmers and their administrators, and about the abusive value of farm warehouses. According to Monbeig, “there were

strikes, shots and murders, episodic events, without a doubt, but which nevertheless reveal how immigrants and farmers, who are used to directing personnel without demands or ambitions, were not easily adjusted" (1984, p. 156).

³⁰ Lamounier (2012) points out that in some railway companies in the interior of São Paulo, such as the São Paulo Railway, there was a differentiation between the amount paid to English and immigrant workers in relation to Brazilians and Portuguese who received lower wages

³¹ The workers to which Lamounier (2012) refer are masons, carpenters, loggers, guards, horse keepers and riders, painters, turners, blacksmiths, miners, rural workers, etc.

³² Lamounier (2012) notes that, despite this more attractive offer of wages, even so, this did not represent permanence in employment, considering that, depending on the time of year, workers migrated to plantations in the context of the agricultural cycle.

³³ In addition, Lamounier (2012) mentions tropical diseases that affected workers in some sections and were another problem for the execution of railway works.

³⁴ According to Araújo Filho, "none of the products that represented sources of wealth in Brazil in the past can be matched with coffee, both in terms of their production value and in the socio-cultural consequences produced." (1956, p. 78).

REFERENCES

- ARAÚJO FILHO, José Ribeiro de. O café, riqueza paulista. *Boletim Paulista de Geografia*, São Paulo, p. 51-124, 1956.
- AZEVEDO, Fernando de. *Um trem corre para oeste: estudo sobre a noroeste e seu papel na viação nacional*. São Paulo: Livraria Martins, 1950.
- ELLIS JR., Alfredo. *O café e a paulistânia*. São Paulo: FFLCH/USP, 1951.
- FRANÇA, Ary. *A marcha do café e as frentes pioneiras*. Rio de Janeiro: Conselho Nacional de Geografia, 1960.
- FURTADO, C. *Formação econômica do Brasil*. 22. ed. São Paulo: Editora Nacional, 1987.
- GERODETTI, João Emílio; CORNEJO, Carlos. *Lembranças de São Paulo: o interior paulista nos cartões-postais e álbuns de lembranças*. São Paulo: Solaris Edições Culturais, 2003.
- GHIRARDELLO, Nilson. *À beira da linha: formações urbanas da Noroeste Paulista*. São Paulo: Editora Unesp, 2002.
- GRANDI, Guilherme. *A Companhia Estrada de Ferro Rio Claro: disputas em torno da expansão ferroviária no Oeste Paulista, 1880-1903*. 119 f. 2005. Dissertação (Mestrado em Economia) – Faculdade de Ciências e Letras, Universidade Estadual de São Paulo, Araraquara, 2005.
- GRANDI, Guilherme. *Estado e capital ferroviário em São Paulo: a Companhia Paulista de Estradas de Ferro entre 1930 e 1961*. Tese (Doutorado). Faculdade de Filosofia Letras e Ciências Humanas, departamento de História, Universidade de São Paulo, São Paulo, 2010.
- HOLANDA, Sérgio Buarque de. *Caminhos e fronteiras*. Rio de Janeiro: José Olímpio, 1957.
- KÜHL, Beatriz Mugayar. *Arquitetura do Ferro e Arquitetura Ferroviária em São Paulo: reflexões sobre a sua preservação*. São Paulo: Ateliê Editorial – FAPESP, Secretaria da Cultura, 1998.
- LAMOUNIER, Maria Lúcia. *Ferrovias e mercado de trabalho no Brasil do século XX*. São Paulo: Editora da Universidade de São Paulo, 2012.
- MARTINS, Ana Luiza. *Império do café: a grande lavoura no Brasil, 1850 a 1890*. São Paulo: Atual, 1990.
- MARTINS, Ana Luiza. *História do café*. São Paulo: Contexto, 2019.
- MATOS, Odilon Nogueira De. *Café e ferrovias: a evolução ferroviária de São Paulo e o desenvolvimento da cultura cafeeira*. São Paulo, SP: Alfa Ômega Sociologia e Política, 1974.
- MILLET, Sérgio. *Roteiro do café e outros ensaios*. São Paulo: Ed. Hucitec, 1982.
- MONBEIG, Pierre. *Pioneiros e Fazendeiros de São Paulo*. São Paulo: Ed. Hucitec-Polis, 1984.
- MORATELLI, Thiago. *Operários de empreitada: os trabalhadores da construção da estrada de ferro noroeste do Brasil (São Paulo e Mato Grosso, 1905-1914)*. Campinas, SP: Editora Unicamp, 2013.

- PETRONE, Maria Thereza Schorer. *A lavoura canavieira em São Paulo*. São Paulo: Difusão Européia do Livro, 1968.
- PINTO, Adolfo Augusto. *História da viação pública em São Paulo*. 2 ed. São Paulo: Estado de São Paulo, 1977. (Coleção Paulística, 2)
- SAES, Flávio Azevedo Marques de. *As Ferrovias de São Paulo 1870-1940*. São Paulo: Editora Hucitec, 1981.
- PRADO, Paulo. *Paulística: História de São Paulo*. Rio de Janeiro: Ariel, 1934.
- PRADO JUNIOR, Caio. *História econômica do Brasil*. São Paulo: Ed. Brasiliense, 1956.
- RIBEIRO, Eduardo Bacani. Comadres do noroeste paulista, das casas de turma às estações: as construções sem destino. *Revista CPC*, v. 14, n. 27, p. 114-143, 29 jul. 2019.
- RIBEIRO, Eduardo Bacani. *Estrada de Ferro Araraquara: da Morada do Sol à "Boca do Sertão" – os espaços invisíveis*. 2019. Dissertação (Mestrado em História e Fundamentos da Arquitetura e do Urbanismo) – Faculdade de Arquitetura e Urbanismo, Universidade de São Paulo, São Paulo, 2019b.
- SAES, Flávio Azevedo Marques de. *As Ferrovias de São Paulo 1870-1940*. São Paulo: Editora Hucitec, 1981.
- SAES, Flávio Azevedo Marques de. *A grande empresa de serviços públicos na economia cafeeira*. São Paulo: Hucitec, 1986.
- SILVA, Sérgio. *Expansão cafeeira e origens da indústria no Brasil*. São Paulo: Alfa Omega, 1995.
- SÓRIA, M. H. A. A construção das estradas de ferro no Império e na República Velha. In: MORAES, J. C. T. B. *500 anos de engenharia no Brasil*. São Paulo: Edusp: Imprensa Oficial do Estado de São Paulo, 2005. p. 141-161.
- SOUKEF JR., Antônio. *A ferrovia e a cidade: a experiência de Bauru*. 303 f. 2006. Tese (Doutorado em Arquitetura e Urbanismo) – Faculdade de Arquitetura e Urbanismo, Universidade de São Paulo, São Paulo, 2006.
- SUMMERHILL, William Roderic. *Trilhos do desenvolvimento: as ferrovias no crescimento da economia brasileira 1854-1913*. São Paulo: Alfaatar, 2018.
- TAUNAY, Affonso de E. *Estudos de história paulista*. São Paulo: Diário Oficial, 1927.
- TELLES, Pedro Carlos da Silva, *História da engenharia no Brasil*. Rio de Janeiro: Clavero Editoração, 1984

Acknowledgments

Thanks to the Fundação de Amparo à Pesquisa do Estado de São Paulo, process number 2020/02418-6

Editor's note

Submitted on: 09/28/2019

Approval: 05/13/2020

Review: RMO

Eduardo Bacani Ribeiro

Universidade de São Paulo. Faculdade de Arquitetura e Urbanismo.

Rua do Lago, 876 – Butantã – 05508080 – São Paulo – SP

Orcid: <https://orcid.org/0000-0002-7856-3474>

eduardoribeiro5@hotmail.com