

Brazilian Modernization and Urban Planning In TheNineteenth Century

Benicio Viero Schmidt

Numéro hors-série, 1980

Urbanization in the Americas : The Background in Comparative Perspective

URI : <https://id.erudit.org/iderudit/1020693ar>

DOI : <https://doi.org/10.7202/1020693ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

Urban History Review / Revue d'histoire urbaine

ISSN

0703-0428 (imprimé)

1918-5138 (numérique)

[Découvrir la revue](#)

Citer cet article

Schmidt, B. V. (1980). Brazilian Modernization and Urban Planning In TheNineteenth Century. *Urban History Review / Revue d'histoire urbaine*, 35–43. <https://doi.org/10.7202/1020693ar>

Résumé de l'article

L'État a joué un rôle décisif dans la modernisation et l'urbanisation du Brésil depuis 1850. Trois exemples de l'intervention de l'État sont examinés en détail : les garanties accordées par l'État au réseau ferroviaire de São Paulo qui a amené l'intégration de plusieurs ensembles économiques régionaux; la fondation d'une capitale régionale, Belo Horizonte, qui a permis à une fraction puissante de l'élite d'accroître sa domination; la construction et l'organisation de Brasília, par lesquels l'État modifiait les migrations intérieures et le peuplement des régions.

Brazilian Modernization and Urban Planning In The Nineteenth Century*

Benicío Viero Schmidt

Résumé/Abstract

L'État a joué un rôle décisif dans la modernisation et l'urbanisation du Brésil depuis 1850. Trois exemples de l'intervention de l'État sont examinés en détail: les garanties accordées par l'État au réseau ferroviaire de São Paulo qui a amené l'intégration de plusieurs ensembles économiques régionaux; la fondation d'une capitale régionale, Belo Horizonte, qui a permis à une fraction puissante de l'élite d'accroître sa domination; la construction et l'organisation de Brasília, par lesquels l'État modifiait les migrations intérieures et le peuplement des régions.

The state has played a decisive role in the modernization cum urbanization of Brazil since 1850. Three examples of state intervention are described in some detail: the state guarantees of the paulista railway network, which integrated several regional economic complexes; the foundation of the regional capital, Belo Horizonte, which allowed a leading faction of the elite to expand its control; the building and organization of Brasília, whereby the state redirected internal migration and regional occupation.

The nineteenth century is a key period in Brazilian history. Beyond witnessing the inauguration of independent political life, it gave rise to several prominent initiatives affecting the existing spatial forms. Contemporary Brazilian experience also displays a remarkable effort to construct a comprehensive urban policy throughout the country, with heavy emphasis on metropolitan areas.¹ Given the policies undertaken in the last century, in the course of a general drive for modernization in a country emerging from colonialism under mercantile capitalism, the analyst can detect some resemblances between *past* and *present*. This historical continuity has been effected by both private and public actors, responding to incentives created by international economic forces and national interests.

Nevertheless, as James Gardner acutely observed, perhaps more apparent than anything else involved in this long overall process, which has unfolded for more than a century, is the fact that "the determination to settle the interior amounts to a national passion."² In order to grasp the inner meaning of this movement, Richard Morse has called attention to the fact that urbanization in countries like Brazil is closely associated with the development of regional poles of economic growth.³ In pursuing similarities between the development of two core industrial centres of the contemporary capitalist world, Manchester and São Paulo, Bryan Roberts also underlines the fact that the Brazilian city presents a sharp contrast with Manchester because of two factors resulting from urbanization *cum* immigration: (1) São Paulo fostered the development of an efficient State apparatus, as well as (2) a class structure marked by an alliance between industrialists and landowners and a lack of solidarity within the working class.⁴

Brazilian history was not marked by the existence of urban forms of civilization as were Mexico, Peru and other areas of Latin America characterized by sophisticated pre-Columbian cultures,⁵ until the massive exploitation of gold mines in Minas Gerais during the eighteenth century. Therefore, the experience of Mexico during the period of Bourbon rule, which brought about a notable decentralization of economic flows within Mexican territory as well as incentives to make New Spain the largest producer of silver in the world by the end of the eighteenth century, was not to be faced by Brazil until late.⁶ In the Mexican

case the state played a prominent role in centralizing control over economic activities within its borders, while at the same time extending lines of production throughout the interior. Rather than being only a reaction against the "corporatism" favoured by the Habsburgs, the reform undertaken by the Bourbons was designed to increase mining output and "to fragment the Viceroy's power by strengthening royal power through the creation of a select group of administrators to be chosen in Spain."⁷

Combining these two dimensions of other Latin American experiences prior to the national period, Brazilian modernization *cum* urbanization, based on the construction of new spatial forms, must be seen as a gigantic attempt to realize late development goals. In this framework, the creation of a *built environment*⁸ befitting the modernized-society-to-come took a central place, and all along this process the state played a salient role.

This short paper deals with three intertwined issues which become apparent through scrutiny of the historical evolution of urbanization in Brazil at the end of the nineteenth century and first quarter of the twentieth century: (1) the implications of three public works and projects concerning the shaping and occupation of the national territory; (2) the key role played by the state, as manager of the social capital to be invested in the construction of the existing built environment; and (3) the slow pace at which the issue of uneven regional development came to assume a clear identity upon the unfolding of contradictions generated by the establishment of the railway network in São Paulo, the construction of Belo Horizonte as capital of Minas Gerais, and the decision to plan Brasília as the new national capital.

COFFEE EXPANSION AND RAILWAY SYSTEM

The intrinsic relationship between coffee expansion and the construction of a complex railroad network, in the second half of the last century in São Paulo, illustrates how central the expansion of coffee was for the installation of an industrial economy in Brazil.⁹ In contrast to cases like the United States, where the creation of a transportation system based on railroads served as a transmission belt for furthering the material bases of a modern industrial order, in Brazil (in São Paulo) the railroad system was created by the expansion of coffee cultivation. São

* The author is indebted to Richard Morse for his initial suggestions, and the Ford Foundation for financial support.

Paulo thus represents a case in which the pre-existence of a strategic product made necessary the creation of a modern system of transportation.¹⁰

The first railroad to be created in Brazil (from Rio de Janeiro to Petrópolis, 14 kilometres) was not precisely of an economic character. Insofar as its main objective was to serve the Royal House in Petrópolis, the summer resort of Emperor Pedro II, it was established, so to speak, for political reasons. This very short railroad was inaugurated on April 30, 1854, through the leadership of Irineu Evangelista de Souza, Barão de Mauá.

Prior to 1854, there had been two important initiatives in favour of railroad construction in Brazil. During the regency period, the *Lei Feijó* (1835) attempted to establish the first regulations and incentives for connecting Rio de Janeiro, Minas Gerais, Rio Grande do Sul and Bahia. Under the auspices of the Feijó Law, a British citizen named Thomas Cochrane then requested the privilege of building and further extending a commercial line from Rio de Janeiro up into the Paraíba Valley. Although he did not receive any special concessions such as guaranteed interest, Cochrane's *Imperial Companhia de Estrada de Ferro* was constituted in 1840. However, in spite of initial enthusiasm and support, several factors came to affect the realization of the recently created enterprise; lack of incentives for this private corporation, as well as political turmoil caused by regional cleavages and revolts in Minas Gerais and São Paulo, seem to have hindered the planned construction. Cochrane, facing a big defeat, noticed that Great Britain and Russia had adopted incentives (such as guaranteed interest on invested capital) for the construction of railroads, whereas Brazil had not. He then went to the Brazilian government to request similar guarantees. His request was turned down by the Chamber of Deputies in 1852. Although a failure, his attempt was nevertheless instrumental in exposing the lack of sufficient incentives for capturing private financial capital from abroad to install a costly transportation system based on railroads.¹¹

From 1850 onwards Brazil embarked on a new phase of historical achievements which favoured the installation of railroads in the country. Regional revolts had been suppressed; there was a tendency toward the reinforcement of central authority with the moderating power of D. Pedro II reigning over provincial forces, and the slave traffic had been abolished (*Lei Eusébio de Queirós*, 1850), therefore freeing capital invested in slaves for use in other undertakings.

As regards the installation of railroads, Law 641 (June 26, 1852) established the historical starting point for a national system. Basically this law brought into being new incentives capable of capturing available capital through two main measures: guaranteed interest and "zone privileges" (*privilégio de zona*). The concession of guaranteed interest meant that the imperial and provincial governments would consider granting, in each case approved by the respective legislature, special guarantees up to 7 per cent on capital invested in building railroads. Specifically, the imperial government would assure a return of 5 per cent, and in some cases the provinces would add 2 per cent on the same capital. Any profit exceeding 8 per cent would be split between the government (central and provincial) and the shareowners of the lines constructed. The second incentive, assuring monopolistic advantages, enforced exclusive rights of service in an area of 30 kilometres on each side of the main railroad in favour of the first company to be installed. There are some disagreements about the extent of the privileged area, but it doubtless entailed a monopoly advantage. Both measures sought to capture not only foreign but also national private capital for investment in a critical bottleneck area which was already affecting the profitability of the coffee complex. At the time, increasing costs of transportation by mule were disturbing the plantation economy in frantic expansion in

Western São Paulo, after the decay of production in the Paraíba Valley.¹²

After the already mentioned creation of the Rio Petrópolis line, based on the Barão de Mauá's effort and leadership, there were attempts at establishing several other railway branches throughout Rio de Janeiro's coffee zone. Among these attempts was one which completed the connection between Rio de Janeiro and São Paulo (as far as Cachoeira) in 1875. Meanwhile, in São Paulo, where the coffee expansion was already favoured in some degree by agricultural infra-structure generated by the sugar economy, the first efforts to adopt railroads as the main means for transporting passengers and crops began. Already in 1855, the president of the province, Conselheiro Antonio Saraiva, was calling for the construction of a railroad network that would especially benefit Jundiaí, Campinas, and Limeira by transporting coffee and sugar. In Saraiva's appraisal of agricultural storage, there was a notable waste of primary products due to the lack of appropriate transportation. At the same time, he predicted a reasonable increase in passengers, due to the fact that in Cubatão there was an annual crossing of 40,000 horse riders, who would doubtless change to trains.¹³ Thus the advantages of installing the system were quite apparent to the Paulista elite of the time.

Finally, in 1856, Decree 1759 conceded to Pimenta Bueno, Marques de Monte Alegre, and to Irineu Evangelista de Souza the right to construct a railroad from Santos to Jundiaí, bypassing São Paulo. This concession entailed "special subsidies" such as zone privileges, the exploitation of mineral resources eventually found along the rail lines, priority in obtaining state land at favoured prices, and guaranteed interest of 7 per cent on invested capital. With British money, the company was finally incorporated in London in 1860. The first line, connecting Santos to São Paulo, was inaugurated in 1866 under the name of São Paulo Railway (the "Inglesa" as it was to be known by Paulistas). The originally planned route up to Jundiaí, comprising 140 kilometres from São Paulo, was officially inaugurated in 1867.

The Inglesa's lack of interest in completing the entire Paulista railway system made it possible to arouse interest among local coffee planters in building up other lines. The first of these to be successful was the *Companhia Paulista de Estradas de Ferro*, incorporated in 1868 by exclusively Paulista capital of a private nature. Its first line was inaugurated in 1872, and consisted of the route between Jundiaí and Campinas, the core of the country's new coffee area. In spite of its private character, the leader of the new enterprise was the president of São Paulo at the time, Saldanha Marinho, a politician from Pernambuco. As Campinas was already the most important coffee producer in São Paulo, Saldanha Marinho and his fellow capitalists, interested in exporting coffee from the area, decided that the construction of the railway was crucial for promoting the promising crop.

The line from Jundiaí to Campinas (45 kilometres) was inaugurated August 11, 1872. Starting at Campinas, the same Paulistas later extended their line to Rio Claro. The creation of the *Paulista* presented certain new phenomena which served to anticipate the business atmosphere which came to pervade the province of São Paulo thereafter, making it the leader of Brazil's emerging industrial civilization. First of all, the *Paulista* was entirely financed by local private capital, an unusual event in itself. The end of the slave traffic and the increasing demand for coffee elsewhere intensified pressures that turned out to be impossible to resist; from the point of view of the coffee planter, investment in railroads was a profitable outlet because of its centrality in decreasing transportation costs. Second, the expansion of the railway system did not follow frontier zones, but on the contrary looked for areas where coffee was being

cultivated. This feature helps to distinguish the installation of railways in the United States from the context dominated by coffee expansion in São Paulo. In the former case, the railways were pioneers in opening up frontier areas, whereas in São Paulo they were built to attend to a pre-existing demand. Mattoon calls attention to the fact that the Paulista case suggests some similarities to the development of the rail system in Argentina, where railroads spread out through the interior from a port city (Buenos Aires) and construction strategies were also based on demand, a fact which made them incompatible with long-range planning due to their market orientation.¹⁴

After the creation of the *Inglesa*, based on British capital, and the *Paulista* with exclusively local private capital, other lines and corporations were created, all following the pioneering example offered by the *Paulista*. The *Companhia Itauana*, incorporated in 1870, inaugurated its first line (Jundiaí-Itu) in 1873. The *Companhias Mogiana*, incorporated in 1872, inaugurated its line from Campinas to Mogi Mirim in 1875. The *Companhia Sorocabana*, incorporated in 1870, inaugurated a line from São Paulo to Sorocaba in 1875. Finally, the *Estrada de Ferro do Norte*, incorporated in 1871, built a line from São Paulo to Cachoeira in the Paraíba Valley, where is connected to the D. Pedro II (nowadays the *Central do Brasil*) from Rio de Janeiro in 1877.

The whole system installed in São Paulo was fomented almost exclusively by private interests linked to coffee cultivation. The state, represented by the provincial government, imposed a few regulations, but in counterpart also offered various incentives in order to capture and convince private capital to incorporate the badly-needed railways. Later on, in 1877, all of the existing private lines subscribed the *Junta Suprema das Estradas de Ferro*, a special oligopolistic organization set up to regulate traffic flows and to establish gauge standards. The Junta also came to be a special body in charge of a general accounting system encompassing the existing companies. This initiative, based on self-regulation, illustrates very well the marginal role initially taken by the provincial government in regard to the São Paulo railway system.

Among the various advantages brought by the creation of the Paulista railway system, one can easily distinguish the mounting importance achieved by the port of Santos, the ascent of the freelabour system helping to defeat slavery, spontaneous colonization along railway routes, the increasing value of available land under the control of traditional coffee-growing families, and last but not least, a gigantic leap forward in solidifying the bases of an authentic national capitalist order. It is worth noting that the investments in transportation undertaken by the coffee growers in reality helped to create new outlets for available capital, therefore speeding up the rate of circulation and fostering further development in the direction of a mature industrial system. Warren Dean and Wilson Cano, in studying the formation of São Paulo's capitalist system, both stress the decisive importance of this first wave of "internalization" of capital, in contrast to dependence upon external sources of finance.¹⁵

Moreover, the creation of a railroad system based on private accumulation of capital, and not on the availability of social capital controlled by the state, made possible a diversification of private investment. Banking on the potential inherent in the prospective development of a railroad system, the class of coffee growers invested in new lands along the network, as well as in banks and commission houses formerly controlled by British capital.¹⁶

In regard to the distribution and shape of population centres, the railroad network did not actually revolutionize urban forms. The linear form taken by the United States railroad system did not develop in Brazil at the time of the coffee

expansion. Local urban design remained unaltered. Nevertheless, the railways favoured the urbanization of coffee planters and their families, for the simple reason that the commercial intermediation began to occur in areas where the transportation systems prevailed over other activities linked to coffee enterprises. It also should not be forgotten that the existence of the network helped slaves to escape from the farms on which they served, as well as to bring European immigrants to work in modernizing free labour farms at the end of the nineteenth century.

In synthesis, the installation of the railway network in São Paulo, given its particularities, serves as an illustration of the several chains of operations taking place at the onset of the modern Brazilian capitalist order that came to make this state its core area. Coffee, railways and immigrants can be assumed to be the new crucial ingredients in this picture. And facing this emerging confluence of social and economic forces, the central government, through its bureaucratic core in Rio de Janeiro, stressed much more the unification of the national territory than effective economic integration through the maximization of profits favoured by low transportation costs.¹⁷

PLANNING AND CONSTRUCTION OF BELO HORIZONTE

The present capital of the State of Minas Gerais is the result of a clear political decision undertaken by the regional elites as they foresaw the end of the gold cycle, as well as of other realities that were urging the creation of the new site at the time.

The *mineiro* economy, based on the first gold rush in modern times (1690-1740), was always a mosaic composed by virtually autarchic systems of production. The gold-mining camps occupied the central part of the province (Ouro Preto-Diamantina), while in the *zone de mata* (Juiz de Fora) and in the south there occurred an upsurge of agricultural and industrial activities (textiles and implements). The Portuguese decision to maintain Ouro Preto and its surroundings in isolation from wider communication routes by centralizing the export of gold through the port of Rio de Janeiro and by hindering the development of routes to other provinces or ports (Espírito Santo) had a double objective: to isolate the "General Mines" from other European powers at the time, and to frustrate smuggling and tax evasion in the gold fields. "Communications were restricted to easily guarded land routes, principally north to Bahia, west to Cuiabá, and south to the capital at Rio de Janeiro."¹⁸

Regions of Minas Gerais other than the central area dominated by gold fields experienced different patterns and rates of economic growth. The lack of synchrony of its economic sub-areas during the period that stretches up to the middle of the twentieth century makes the State of Minas Gerais a case in point for the study of regional disequilibria and potential separatism. As a consequence of this extreme fractionalization of production, the entire *mineiro* territory was composed of areas that were closer to other capitals than Ouro Preto itself. Therefore, the south was linked to São Paulo through whose railway network and port (Santos), or through pre-modern communication routes (mules and primitive roads), it exported its coffee. The *Zona de Mata*, having Juiz de Fora as its centre, was well integrated into the economy and society of Rio de Janeiro, with the supplementary advantage of becoming the most industrialized area of the province at the end of the imperial period. The north was connected to Bahia, whose ports also exported its products (cattle).

Although mining cities (Ouro Preto, Sabara, Diamantina, Mariana, etc.) in the central area of the province captured the formal political hegemony of Minas Gerais, in fact power was dispersed throughout other sub-regions which did not have

mining as their functional cores. In order to deal comprehensively with the formation of the regional complex based in Minas Gerais, the analyst must take into account that the isolation of gold mining, in spite of its clear political content based on the Portuguese policy of avoiding confrontation with other European powers, had been a strategic factor spurring the integration of the emerging national economy in its *commodity-production phase*.¹⁹ This had occurred through the import of products consumed in the mining camps and their surroundings, including agricultural products from several parts of the country, mules from the south, and cattle from the northeast. As a result of sheer economic necessities, the gold mining complex had generated the first forms of urban civilization in the country by concentrating its labour force. By the same token, through the transactions with other sub-regions of Brazil, it had helped to create the first moves towards the establishment of an economy fully national in scale.²⁰

Although this push towards the formation of a better integrated national economy had a considerable influence on other sectors of society, especially as raw material for independence movements like the *Inconfidência Mineira* of 1789, it is understandable that it would be weakened by the rapid exhaustion of gold in the central area of the province. Parallel to gold exploitation, there had been a frantic upsurge of agricultural activity in other sectors of the economy, but the role of Ouro Preto was surely headed for sharp decline.²¹

Ouro Preto served as a capital from 1720, when Minas Gerais was separated from São Paulo, until the inauguration of Belo Horizonte, formerly Curral Del Rei, in 1897. This change was paralleled by the decadence of the gold mining economy that had been centred in Ouro Preto since the eighteenth century. The *mineiro* economy was slowly moving southward, where farms were being transformed into coffee plantations which were integrated in the São Paulo regional economic complex at the end of the nineteenth century.

The colonial capital of Ouro Preto was founded in 1698 by prospectors from São Paulo, looking for the incredible gold mining camps around the region. Nevertheless, physical obstacles as well as the rapid decadence of the mining enterprises made it a liability for the *mineiro* elite to maintain Ouro Preto as the capital of Minas Gerais. Although the move towards Belo Horizonte is very important in itself, as the first notable policy geared toward creating a new capital site in Brazil, there are some implicit dimensions of the problematic that should be brought into consideration before analyzing the urban design assumed by the new capital and its implications.²²

Lack of infra-structure, isolation from other sub-regions, physical obstacles impairing development as a modern city, everything contributed to provoke the *mineiro* elite to move the capital to a more suitable site. Moreover, separatist movements all through the second half of the nineteenth century made the creation of a new political centre urgent. In effect, in 1862, 1868 and 1884 there were attempts to create a *Minas do Sul* independently of Minas Gerais, or even to unite it with the north of São Paulo, as witnessed by the virtual exclusivity that was offered to São Paulo's coffee area to install railways. During the 1870s, once its trading relationships occurred predominantly through *Paulista* territory, the *Triângulo* formally asked for independence from Ouro Preto. In 1873 the Emperor endorsed a bill to create a new province in the São Francisco Valley, from Montes Claros to southern Pernambuco.²³

Underlining the traits of visible territorial fragmentation, the needed economic resurrection of Minas Gerais through the installation of a healthy internal market based on the gold mining area (central region) was further impaired by the *alvará* of 1785, which heavily affected the potential growth of this area as a

producer of industrial commodities such as textiles and metal implements.

All these problems had to be faced by the ruling bloc in power if separatism and definite social and economic decline was to be avoided. The increasing influence of the *Paulista* coffee economy, followed by the upsurge of railways connecting its western area (Campinas, Jundiaí) to the port of Santos, was also a factor to be dealt with if Minas Gerais really wanted to keep its identity and integrity. On the other hand, the resurgence of a strong external sector other than gold, this time based on coffee, made Minas Gerais a powerful province. As a result of coffee exports, which in 1877 showed Rio de Janeiro with 107 thousand tons and Minas Gerais with 38 thousand tons, against São Paulo with 17 thousand, Juiz de Fora became the most important city in the province.²⁴ Its relations with Rio de Janeiro and the mounting interpenetration of economic interests between the south and São Paulo brought back the picture of the former gold period: Minas Gerais was again a mosaic feebly unified by an external sector that wove its fabric together through closer liaisons with cities other than Minas' capital. Thus at the end of the nineteenth century Ouro Preto, as capital of the most populated province of Brazil, was a political and an economic anomaly.

Furthermore, the end of the imperial regime in 1889 caused some crucial changes in the way relations between the provinces and the central government were structured. The coming of political and fiscal decentralization empowered the emerging states with: control of imperial land, the authority over mineral deposits, the right to levy export taxes, the power to borrow abroad and to sell bonds overseas, and the privilege of raising a standing army. The most striking result was a notable increase in states' revenues.

Minas Gerais was ready to erect the new capital. During the administration of Afonso Pena, a virtuous politician later to become President of the Republic (1906-1909), engineer Herculano Ferreira Pena of the Escola de Minas in Ouro Preto was called on to take charge of choosing the site for the new capital. This decision, taken in 1890, immediately gave rise to exacerbated regional clashes over the issue of the "new capital." Historians of the process are unanimous about the political bargain involved in the construction of Belo Horizonte, through which Afonso Pena bought off opposition from Mata, Ouro Preto and the south by means of special and repeatedly requested subsidies for the installation of railroads and for the import of European immigrants, both of which demands were closely connected to pressures mobilized by the coffee sector, the most important in the state economy at the time (production of 95,000 tons in 1890 and 188,000 tons in 1901).

On March 1, 1894 Afonso Pena nominated engineer Arão Reis — a *paraense* living in Rio de Janeiro — to head the construction commission of the new capital to be erected in Belo Horizonte, formerly Curral D'El Rei, a cattle-raising centre founded in 1714. The main idea behind the project was to reactivate the economy based upon gold mining, and also to create a better political centre for the state as a whole.

Belo Horizonte was inaugurated on December 12, 1897, during the government of Bias Fortes, having as its head commissioner for public works a *mineiro* engineer, Francisco Bicalho. Given disagreements between the former head of the construction commission and the new government, Arão Reis was dismissed from his job in 1895.

The construction of the city faced almost unsurmountable problems. Transportation of materials was painful and costly. There was a railway up to Sabarú (18 kilometres from Belo Horizonte), but from there the construction material was transported by mules, which took 48 hours to arrive at the main site.

In 1895 the railroad from Sabará to the new capital under construction was finally completed. There was also a lack of manpower, and European immigrants were imported in large numbers (mainly Italians, Spaniards and Portuguese). Moreover, in 1897 the government had to borrow money from abroad, mainly from French banks, to pay its bills for construction materials.²⁵ Contracts for the construction of the public buildings, houses for the pioneer public workers coming from Ouro Preto, streets, and infra-structural networks were all offered to private contractors. All would be bound by the general plan designed by Reis and the construction commission.

The general plan designed for Belo Horizonte was an exclusively "engineering project", devoid of all social considerations. It was based upon the examples of the reconstruction of Paris in the 1860s under Napoleon III, with the leadership of Baron Georges Haussmann, and the model followed by Washington through the plan of L'Enfant. Based on baroque principles, the overall design entailed monumentality, spaciousness, symmetry and grandeur. The city was planned in a concentric shape, to be formed by a population of 200 thousand people: three concentric zones, with the outer ring encircling an area set aside for small farms which would serve as a source of food supply for the city. The next ring closest to the city centre was labelled by Reis the "suburban zone", in which there would be "chacaras" or "quintas", kinds of country homes for receiving the upper classes. Major arteries in suburban areas were limited to a width of 14 metres, narrower than the streets in the urban core. Adelman is convinced that this design was influenced much more by baroque aesthetics than by the functional reasoning typical of modern cities.²⁶ The inadequacies of having such narrow streets in suburban areas came to the fore during the first two decades of the present century, when authorities relaxed the plan's discipline and chaos began to develop.

The urban core was similar to Washington and Paris, with two types of street systems. Superimposed over "a basic grid system of streets 20 metres wide, with right-angle intersection, Reis laid another system consisting of diagonal avenues that crossed the grid at an angle of forty-five degrees. The width of these streets would enable the free circulation of traffic and be sufficient for comfort and beauty."²⁷

Monumentality would be reserved for the axial avenue, 55 metres wide, with a proposed cathedral at one end and the congress at the other, suggesting a resemblance with Washington's Pennsylvania Avenue and Paris' Champs Elysees. The city's civic centre was to be placed around the Praça da Liberdade, and the urban zone would be encircled by the Avenida do Contorno (Peripheral Avenue). Moreover, a central park was designed to be situated along the Avenue Afonso Pena, the monumental axial avenue.

Beyond characterizing the urban design, it is important to note that some of its basic assumptions leading to monumentality were affected by two factors: the provincialism of the capital at the end of the nineteenth century (and even into the 1930s), and the ascent of other modern means of transportation, which became definite obstacles to the full realization of Reis' plans. Belo Horizonte was an artificial political creation, and it was not until many decades after its founding that the city really came to exercise hegemony over other regions within the State of Minas Gerais. A city marked by the presence of an extensive bureaucracy from the beginning, only through modern industrialization after 1950 did Belo Horizonte come to typify modern *mineiro* society. The clear advantage of this "late industrial development" rested on the existence of very modern scale economies, organized according to prevailing international capitalist standards. This new reality made Belo Horizonte a most promising site for Brazil's industrial future.²⁸

Still, in regard to its internal functions and consequences, it should be noted that from the beginning the city plan gave rise to severe spatial discrimination. There were exclusive areas reserved for the emerging state bureaucracy (*Bairro de Funcionários*), who were favoured by free lots and subsidized homes built at government expense, with no interest and monthly installments for thirty years, and with the State even freeing the original homeowners from any future payments in 1914.²⁹ Contrasting with this discrimination in favour of the bureaucracy and high officials of the government, there were urban agglomerations formed by public workers involved in the construction of the city itself, the *Alto de Estação e Barro Preto* being among the most famous areas formed by these contingents of immigrants and other groups. Later in the twentieth century, some of these areas were urbanized (i.e., infra-structure was installed) by the government, with the consequence that the former tenants were expelled to areas farther away (*Barroca*, for instance).

In spite of suffering the effects of the price decline experienced by coffee production after 1896, which led to the Convênio de Taubaté (1906) through which the federal government came to the planters' rescue with a valorization plan, Belo Horizonte saw itself assuming crucial importance for the State of Minas Gerais as a whole. After the construction of lines connecting the city with the Estrada de Ferro Central do Brasil, Belo Horizonte became an important centre for marketing cattle and for the transshipment of commodities to the cities in the São Francisco and Rio das Velhas valleys. The evolution of the area crossed by the Central do Brasil, to the northwest of Belo Horizonte, can be witnessed by the marked demographic growth which occurred between 1900 and 1920. The population of Santa Luzia grew from 36,746 inhabitants in 1900 to 58,376 in 1920, that of Sete Lagoas from 32,158 inhabitants to 45,762 in 1920, and that of Curvelo from 49,148 inhabitants in 1900 to 75,720 in 1920. There was a total increment of 53 per cent in the population of this area during the first two decades of the present century.³⁰

From 1920 onwards Minas experienced an economic resurgence, this time centred in Belo Horizonte, based on the installation of a "metallurgical pole." This phenomenon was decisively aided by the discovery of manganese (at Lafaiete) and by the rejuvenation of a famous gold mining camp (Ouro Velho in Nova Lima), which had not been exploited since 1834. In the 1900s this mine assured Nova Lima, the neighbor county of Belo Horizonte, fourth position among the most industrialized cities of Minas Gerais. This renaissance of metallurgical activities, as well as the boom in cattle raising and agriculture at the beginning of the century, gave Belo Horizonte an excellent historical opportunity to centralize control over most of the economic activities taking place within the state. Thus Belo Horizonte's position as the leading city of Minas Gerais, as projected by Afonso Pena and his construction commission, finally began to be consolidated.

BRASILIA AS THE NEW CAPITAL

Brasília was inaugurated as the new capital of the country in 1960 by then president Juscelino Kubitschek. Like Belo Horizonte (1894-97) and Goiânia (1933-37), Brasília was coincidentally constructed in four years (1956-60). Nevertheless, the shift of the Brazilian capital to the interior had been the subject of lengthy, recurrent debates and decisions which can be traced back to the 1750s.

In 1750, the geographer Francisco Tossi Columbina, a Brazilian born in Goiás, secured for himself and his company a concession to open a road from São Paulo to Cuiabá, crossing Goiás. In compensation, he requested the privilege of exploiting

this road commercially for a period of ten years, plus a *sesmaria* every *leguas* along the road, all of which were granted by an order of December 6, 1750. A report written by priest Luis Antonio da Silva e Sousa, dated September 30, 1812, nevertheless reveals that this concession was never really implemented, due to Columbina's failure to set up his enterprise. Meanwhile, the same Columbina had drawn up geographical charts, showing existing routes by land and river between São Paulo and Cuiabá, the Plata and the Amazon.³¹ These documents were destined to become future reference points to the "interiorization" of the national political centre.

In 1761, during the reign of D. Jose I, the Marquis of Pombal — an outstanding reformer within the Portuguese government — suggested shifting the capital to the interior, this time to the Amazon Valley.³²

Brazil's capital since 1549, Salvador, by the end of the eighteenth century had to pay tribute to the emerging vitality of the south. It was also true that Portugal's political interest in having the capital in Salvador declined after the discovery of gold in Minas Gerais along with the increasing importance assumed by the port of Rio de Janeiro, the first heavy aggressions of Spanish in the Plata area, the expulsion of French expansionists from Maranhão, and the Dutch from Pernambuco, and the increasing interiorization of the northeast's economy through cattle raising in the *sertões* (backlands). The notable decline of the sugar cycle, and the entrepreneurial aggressiveness of Paulistas who set forth from São Paulo and São Vicente to tame the Indians, discover gold mines and create ranches to raise cattle for consumption by the urban centres rapidly emerging around the active mining fields, lent urgency to the transfer of the capital from Salvador to Rio de Janeiro in 1763. Oliveira Viana writes that "the colonial economic and military center of gravity had moved from North to South, and with it came a change affecting the political center of gravity."³³

In the *Autos de Devassa da Inconfidência Mineira*, published by the National Library in 1938, it was made clear that the *mineiro* insurgents had demanded a new capital for Brazil. It was to have been located in São João Del Rei, where a university following the model of Coimbra in Portugal would be erected. For the revolutionaries of 1789, the idea of moving the national capital was linked to the utopian project which had led them to fight the Portuguese crown in favour of independence and a better economic and social life. A new capital, control over their own fiscal revenues from gold mining, and higher educational standards all came together to characterize the Inconfidência Mineira.

Moving to Brazil, the Royal House under the leadership of D. João VI (1808) found Rio de Janeiro not quite suitable to be the capital. The then Prince D. João VI decided to look for a better site further to the south. Still in 1809, in a speech before the Royal Parliament of Great Britain, Prime Minister William Pitt predicted that in the centre of Brazil would be erected a capital city — Nova Lisboa — from which the Crown would administer the vast territory.³⁴ By his turn, Tobias Barreto makes clear that the British were willing to support this move, to be undertaken by the Portuguese crown as a way of counteracting French invaders and Spanish border transgressions.³⁵

In 1813, the *Correio Braziliense*, the first Brazilian newspaper ever published, presented an article in London written by its founder, José Hipólito da Costa, which advocated transferring the capital to Pirapora, Minas Gerais. In 1817, revolutionary groups in Pernambuco demanded a new capital for the new republic to be formed, comprising the States of Pernambuco, Paraíba, Rio Grande do Norte and Ceará; the new capital would be located in Paraíba. In 1821, José Bonifácio formulated instructions for São Paulo's deputies to the Cortes in Lisbon in

which he suggested a new capital in the interior of the country to escape foreign aggression. This suggestion was presented to the Prince Regent on November 9, 1821. In 1822, still from his office in London, Costa returned to the issue of the new capital. In the same year the first mention occurred of the name, Brasília, for the new capital; although a deputy to the Cortes, the author remains unknown.

After independence, José Bonifácio suggested to the Assembléia Constituinte the creation of a new capital under the name of either *Brasília* or *Petrópolis*. In 1824 the revolutionaries forming the "Confederation of the Equator" in Pernambuco appealed for a new constituent assembly to be installed in a central area of the country, outside Rio de Janeiro, where the colonial tradition was still too well entrenched.

From 1839 to 1877, Francisco Adolfo de Varnhagen, a historian and diplomat born in São Paulo, later to become Viscount of Porto Seguro, worked very hard in pursuit of the idea of founding a capital in the central plateau area of Brazil. In 1839 he promised to come up with studies on the physical geography of the country, as well as to point out the best sites for the new capital. In 1845 Varnhagen also suggested the construction of a university in São João Del Rei, as desired by the *Inconfidentes*, and claimed that the city of Rio de Janeiro did not possess the minimum safety conditions to be the permanent capital. Between 1849 and 1851 he published in Madrid his *Memorial Orgânico*, in which he analyzed the need for "interiorization" of the national society. In 1877 Varnhagen finally published his most praised work, *A Questão da Capital: Marítima ou Interior?*³⁶

In his last work Varnhagen reinforced the idea that the capital could not remain in Rio de Janeiro, as the invasion of Duguay Trouin in 1711 had again alerted the government of the existing perils of having the capital by the sea coast. Varnhagen relied upon European examples (London, Paris, Berlin and Vienna) to demonstrate that safe capitals should be located along the rivers and not by the ocean, for coastal cities, like Constantinople, Naples, Lisbon and many others, were accustomed to being humiliated by foreign invasions. Among the criteria to be followed in the construction of the new capital were included:

- Easy access to coastal ports by rail.
- An intensification of internal economic transactions among different regions, centralized by the capital-to-be; therefore the new city should also encompass industrial activities, rather than exclusively administrative functions.
- Long distances from areas with tropical climates, like Rio de Janeiro.
- An interior location, to preclude invasions by foreign powers.
- Freedom from slave labour, so as to emulate modern civilisation.
- Location on the central plateau, equidistant from Rio de Janeiro, Bahia, Oeiras (Piauí), and Cuiabá (Mato Grosso), in an area that had healthy air and was close to water supply sources. This central location should also be a means of linking the valleys of the Amazon, Plata, and São Francisco rivers:

Rio de Janeiro would be a good capital site if Brazil were to absorb Africa, in the same way that Cuiabá would be a good capital if we were to expand towards the West or even Bagé (Rio Grande do Sul) if we were to threaten the Southern States.... But if our mission is to hold our territory intact and to better it, the new capital must be in a central and defensible place.³⁷

Still in 1877, Varnhagen went on a long excursion through the interior of the central area, where he witnessed rapid progress and some problems. One of these problems was

caused by the lack of areas capable of receiving immigrants, who had their tickets paid by the central government to return to Europe. In a letter to become famous, the diplomat wrote to the Minister of Agriculture, Tomaz Coelho, among other things suggesting the creation of new colonization areas through the foundation of a capital on the central plateau (*Carta da Vila Formosa da Imperatriz*).

In the course of the long debate on the geopolitical reasons for creating a new capital, there even occurred prophecies. Dom João Bosco, later canonized by the Catholic Church, had had a dream predicting the creation of a promised land (containing outstandingly rich soil and full of oil) to be the new Brazilian capital between latitudes 15° and 20°. The dream was reported as occurring in 1883 (*Antecedentes*). Shortly thereafter the Republic was proclaimed, and in 1889 Deputy Nelson Almeida brought up the issue of the new capital again, now to a republican forum. In the session of December 22, 1890, Deputy Lauro Müller, supported by eighty-eight other deputies and senators, sponsored a constitutional amendment establishing the area where the new capital would be erected. The period between 1890-1891 was rich in projects, later to be incorporated into the new constitution, detailing the legal measures for assuring the nationalization of land on the central plateau to be reserved for the new capital.

As a result, the 1891 Constitution (Art. 3) reserved for the Union an area of 14,400 kilometres² for the new site. On September 20, the Congress authorized the executive to explore and demarcate the boundaries of the area. Then in 1892, in his presidential message to Congress, Marshall Floriano Peixoto decided on the formation of the first commission ever to explore the central plateau of Brazil. Through an order of May 17, 1892, a commission was created headed by Dr. Luis Cruls, director of the Astronomic Observatory of Rio de Janeiro. This famous commission, in practice the first measure setting in motion the construction process, presented several reports concerning its work (those of 1894 and 1896 being the most important). The last years of the century were taken up by governmental acts providing credits for the Cruls Commission, as well as by the construction of the Catalão-Cuiabá railway, which was connected to the same project (Law 266, December 12, 1894). It also should be noted that the itinerary of the Commission, as well as other provisions set out by the central government, captured great public attention. Amidst public positioning there were sardonic comments made by Machado de Assis, the famous novelist, in the Rio de Janeiro press at the end of the last century.³⁸

The creation of Brasília was incorporated in several federal constitutions to come (the Provisional Constitution of 1890, and in those of 1891, 1934, 1937 and 1946), and gave rise to myriad decrees and special laws to deal with credits and other practical matters. In 1922, President Epitácio Pessoa set the founding mark in the heart of the plateau. In 1954 a contract was signed with the American corporation, Donald J. Belcher Associates, in charge of the aerial photographic service for the definitive installation of the new capital. Finally, in 1955, in a measure undertaken by the government of the State of Goiás, the Bananal Ranch was expropriated to serve as the main site of the new capital, comprising an extension of 23,000 hectares.³⁹

The realization of Brasília thus encompasses a lengthy debate dating back to the eighteenth century. In the nineteenth century, rather than simply being a part of the general trend towards modernization based heavily on British capital and commerce, the creation of a new site for the national capital was influenced by a pervasive fear of invasion by foreign powers. The war against Paraguay (1865-70), episodes in which had sometimes substantiated this fear, called the attention of the central government to the need for a new capital. Moreover, and

above any other apparent criterion, it was the drive to occupy the national territorial centre that brought political and economic elites together in favour of a new site.

The construction of a capital according to French ideas, carried on from Le Corbusier to Lucio Costa and Oscar Niemayer, with the consequent mechanization of communications by means of the automobile, turned out to be a bold challenge as oil was relatively scarce. Nevertheless, monumentality, spaciousness and an outstanding social isolationism tending to spatial segregation within the borders of the Brasília of today are to be criticized according to twentieth century perspectives.⁴⁰ What seems to be important in regard to the nineteenth century context is the pioneering role assumed by the state authorities in leading the whole process of erecting a new capital within the social and political limits of a society still resembling a colony and pervasively lacking in economic integration.

CONCLUSIONS

In concluding this short paper, it can be said that in the period of modernization, from the 1850s onward, Brazil gave high priority to the establishment of planned spatial forms. The country's continental dimensions, its regionalism, scattered population, and lack of a prior urban civilization as well as foreign aggression seem to have functioned as leitmotives of this development. In this respect, the initial waves of colonization were similar in nature to the establishment of the *Paulista* railway network, both were private enterprises, in which the state assumed a subsidiary role.

As in Spanish America, the whole drive for modernization in Brazil during the nineteenth century followed a pattern dictated by the European capitalist economy. In addition to implying a significant absorption of European industrial commodities and new forms of transport, Brazil's integration with Europe brought with it the undermining of local manufacturing production, a more intensive exploitation of agricultural resources (staple commodities for export),⁴¹ and a consequent move towards ruralization of the population.⁴² Urban centres were converted into intermediary points between the local export economies and poles of luxury consumption on one hand, and European markets on the other. In this context, the primacy of the city over the rural areas was imposed by the nature of the emerging plantation economy.⁴³

During this period, Brazil contained several regional economic complexes, which had not yet reached full integration with one another. The actions taken by the state and the entrepreneurial classes to establish this needed integration were crucial for achieving the nation's territorial integrity and economic substance.

The creation of a privately oriented railway network in São Paulo was a by-product of the expansion of coffee production. Its further implications in terms of expanding an urban system around the core *Paulista* area were multiple. The railways not only changed the location of urban sites, but also contributed to industrial expansion, along the lines initially installed, as in the cases of Campinas, Jundiaí, Americana, Limeira, and so forth.⁴⁴ The same thing happened in Minas Gerais, where the *Mogiânia Railway* established connections with Sapucaí, Pocos de Caldas, Guaxupe, and Uberaba, among other important localities.⁴⁵ The establishment of the *Paulista* railway network was, after the end of the nineteenth century, the most efficacious instrument for achieving the territorial integration of Minas Gerais, Mato Grosso, Goiás, and Parana, with São Paulo and consequently, served as the first element effectively welding together their internal economies.

The creation of Belo Horizonte in Minas Gerais was a gigantic leap forward in the integration of the *mineiro* economy. At the time of its foundation, Belo Horizonte was an administrative centre, only much later coming to wrest economic hegemony from Juiz de Fora, the Triangulo, and the south. At present, Belo Horizonte has definitely consolidated itself as the third most important city in Brazil in terms of industrial production and will shortly advance to second, overtaking Rio de Janeiro. Its metropolitan area has grown remarkably, and recent waves of foreign investment and public corporations are on the verge of making the city one of the most important economic centres of Latin America.⁴⁶

The foundation of Brasilia as the national capital has had a notable influence on the redirection of internal migration within the country, as well as on the effective occupation of the centre-west region. A city comprising more than a million inhabitants, including satellite areas originally set up by workers of the construction sector, Brasilia is doubtless a centre of convergence and potential growth for its geo-economic area, which encompasses parts of Goias and Minas Gerais.⁴⁷

In all these cases of urban development the state has played a decisive role. In São Paulo, the state offered special guarantees for the foreign and national capital applied in the construction of the railway network in the form of "guaranteed interest" and "zone privileges." The lack of regional planning for the construction of the network should not be considered a weakness in the state's role, as Adelman claims.⁴⁸ In the historical context, keeping in mind the characteristics of the oligarchic order in decomposition,⁴⁹ we should consider the absence of planning a natural rather than unexpected product. Nevertheless, the roles assumed by the state of São Paulo, and also by the imperial government, were decisive for the development of the network.

In regard to Belo Horizonte, its foundation as a capital represented a decisive attempt by Afonso Pena's government to exert hegemony over subregional elites commanding particular segments of the *mineiro* economy and politics. The bargaining process involved in the establishment of the new capital is a good illustration of how the hegemonic fraction within a ruling bloc could successfully expand its territorial and political bases.

Furthermore, the state, through the power of the ruling bloc headed by Afonso Pena, was deeply and intensely committed to all details of the construction of Belo Horizonte. The surplus deriving from revenues on exports of coffee and other raw materials, exports promoted by the new coalition that emerged with the Republic (later to be controlled by *mineiro* politicians whose decentralized policies gave notable support to regional economies), was skillfully used in investments in public works. The intrinsic flaws of city planning in Belo Horizonte, in which a remarkable provincialism was disguised by the emulation of foreign cities like Washington and Paris, must be taken to be a by-product of the prevailing planning ideology based on an engineering approach, rather than as the necessary consequences of other variables.

In the projection, decisions and planning of Brasilia, the role played by the state was, so to speak, monopolistic. From the beginning the state took charge of everything, and, as had happened in Belo Horizonte, public land was used to promote the migration of administrative personnel and to sustain the working of the governmental system. As was demonstrated afterwards by the completion and implementation of the Costa and Niemayer plans, even the construction of individual housing units was undertaken by public enterprises operating through contractors.

Both for Belo Horizonte and Brasilia, the state thus came to play a prominent role. Rather than being only a subsidiary actor

and regulatory agency with a marginal share of power, as in the case of the *Paulista* railway network, in these other cases the state operated as the promoter of the new environment to be built. Public funds were channelled through private contractors, all following the existing planned policy.

In the development of private and state activities concerning the construction of the built environment, the analyst must confront another key question involved in Brazilian national politics and society after independence, namely the *regional question*, the way in which the country structured itself by means of growing integration and concentration of resources (capital, labour, production, power) around a few metropolitan areas. The regional complex generated in São Paulo by the expansion of coffee — and by means of transport based on railways — gave rise to the first modern pole of economic growth. In its turn, that pole came to condition heavily the present shape assumed by Brazilian territory and society.⁵⁰

Nevertheless, before the implantation of the public works we have mentioned, at the end of the nineteenth century, there was in fact no integrated economic system. The production of commodities and their transaction within the national territory only came to form a more integrated (capitalist) system after the end of the last century. It is specifically after the first surge of massive industrialization, from 1930 onwards, that there appeared a new division of labour. Prior to that time, it is more accurate to speak of the expansion of Brazilian capitalism around regional poles. After the consolidation of the southeast and of the south as industrial poles, at the end of the First Republic, the new division of labour displayed monopolistic trends favouring these areas to the detriment of the north and northeast.

Therefore, the construction of the built environment is intertwined with the regional question, and its development suggests the kinds of conflicts and clashes which occur among regional interests still in the process of composing a national system.

NOTES

1. See Benício Viero Schmidt, "The State and Urban Policy in Brazil," Ph.D. dissertation, (Stanford University, 1979).
2. James A. Gardner, *Urbanization in Brazil* (New York: Ford Foundation, International Urbanization Survey, 1972).
3. Richard Morse, "Trends and Issues in Latin American Urban Research, 1965-70," *Latin American Research Review*, Vol. 6, 2 (Summer 1971), and "The Development of Urban Systems in the Americas in the Nineteenth Century," *Journal of Interamerican Studies and World Affairs*, Vol. 17 (1975), pp. 4-26.
4. Bryan Roberts, "Agrarian Organization and Urban Development," *Stanford Journal of International Studies*, Vol. XIII (Spring 1978), p. 95.
5. Jorge E. Hardoy, *Ciudades Precolombianas* (Buenos Aires: Ediciones Infinito, 1964).
6. Alejandra Moreno Toscano and Enrique Florescano, "El Sector Externo y la Organización Espacial y Regional de México (1521-1910)," in James W. Wilkie, Michael C. Meyer, and Edna Monzon de Wilkie, eds., *Contemporary Mexico* (Berkeley: University of California Press, 1976).
7. *Ibid.*, p. 72.
8. The definition of *built environment* (*cadre bâti*) comprehends the complex composite commodity integrated by innumerable different elements (roads, canals, etc.) which have to work together as an ensemble in relation to the aggregative processes of production, circulation and consumption. See David Harvey, "The Urban Process Under Capitalism: A Framework for Analysis," *International Journal of Urban and Regional Research*, Vol. 2, No. 1 (March, 1978), pp. 101-132.
9. See Warren Dean, *The Industrialization of São Paulo, 1880-1945* (Austin: University of Texas Press, 1969); Richard Morse, *From Community to Metropolis* (Gainesville: University of Florida Press, 1958); and Paul Singer, *Desenvolvimento Econômico e Evolução Urbana* (São Paulo: Nacional, 1968).
10. The two main references for the study of the establishment of the *Paulista* railway network are: Robert Howard Mattoon, Jr., "The Companhia Paulista de Estradas de Ferro, 1868-1900: A Local Railway Enterprise in São Paulo, Brazil," Ph.D. dissertation, Department of History, Yale University, New Haven, Connecticut, 1971; and Odilon Nogueira de Matos, *Café e Ferrovias*, 2nd. edition, (São Paulo: Alfa-Omega, 1974).

11. Matos, *Café e Ferrovias*, p. 50.
12. *Ibid.*, p. 52. Like the *Paulista* law of 1838, the new 1852 law prohibited slave labour in railroad building. Moreover, Brazilian workers could benefit by being released from compulsory military service, as well as from serving in the National Guard. Such advantages clearly demonstrate how seriously the government was then undertaking its railway policy.
13. Adolfo Pinto, *História da Viacão Pública em São Paulo*, as cited by Matos, *Café e Ferrovias*, p. 57.
14. See Mattoon, "The Companhia Paulista," conclusions.
15. Dean, *Industrialization of São Paulo*; and Wilson Cano, *Raízes da Concentração Industrial em São Paulo* (São Paulo: DIFEL, 1977).
16. Alan K. Manchester, *British Pre-eminence in Brazil — Its Rise and Decline* (New York: Octagon Books, 1964); and Richard Graham, *Britain and the Onset of Modernization in Brazil, 1850-1914* (Cambridge: Cambridge University Press, 1968).
17. See Mattoon, "The Companhia Paulista."
18. John D. Wirth, *Minas Gerais in the Brazilian Federation, 1889-1937* (Stanford, Calif.: Stanford University Press, 1977), p. 2.
19. Francisco de Oliveira, "A Emergência do Modo de Produção de Mercadorias: Uma Interpretação Teórica de Economia de República Velha no Brasil," in Boris Fausto, ed., *História Geral de Civilização Brasileira*, Vol. 1, (São Paulo: DIFEL, 1975).
20. Paul Singer, *Desenvolvimento Econômico*, chapter on Belo Horizonte; and Pedro Pinchas Geiger, *Evolução de Rede Urbana Brasileira* (Rio de Janeiro: MEC, 1963).
21. Paul Singer, *Desenvolvimento Econômico*, Francisco Inglêsias, *Política Econômica do Governo Provincial Mineiro (1835-1889)* (Rio de Janeiro: MEC, 1958); and Charles R. Boxer, *The Golden Age of Brazil* (Berkeley: University of California Press, 1962).
22. In fact, the capital of the State of Piauí, Teresina, was created much earlier than Belo Horizonte. In 1851 Teresina was constructed to replace the small city of Oeiras as the capital. However, the declining economic development experienced by Piauí affected the commercial role of the new capital, which was to be one of its main functions. For details see David G. Epstein, *Brasília, Plan and Reality* (Los Angeles: University of California Press, 1973), especially Chapter 2.
23. Wirth, *Minas Gerais*.
24. Singer, *Desenvolvimento Econômico*.
25. Wirth, *Minas Gerais*, p. 213. 29,000 contos until 1897; and in the same year the government borrowed 65 million franc loan from the Banque de Paris et des Pays Bas.
26. Jeffrey Adelman, "Urban Planning and Reality in Republican Brazil: Belo Horizonte, 1890-1930," Ph.D. Dissertation, Department of Modern History, Indiana University, Bloomington, Indiana, 1974, p. 54.
27. *Ibid.*, p. 56.
28. Schmidt, "The State and Urban Policy in Brazil," especially Chapter Two.
29. Adelman, "Urban Planning . . . in Brazil," *passim*.
30. Singer, *Desenvolvimento Econômico*.
31. Presidência da República, *Antecedentes Históricos (Coleção Brasília I)* (Rio de Janeiro: Presidência da República, 1960), p. 20.
32. Speech given by Urbano de Gouveia; see *Antecedentes*, p. 23.
33. Oliveira Viana, *Evolução do Povo Brasileiro* (Rio de Janeiro: José Olympio Editora, 1938), pp. 229-230.
34. *Antecedentes*, p. 35.
35. Tobias Barreto, *História do Império*, as quoted by *Antecedentes*, p. 36.
36. See main excerpts from Varnhagen's works in *Antecedentes*, annex.
37. Varnhagen, in *Antecedentes*, pp. 156-157.
38. Machado de Assis, *Gazeta de Notícias* (Rio de Janeiro: January 28, 1894).
39. See the report offered by Donald J. Belcher and Associates, *O Relatório Técnico sobre a Nova Capital da República* (Rio de Janeiro: DASP-Departamento de Imprensa Nacional, 1957).
40. An excellent "contemporary" critique of Brasília is offered by Francisco Bullrich, "Ciudades Creadas en el Siglo XX, Brasília," in Roberto Segre, ed., *América Latina en su Arquitectura*, (Mexico: Siglo XXI, 1975), pp. 129-140.
41. Bryan Roberts, *Cities of Peasants* (Beverly Hills: Sage, 1978).
42. Richard Morse, "Cities and Societies in Nineteenth-Century Latin America: The Illustrative Case of Brazil," in J.E. Hardoy and Richard Schaedel, eds., *The Urbanization Process in America From Its Origins to the Present Day* (Buenos Aires: Torcuato di Tella, 1969), pp. 302-322.
43. *Ibid.*
44. Matos, *Café e Ferrovias*, p. 122.
45. *Ibid.*
46. Schmidt, "The State and Urban Policy in Brazil."
47. See *Antecedentes*; David G. Epstein, *Brasília*; Geiger, *Urban Brasileira*; Manoel Franca Campos, *Brasília, 3 Marco* (Rio de Janeiro: Livraria São José, 1960). For a general perspective on integration of the urban systems under the conditions of ruralization see Roberts, *Cities of Peasants*.
48. Adelman, "Urban Planning . . . in Brazil."
49. Fernando Henrique Cardoso, "Dos Governos Militares a Prudente — Campos Sales," in Boris Fausto, ed., *História Geral da Civilização Brasileira (O Brasil Republicano)*, (São Paulo: DIFEL, 1975).
50. About the configuration of modern regionalism in Brazil see, among several perceptive studies, Levine, Wirth and Love, collective introduction to John D. Wirth's *Minas Gerais in the Brazilian Federation, 1889-1937*; Wilson Cano, *São Paulo*; and Amelia Cohn, *Crise Regional e Planejamento* (São Paulo: Perspectiva, 1976).