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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 Brasilia, par lesquels l’État modifiait les migrations intérieures et le peuplement des régions.
Brazilian Modernization and Urban Planning In The Nineteenth Century*

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Résumé/Abstract

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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 Brasilia, 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. 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." 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. In pursuing similarities between the development of two core industrial centres of the contemporary capitalist world, Manchester and Sâo 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) Sâo 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.

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, 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. 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." 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 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 Sâo Paulo, the construction of Belo Horizonte as capital of Minas Gerais, and the decision to plan Brasilia 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 Sâo Paulo, illustrates how central the expansion of coffee was for the installation of an industrial economy in Brazil. 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 Sâo Paulo) the railroad system was created by the expansion of coffee cultivation. Sâo...
Paulo thus represents a case in which the pre-existence of a strategic product made necessary the creation of a modern system of transportation.\textsuperscript{10}

The first railroad to be created in Brazil (from Rio de Janeiro to Petropolis, 14 kilometres) was not precisely of an economic character. Insofar as its main objective was to serve the Royal House in Petropolis, 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 Maú.

Prior to 1854, there had been two important initiatives in favour of railroad construction in Brazil. During the regency period, the Lei Feijô (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 Feijô 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, seemed 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 raising the subsequent incentive for capturing private financial capital from abroad to install a costly transportation system based on railroads.\textsuperscript{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.\textsuperscript{12}

After the already mentioned creation of the Rio Petrópolis line, based on the Barão de Maú’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 connected the province to 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 trasporting 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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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 minério 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.”\textsuperscript{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 minério 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 comprehen-
sively 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. This had occurred through the import of products
consumed in the mining camps and their surroundings, includ-
ing 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.

Although this push towards the formation of a better inte-
grated 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 under-
standable 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.

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 obsta-
cles 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
gear ed 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.

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.

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. 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 liaison 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 pro-
vinces 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
development, 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 Hercu-
lano 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 exacer-
bated 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 Sabará (18 kilometres from Belo
Horizonte), but from there the construction material was trans-
ported 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. 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. 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." 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. 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 transhipment 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 Lagos from 32,158 inhabitants to 45,762 in 1920, and that of Curvelo from 49,146 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.

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 Lafayette) 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.

**BRASÍLIA 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 Goiania (1933-37), Brasília was coincidentally constructed in four years (1956-60). Nevertheless, the status 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 sesmario every legua 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. 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.

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 the capital. The then Prince D. Joâo VI decided to look for a city — Nova Lisboa — from which the Crown would administer this vast territory.32

By his turn, Tobias Barreto makes clear that the national capital was linked to the Utopian project which had led to 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?.33

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.35

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 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, Brasilia, 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 Brasilia or Petrópole. 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 Varhagen, 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?.34
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 Mals, 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 Brasilia 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 definition and installation of the new capital. Finally, in 1955, in a measure undertaken by the government of the State of Goias, 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 Brasilia 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 Niemeyer, 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 Brasilia 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.45 The same thing happened in Minas Gerais, where the Mogiana Railway established connections with Sapucai, Pocos de Caldas, Guaxupe, and Uberaba, among other important localities.46 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, Goias, 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.\(^4\)

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.\(^4\)

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 friction 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 exported 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

7. Ibid., p. 72.
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.
17. See Mattoon, “The Companhia Paulista.”
22. In fact, the railway 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, Brasilia, Plan and Reality (Los Angeles: University of California Press, 1973), especially Chapter 2.
23. Wirth, Minas Gerais.
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.
27. Ibid., p. 56.
28. Schmidt,”“The State and Urban Policy in Brazil,” especially Chapter Two.
30. Singer, Desenvolvimento Econômico.
32. Speech given by Urbano de Gouveia; see Antecedentes, p. 23.
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.
38. Machado de Assis, Gazeta de Noticias (Rio de Janeiro: January 26, 1894).
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, Brasilia: Geiger, Urban Brasileira; Manoel Franca Campos, Brasilia, 3 Marco (Rio de Janeiro: Livraria São José, 1980). For a general perspective on integration of the urban systems under the conditions of ruralization see Roberts, Cities of Peasants.
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 Canto, São Paulo; and Amelia Cohn, Crise Regional e Planejamento (São Paulo: Perspectiva, 1976).