

THE PILOT PLAN AND THE REGIONAL PLANS FOR BRASÍLIA BETWEEN THE LATE 1940S AND EARLY 1960S

O PLANO PILOTO E OS PLANOS REGIONAIS PARA BRASÍLIA ENTRE FINS DA DÉCADA DE 1940 E INÍCIO DOS ANOS 60¹

MARIA FERNANDA DERNTL*

*Universidade de Brasília, Faculdade de Arquitetura e Urbanismo, Brasília, DF, Brazil.

ABSTRACT: *One of the major criticisms regarding the new Brazilian capital inaugurated in 1960 is that no plan was ever included to insert it into its regional context or to organize its urban expansion. While this paper is not entirely opposed to this criticism, it does, however, demonstrate that instruments and concepts current in the field of regional planning of the time had been put forward by scientific commissions since the late 1940s and found expression in resolutions and plans by Novacap for territorial organization and the distribution of public services for food supply, education and healthcare within the Federal District. The analysis focuses mainly on the way in which the satellite towns were conceived during the first years of constructing Brasília.*

KEYWORDS: *Federal District, Brasília, Pilot Plan, satellite towns, urban and regional planning*

RESUMO: Um dos tópicos da crítica à nova capital do Brasil inaugurada em 1960 é a ausência de um plano com intuito de inseri-la em seu contexto regional ou de organizar sua expansão urbana. Este artigo não refuta por completo essa crítica, mas mostra que instrumentos e conceitos então correntes no campo do planejamento regional foram aventados por comissões científicas desde fins da década de 40 e consubstanciaram-se em determinações e planos da Novacap para organização do território e distribuição de serviços públicos de abastecimento, educação e assistência à saúde no DF. A análise atenta sobretudo para o modo como as cidades-satélites foram concebidas nos anos iniciais da construção de Brasília.

PALAVRAS - CHAVE: Distrito Federal, Brasília, Plano Piloto, cidades-satélites, planejamento urbano e regional.

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From amongst the vast range of studies conducted on Brasília, most have devoted their attention to the Pilot Plan and its iconic architecture. However, from the very earliest times, there was a noticeable absence of plans or prior studies to integrate the original nucleus within the context into which it was inserted (EPSTEIN, 1973; FREYRE, 1960, 1968; HARDOY, 2012 [1ª ed. 1964]; PEDROSA, 1960; SNYDER, 2012 [1964]; WILHEIM, 2012 [1969]; ZEVI, 2012 [1960]). One of the recurrent themes of criticism regarding the new capital was the lack of “regional planning”, understood as planning to insert it into the territories of the state of Goiás and the newly created Federal District (known in Portuguese as DF), but that also had other connotations. Gilberto Freyre (1960), for example, pleaded for Brasília to be integrated into a “natural, social and cultural space, characteristically tropical” (p. 112). Neglecting regional considerations in the conception of Brasília was considered its “original sin” (ALMANDOZ, 2016).

Without wishing to question such assertions in full, this article demonstrates, however, that since the late 1940s significant concern was shown towards conceiving the links between the new capital and its region and defining manners through which it could expand. This concern may be evidenced in certain determinations to control the urban occupation and in plans to provide an infrastructure of services and equipment across the territory. For this, concepts and instruments related to a cutting-edge vision of the period in the field of urban and regional planning were mobilized. During the 1950s, the regional dimension of planning, linked to the purposes of socioeconomic development, was acknowledged in Brazil in experiences that involved different emphases in urban decentralization, but that presented a similar hierarchical organization of the territory through neighborhood units, satellite towns and greenbelts (FELDMAN, 2009). These elements of territorial arrangement, to which parkways might be added, had become “standardized international vocabulary” in the years following World War II (FREESTONE, 2000, p.77). Such vocabulary, as we intend to demonstrate, was also the basis of proposals for structuring the Federal District during this period.

The emphasis of this analysis will be on the manner in which the nuclei located in the vicinity of the Pilot Plan were conceived and assimilated into the initial urbanization process of the Federal District. The existence of urban plans for satellite towns was recognized in pioneering studies on the capital (EVENSON, 1973, EPSTEIN, 1973). However, the contrast between the regular core layout designed by Lucio Costa in 1957 and the supposedly disordered nature of the satellite nuclei is still common. In this paper, however, plans for satellite towns and rural communities around the Pilot Plan are evidenced as a key part of the discussions and proposals conducted by Novacap in order to define the occupation of the Federal District.

This analysis is based on various different primary sources that were produced between the late 1940s and early 1960s: official reports by commissions prior to the construction of Brasília, work by technicians hired by Novacap, minutes from meetings of the Novacap Council, information published in the magazine *Brasília*, as well as maps and plans of the Federal District. Recollections and testimonies of authorities and technicians produced decades after the inauguration of Brasília were also considered for analysis.

The intention here is not to reaffirm the obvious discrepancy that exists between the plans and their realization in Brasília, but to observe the manner in which the planning processes unfolded amid the accelerated and conflicting construction of the city. In order to address the proposals for organizing the territory of the Federal District during that period, this analysis also seeks to disclose a more continuous, collective work than that suggested by the usual narratives concerning the founding protagonists of Brasília. The Lucio Costa Pilot Plan appears herein as one of the plans – the central plan, but not the only plan – to compose a broader effort geared towards the structuring of the territory.

FROM THE COMMISSIONS TO THE PUBLIC COMPETITIONS: APPROACHES TO THE TERRITORY

Elements and data that would later be fundamental to the structuring of the future territory of the Federal District were put forward in work by scientific commissions charged with studying and choosing the area where the new capital was to be built. These commissions consisted of specialists from different fields of knowledge and were sequentially led by Luís Cruls (1892-1893 and 1895), Djalma Polli Coelho (1946-48), Aguinaldo Caiado de Castro (1953-54) and José Pessoa Cavalcanti de Albuquerque (1954-56) (SENRA, 2010). Without wishing to undertake an exhaustive or detailed analysis of the vast production of these commissions, some of the guidelines and recommendations from their reports for planning and organizing the territory should be highlighted.

The suggestion for the chosen site later confirmed for the new capital and the suggestion to dam the Paranoá River so as to create a lake were originally put forward by the botanist Auguste François Marie Glaziou, a member of the Cruls Mission team, as confirmed by the so-called “partial report” (GLAZIOU, 1896) (this and all other references hereafter in Portuguese have been translated by the author). Based on the suggestion by Luís Cruls to locate the capital on the Central Plateau, General Djalma Poli Coelho later presented the monograph *The New Federal Capital: general considerations on the bases for its planning and execution* (IBGE, 1948). This study recommended the creation of three “crowns” surrounding the “main urban core” of the new capital: the first, 30 to 40 km wide would be “the protective green belt” with parks, woodlands and activities for agricultural supplies; in the second, about 10 km wide, would be the suburban population, housed in satellite towns; and in the third crown, 15 to 20 km wide, there would be farms and some agricultural activities. The study envisaged “2-3 satellite towns 30-60 km from the main city center and connected by highways”, as well as rural dwellers surrounding “small nuclei or settlements” (IBGE, 1948, pp. 23-24). It also suggested that satellite towns should have a certain specialized function, for administration departments, IBGE services (the agency that hosted the commission) or industries. Considerations by Djalma Coelho demonstrated the precept, amply reinforced over the following years, of avoiding the continuous occupation along roads and vicinal ways. The basis adopted by Djalma Coelho for a maximum population was 500 thousand inhabitants, as established at a later date with Law No. 1803, on January 5, 1953, and also as specified later in the 1956-57

open competition for plans of the capital city. The notion of a territory structured within a concentric configuration – whether through references to crowns, rings or belts – and classification of the population into three categories – urban, suburban, and rural – was to become fundamental for later propositions.

In 1955, the report from the last scientific commission for the location of the capital, presented by Marshal José Pessoa de Albuquerque, defined the boundary delimitation of the DF, and fresh studies were presented with regard to its occupation, including estimates for the distribution of infrastructures for water, sewage, energy and transport. Once again, the paradigm was adopted of the central city with limited dimensions and surrounded by a “green belt”, and proposals were put forward for a “colonization plan of the environs of the capital” with “layouts for country homes and farmsteads” (the Commission on Cooperation for Changing the Federal Capital, 1955, pp. 61 and 126). One of the alleged advantages of the chosen site was the easy connection with cities and towns in the state of Goiás – Cristalina, Luziânia, Planaltina, Corumbá de Goiás, Vianópolis and Anápolis – referred to as “satellite towns” that could become “production centers” (the Commission on Cooperation for Changing the Federal Capital, 1955, pp. 52 and 128). The report also estimated that the population of the capital would reach 500,000 and assumed that the gradual growth of the nuclei in a “satellite area” would reach one million inhabitants (the Commission on Cooperation for Changing the Federal Capital, 1955, p.103).

As part of the 1955 Report, in its Guidelines for the Sewerage Plan, engineer Francisco Saturnino de Brito Filho recommended the principle of maintaining non-built-up areas enclosed by parkways, around water courses, so that the built-up area of the capital city would be “totally contoured by open green spaces.” (the Commission on Cooperation for Changing the Federal Capital, 1955, p. CO84). Saturnino Brito foresaw the possibility that shantytowns would spring up during the construction of the city and recommended that they be destroyed shortly after the workers – their assumed residents – were housed in more “appropriate popular residences” (the Commission on Cooperation for Changing the Federal Capital, 1955, p. 85). The report included a preliminary study of the layout of the capital, then called Vera Cruz, prepared by the architects Roberto Lacombe and José de Oliveira Reis from the Urban Planning subcommittee. Vera Cruz, much like the Lucio Costa Pilot Plan, was an accepted expression of urban knowledge that was put into practice during the 1950s (FICHER; SCHLEE, 2006). The specifications of the Vera Cruz project predicted that “the propagation of satellite towns within the vicinity of the major thoroughfares will inevitably form future, evident nuclei” (the Commission on the Cooperation for Changing the Federal Capital, 1955, p. 79). In the same Report of 1955, there were two slightly different meanings of satellite towns: one, applied to the surrounding pre-existing towns that would provide support for the capital and the other, nuclei for population expansion. In addition to the ideas put forward in this report on how to design the layout of the Federal District, the maps and territorial surveys produced until that moment and the data produced by the North American company Donald J. Belcher & Associates Inc., contracted to assist in the selection of the site, were to constitute an important basis for developing proposals over the following years.

In 1956, under the administration of Juscelino Kubitscheck, the José Pessoa Commission was succeeded by the Construction Planning Commission, headed by the physician and military official Ernesto Silva, formerly an adviser to Marechal Pes-

soa, along with other members of the former team. In September of that same year, the Urbanization Company of the New Capital of Brazil (Novacap) was created, and later that month the edict for the *National Contest for the Pilot Plan of the New Capital of Brazil* was published. The edict was drawn up by a commission chaired by Ernesto Silva and composed of Raul Pena Firme and Roberto Lacombe, along with the president of Novacap, Israel Pinheiro, and the architect Oscar Niemeyer, director of the company's Department of Urbanism and Architecture.

Amongst the proposals handed in to the Pilot Plan Competition, several were restricted to the basic layout of the city, but there were also other studies of varying extension and depth that dealt with the occupation of the Federal District. Taking into consideration twenty-five plans for the new capital, produced between 1927 and 1957, Jefferson Tavares (2004) found that almost half of them placed emphasis upon the regional planning of the DF and included provision for modes of urban expansion and agricultural planning in order to supply the capital. The proposals involved satellite and rural nuclei, such as those planned by Boruch Milmann, Artigas and Cascaldi, and those linking existing towns by José Otacilio de Saboia Ribeiro, rural organization through cooperatives by the company Construtécnica SA, or in the very meticulous solution by the Roberto brothers for the territory of the Federal District, of urban units and rural districts.

As is well known, Lucio Costa's winning plan did not include its expansion into the Federal District, because, according to the famous passage in his report, it was assumed that "the city will not be a result of regional planning but the cause of it; its foundation will lead, later, to the planned development of the whole region" (COSTA, 1991 [1957], p.20). It was therefore assumed that the modernist city of limited size and ordered layout would be the starting point of a planned occupation of its territory, and it could be understood that growth was also implied by ordered satellite towns. As Lucio Costa stated in the early 1970s:

the established plan was for Brasilia to remain within the limits for which it was planned, with a population of between 500 and 700 thousand. As it approached these limits therefore, the satellite towns would be planned, so that they would expand neatly, rationally designed, and architecturally defined. This was the proposed plan (COSTA, 1974, p. 26).

Concerned about the existence of a periphery in which, according to his estimations, two thirds of the population of Brasília would be living, Lucio Costa defended the creation of "two rings around the pilot nucleus": the first would be an "internal belt" for agricultural activities and farmsteads and, as may be gleaned from the text, where there would be satellite towns separated from one another; the second ring would be for industrial activities, so that the populations of the satellite towns, "instead of remaining around the center, in the matrix, would be removed to the periphery by a centrifugal force" and would live around the industrial or rural activities (COSTA, 1974, p.26).

The idea that the Pilot Plan could be expanded by means of satellite towns was also voiced by the contest jury. Amongst the criticisms of the Lucio Costa project, the jury mentioned that the "regional road pattern [was] not shown – specially in relation to satellite [towns]", and amongst the "advantages" was the fact that after 20 years, the growth of the city would be possible through the pe-

ninsulas of the lake and the satellite towns (Deliberation of the jury [1957] apud Report of the Pilot Plan of Brasília, 1991, p.35). These ideas were taken up two days after announcing the results of the contest, in a letter dated March 18, 1957, to Israel Pinheiro, the director of Novacap, from the president of the jury and urban planner, William Holford, originally from South Africa. In his view, satellite towns could be planned to serve as agricultural, industrial and support centers within the region and, in addition to being “self-sufficient for ordinary life, work and recreation”, should be linked by fast roads and railways to the “Mother city” (HOLFORD, 2012 [1957], p. 32).

Still, according to Holford, the most interesting proposals from other contestants on issues such as rural planning and social organization had been “indicated [by the jury] for future study by NOVACAP” (HOLFORD, 2012 [p. 31]). A few years later, in a text published in the 1960 *Modulo* magazine, Holford reaffirmed the idea of satellite settlements acting as “distribution and market centers”, work, or, in future times, “specialized and consumer industries”. However, in dealing with the capital being built at that time, he acknowledged that there were already satellite towns there and suggested that, instead of waiting any longer, “the pilot plan should be expanded now to cover the immediate region of the capital city” and, to that end, a “regional plan” should be drawn up (HOLFORD, 1960, p.3).

There seems to have been some dissent between Lucio Costa and William Holford regarding the location of industries in or beyond the satellite towns. Nonetheless, their basic ideas on how to organize the territory coincided, along with many of the previous indications by members of the Commissions for the location of the capital and by architects who competed in the 1956 competition.

2. NOVACAP IN ACTION ON THE TERRITORY

The *Companhia Urbanizadora da Capital Federal*, which became known as Novacap was created with the intention of “planning and accomplishing the location, urbanization and construction of the future Capital” and, by law, would be subject to political, legal-accounting and administrative control of Federal Government departments (Law 2,874, 1956; LIMA; LOPES, 1959). On the other hand, it was endowed with great technical and administrative autonomy and exercised a wide range of powers. The structure of Novacap’s Departments and Commissions was organized and revised as from 1956. Shortly after the 1964 military coup and the administrative reform of the Federal District by Law 4,545 of the same year, Novacap underwent a broader restructuring program, as the new board of directors considered that the company was suffering from “hypertrophy” and “inefficiency”, and sought to adapt it “to the new government system” by centralizing management and dismembering self-managed companies to provide public services such as water and sewage (Minutes of the Board meeting, 1964).

From 1956, one of Novacap’s main concerns was to secure conditions for the livelihood of the population that would come to live in the capital. The task of “studying and executing, directly or otherwise, the regional plans of food supply for the future Federal District” was foreseen in the Novacap statute and was on the agenda

of its first assemblies (Minutes from the founding of Novacap, 1956). In July 1957, an agreement was in progress between Novacap, the Ministry of Agriculture and the Technical Office of Agriculture, with a view to “promoting plant production, animal production and reforestation” in the DF (Minutes of the meeting of the Novacap Board Meeting, 1957). Íris Meinberg, representative of the UDN opposition party on the company’s board of directors, was in charge of the initiatives until November 20, 1959, when he resigned, alleging criticism of his actions by public opinion and members of his own party.

In order to guarantee agricultural production and control urban occupation, a “green belt” was set up around the capital. In the magazine *Brasília*, Novacap’s news agency periodical publication, Professor Antenor Nascentes predicted that “country homes and farmsteads” would surround the city and “farmsteads and vegetable gardens, along the roads that will be in existence [in the Pilot Plan], will provide the city with poultry, eggs, vegetables, fruit” (NASCENTES, 1958, p.15). Amid measures to organize agricultural production in Brasília, references to possible satellite towns appear as early as 1957, when the Company’s Council determined that “the industrial establishments of the new Federal District will be located in the ‘satellite towns’ of the New Capital” and only “by exception” in the rural area, under conditions then established for the size of the lots, the terms of their lease, and the type of industry (Minutes of the Council meeting apud BRASÍLIA, 1957, p.23). This outlined a functional qualification of DF areas.

As far as we know, the boundary of the green belt was never clearly defined. However, in order to limit urban occupation, a *cordon sanitaire* was defined, corresponding to the Paranoá Lake water basin, to demarcate the area in the immediate vicinity of the Pilot Plan where there could be no urbanization nor rural nuclei. The limits of the *cordon sanitaire* were marked out by the team from the Department of Land and Agriculture at Novacap, headed by the agricultural engineer Joaquim Alfredo da Silva Tavares. According to his report, the *cordon sanitaire* was personally approved by Juscelino Kubitschek on one of his visits (TAVARES, 1995). Moreover, in July 1958, Novacap approved the “ground plans with the specifications and area that will constitute the *cordon sanitaire* of Brasília” (Minutes of the Novacap Council meeting, apud BRASÍLIA, 1958, pp. 23-24). The *cordon sanitaire* was a fundamental principle that was to mark the future definition of the functional DF regions, as seen in a 1969 decree on rural areas (Decree 1052, July 29, 1969). The Paranoá basin, being thus delimited, was also the basis for a “sanitary zoning ordinance”, elaborated in 1970, whereby areas with different types of restrictions on occupation were established in the Federal District (Water and Sewage Master Plan of the Federal District, 1970).

Defining the *cordon sanitaire* was also linked to the formation of the Brasília road system. An extensive study of the connecting roads to Brasília had been carried out previously by the Albuquerque Commission, between 1953 and 1955. As may be observed in the Program of Goals by President Juscelino Kubitschek (1958), Brasília was to be a road junction to integrate the North and Northeast regions with the Central-South. Novacap was in charge of building the Brasília-Anápolis highway and internal sections to the DF from other roads. From the end of 1956, the company had been studying the implantation of roads and, in 1959, it was authorized to execute the “boundary road of the *cordon sanitaire*”

– later named EPCT – which thereby established a physical definition of this perimeter (Minutes from the Novacap Board Meeting, 1959). From then on, the Federal District Road Plan, published in 1964, structured the road system: fifteen “parkways” were laid coming from inside the strip; in its outer area, there were twenty-one “regional roads” (all termed DF), including “vicinal roads” (termed EVDF). Finally, there were the “federal roads” (termed BR), to connect with areas adjacent to the Federal District (Federal Highway Plan, 1964).

The DF parkways, an offshoot of the parkways developed in the US and UK, were a reference to a regional planning mode disseminated just after World War II, where such routes would structure a rapid connection, usually restricted to automobile transport, between a central nucleus and its suburbs or recreational areas, while at the same time restricting any bordering occupation and ensuring that the agricultural belts were maintained, which were also appreciated for their landscape qualities (GREGG, 1986; HALL, 1995). Thus, the aim was to guarantee the “non-suburban sprawl” advocated by Lucio Costa (1987, p.118). The parkways were also related to the way in which recreational activities were positioned, as observed in the document of the Preliminary Plan of Material Facilities for recreation in Brasília, produced in 1959 by the educationist from the Ministry of Education and Culture, Ethel Bauzer Medeiros. In a vision of leisure geared towards social organization and inserted into urban planning, Medeiros put forward recommendations for the design of such spaces in the Pilot Plan and, in dealing with a number of its developments across the territory, alluded to the relevance of parkways as “roads fringed with playgrounds, gardens, museums, picnic sites, lookouts etc”.

The measures taken in the early years of Novacap’s activities reaffirmed the intention to impose a territorial arrangement based on the relationship between the central city and satellite towns. This approach was also defended in general terms by the aforementioned proposals at the end of the 1940s. The principle of surrounding bodies of water with a non-urbanizable, area surrounded by roads had previously been suggested by Saturnino Brito, but gained emphasis in the “*cordon sanitaire*” with a structuring function in organizing the DF. Therefore, there was an attempt to keep the layout of the Pilot Plan contained and isolated, possibly already considering the irregular occupation of its surroundings and the difficulties involved in controlling it. The demarcation of the Paranoá basin was later considered a guiding principle of planning for the DF and became a reference for legal definitions within the heritage-making of Brasília. (BRITO, 2009, GOULART, 2016).

3. DEVELOPMENT AND PLANNING: PLANS FOR THE DF

In 1958 and 1959, plans came to light for food supply, hospital-medical equipment and school systems in the Federal District. Initially, in the form of monographs or syntheses commissioned from specialists by different departments at Novacap, they were then transposed onto the territory by means of maps and schematic diagrams. Although there is no evidence of any effective coordination in the manner in which

they were undertaken, these plans brought similar assumptions and were in tune with the determinations that were being imposed in parallel by Novacap.

The plan with the most significant implications regarding land management was that of the supply system. Its foundations were contained within the monograph *Introduction to regional urbanism*, produced in 1958 for Novacap by Lucídio Guimarães Albuquerque, an architect, graduated from the University of Brazil (in Rio de Janeiro) and a former member of the Albuquerque Commission. Drawing on the ideas of the Californian sociologist Arthur Hillman on integrating the physical and social planning of communities, Lucídio Albuquerque proposed a system based on agricultural villages or, as he most commonly termed them, Rural Socioeconomic Units (known as USERS). In each unit there would be rural administration departments, a post office, medical-hospital facilities, a police station, a primary school, parks, cultural, leisure and recreation centers and churches, as well as a residential nucleus. The purpose of the USERS was to support the development of rural communities in the area of their influence and to link them with a cooperative system of production. The USERS would be linked to the Brasília Supply Center, where the processing and marketing of products would be distributed to the retail markets in the neighborhood units of the Pilot Plan.

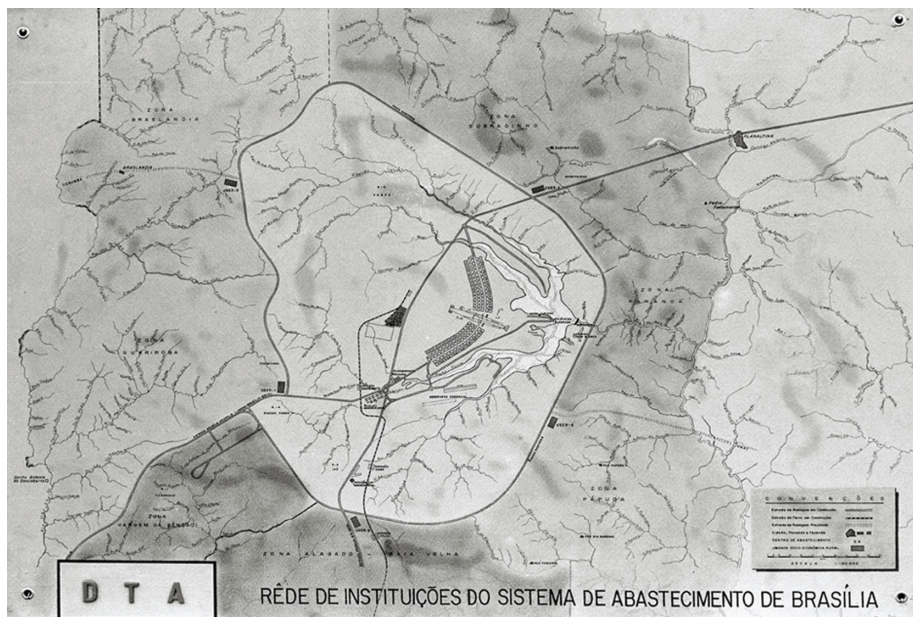
Lucídio Albuquerque shared the belief of “rational planning” aimed at progress, but, whilst showing deference to the “great master” Lucio Costa, he argued that “the old foundations of urbanism”, including those of the Athens Charter, would have to be revised to create communities conducive to the development of the “social man”, seen as a “synthesis of economic, biological, cultural, and emotional man” (ALBUQUERQUE, 1960, pp. 62-66). Thus, the modern city would exist “as a function of political, social, cultural, economic and physical identification with its region” and should be adapted to it. The author ultimately advocated the implementation of the supply system through a “regional development plan” for Brasília (ALBUQUERQUE, 1960, pp. 62-66).

Lucídio Albuquerque did not indicate the distribution of USERS across the territory nor their size, but a report in 1959 established that each unit would occupy 68 hectares and would have a maximum population of 10,000 inhabitants, and that under its influence, there would be 900 land divisions distributed across several rural areas (RABELO, 1992). In addition to the schematic representation of the USER components reproduced by Silva (n.d. 1970), the territorial arrangement of the supply system was drawn up on a map by the Department of Land and Agriculture. Although the map was undated, it was probably from 1959, if we consider the progress of the decisions regarding the supply and configuration of the Pilot Plan that are presented (Fig. 1)². The map presents the Pilot Plan surrounded by the “*cordon sanitaire*”, and on its edges, along the roads, there are five USERS located between seven rural zones marked out in a radial manner: Paranoá, Sobradinho, Brazlândia, Guariroba, Vargem da Benção, Alagado-Saia Velha and Papuda. There are no records of Lucio Costa’s participation in the elaboration of these plans, but it is probable that he was informed of them and eventually consulted. In 1959, Lucio Costa approved an urbanization plan for the Supply Center in Brasília prepared by Novacap’s Department of Agricultural Planning and Planning and by the Supply Coordinating Council (Minutes of the Novacap Board meeting, 1959).

² Relating to the development of the Pilot Plan and the timeline of the transformations and adaptations of the project up to the inauguration of the capital city, please see LEITÃO, FICHER (2010).

The distribution of lots for USERS started in Sobradinho and Taguatinga, and by the beginning of 1960 the rural centers of Vargem da Benção, Monjolo, Rio Preto and Tabatinga had also been included in the area. However, on the eve of the capital's inauguration, production was insufficient and an emergency plan had to be introduced in order to supply Brasília from Goiás. While the media reported that Brasília would not have sufficient infrastructure and conditions to provide support for its population, the journalist and economist Benjamim Soares Cabello defended the USERS in the magazine *O Cruzeiro* as being a model of “highly revolutionary innovation”: in the “future all production areas of the country should adopt them” (CABELLO, 1960, pp. 55 -57). This report also referred to the intention of attending to consumption in “Brasília and satellite towns” (Cabello, 1960, p. 67). Although not mentioned in the proposal two years earlier by Albuquerque, satellite towns had already been initiated, so it would have been appropriate to mention them as part of the plans then under development, although it was also noted that the author considered them to be something separate from Brasília. Shortly after, in 1962, it was decided to abandon the idea of implanting the USERS and to maintain the creation of rural nuclei, but with an autonomous character (RABELO, 1992).

Fig.1: Department of Land and Agriculture. The network of institutions of the supply system in Brasília, c. 1959.

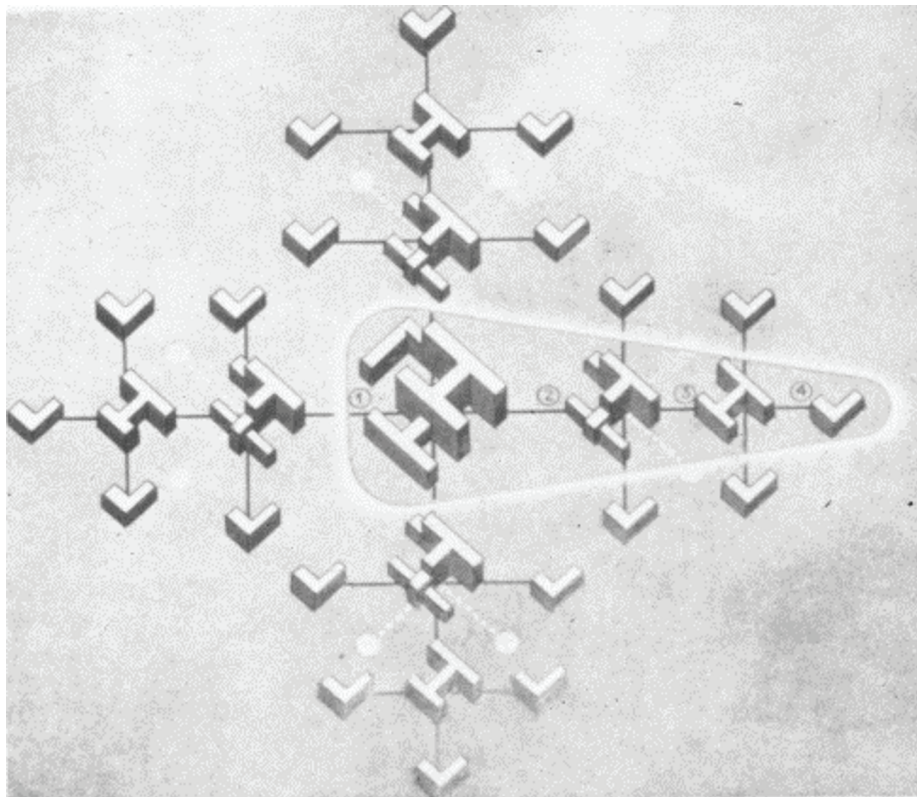


Source: Federal District Public Archives (ArPDF)

Between 1958 and 1959, the medical-hospital plan for Brasília was also being drawn up by Dr. Henrique Bandeira de Mello at the request of Novacap and was supervised by Ernesto Silva. The Bandeira de Mello Plan, published in 1959, sought to establish a model that would integrate healthcare activities into a single, flexible expansion body. It proposed hospital structures with different levels of complexity and a decentralized network inside the territory, distributed according to the density of population groups (Fig. 2). The health services were arranged in three zones: central,

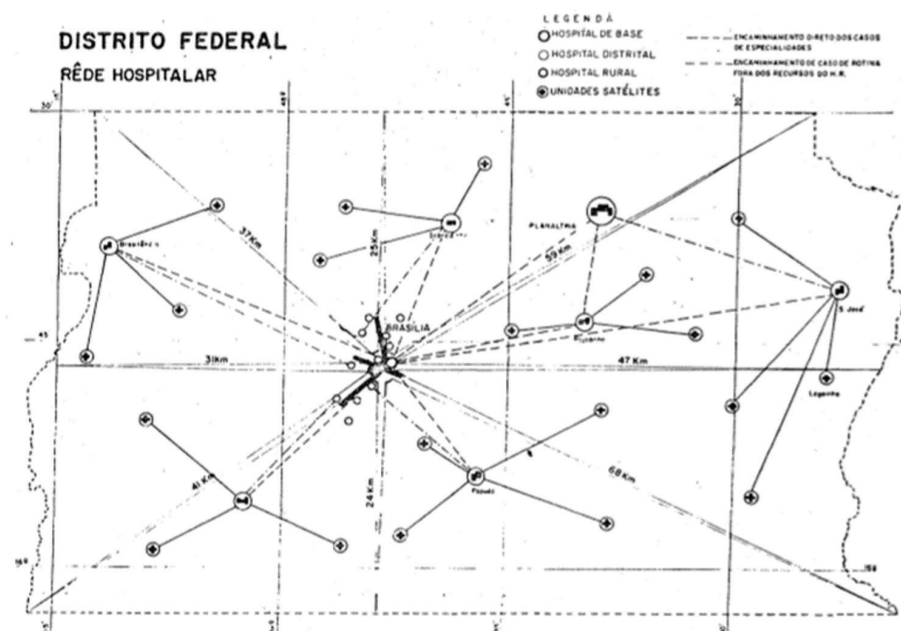
where the main hospital would be; intermediate (the Pilot Plan and its immediate surroundings), where there would be 11 district hospitals, each attending around 40 thousand people; and rural, with six rural hospitals, surrounded by satellite units functioning as advanced minor health centers (MELLO, 1959; GOTTEMS et al., 2009). The manner in which the medical-hospital network was distributed was presented on an undated map of the Pilot Plan, within a plan of the Federal District with the approximate location of the different types of hospitals. Rather than being six rural hospitals there were in fact eight: Papuda, Lagoinha, São Jose, Rajadinho, Sobradinho and Brazlândia, Planaltina and another in an undesignated location, situated in the region of Vargem da Benção (Fig. 3). According to Ernesto Silva (n.d. [1970], p. 263), the plan would be, “decentralized, regionalized, hierarchical, of increasing complexity, integrated and with the wide-ranging participation of the community ...”. These principles could also be seen in the plan of the aforementioned food supply system, which was produced simultaneously.

Fig. 2: “General overview of units composing the hospital network”. Schematic diagram of the distribution of medical and hospital units in the Federal District. Legends: 1-Main Hospital, 2-District Hospital, 3-Rural Hospital, 4-Satellite Hospital. [c. 1959].



Source: Federal District Public Archives (ArPDF)

Fig. 3: "Federal District: hospital network".



Source: SILVA, Ernesto. *História de Brasília: um sonho, uma esperança, uma realidade*. Brasília: Coordenada, n.d. 1st ed. [1970]. p. 263

The planning of the school system in Brasília did not refer to expanding across the territory of the Federal District, at least in its initial formulations. However, similarly to the plans for the supply system and hospital network, it was also based on the balanced, hierarchical distribution of interconnected equipment. The plan was described in several sources, and in all cases it was portrayed as a program essentially geared towards school buildings, thereby indicating the central role of architecture in its design. A document dated from late 1959, and originating from Novacap, brought what claims to be a synthesis by Paulo de Almeida Campos of the “plan for the public-school system” prepared for Novacap in 1957 by Anísio Teixeira, director of the National Institute of Pedagogical Studies (INEP). The Plan was also presented in a typewritten document by Anísio Teixeira (1960), in texts published in the *Revista Brasileira de Estudos Pedagógicos* (Brazilian Journal of Pedagogical Studies) (1959, 1961) and in *Módulo* magazine (1960), in addition to excerpts mentioned by Ernesto Silva (1970) and Juscelino Kubitschek (1974). These sources describe the plan with similar wording while presenting certain additions or deletions, suggesting that in the material which made part of Novacap’s production there was no great concern with regard to the notion of authorship or remaining faithful to the possible origins.

According to Ernesto Silva (n.d. [1970]), there was a process of adjustment between the determinations of the Educational Plan and the Pilot Plan, as from the intermediation, which he claims to have been made by himself, between Anísio Teixeira and Lucio Costa. Maps of the southern and northern wings of the Pilot Plan in 1963 show the distribution of school units as a result of this adjustment. Although some adaptations were made between the two plans, the Educational Plan did not appear strange or superimposed onto the plan of the city, because it shared its urban premises

and was based on an ideal of sociability intrinsic to formulating the neighborhood units of the Pilot Plan (CHAHIM, 2018).

As stated in an article by Anísio Teixeira (1961), the Schools Plan, implicitly referred to in the Pilot Plan, considered a city organized in blocks with the proposal of creating a kindergarten and *escolas-classe* (classroom schools) in each; in each group of four blocks, there was to be an *escola-parque* (park schools), to “complete the task of the *escola-classe*”. The aforementioned Novacap document of late 1959, further stated that the intention was to provide an “equitable and equidistant distribution of schools in the Pilot Plan, so that children would travel the shortest possible route to reach their school.” Later in his book, Ernesto Silva (n.d. [1970], p. 237) reproduced this same passage, but adding mention of the distribution of schools “in the Pilot Plan and in the satellite towns”. In 1959, a school system had already been considered, which also extended out to the satellite towns, according to a report by educators from the Administration Commission of the Educational System of Brasília (CASEB), created the same year. After visiting DF schools in December 1959, the Commission reported that, in order to meet the emergency needs of the city under construction, Novacap had built temporary school buildings and in locations that had not been foreseen in the School Plan; but had also built, amongst the buildings provided for in the Pilot Plan, schools located beyond the Pilot Plan, in Taguatinga and Papuda. In addition, the Commission recommended that the distribution of the school system should be developed “preserving certain relations of harmony and proportionality with the urban development itself” of the DF and, as one of the priorities, suggested the construction of a primary school in Sobradinho (Report sent by the director of Novacap, 1960). It should be noted that the Commission made no reference to the *escolas-classe* in places other than the Pilot Plan. On the other hand, in the same year, the magazine *Brasília* (1959) reported the intention to build *escolas-classe* in Taguatinga and Sobradinho. However, no records were encountered regarding any possible *escolas-parque*, which beforehand had prevented the possible implementation in the satellite towns in the plans devised by Anísio Teixeira.

Despite their peculiarities, the plans for the supply, medical-hospital and school systems were very much aligned to a territorial organization scheme that was being outlined by Novacap. Public service or equipment systems were distributed in a hierarchical manner from the central city out to the smaller planned surrounding nuclei. This alignment in the way of approaching the territory, must have been as much a result of affinities between the principles of those plans and the mainstream thinking in Novacap, as well as of guidelines originating from the Company for its creation. There was no more integrated coordination between the plans, but a certain correspondence may be observed in the way their different networks were distributed across the territory. If we compare the schematic diagram of the location of hospitals foreseen in the medical-hospital plan with the distribution map of the USERS (where, according to the supply plan, there would be hospitals and schools), it may be verified that the former plan does not completely coincide with the latter. However, the location of the seven rural hospitals corresponds, in part, to areas under the influence of the USERS. Nevertheless, although satellite towns had been mentioned at the Novacap meetings at least since 1957, these plans do not explicitly refer to nuclei with that designation, at least initially. There is a prevailing idea of rural communities focused on maintaining and sustaining the Pilot Plan and not on the population expansion.

Plans for the supply system, schools and the medical-hospital network focused on the distributing their equipment across the territory, considering population estimates and the scope of services in the urban or rural environment. However, there was little reference to the specific conditions of the construction context of Brasília or the method of its implementation, of which Novacap was in charge. This posture could be attributed to the “revolutionary” and “model” purpose of the various plans and the need to quickly define the general lines of planning within different sectors, without excluding a certain flexibility to accompany the urban development in progress in the DF. On the other hand, Novacap made efforts to collect data on the territory and document the changes. In 1958, a proposal by the company Geofoto was submitted for an aerial photogrammetric survey of the Federal District (Minutes of the Board of Directors of Novacap, 1958). In the same year, the so-called “farm map” came to light, which presented a delimitation of landed property based on previous parochial maps and records, for purposes of expropriation (SILVA, 2016). In 1959, an experimental census aimed at “providing objective programming of public services” encompassed the Pilot Plan, construction sites, peripheral centers and rural areas (National Census Commission, 1959, n.d.).

Together with other Novacap determinations, plans for the different analyzed systems included efforts to maintain a disciplined relationship between the Pilot Plan and its surrounding region. However, strictly speaking, these did not constitute regional planning, since there was no physical-territorial plan, not even preliminary, that integrated these elements into a set of development guidelines. Nor was a sequence of systematic procedures in the planning activity observed, as engineer Anhaia Mello had recommended years before the construction of Brasília. In short, while it was a relatively coherent set of plans and determinations, it did not constitute a methodical planning of the territory.

4. A TERRITORY IN CONFLICT: THE CREATION OF THE SATELLITE TOWNS

During the period when construction began in Brasília, Novacap dealt with the development and construction of the Pilot Plan as well as the plans for occupying the Federal District and implementing the territorial infrastructure. For these activities, it was necessary to consider the immediate needs that arose within that context together with the demands of those who were beginning to inhabit the territory. As James Holston (1983) indicated, the demonstrations staged by migrants illegally occupying lands around the Pilot Plan were instrumental in changing plans that had previously been focused on agricultural cooperatives to create the satellite towns. However, Holston also considered that the satellite towns would not have been envisaged by Novacap or Lucio Costa.

The creation of Taguatinga brought new data on how the organization of the territory was conceived. In June 1958, a demonstration took place of migrants, who had settled in the vicinity of the Núcleo Bandeirante, because they wished to obtain authorization to remain in that area – called “Vila Sara Kubitschek”. After clashes and negotiations with the authorities from Novacap, the illegal residents were transferred to the region of Taguatinga, located southwest of Brasília and beyond the *cordon sa-*

nitaire, thereby creating the first satellite town. About four thousand residents were settled there within ten days (SILVA, n.d. [1970]). The official version of this event, as published in the magazine *Brasília* (1958, p. 18), on the occasion of President Juscelino Kubitschek's first visit to the nucleus, was that

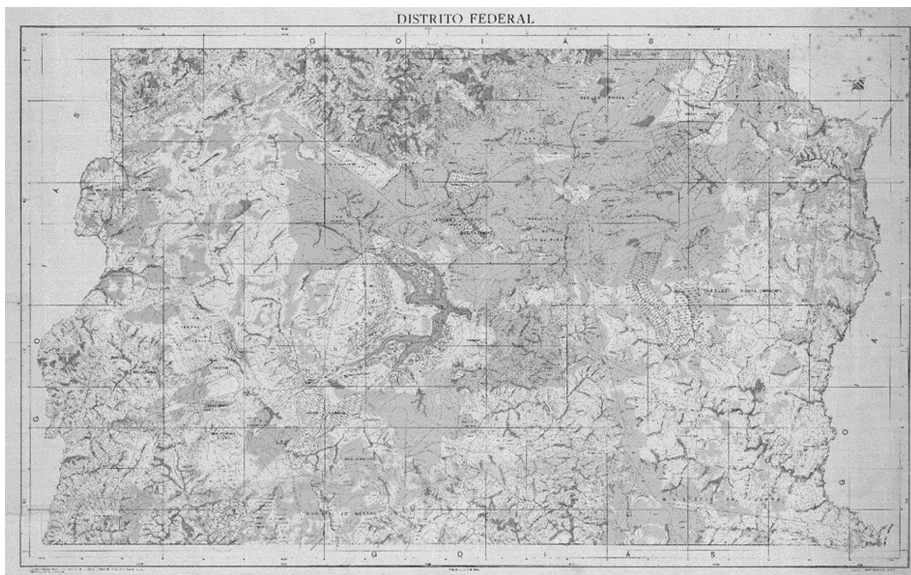
[Taguatinga was] envisaged in the urban plans for a later construction date, but ... unforeseeable circumstances of a national calamity forced it to appear as a miracle of workmanship in 15 days, offering shelter and security to families fleeing the drought, searching for more welcoming areas.

The passage emphasizes the government's action in favor of the migrants and as being motivated by a supposed contingency, with no reference to the demonstration as being its origin. Considering the previous analysis on the conception of the territory defended by Novacap, the idea that Taguatinga would already be on the horizon of its plans remains plausible. However, the passage quoted above also fails to mention that there must have been a redefinition of a plan previously studied by the company. According to a statement by Inácio de Lima Ferreira, an engineer linked to the Department of Land and Agriculture (DTA) at Novacap, the layout of a "rural town" was under development by José Maciel de Paiva (engineer and then first administrator of Taguatinga) and, even though it had not been approved, "with the invasion [of the Sara Kubitschek Village], Israel [Pinheiro] ordered the plan to be remodeled" so as to establish a dwelling place for the demonstrators (FERREIRA, 1997, p.3). This plan however has remained unidentified – perhaps it was for a USER? – but if it was "remodeled", this must have required adapting it in order to implement a nucleus with an urban rather than a rural character. The initial layout of Taguatinga contained lots with similar dimensions to those of traditional Brazilian towns (around 10 x 30m), despite also being inspired by modernist design patterns for the layout of free spaces and neighborhood units. Still in 1958, 15 hectares were laid aside in Taguatinga for "small industries" and the following year, areas for rolling mill foundries, not only there, but also in Sobradinho. (BRASILIA, n.19 p.23). These determinations suggest that it was not only intended as a dormitory suburb, but a nucleus with some local productive activity.

However, amongst the authorities or departments at Novacap, there might not have been a consensus as to what a satellite town should be. According to Inácio de Lima Ferreira (1997, p. 3), cited above, what Israel Pinheiro, the president of Novacap, had in mind was not a "big city", but "a small town of two thousand, three thousand [inhabitants ...] a rural town". Furthermore, according to Ferreira (1997, p. 3), the Department of Architecture and Urbanism would not have approved the previous plans being developed for Taguatinga because "it was against the creation of satellite towns" – perhaps in reference to an objection regarding the manner in which they were being thought of at the time? In turn, the director of Novacap, Ernesto Silva (1997, p.3), defended a satellite-town model inspired by the new towns that were built around post-war London: "independent towns", "with 100 thousand inhabitants, 87 thousand, 120 at the most", in which "those who lived there, worked there". Lucio Costa however, referred to satellite towns as being "small, and complementary [to the Pilot Plan]" and acknowledged that the main workplaces would be located outside (COSTA apud OLIVEIRA, 2005, s.p., COSTA, 1974).

Although there may have been disagreements as to the conceivable features of a satellite town, Novacap approved the “land division plans” of the satellite towns of Sobradinho and Taguatinga as early as November 1959, and in the following year there was reference to Gama and Paranoá, although the latter was not implemented. Taguatinga had initiated a policy of creating nuclei along very similar lines, to where people, who had previously been living in *favelas*, or in areas of irregular occupation or considered temporary, were transferred. Satellite towns were characterized by long rows of single-family plots, extensive but neglected open spaces, and very poor urban infrastructure services. They were preferably situated beyond the *cordon sanitaire*, with the exception of the Bandeirante Nucleus - which was regularized in 1961 after the mobilization of local residents - and Guar - initiated in 1967 as an expansion of the Residential Sector of Industry and Supply (SRIA) next to the Pilot Plan.

Fig. 4: National Geographic Society, Cartography Department. “Federal District. Map produced in 1960 and updated in 1963.



Source: ArPDF

After Brasilia was inaugurated in 1960, the broader planning processes of Novacap were discontinued, due to changes in the company format, political instability after Juscelino Kubitschek’s departure from the government and even uncertainty about whether the capital would actually remain in Braslia. The previously-made plans were far from becoming materialized, but had nonetheless left significant marks on the construction of the territory. A map of the “Novacap projects and works” from 1963 illustrates the Pilot Plan and its expansions, with the mansion blocks next to the Parano Lake and, to the southwest, the suburban Parkway and Bandeirante Nucleus subdivisions. Beyond the ring formed by the Park Ring Road, traces of the satellite towns of Taguatinga, Gama and Sobradinho may be observed, the pre-existing nucleus of Planaltina and also the sites of model farms and the large land divisions of the various rural nuclei (Fig. 4). Despite the proximity of the Bandeirante Nucleus to the Pilot Plan, the map enables us to observe the model of the central city separated from

Maria Fernanda Derntl is a professor and researcher at FAU-UnB and PPG-HIS-UnB. She is an architect and urbanist, with a Master's and Doctorate degree from FAU-USP and a productivity research scholarship from CNPq – Level 2.

Email: fernandafau@unb.br
ORCID: <https://orcid.org/0000-0001-8083-1274>

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the satellite towns by green spaces, which would be difficult to maintain throughout the coming years.

The presence of planned nuclei distributed at a distance from the Pilot Plan was, as it turned out, a fundamental component of the proposals for the Federal District, which had been proposed ever since the late 1940s. There were, however, models or manners with which to conceive them somewhat differently with regards to the emphasis on their urban or rural character, the presence of industries, their size and autonomy relative to the main nucleus. The definition of a peculiar conception of satellite towns in Brasilia occurred in the vicissitudes of the construction process. The contrast that existed between the precarious housing of the nuclei and the spacious apartments between the green spaces of the Pilot Plan was soon noted by critics of Brasilia. However, emphasis on the Pilot Plan as a finished expression of the new capital project obscured the set of determinations and proposals for the Federal District. These proposals were not only a complement to the Pilot Plan, but were intrinsically linked to it, in that, they enabled its meaning to become re-dimensioned, within the broader context of the planning of the territory.

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