

# Land price and urban hierarchy in a medium city: the case of Uberlândia, Minas Gerais

Preço da terra e hierarquia urbana em uma cidade média: estudo de Uberlândia-MG

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## Abstract

Based on urban land prices and the spatialization of state investments, this study aims to discuss the urban hierarchical structure of a medium-sized city: Uberlândia, in Minas Gerais. To this end, we investigate how urban land rent is shaped and describe its composition by different modalities, according to diverse potential capitalist land uses. In this sense, the main contribution of this article is the empirical analysis of urban land prices, using the methodology of web scraping with real estate advertisements, as well as the systematization and spatialization of state investments, which, together with the theoretical framework of the political economy of urbanization, allow a more accurate reading of the urban hierarchies of cities.

**Keywords:** land rent; public investment; medium city; web scraping.

## Resumo

*O objetivo deste trabalho é, a partir dos preços da terra urbana e da espacialização dos investimentos estatais, discutir a estrutura hierárquica urbana de uma cidade média brasileira: Uberlândia, em Minas Gerais. Para tanto, faz-se uma discussão de como se conforma a renda fundiária urbana e da sua composição por diferentes modalidades, segundo os diferentes usos capitalistas potenciais do solo. Nesse sentido, a principal contribuição deste artigo é a análise empírica dos preços da terra urbana, a partir da metodologia de web scraping com os anúncios das imobiliárias, bem como a sistematização e espacialização das inversões estatais, que, aplicadas junto com arcabouço teórico da economia política da urbanização, permitem uma leitura mais apurada das hierarquias urbanas das cidades*

**Palavras-chave:** renda da terra; investimento público; cidade média; raspagem de dados.



## Introduction

The objective of this article is to discuss the urban hierarchical structure of a medium-sized Brazilian city, Uberlândia, in Minas Gerais, based on urban land prices. To do so, it is necessary to understand how urban land rent is formed, as well as its composition by different modalities (absolute, monopolistic, differential, primary, secondary, etc.), according to the different potential *capitalist* uses of land. It is equally important to highlight the actions of the different agents of space production (State, real estate capital, owners and users), since it is they – through their disputes and interests – who imprint the social character of rarity, uses and differentials of urban land.

The main contribution of this article is the empirical analysis of urban land prices – based on the methodology of web scraping with real estate advertisements, replacing the Urban Property and Land Tax (Imposto Predial e Territorial Urbano – IPTU) value table, which is generally out of date, or tax data on real estate transactions from municipal governments, such as the Real Estate Transfer Tax (Imposto sobre Transmissão de Bens e Imóveis – ITBI); or even information from the Regional Housing Union,<sup>1</sup> with restricted information<sup>2</sup> –, which, applied with the theoretical framework of the political economy of urbanization, allows a more accurate reading of the urban hierarchies of cities.

Urban land price data for this study were obtained in two ways: 1) web scraping<sup>3</sup> from the websites of four local real estate agencies,<sup>4</sup> totaling 1,092 observations of *land lots or parcels*; 2) manual collection, mainly from neighborhoods absent or with few observations from the first extraction method,

in nine other real estate agencies,<sup>5</sup> totaling 73 observations of land lots and parcels. Thus, the sample under analysis totals 1,165 urban land lots or parcels,<sup>6</sup> covering all neighborhoods in the city, except two<sup>7</sup> for which no information was found.

The option for the exclusive analysis of land lots and parcels is justified by the greater “freedom” to determine the price in the land market and by the potential use of the land lots/parcels in comparison to the rental market – regulated by the Tenancy Law<sup>8</sup> –, as well as by the possible singularities of the buildings, which consequently would make it difficult to capture the weight of determining land income.

Information on socioeconomic specificities – particularly to generate the spatial distribution of households by average income – was taken from the census sectors of the IBGE Demographic Censuses of 2000 and 2010. Landsat/Copernicus satellite images from Google Earth Pro were also used to indicate changes in the urban area, and Gis files from Wikimapia and the Uberlândia City Hall (PMU) for spatial information on neighborhoods and urban sectors.

The results of the analysis show, firstly, a demarcated pattern of spatial segregation at the level of urban sectors and in relation to centralities – political-historical (the primordial/first center/central business district) or of capital (consumption centralities, such as shopping centers, or fully planned neighborhoods, that is, such as edges cities).

A second result refers to the concentrated pattern in the most valued areas of the city of large urban infrastructure works (bridges, viaducts, widening of avenues, terminals and bus corridors) carried out especially by the PMU,<sup>9</sup> within the scope of the Uberlândia

Integrated Program (PUI) I and II.<sup>10</sup> Although it is possible to observe that, in the second phase of the Program, there was a tendency towards spatial deconcentration of investments.

A third result is the observation of great variability in intra-neighborhood land prices, indicating the existence of “submarkets” that are even more specific than those observed at the urban sector level. The existence of submarkets is reinforced by the heterogeneity of average household income by census sectors within neighborhoods.

Finally, a final result – which would be a trend, due to the time lag between the information on the average income of the census sectors and the time at which the information on urban land prices was collected – would be between the (macro-sector) pattern of valued areas mentioned above, that is, with higher average urban land prices, associated with areas with the presence of households with lower average income. This “contradiction” points both to the nature of land ownership as a barrier to capital accumulation, and to potential clashes regarding the use and occupation of urban land and the forms of daily life and social reproduction among the different profiles of average household income.

In addition to this introduction, the work is divided into four more sections. The following section discusses land rent theoretically and its relationship with the agents of spatial production. Next, a section summarizes the formation of the urban structure of Uberlândia, in its historical-spatial and institutional aspects. Subsequently, another section uses the theoretical categories presented to identify the urban hierarchy of Uberlândia, in the same way that it dialogues with the secondary

bibliography already produced on the city and its urban development. Finally, a conclusion summarizes the main points of the work and the possible specificities of the urbanization process in medium-sized cities.

## Theoretical aspects

The hierarchy of the different uses of urban land – and its connection with the reproduction of capitalist relations of production – becomes more understandable through the study of the price of urban land. However, first, it is necessary to start from the observation that “land is an unproduced good and, therefore, has no value, but acquires a price” (Ribeiro, 2015, p. 39). The price of urban land can be defined as the “socioeconomic transformation of the surplus profit of location” (*ibid.*, p. 49). The surplus profit of location originates from the extraordinary profits possible from the “differentiated access that the location of the land provides to the use of the complex use value that represents the city” (*ibid.*). However, the appropriation of this surplus profit of location is disputed between the different agents producing space, especially between real estate capitalists and landowners, in the form of land rents (*ibid.*).

Land rent – which is based on and guaranteed by the existence of private ownership of land and the means of production – has different types, which correspond to the different “demands of capitalist agents who increase the value of their capital through the use and transformation of urban land use” (*ibid.*, p. 40). The different types of urban land rent were summarized by Jaramillo (2003, pp. 34-42). The author divides them into

*primary urban rents*, which are those linked to construction as a productive process and its technique, and are of three types:

1) *Differential Primary Rent Type 1*: linked to the buildability of the land lot, that is, its geomorphological characteristics, and the location of the land lot/parcels in relation to the availability of infrastructure (ibid., p. 35).

2) *Differential Primary Rent Type 2*: linked to the height of the building, that is, the amount/intensity of additional capital invested in the land, with the aim of enabling verticalization (ibid., p. 36).

3) *Absolute Urban Rent*: linked to the non-reproducibility of the urban character surrounding the land. This would be the base rent from which all other urban land prices are structured (ibid., p. 37).

The second type, *secondary urban income*, indicates how urban space is not homogeneous in its activities; that it is socially structured for each practice and/or set of practices; therefore, how it has a close relationship with the built environment (ibid., p. 38). Or, in other words, it signals how *the different potential real estate objects* – since they are lots/parcels – are linked to the appropriation of the *useful effects of agglomeration* that make the city a *complex use-value*, according to different degrees of spatial articulation and hierarchy. This differentiation exists both in *objective terms* (quantitative, qualitative and locational inequality of the lot/parcels in relation to the system of real estate objects) and in *subjective terms* (according to the different social and symbolic contents of the various points of space) (Ribeiro, 2015). Secondary urban income is of four types:

1) *Differentiated income from commerce*: linked to the urban context that allows the acceleration of the rotation of commercial capital (Jaramillo, 2003, p. 39); it is important to consider that there is a stratification of goods (goods and services) according to different income ranges (for example, conspicuous goods), hence the centrality of the urban context in accelerating the turnover time of specific goods.

2) *Differentiated housing income*: linked to the ability and willingness of families to spend marginally more on a slightly higher location, that is, one that complements housing with proximity to work, leisure facilities, education, health, various amenities, family, friends, solidarity networks, among others (ibid., p. 40).

3) *Segregation monopoly income*: linked to the desire of social fractions to pay higher amounts to segregate themselves, generally occupying exclusive and differentiated locations, with environmental amenities (landscape, lower density, proximity to nature) and urban amenities (specific location of the infrastructure, proximity to centralities, leisure areas), whether with security, a new “lifestyle”, etc. (ibid., pp. 40-41).

4) *Differential and industrial monopoly income*: linked more directly to production, it has become increasingly secondary, as, due to changes in legislation, industrial areas are more residual and peripheral lands, although preferences – consequently higher incomes – can occur on land that is better equipped with reception, flow and storage infrastructures, as well as with general production conditions, such as water and energy (ibid., p. 41).

Thus, urban land income is determined by the sum/existence of these different types of income. Its conversion – the form – into prices takes place through the capitalization of the rent, or the “Net Present Value”,<sup>11</sup> which expresses the transfer of the right to receive all these rents by the land acquirer (Botelho, 2008; Almeida and Monte-Mór, 2017). Therefore, “understanding land prices, as well as their effects on the spatial configuration of cities, necessarily involves analyzing the relationships between capital appreciation and land use” (Ribeiro, 2015, p. 40).

In other words, the competition of uses between different capitals and their fractions, as well as between classes and fractions of classes, in their movement, impart an economic content to the private property of urban land that generates locational surplus profits. These are appropriated through land rent, with the benefit of location being given *gradually* from those who make and potentially demand the greatest *capitalist use of the land*, that is, “the price of urban land is a reflection of the dispute between capitalist agents to make the most profitable use of the city” (ibid., p. 128). Therefore, “the price of land is determined, to a large extent, by the production conditions of the built environment” (Smolka, 1979, p. 10). A built environment that is endowed with distinct objective and subjective qualities, with a marked irreproducibility character, highlighting the existence of the economic and social division of urban space (Ribeiro, 2015).

The study of the economic and social division of urban space can be identified based on three sets of factors (Granelle, 1970 apud Ribeiro, 2015):

a) *Microlocational* factors are directly related to “conditions of the environment (natural or built) with which the land is directly articulated” (Ribeiro, 2015, p. 117), such as physical factors, accessibility to local services, environmental nature, neighborhood, amenities, among others. They express the differences in the price of land compared to the average internal price of a certain homogeneous area (for example, the neighborhood) (ibid.).

b) *Macrolocational* factors are linked to the scale of the homogeneous zone as a whole (for example, the neighborhood) which determine the formation of land prices differentiated by each zone (for example, sectors of the city). Thus, these factors reflect the influence of the position of the neighborhood/sector in relation to the different centers and centralities, the connection with the transport system, the form of urban regulation according to types and formats of land use (ibid.).

c) The *general factors* are of the order of “the formation of land prices in the city as a whole” (ibid., p. 117), such as population growth rate, economic situation, structure of private land ownership (degree of concentration), federal housing policies (e.g. Minha Casa Minha Vida Program), policies relating to the basic interest rate (ibid.).

Based on the factors exposed, it is clear that there is “the existence of a more or less accentuated hierarchy of market prices [...] according to their location in the economic and social division of space. It is, therefore, a market composed of submarkets” (ibid., pp. 117-118). In this sense, each urban submarket is defined by “location and the socioeconomic strata that can have access to each of them”

(p. 119) and, furthermore, that “each submarket category corresponds to a sales price, which means that each piece of land corresponds to a hierarchy of uses depending on its location” (ibid.).

The main agents that produce and define the uses of urban land are (ibid., p. 120):

1) *Landowners*, as they have a monopoly on land use.

2) *The State*, through investments in equipment and infrastructure; and the establishment of urban regulations that define the possible uses of the land.

3) *Developers and builders capitals* who, as co-managers of circulation capital and as owners of land, act to transform land into merchandise.

Particularly, it is the developer capital that – through land policies developed before the State and landowners – has greater weight in determining the prices of urban land, consequently in the production of urban space, whether acting in the sense of I) *reproducing the division economic and social space*, that is, obtaining a predominant profit from normal operations; or II) *as a transformer of the social and economic division of space*, that is, as a creator and appropriator of differentiated income via location surplus profits, modifying structures, patterns (objective and subjective) and conventions of urban occupation (ibid.).

According to Jaramillo (2003), there are *movements of active speculation*, which occur when space-producing agents (especially large developer capital) modify, in a coordinated way, the use of land in a given area, including from the point of view of its hierarchical position, consequently allowing

the appropriation of greater and/or more diversified forms of land income discussed previously. Active speculation movements therefore have coordination, including signaling to the State the preferred direction of expansion of urban infrastructure, and sending signals to other agents about the urban future of the land and the generation of innovations and new urban conventions.

Jaramillo (ibid.) also discusses *passive speculation movements* – carried out by different actors (small landowners, small development capital) that capture (structural or cyclical) increases in land rent over time –, which occur when the movement of land prices does not derive from the direct actions of actors; being, in fact, the social result of the spatial development of the surroundings, as well as of the city itself as a whole. The social actors who benefit from passive speculation movements are generally families and smaller fractions of capital, which follow the active speculative movements carried out by large producers in the space.

It is considered that, within active movements, State action is central with, for example, changes in the urban perimeter (conversion of rural areas into urban areas); in installment rules; in land use and occupation (allowing verticalization, mixed uses, that is, enabling greater “fertility”/intensity of use of the same land); and/or in the provision of infrastructure. Likewise, the State is central in the passive appropriation of space-producing agents, accelerating the time of appreciation, for example, through the election of privileged spaces for the implementation of public works (Maricato, 2000).

In short, the hierarchy of urban land uses reflects the social, economic and symbolic division of a city's space. It is through the different potential capitalist uses of land that land rents are defined, in a gradient that relates – in a way that is not necessarily spatially continuous – the most intensive capitalist uses (higher prices) with the less intensive (lower prices). The process tends to be simultaneously *synchronous*, as there is a hierarchical structure that relates centers-peripheries, due to the unequal offer of urbanity; and *also diachronic*, because the constant incorporation and creation of new urban spaces affects relatively everyone else. Furthermore, land rent can be broken down into different modalities that, when capitalized, arrive at the price of land. Thus, urban land prices synthesize the multiplicity of capitalist uses of city space, at its multiple scales (neighborhoods, sectors, streets, peripheries, centers), being, therefore, a privileged means of analyzing social, symbolic and economic division of urban dynamics of a city.

## Context and urban structure of Uberlândia-MG

The city of Uberlândia, in Minas Gerais, is located in the Triângulo Mineiro region and has a total population of 604 thousand inhabitants,<sup>12</sup> according to the 2010 Demographic Census, with an urbanization rate of 97%. It has the second highest GDP in the State (R\$37.4 billion, in 2018) and the third

best HDI (0.789). It is a wholesale distribution hub, with a strong segment of services and industries linked to agro-industrial activities.

On the one hand, as highlighted generally by Santos (1993) and specifically by several works in the area of study (Soares, 1988; Bessa and Soares, 1996; Moura and Soares, 2009; Alves and Ribeiro Filho, 2009; Mariano, 2014; Silva, 2015), the city of Uberlândia had its physical extension in the 20th century based on the binomial housing production, carried out by private developers, and the extension of road axes, reproducing a dispersed pattern towards the periphery and with “urban voids” in the middle of these areas and the center. This process accelerated in the 1970s, in the context of the New Industrialization of Minas Gerais, when the industrial district was implemented in the north of the municipality (Diniz, 1981; Brandão, 1989; Martins, 1998). The most harmful consequences of this process were the scarcity of *urbanized land*, that is, equipped with physical and social equipment and infrastructure that served to reproduce the workforce, especially the working class with lower qualifications and income who lived in the outskirts. These populations ended up being located, especially, in the North and West sectors of the city (Cleps, 2008; Moura and Soares, 2009).

On the other hand, several interventions at different levels of government – such as the construction of the campus of the Federal University of Uberlândia (UFU), a large leisure area<sup>13</sup> (both in the eastern sector) and the opening, modernization and improvement

of roads and transport axes,<sup>14</sup> also from 1970 onwards – simultaneously enabled the consolidation of the central and pericentral regions, as well as vectors of expansion to accommodate the elites and middle classes, especially in the South and, to a lesser extent, in the East. This marked a *structural inequality* in the conditions of provision of services, amenities and urban infrastructure (Cleps, 2008; Moura and Soares, 2009).

In the 1980s, several plans were drawn up to organize the road system and implement the public transport system. The current model – Integrated Transit System (SIT), implemented in 1997, but which was conceived in the 1994 Master Plan – currently consists of six terminals<sup>15</sup> spread across all sectors of the city, including brokers and exclusive lanes (Silva and Cleps, 2013). Within this same road and public transport planning process, at the end of the 1980s, the Integrated Neighborhoods Project was created, responsible for defining the number and design of the city's neighborhoods, based on physical, use and occupation land and road system (Cleps, 2008).

The 1990s marked the beginning of the process of extending the center towards the East, via Avenida João Naves de Ávila, with the implementation of the Center Shopping<sup>16</sup> (by a large local capital, Arcom, in 1992) and the Municipal Administrative Center<sup>17</sup> (1993), both close to one of the UFU campuses. In the two decades of the 21st century, the Center Shopping Complex<sup>18</sup> became, through a series of expansions, a centrality consolidated by the concentration of the offer of diverse services<sup>19</sup> and articulated with a hotel, a conference center (opened in 2000) and an executive tower<sup>20</sup> (opened in 2013) (Silva, 2012).

At the same time, since the 1990s, the presence of informal commerce and stores and large chains focused on selling various products – from street vendors to household appliances – to the popular classes, especially further north of the Central sector (Cleps, 2009; Motta and Guerra, 2016; Silva and Cleps, 2014; Whitacker, 2017a). The most sophisticated – or conspicuous – services and goods moved both to the south of the Central sector and to the South sector itself, as well as to the nascent shopping centers (Silva, 2012; Motta and Guerra, 2016).

With the aim of advancing the consolidation of urban planning and guiding urban development, in 1994, the Municipal Master Plan<sup>21</sup> was sanctioned. In this document, the urban sectors (Center, North, South, East and West) were institutionalized and the city's growth guidance policy was defined based on the main road axes of each sector and their interconnection with the CDB and other dense areas (PMU, 1994; Silva, 2015).

In the *short term*, the 1994 Municipal Master Plan predicted occupation preference for the East of the city and the North. In the *medium and long term*, the direction of expansion would be towards the West. The South sector already appears highlighted as the one destined for “rarefied occupation”, starting from the axis of Nicomedes Alves dos Santos Avenue (PMU, 1994).

The 1994 Master Plan also envisaged – as had been planned in conjunction with the structuring of the public transport system – the idea of subcenters, encouraging commercial and service activities close to the terminals that would be located on the axes highlighted



in the Plan, with the aim of promoting the “decentralization” or polycentrism of the city (PMU, 1994; Silva and Cleps, 2014).

In 1999, the Municipal Zoning Law<sup>22</sup> was sanctioned, which consolidated the form of land use and occupation provided for in the Master Plan. The mixed-use Structural Zone stands out (involving the urban development road axes) and the contrast between the definition of Residential Zone 1 – basically the South sector for rarefied occupation – and Residential Zone 2, which involved all other areas with predominance of residences in the city, despite its heterogeneity (PMU, 2000). This process exemplifies the institutionalization and, consequently, the social creation of urban land “scarcity”.

Subsequently, in 2006, the Master Plan was revised.<sup>23</sup> It is worth noting that, in this review, the subcenters were nominally<sup>24</sup> defined and were not linked to necessarily being close to public transport terminals. Furthermore, a macrozoning was proposed, in three rings, which institutionalized the action of large capital producers in the space. The first ring involved the central area and its neighborhood, characterized as an area with optimized, denser and vertical infrastructure (Ramires, 1998; Lomolino, 2019). The second, circumscribing the first, aimed at consolidating subcenters, through structural road axes (the main avenues), and would be the preferred area for urban growth and densification (Souza, 2009; Motta, 2019). The third, outermost ring, between the areas with the subcenters and the delimitation of the urban perimeter, would be where the special zones of social interest (ZEIS) and the logistics ring would be implemented. Subsequently, in 2010, within the scope of the Minha Casa Minha Vida Program (PMCMV),

eight ZEIS were created to house the popular enterprises of the federal program, most of them in the third and outermost ring mentioned above (PMU, 2006; Silva, 2015).

In 2011, the new Zoning Law<sup>25</sup> was approved, which aimed to maximize travel in the city, regulate the installation of gated communities, characterize residential areas and consolidate the areas. Once again, a mixed-use zone stands out, predominantly present in the Eastern sector, adjacent to the Central sector.

The South sector was divided into two residential zones (ZR1 and ZR3). ZR1 continued to be the one with the lowest density and most restricted occupation, with a predominance of horizontal developments. ZR3 enabled verticalization and diversification of uses, which allowed a differentiation of real estate products for the Central sector, since verticalization predominated, until then, in the Central sector, especially in the Fundinho, Martins, Lídice and Osvaldo Resende neighborhoods (Jesus, 2014; Lomolino, 2019). This is an indication of how high the segregation returns for real estate capital already were, allowing the transition from more horizontal uses to vertical integration. Again, Residential Zone 2 covered the other heterogeneous regions of the city (PMU, 2011; Silva, 2015).

Finally, three types of ZEIS were defined, all in the third ring of macrozoning. ZEIS 1 corresponded to regions that were not subdivided and would be destined for the implementation of social housing; ZEIS 2, for those whose lands were irregularly divided; and ZEIS 3, for regions that received or could receive social housing and were already paid in installments. Later, in the 2010s, a ZEIS 4 was defined, as well as Specific Urbanization Zones (PMU, 2011 and 2019; Silva, 2015).

In summary, the Master Plans, and their respective zoning, institutionalized an order, commanded by the space-producing capitals, which consolidated the historical social and economic division of the city's space. The areas of greatest real estate interest have already been thought out, specified and reserved. The other areas, despite the multiplicity of conditions for offering urban infrastructure, are zoned with greater homogeneity, therefore subject, in a more “free” way, to the movements of the agents producing the space. Only recently, since 2011, have there been more targeted actions in peripheral regions.

## Land price and the urban hierarchy

The Master Plans and zoning had ambiguous effects (Silva et al., 2013; Silva, 2015), because, as can be seen in Figures 1 and 2, which compare satellite images of the municipality between 2000 and 2020, if, on the one hand, the city continued to grow towards the periphery, on the other hand, as shown in Figures 3 and 4, growth respected the institutionalized economic and social division. In other words, growth towards the

Figure 1 – Urban occupation area of Uberlândia (2000)\*



Source: Google Earth Pro.

\* Zona Norte = North Sector; Zona Central = Central Sector; Zona Leste = East Sector; Zona Sul = South Sector; Zona Oeste = West Sector.

Figure 2 – Urban occupation area of Uberlândia (2020)\*



Source: Google Earth Pro.

\* Zona Norte = North Sector; Zona Central = Central Sector; Zona Leste = East Sector; Zona Sul = South Sector; Zona Oeste = West Sector.

periphery is qualitatively different depending on the city sector. Another aspect of relative success was the consolidation of the city's subcenters, offering diverse urban goods and services (Silva and Cleps, 2011; Alves and Lopes, 2012).

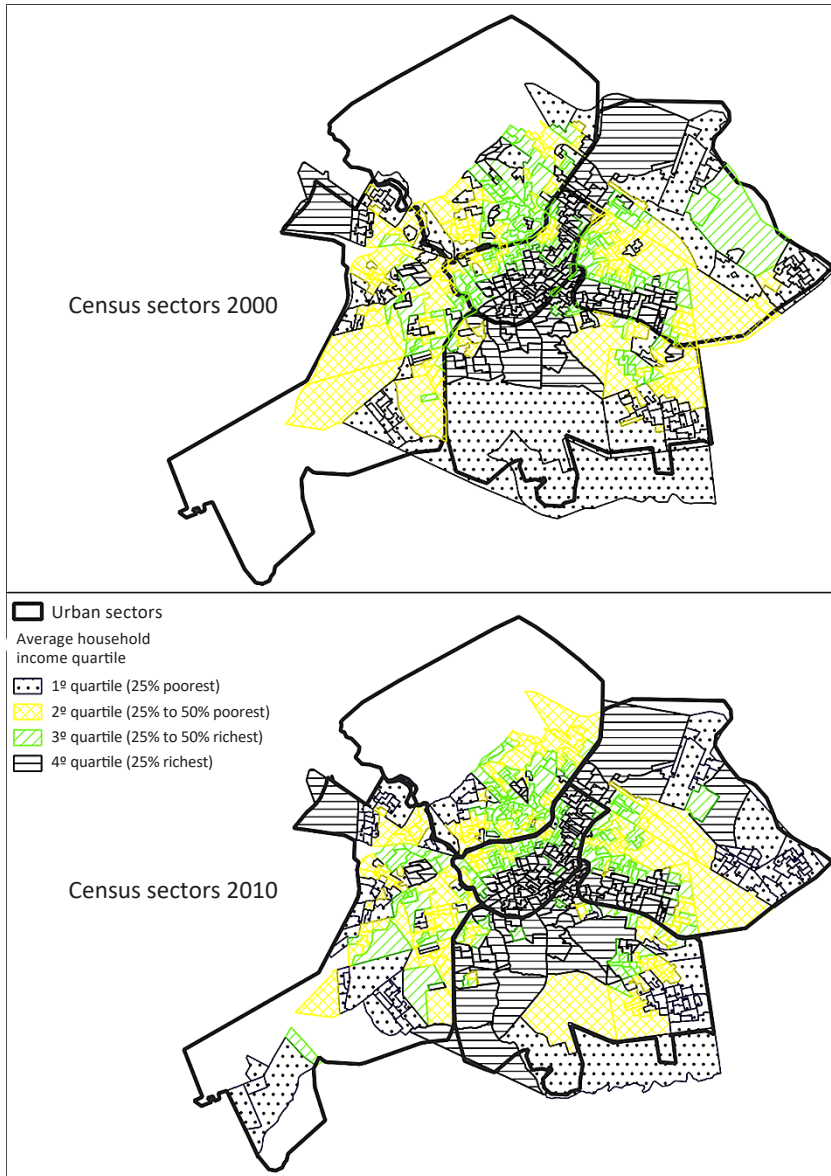
In this sense, Figure 3 presents the average household income quartiles of the census sectors in 2000 and 2010. From there it is possible to verify the expansion of the urban census sectors and the changes in the spatial distribution of the urban households according to the quartile of family income.

Figure 4 is a summary of the gradients of average intra-neighborhood urban land prices, by quintile, together with the main recent inversions by the State (especially the PMU) and the private sector (large consumption

centers and conventions). Table 1 of the Annex is a summary of information by neighborhoods and sectors of the city.

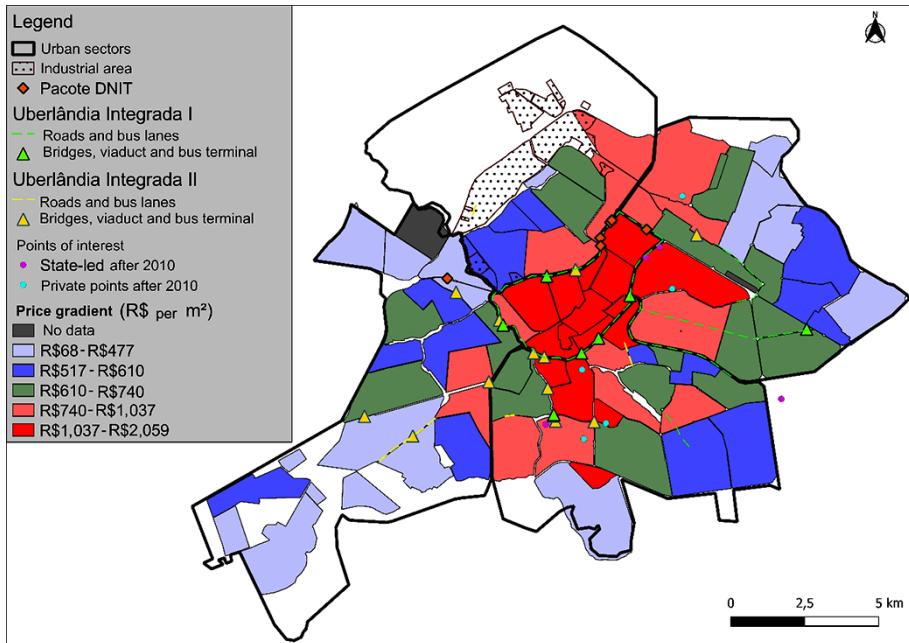
It is important to highlight the time lag between Figures 3 and 4, as there are neighborhoods in the Figure 4 that are not included in the Figure 3, either because they did not exist in 2010, or because they still had the necessary density to compose a census sector of a size that would be possible make it compatible (see also Figures 1 and 2). However, as will be analyzed by superimposing both values (Figures 5 and 6), it is possible to verify that the income profile of households in 2010 is, as expected, closer to the profile of average urban land prices in 2021, indicating exactly the changes in hierarchies and uses between urban spaces observed in the last two decades.

Figure 3 – Spatial distribution of census sectors by average household income quartile (2000 and 2010)



Source: author, based on microdata from the IBGE Demographic Censuses of 2000 and 2010.

Figure 4 – Urban hierarchy and the mean price of urban land



Source: author, based local real estate agencies data.

From the point of view of the *general factors* responsible for possible increases in land income, there is an urban expansion motivated by the population growth of the municipality itself, which, between 2000 and 2022, was 1.6% per year, higher than the Brazil average (0.8% p.a.) and Minas Gerais state (0.6% p.a.). Another relevant element was the federal housing policy, the PMCMV. Within the scope of the PMCMV, social housing was located on urban outskirts (Batista and Ramires, 2017), relatively improving the position of other neighborhoods closer to the CDB, allowing the emergence of *Type 1 differential* and housing rents. Furthermore, the other PMCMV bands – by facilitating

the solvency of demand (with discounts and reductions in financing rates) and heating up the civil construction market – made it possible to implement projects, generally vertical, in more central regions (Motta and Guerra, 2016), whose densification stimulated the effects of increasing *differential rents Type 1, Type 2, commerce and housing* on the part of land owners and developer capital.

From the point of view of *macrolocational* analysis, the South sector initially experienced urban expansion based mainly on the implementation of horizontal gated communities for the upper and middle classes. The projects present themselves as places of safety, practicality and “new lifestyle”;

they require large urban spaces for their implementation; and require support urban road infrastructure to connect them to the rest of the city, especially due to the predominance of the private car as a means of transport. In 2012, corroborating the self-segregation of the city's elites, a new shopping center was opened in the South sector<sup>26</sup> (Silva and Ribeiro Filho, 2012; Motta and Guerra, 2016; Michelotto and Sobrinho, 2018). Currently, the same enterprise is building a hotel with a corporate profile. The South sector is also consolidating itself as a hub for private educational institutions.<sup>27</sup>

More recently, in the last decade, with the zoning change of part of the region to ZR3, large vertical buildings<sup>28</sup> and strip malls<sup>29</sup> were installed. Furthermore, other services and enterprises – such as business towers, hospitals, schools, gourmet supermarkets and restaurants – have also been increasingly located in the sector (Lomolino and Soares, 2020).

The southern sector also benefited from the City Hall's investments, with the PUI (I and II), especially with the construction of bridges, viaducts and the opening of roads, in addition to housing the city's first public *Technology Center* (Figure 4). The social result is the increase in the complex use value of the sector due to the expansion of its spatial articulation. The result is the imperative, on the part of the beneficiaries, of greater and multiple forms of land income, especially the most profitable ones, such as *differential income from commerce (focused on conspicuous goods) and the monopoly of segregation*.

However, it is possible to observe in Figure 4 that the most extreme points of the sector, to the south and southeast, where popular and irregular subdivisions are located, remain as regions of lower hierarchy, as captured by the depression in average prices per m<sup>2</sup> (Arantes, Repezza and Soares, 1996; Moura, 2008; Moura and Soares, 2009). In the extreme south, PMCMV developments were built and, in the extreme southeast, for example, the regularization of the urban occupation of Glória was agreed upon (Silva, 2012; Batista and Ramires, 2017; Ramires, 2021). In addition, it is possible to note, near the center, a neighborhood (Lagoinha) that maintains lower prices per m<sup>2</sup>, mainly due to stigmas in relation to the neighborhood's population (Perez, 1990; Petuba, 2007).

Despite, from a diachronic perspective, Figures 5 and 6, by overlap the average household income of the census tracts on the gradients of land prices, show how the profile of households, from the point of view of income quartiles, changed between 2000 and 2010 in various parts of the neighborhoods of the Southern sector.<sup>30</sup> This demonstrates the movement of spatialization of capital that constantly transforms the use and occupation of urban land, in a double movement of incorporation of vectors of valorization (upper quartiles in Figure 6) and expulsion of the poorest segments to the most distant peripheries (lower quartiles in Figure 5).

The West sector, in turn, was the area where most of the PMCMV's affordable housing complexes were built and currently

has the largest number of areas defined as ZEIS or specific urbanization zones, resulting from the installation of affordable and irregular subdivisions (Silva, 2015; Batista and Ramires, 2017). Figures 5 and 6 reinforce that this is the sector where neighborhoods with lower average-income households predominate. It is also clear that many neighborhoods did not exist, given the absence of census sectors in contrast to the existence of information on land prices. The newer and more distant neighborhoods and subdivisions, located to the southwest, suffered, until recently, from bottlenecks in physical, social, and environmental infrastructure (Villa et al., 2015; Motta, 2019), and the neighborhoods in this area have the lowest average prices per m<sup>2</sup> in the city (see Figure 4 and Table 1 of the Annex). Particularly in relation to road infrastructure works, the sector has been the focus of actions in the context of PUI II, in force since 2019, as can be seen in Figure 4. In Figures 5 and 6, it is possible to observe the recent absence<sup>31</sup> of several neighborhoods compatible with the census sectors, which reflects the brevity and intensity of the subdivision and occupation process.

However, Figures 5 and 6 highlight how in the West sector there is a marked “mismatch”<sup>32</sup> between the valued areas neighboring the Central sector and the average household income of the census sectors. Once again, the valued neighborhoods in the sector are the oldest and most consolidated, therefore with a greater supply of goods and services, that is, with greater spatial articulation; and, in addition, there is a relative scarcity of available land compared to neighboring neighborhoods (Soares and Moura, 2000; Alves and Ribeiro Filho, 2009; Souza, 2009; Silva and Guerra, 2015). Thus, there is pressure to increase the

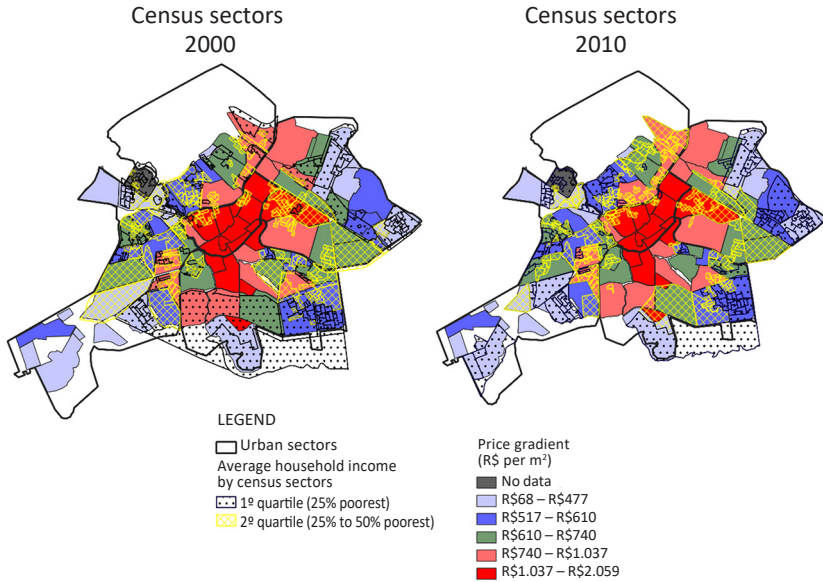
value of the urban perimeter itself and its subdivision. Therefore, it is possible to infer the existence, in these neighborhoods, of *greater income differentials, especially in housing, commerce, Type 1 and Type 2.*

The East sector, as discussed, is a complex area, an extension of the CDB, based on the Center Shopping Complex (Michelotto, 2014; Amorim and Ribeiro Filho, 2020; Mascarenhas and Ribeiro Filho, 2020). Another strip mall<sup>33</sup> was built in the sector, which provides a range of services of public interest,<sup>34</sup> and the State intervened – with the consolidation of a large public leisure area;<sup>35</sup> the installation of headquarters of public authorities and public administration bodies;<sup>36</sup> forum; municipal theater; and bus lanes (Figure 4), which increases the values of differential rents for *Type 1, Type 2, commerce and housing.*

Another relevant movement in the period was the real estate incorporation linked to projects eligible for incentives from MCMV income range 2 and 3, located mainly along Anselmo Alves dos Santos, Rui de Castro Santos and Segismundo Pereira Avenues (Batista, 2018; Motta, 2019), allowing the extraction of *absolute income*, through urbanization, and a *Type 2 differential*, due to the type of project. It is also worth noting, based on the previous figures, that the eastern end of the sector is marked by the presence of precarious and irregular subdivisions (Lins and Ferrari, 2015), justifying the lower values of the average price per m<sup>2</sup>.

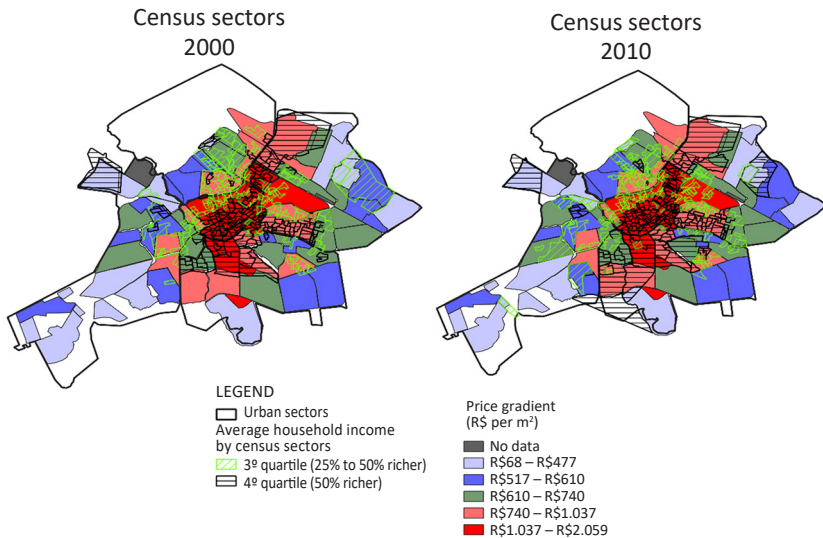
However, the boldest real estate investment in the East Sector was the city’s “first planned neighborhood,” Granja Marileusa. The project — conceived by the family that owns another large local economic group, Algar — is based on the idea of a smart and creative city, based on mixed uses, in-person meetings, and

Figure 5 – Census sectors and gradients of average urban land prices (poorest 50% of households)



Source: author, based local real estate agencies data and microdata from the IBGE Demographic Censuses of 2000 and 2010.

Figure 6 – Census sectors and gradients of average urban land prices (50% of richest households)



Source: author, based local real estate agencies data and microdata from the IBGE Demographic Censuses of 2000 and 2010.



the option of cycling and walking. Launched in 2013, the neighborhood already has, for example, gated communities (such as the Alphaville group), corporate buildings that house branches of large multinational and technology companies, schools, universities, medical services, proximity to the airport, squares, and a consumer center (Michelotto, 2014; Carminati and Garrefa, 2019; Oliveira, 2018; Sakazaki, 2020).

Despite the advantages of cutting-edge infrastructure and urban buzz, the average price per m<sup>2</sup> in the neighborhood is only 29th in the city,<sup>37</sup> probably due to its diametrically opposed position to the historically noble sector of the city.<sup>38</sup> This relative position indirectly demonstrates the relevance and potential size achieved by the differential rents of the *monopoly of segregation and commerce* (related to conspicuous goods) that can be demanded by landowners. Which, contradictorily, places the neighborhood as potentially preferential in attracting other non-real estate capital, especially from the productive segment.<sup>39</sup>

Finally, it is worth highlighting that the neighborhood in the East sector with the highest average price per m<sup>2</sup>, Tibery,<sup>40</sup> is characterized by more popular families (Moura, 2008), that is, with a lower average household income, as shown in Figures 5 and 6. However, its strategic position, as a transition area between neighborhoods with complex spatial articulation (e.g.: universities, planned neighborhoods, shopping centers, public companies), creates tension in different logics of land use and occupation and causes urban congestion effects (Nascimento, 2015).

In more detail, it is worth noting that the Tibery neighborhood, in addition to housing the Shopping Center Complex and Sabiá Park (the largest public leisure area in the city), has a street shopping mall with an Integrated Services Unit<sup>41</sup> and a series of public facilities since the 2010s, such as the new Courthouse of the Court of Justice of Minas Gerais, the new headquarters of the Municipal Department of Water and Sewage, the Municipal Theater and the new headquarters of Procon. Thus, the high price per m<sup>2</sup> in the Tibery neighborhood is justified by the potential size of *differential rents for commerce, housing, Type 1 and Type 2*.

The North sector, on the other hand, has restricted growth due to the industrial area. As argued, like the West sector, it is a region with a historical presence of the working class, with great heterogeneity, see Figures 5 and 6. The most valued neighborhoods are the oldest and most consolidated, adjacent to the Central sector, and offer a greater range of goods, services, and infrastructure (Moura and Soares, 2009; Motta, 2019). For this reason, it also suffers from the relative scarcity of land suitable for construction. Thus, in these neighborhoods it is possible to affirm the predominance of *differential incomes for housing, commerce, and Type 1*.

Finally, the Central sector has by far the highest average price per m<sup>2</sup> (R\$ 1,454)<sup>42</sup> for lots and parcels. This value is 2.8 times higher than the average for the lowest-value sector (West).<sup>43</sup> This difference clearly demonstrates the importance of the built environment in determining land rent – as well as the inequality in its distribution – since economic density and relative accessibility allow for

much more intensive land uses, leading to the verticalization of developments and the specialization of activities (Jesus, 2014). These extraordinary conditions potentially allow for maximum extraction of the different types of land rent discussed, consequently limiting the entry of new agents into the central area to only those capable of more intensive land uses.

Figure 4 reinforces how the region was given preference in PUI investments, especially in connection projects with other neighborhoods and sectors of the city, whose effect is, contradictorily, to reinforce and extend its own centrality. Figures 4, 5 and 6 reinforce how the Central sector is a stronghold of the city's wealthiest families. However, behind the large averages, there are large variations. The standard deviation of the sector's price is the highest, see Table 1 in the Annex, which reflects the heterogeneity of construction conditions and the possible costs of reconverting areas, with "properties with no commercial value" or degraded areas (Alves and Ribeiro Filho, 2014), in the various neighborhoods that make up the sector.

Thus, we can see the general proposition that the built environment constitutes a power for capital accumulation and, simultaneously, a barrier to its reproduction (Harvey, 1978). Hence the need for spatial extension – in the case studied towards the South and East sectors – to produce a built environment with the most modern conditions for capital accumulation and that avoids the extraction of high land rents demanded by landowners. It is worth noting how the possibilities for options for extending urban space in medium-sized cities – aided by the institutionalization and action of municipal governments – are generally more flexible than in large metropolises (Whitacker, 2017b).

From a *microlocal* perspective – based on the analysis of standard deviations, minimum and maximum prices, and intra-neighborhood and intra-sector medians in Table 1 of the Annex –, it is possible to generalize that the most valued neighborhoods (and sectors) are precisely those that present the greatest variation due to locational idiosyncrasies, that is, any minimal spatial artifact allows a strong increase in land rent, and therefore in the price of urban land for the owner. This fact reflects the weight of the demand for *capitalist use* in determining the price of land, since there will always be an agent willing to pay (in monetary terms) a little (*marginally*) more for a singular, non-reproducible and monopolized good/attribute: *location*, that is, the spatial articulation of the lot/parcel with the *built urban environment*.

The above finding is reinforced by the analysis of two neighborhoods that are geared toward housing high-income families – but very far from the South sector, which is home to the elite – that have average prices per m<sup>2</sup> in the lowest quintile: Morada do Sol, in the far west of the city; and Mansões Aeroporto, in the far east (see Figures 3, 4, 5 and 6 and Table 1 in the Annex). Even so, it is worth noting that in the cases of these two neighborhoods the minimum lot size is much larger. In this sense, when considering the average sales price, Morada do Sol becomes the sixth with the highest average and Mansões Aeroporto the twenty-fourth, which indicates the weight that segregation income can assume in determining prices when compared with differential location incomes.

Based on the smaller standard deviations, it is possible to generalize that the less valued neighborhoods (and sectors) are relatively

– and *apparently* – more homogeneous due to the relative absence of a plurality of real estate objects, and consequently of spatial articulation with the built urban environment of their surroundings. It is considered that this homogeneity is essentially from the point of view of capital and that it occurs due to the absence of a *solvable capitalist demand*. In capitalism, land is a commodity and is defined by the built environment and the potential for use, which, in turn, is constructed by the intensity and synergy of the capitalist demand for land. It is considered, however, that there are riches in peripheral areas that go far beyond the market prices of land (Martins and Soares, 1996; Lins and Ferrari, 2015).

Table 1 in the Annex, based on the number of observations per neighborhood and sector, also indicates, for example, the degree of formalization and structuring of the land market in each area, the prevalence of neighborhoods in the East and South sectors is noted. In other words, the analysis methodology, via web scraping of real estate advertisements, tends to underrepresent the poorest neighborhoods and consolidated informal settlements (Almeida, Amano and Tupy, 2022). This reflects the lower formalization, but in no way of the lower intensity of transactions and supply of lots and parcels (Abramo, 2007).

The number of observations also allows us to identify neighborhoods and sectors with potential urban voids, possibly due to *passive speculation practices* by landowners. This also reinforces how land prices are not directly related to the quantity of lots and parcels offered. The East and South sectors have a large supply of land that does not necessarily imply lower minimum or average prices. Once

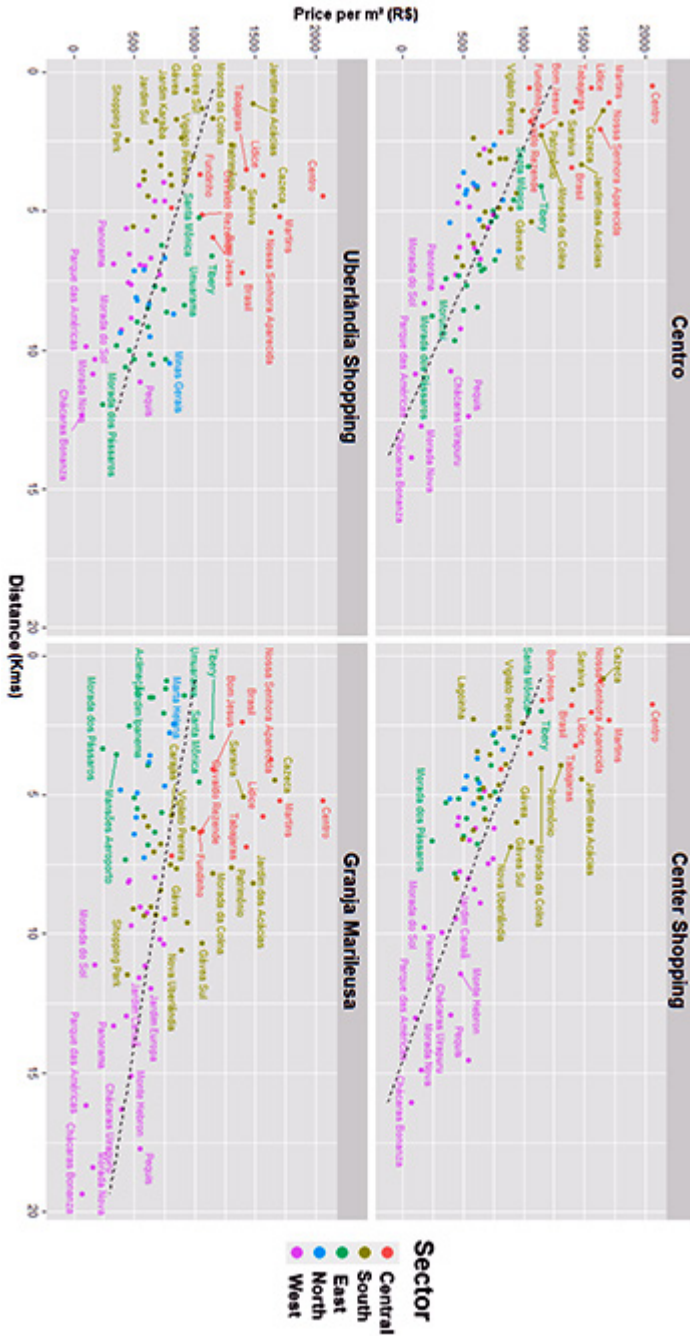
again, this fact reinforces that it is the capitalist demand for land use together with the hierarchy of use (determined by the degree of urbanity incorporated into the built environment) that determines urban land prices.

In this sense, using different urban centralities – conceived as syntheses and expressions of urban conditions/built environment, therefore, of their hierarchy –, Graph 1 relates the average price of lot/parcel by neighborhood and the distance, in a straight line, from the centroid of each neighborhood in relation to four centralities: 1) CDB (Centro – Praça Tubal Vilela); 2) expanded (Center Shopping); 3) segregated (Uberlândia Shopping); and 4) planned by private capital (Granja Marileusa).

First, it is worth highlighting that in two of the centralities there is a clear positive correlation between higher land prices and greater proximity to the centrality (Centro and Center Shopping). In the segregated centrality (Uberlândia Shopping), after almost thirty years of its institutionalization, it also presents, to a lesser extent, the same pattern of correlation, although the clearest effect is in the proximity to high-income households. In more general terms, and in comparison, with other cases in the literature on medium-sized cities (Abreu and Amorim, 2014; Maia, Silva and Whitacker, 2017; Barcella and Melazzo, 2020), given the population size of Uberlândia, the extended scale of urbanization and diffusion of new centralities is relatively more compact, since the reference points are generally up to five kilometers away from the center.

Another aspect highlighted by Graph 1 is how the neighborhoods of the West sector, the least valued, are further away from all the centralities under analysis. This fact only

Graphic 1 – Centrality matters: average intra-neighborhood price per m<sup>2</sup> (R\$) by distance (Km)



Source: author, based local real estate agencies data.

reflects the impossibility of landowners in this area to demand high values and different types of land rent.

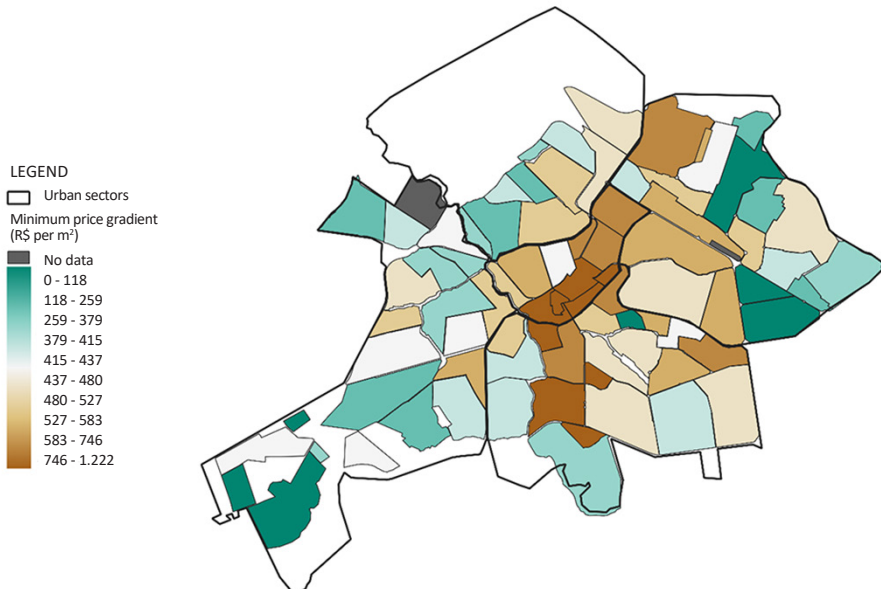
A final element of interpretation of Graph 1 is how the Granja Marileusa planned neighborhood project has very limited spillover effects, constituting yet another “island” of infrastructure and supply of services, goods, and skilled jobs, emulating a kind of edge city (Soja, 2000) at the neighborhood level.

To show that land income gradients do not necessarily follow a linear pattern of decline from the primary center, Figure 7 presents the minimum prices, in deciles, of the neighborhoods of Uberlândia. In Figure 7, in addition to the central neighborhoods, it is in the southern

sector – especially in the neighborhoods where there are practically (or only) closed horizontal subdivisions; or that are close neighbors of the city’s country clubs<sup>44</sup> and high-end consumer and service centers – that the highest minimum prices are found. Therefore, one can perceive the extent of *segregation rents and urban segregation* in the urban dynamics.

In the same sense, at a second level of the hierarchy of minimum prices, the Granja Marileusa neighborhood stands out, occupying the position of thirteenth highest minimum price. This fact, with the low standard deviation of the price sample, confirms the generality of the best general conditions of production and reproduction in the planned neighborhood.

Figure 7 – Minimum prices by neighborhood



Source: author, based local real estate agencies data.

## Final considerations

To specify the hierarchy of urban land uses in the medium-sized city of Uberlândia, this article used the prices of lots and parcels offered in real estate advertisements. These values, on the one hand, are more reliable in relation to urban land income than the real estate value plan used to calculate the Imposto Predial e Territorial Urbano (Urban Property and Land Tax). On the other hand, they are better represented spatially and easier to access than those obtained by the Imposto de Transmissão de Bens Imóveis (Real Estate Transfer Tax).

In general terms, web scraping can be useful for producing detailed descriptive information and for creating a database of the historical evolution of urban land prices. To demonstrate this potential, descriptive data (i.e., average and minimum prices, medians and standard deviations) were analyzed, making it possible to identify macro and micro locational determinations – according to different degrees of the built environment, as provided by the secondary literature – that allow us to identify the modalities and weights of land rent extraction by space-producing agents.

In this sense, *passive speculation* by landowners and development capital predominates. Both generally act to benefit from the *social reproduction of the economic and social division of space*, institutionally sanctioned by the State – whether through urban legislation (master plans, zoning laws, and land use and occupation) or by selecting priority areas for public investment. In other words, the price of urban land demanded

by landowners and development capital (whether in lots or embedded in the real estate object produced) reflects the social result of the unequal reproduction of infrastructure conditions and urban amenities. These agents only demand, in monetary terms, the right to transfer the most intensive potential use given by the relative and unique location of the land/lot in the hierarchy of urban uses.

Even the most complex developments – executive and residential towers, gated communities – are an expression of more intensive land use and, as demonstrated, are linked to/are the counterpart of the demand, on the part of owners, for high land prices, since they are in areas that benefit most from the complex use value of the city.

However, it is worth highlighting that the *passive speculation* does not mean that there are no struggles and clashes between fractions of capital, owners and social fractions. As it was possible to determine, there are neighborhoods that, due to price pressure, have seen gradual changes in the profile of households, a movement that may become more explicit in the 2022 Demographic Census.

Similarly, higher land and lot prices mean that they can only be sold if accompanied by more intensive developments – with verticalization or more built area – in terms of land use, which can cause urban congestion in the neighborhood and the need for future public works. Finally, the very fact that the land/lot remains idle awaiting capitalist demand for more intensive use creates a social scarcity of land, which feeds the very extension of the built environment, always

in a partial and precarious way, aimed at accommodation and as the only alternative for the most vulnerable segments of the working class to live in the city.

The movements to transform *the economic and social division of space* – or *active speculation* – by real estate capital are much rarer. What prevails, in fact, is the good old surplus profit from urbanization and anticipation – based, respectively, on the conversion of rural areas into urban areas by extending the urban perimeter and on the production of subdivisions on the urban fringes – carried out by different local and regional capitals that own land banks, are familiar with the local land market and have good relations with the municipal government (Lacerda and Silva, 2019; Lacerda, 2021). Local and regional

capitals that are commonly linked to multiple segments of mercantile and commercial activity, that is, far from being restricted to real estate activities (Cano, 2010).

Meanwhile, national real estate capital in the region – normally focused on the production of real estate objects, residences and consumer centers for the upper and middle classes – has as its line of action to obtain surplus profits the greatest possible intensification of land use (verticalization); or it restricts itself to marginal, symbolic and objective “innovations”, linked to the real estate products produced, especially through their commercialization, which always propagates a “new [and superior] lifestyle”, generally based on the denial of the urban, on self-segregation and on the exclusion of the different and of difference.

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## Notes

- (1) Between 2016 and 2017, the Housing Union of Triângulo Mineiro and Alto Paranaíba produced reports about the real estate market in the city of Uberlândia.
- (2) For a discussion of the spatial limitations and the number of observations available from these data sources, see: Melazzo (2010), Almeida, Monte-Mór and Amaral (2017) and Almeida, Amano and Tupy (2022).
- (3) The method consists of, through computer programming, here particularly RStudio was used, in the creation of a “robot” (crawler) that can copy information regarding the prices, area and location of each advertisement from each real estate agency’s website. The data was extracted on 5/26/2021.

- (4) Delta Imóveis, Ipanema Imobiliária, Ivan Negócios Imobiliários e Módulo Imóveis.
- (5) Arantes Imóveis Imobiliária, Calixto Imobiliária, Imóvel Web, Líder Imobiliária, Nestoria, Rotina Imobiliária, Storte Imóveis, Viva Real e Zap Imóveis.
- (6) Observations from rural areas were excluded, as well as those linked to industrial areas.
- (7) The only neighborhoods without observations were Guarani and Jardim Pindorama (Assentamento Fidel Castro).
- (8) Federal Law n. 8,245 of October 18, 1991.
- (9) There is also the “DNIT Package” (Departamento Nacional de Infraestrutura e Transporte), created by the Federal Government, which is a set of works around sections of federal highways in urban areas.
- (10) Phase 1 began in 2011, during the second term of Mayor Odelmo Leão (Partido Progressista), who governed from 2005 to 2012. Some works were continued by the following administration, that of Gilmar Machado (Partido dos Trabalhadores), who governed from 2013 to 2016. Odelmo Leão was then elected again in 2016 and reelected again in 2020. Phase 2 of the Uberlândia Integrada Program was launched in 2019.
- (11) Given by the formula:  $P_s = \sum_{j=1}^n \frac{R_j}{(1+i)^j}$ , where “Ps is the price of land, Rj is the expected income for the j-th period of time and i is the real interest rate of the economy” (Almeida and Monte-Mór, 2017, p. 430).
- (12) The results of the 2022 IBGE Demographic Census indicated 713 thousand inhabitants.
- (13) Parque do Sabiá (Sabiá’s Park).
- (14) A descriptive synthesis in: Moura and Soares (2009); and visual: Oliveira (2018).
- (15) Central, Umarama, Planalto, Santa Luzia, Industrial, Novo Mundo and Dona Zulmira.
- (16) It is 2.1 kilometers in a straight line from Praça Tubal Vilela, considered, in this work, as the city’s primary center or Central Business Center (CDB).
- (17) Hosting the City Hall and the Municipal Chamber.
- (18) The BrMalls shopping center management chain, based in Rio de Janeiro, acquired majority control of the complex in 2013. But, in 2022, sold 30% to the current partners, the 9INE that belongs to Arcom.
- (19) With a Gross Leasable Area of 56,767.39m<sup>2</sup>, 289 stores, with 10 megastores and 9 anchor stores and an average monthly flow of 1.350 million.
- (20) The Uberlândia Business Tower (UBT), with 26 floors, is home to several companies, including multinationals. In addition, it is a point qualified as a technology micropole by the PMU, receiving tax incentives in information technology.
- (21) For law and annexes with figures: Uberlândia (MG), Municipal Complementary Law n. 78, of April 27, 1994.
- (22) For law and annexes with figures: Uberlândia (MG), Municipal Complementary Law n. 224, of December 27, 1999, which was later consolidated by Uberlândia (MG), Municipal Complementary Law n. 245, of November 30, 2000.
- (23) For law and annexes with figures: Uberlândia (MG), Municipal Complementary Law n. 432, of October 19, 2006.



- (24) Luizote de Freitas, Tibery, Planalto, São Jorge, Santa Mônica, Santa Luzia, Tubalina e Presidente Roosevelt.
- (25) For law and annexes with figures: Uberlândia (MG), Municipal Complementary Law No. 525, of April 14, 2011.
- (26) Uberlândia Shopping.
- (27) Currently, the following are in the South sector: Unitri, Anhanguera and Una.
- (28) Especially Triad Vertical Residence, under the command of Brasal Incorporações.
- (29) Pátio Vinhedos.
- (30) The census sectors are not fully compatible with the neighborhoods. Therefore, an effort was made to ensure compatibility by merging the sectors with the current neighborhoods.
- (31) That is, they involved census sectors with areas much larger than the neighborhoods, incorporating “rural” spaces, which is why they were excluded from the analysis.
- (32) It is worth noting, as already discussed in the introduction, that there is a time lag between information on average household income in census sectors and information on the price of urban land; however, the most recent literature (Silva and Guerra, 2015; Motta, 2019) persists in pointing out the predominance of segments with lower average household income in these neighborhoods in the West sector.
- (33) Pátio Sabiá was opened in 2019.
- (34) An Integrated Service Unit (UAI), which centralizes document issuing activities by different bodies in the state of Minas Gerais, and a notary's office.
- (35) Complex of Parque do Sabiá.
- (36) New headquarters of Dmae and Procon.
- (37) Being the fifth highest average in the East sector, see Table 1 in the Annex.
- (38) It is 9.2 km in a straight line from Uberlândia Shopping.
- (39) Productive in the Marxian sense, that is, generators of surplus value, such as services (Rubin, 1980).
- (40) Being the thirteenth largest in the city, see Table 1 in the Annex.
- (41) The Integrated Service Units (UAI), implemented by the State Secretariat for Planning and Management of Minas Gerais (Seplog-MG), aim to bring together in the same space services from municipal, state and federal agencies, in an integrated manner, serving the citizen with quality and efficiency.
- (42) The average per m<sup>2</sup> is 1.8 times higher than the second-placed sector, the South sector (R\$ 796), see Table 1 in the Annex.
- (43) Another way of illustrating the inequality in the formation of land income is the difference between m<sup>2</sup> of the most expensive lot, located in the Center (R\$4,545), and the cheapest, located in Chácaras Bonanza (R\$65), which is around 70 times.
- (44) The importance, especially symbolic, of country clubs is not trivial, as they are even referenced in the city's anthem: “Clubes sociais, recantos adoráveis; Clubes beirando rios [Praia Clube] ou em líricas colinas [Cajubá Country Club]”.

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