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Special Issue 2.2024

Urban Inequalities

This Special Issue intended to wonder about how urban planning can contribute to reduce disparities due to the diversity of access to services, infrastructure and urban places, as well as the origin from a specific territorial area (center vs. periphery) and that could be accentuated by unforeseen global pandemics. Hence, contributions coming from scholars as well as from technicians have been collected around rethinking and redesigning territories and cities to support policy-makers in preventing and reducing socio-spatial inequalities.

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Urban Inequalities

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From peripheries to neighbourhoods: measuring urban insertion of social housing projects

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Abstract
The past two decades have witnessed a notable increase in affordable housing production across Latin America, along with persistent challenges regarding habitability and access to urban amenities. At the same time, there has been a shift in urban dynamics, characterised by the diversification of peripheries and the emergence of sub-centralities, challenging conventional notions of urban marginalisation. It underscores the need for a deeper understanding of urban insertion as the attention moves from macro-scale segregation to micro-scale analysis. Amidst this context, urban insertion remains a subject of dispute and ambiguity within the literature, often conflated with peripheralisation and segregation. Addressing this gap, we advance toward a concept of urban insertion, proposing an analytical framework that integrates multiple criteria from diverse disciplinary perspectives. This framework was empirically validated in the metropolitan area of Curitiba (Brazil) by analysing 55 social housing developments constructed over the past decade. The findings yield valuable insights and pragmatic guidelines for evaluating urban insertion and informing policy decisions in similar contexts.

Keywords
Urban insertion; Peripheralization; Social housing; Housing program; Segregation.

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1. Introduction

The past two decades have witnessed a significant surge in affordable housing production in Latin America. A prevalent feature has been the poor level of habitability and urban amenities, which are fundamental for promoting the right to the city. A substantial part of the literature has focused on topics related to the financialisation in emerging economies and its implications for social housing (Dattwyler et al., 2021; Nascimento Neto & Arreortua, 2020; Reyes & Basile, 2022; Soederberg, 2015). Considerable efforts have also been made to comprehend the consequences for the urban systems (Cox & Hurtubia, 2021; Monkkonen, 2012; Otero et al., 2022; Vergara, 2021). Nonetheless, studies were conducted during the implementation of such programs, making it difficult to grasp the full picture. As we approach the peak of a two-decade cycle of social housing construction in Latin America, a new research agenda emerges, aimed at comprehending what remains and how these fragments became part of the urban fabric.

Examining this topic reveals a relevant change in spatial dynamics over the last decades. Historically, a centre-periphery pattern prevailed, with wealthier socioeconomic groups predominantly inhabiting central areas equipped with robust urban infrastructure while disadvantaged groups settled in precarious peripheries. These dynamics, however, have evolved into a more intricate structuring of urban space, characterised by the amalgamation of subcenters, sectors, poles, and, more recently, loosely interconnected fragments within the urban fabric (Borsdorf, 2003; Janoschka, 2002; Palacio, 2012). Peripheries have become increasingly fragmented and heterogeneous (Chica-Mejía, 2022; Datta, 2023; Feitosa et al., 2021), experiencing the development of sub-centralities that challenge the notion of peripheries as uniformly deprived of urban infrastructure (Marques & Torres, 2004; Peres-Tamayo, 2017; Santos et al., 2017). Therefore, it is important to reconsider the prevalent association, often found in the literature, between peripheral locations and poor integration into the urban fabric. Segregation, on the other hand, has also changed, transitioning from macro-scale trends to persisting at a micro-scale level, exhibiting a discernible pattern towards the pronounced isolation of groups with high socioeconomic status which, not exclusively but also, occurred in specific peripheral locations and the ongoing perpetuation of peripheralisation processes of low socioeconomic status groups (Feitosa et al., 2021; Marques, 2016).

The evolving dynamics of peripheries and the somewhat independent tendency of segregation present new challenges for investigation, underscoring the imperative for a deeper understanding of urban inequalities. The focus has shifted from analysing the broader urban structure to examining neighbourhood-scale dynamics and proximity to key urban amenities and basic infrastructures, crucial for enhancing the living conditions of historically marginalised groups. This shift resonates with recent interdisciplinary concerns, intersecting with debates around the 15-minute City (Mariotti et al., 2022; Moreno, 2024; Moreno et al., 2021), active commuting (Clark et al., 2016; Shannon et al., 2006; Shen et al., 2021), walkability (Arellana et al., 2020; Lu et al., 2018) and place-making (Montrezor & Bernardini, 2019; von Wirth et al., 2019).

In this context, the notion of urban insertion emerges as pivotal for the living experience in urban space, influencing access to opportunities and, therefore, participating in the reproduction of social inequalities. It also serves as a social determinant of health due to its impact on active commuting, mental well-being, and social interactions. Despite its importance, there is a theoretical and conceptual challenge, as urban insertion is loosely used in the literature without a clear theoretical understanding. Unlike its counterparts, such as segregation and urban integration, the concept of urban insertion lacks a precise theoretical framework. Furthermore, there is a challenge in developing methods that operationalise the urban insertion concept, contributing to a better understanding at a closer scale of analysis.

This paper aims to address both of these knowledge gaps. The following section elaborates on the concept of urban insertion and establishes pragmatic guidelines to develop evaluation criteria. These criteria are further detailed in section 3 and empirically applied in a metropolitan area in Brazil in section 4. The results provide conditions to validate the proposed methodology and pave the way for its use in comparative studies in Latin

America through a common set of variables and measures. By addressing these challenges, we seek to advance the understanding of urban insertion and provide a framework for evaluating and comparing different cases in the continent.

2 Urban insertion: operationalising the concept

The diversity of interpretations regarding urban insertion reflects the pragmatic bases used to analyse and measure it. The literature usually does not precisely define the concept of urban insertion, being more common discussions about its opposite (the lack of). In many cases, it comes associated with segregation, having a grey area around the notion of urban integration. For instance, Marcuse (2005), when advocating for policies against segregation, adopts the term urban integration to address the desirable interaction between distinct social groups within the same geographical area. Similarly, Vicuña et al. (2019) define urban integration as the residential proximity between individuals from diverse social classes and their access to public and private amenities.

Urban insertion should not be conflated with the absence of segregation or urban integration. A higher level of urban insertion does not automatically translate into reduced segregation. Gated communities are a major example, as they often exhibit high levels of urban insertion. They can also reinforce segregation patterns by physically separating social groups through walls and surveillance techs (Bandauko et al., 2022; Caldeira, 2000; Csizmady et al., 2022). Urban insertion, hence, can be understood as a broader expression of ensuring the right to the city, fostering the social and economic development of individuals.

Various studies suggest that urban insertion is directly associated with individual and community development opportunities. They emphasise the importance of ensuring equitable access to public transportation, jobs, economic activities, public facilities, and green spaces (e.g., Aitken & Larraín, 2022; Cawley & Ilabaca, 2021). In general, the literature converges on two dimensions for achieving good urban insertion: (i) adequate access to public services, commerce, services, and leisure activities (Aitken & Larraín, 2022; Blokland & Van Eijk, 2010; Daneri, 2016; Dattwyler et al., 2017; Kesteloot et al., 2006; Musterd et al., 2014; Rolnik et al., 2015; Vicuña et al., 2019; Wong & Shaw, 2009); and (ii) adequate conditions of urban mobility, whether through public transportation or active mobility (Aitken & Larraín, 2022; Dattwyler et al., 2017; Rolnik et al., 2015).

In this sense, we argue that urban insertion should be defined in terms of individuals' access to both fixed elements and urban flows. This conceptualisation is rooted in the spatial decoding framework developed by the renowned Brazilian geographer Milton Santos (1979, 1994, 2007). In this sense, fixed elements refer to stable geographic objects, the concrete expression of activities in space, including various components such as residential buildings, office complexes, hospitals, parks, and other land uses. Flows, on the other hand, encompass the movements within cities, including the material transportation of individuals and goods, and the immaterial aspects, such as interpersonal relationships and the exchange of information. Based on these principles, we propose an operational and tangible definition of urban insertion, understood as "the degree of spatial proximity that individuals have to both fixed elements and urban flows, guaranteeing them, without distinction, access to opportunities".

3. Urban Insertion Index: an analytical framework

Housing complexes characterised by high levels of urban insertion have the potential to enhance economic and social development opportunities for their residents, thereby promoting an improved quality of life. Therefore, measuring the degree of urban insertion within such developments is not simply a matter of assigning a numerical value but rather comprehending how their location contributes to the well-being of their inhabitants. The literature, nonetheless, is not consensual regarding the methods and specific procedures for measuring it. In addition to the challenge related to the wide range of factors to consider (Kesteloot et al.,

2006), there is also a lack of conceptual convergence, in contrast to the well-established literature on urban segregation.

To address this gap, we conducted an exploratory study about different methods available in academic, governmental, and NGO publications. The study began by analysing the existing approaches, comprehensively examining over a dozen models, revealing convergences and dissonances. These models collectively encompassed more than three dozen variables, each employing different measurement approaches, forming a diverse range of metrics without relevant intersection. Considering the proposed concept of urban insertion, these variables were grouped and subsequently merged using a heuristic and hierarchical process of decomposition and recomposition, leading to a comprehensive framework that accounts for the multidimensional nature of urban insertion[1].

Named the Urban Insertion Index (UII) and designed to evaluate social housing programs, especially in Latin America, the framework relies on two dimensions: fixed elements and flows. The evaluation of fixed elements includes assessing access to (i) public facilities, (ii) commerce and services, and (iii) leisure and sports facilities. The evaluation of flows encompasses aspects related to (iv) active mobility, (v) public transport, (vi) environmental comfort, and (vii) safety conditions. Each indicator unfolds into objective criteria, which leads to classification into "high", "medium", and "low" levels.

In the dimension of fixed elements, the closeness between housing complexes and public facilities emerges as a crucial factor. The literature generally agrees on evaluating individuals' access to essential (i) public facilities such as kindergartens, primary and secondary schools, Social Assistance Centers, health centres, and hospitals. However, there are varying perspectives on what constitutes acceptable distances for adequate access. In general, it is recommended that facilities which are regularly used and provide daily assistance should be easily accessible within short journeys through active mobility or public transport (Aitken & Larraín, 2022; CEF, 2020; Daneri, 2016; Dattwyler et al., 2017; Prinz, 1996; Rolnik, 2014; Vicuña et al., 2019; WRI, 2017).

Regarding (ii) commerce and services, the literature similarly emphasises the analysis of activities related to (a) daily use, such as markets and bakeries; (b) occasional use, such as libraries and medical centres; and (c) sporadic use, such as specialised public services. Although there may be minor variations in the metrics employed by different models, there is a general agreement on these categories. Concerning (iii) leisure and sports facilities, the literature consistently examines residents' access to cultural facilities, parks, and public spaces for sports activities. The availability of such amenities not only contributes to residents' physical and mental well-being but also enhances social interaction and fosters stronger community ties. However, there are variations in the metrics used, particularly in terms of distance (Aitken & Larraín, 2022; CEF, 2020; Prinz, 1996; Rolnik, 2014; Teixeira & Gifford, 2023).

In terms of (iv) active mobility, the evaluation of fixed elements focuses on the characteristics of access streets, sidewalks, cycle paths, and block size surrounding the development. The objective is to ensure that individuals can move around on foot or by non-motorised vehicles. Although existing frameworks frequently lack quantitative criteria for measuring it, our model addressed this gap and established specific requirements. Firstly, access streets to the housing complex must be paved and have a speed limit equal to or less than 60 km/h. They should not be located on expressways or highways to ensure the safety of residents near the development (Forsyth, 2015; Neri & Silva Júnior, 2023; Vicuña et al., 2019; WRI, 2017). The sidewalks must have a minimum width, and intersections should have pedestrian signs and lowered curbs to accommodate special needs (Aitken & Larraín, 2022; Germann-Chiari & Seeland, 2004). Additionally, there should be a minimum of cycle paths or lanes to facilitate non-motorised modals. Finally, the block where the housing

[1] The methodological process undertaken to develop the Urban Insertion Index (UII) is extensive and detailed, exceeding the scope of this paper. A comprehensive process description can be found in *[hidden for review]* (2023). We have focused on presenting the conceptual framework and its proposed measures.

complex is situated (as well as the adjacent ones) should have a perimeter of up to 500 meters. This criterion ensures comfort, safety, and the human scale in public spaces (Forsyth, 2015; Germann-Chiari & Seeland, 2004; Rolnik, 2014; Vicuña et al., 2019; WRI, 2017).

Regarding (v) access to public transport, there is a consensus in the literature regarding the analysis of bus stops, the number of available routes, average waiting time, and the availability of information for users. These factors serve as key variables for evaluating this dimension. However, it should be noted that specific thresholds vary significantly among different sources (Aitken & Larraín, 2022; Daneri, 2016; Dattwyler et al., 2017; Mamun et al., 2013; Mavoa et al., 2012; Prinz, 1996; Rolnik, 2014; Salvador et al., 2024; Vich et al., 2019; Vicuña et al., 2019; WRI, 2017).

Concerning (vi) comfort, the literature agrees about the importance of trees, street lighting, urban noise level, physical barriers, and urban furniture. Although many references do not present objective criteria for these elements, we have established parameters in consultation with the relevant literature (Bueno & Okretic, 2014; Giannakidou & Latinopoulos, 2023; Mobaraki, 2023; Rolnik, 2014; Santos et al., 2017; Tiznado-Aitken et al., 2018; Vicuña et al., 2019). These parameters aim to provide a more concrete and measurable basis for evaluating the comfort dimension within the framework.

Regarding (vii) security, there is some convergence in the literature about the relevance of visual permeability on building facades and adjacency to urbanised surroundings. However, like the previous dimensions, most frameworks lack objective criteria for measuring them. Our model considers that at least 60% of the housing complex perimeters should be visually permeable or that there should be at least two pedestrian access for every 100 meters. It guarantees visual integration between private and public spaces, fostering vitality and a sense of security. Additionally, 100% of the housing complex perimeter should be adjacent to urbanised areas, which serves as a proxy for not being located on the urban fringe (Bueno & Okretic, 2014; Carpentieri et al., 2023; Dattwyler et al., 2017; Rolnik, 2014; Sagaris et al., 2017).

The proposed analytical framework encompasses 26 criteria ranging from 0 (insufficient) to 2 (good). These measures are derived from the heuristic process conducted, being further detailed in Luxi (2023). The criteria are weighted according to their theoretical relevance, from 1 (low) to 3 (high). For instance, kindergartens, health centres, and activities of routine use carry a higher weight (3) as they are considered essential for residents' daily lives. Fig. 1 presents the set of reference measures for each criterion.

The urban insertion index is calculated by aggregating the values acquired for each variable, considering their respective weights. This summation yields a value ranging from 0 to 100, as in Eq.1, where "UII" denotes the urban insertion index and "i" represents each specific variable within the index.

$$UII = \sum_{i=1} (var_i \times weight_i) = 0 - 100 \qquad \text{Eq.1}$$

In addition to the numerical scoring, classification as a high level of urban insertion requires a score surpassing 70 points and achieving good levels in at least three criteria of greater weight. This condition establishes threshold criteria that ensure the reliability of the summation method while preventing cases where the majority of criteria only attain average levels. Conversely, the classification as medium level requires a score ranging from 30 to 69 points accompanied by achieving a good level in at least one criterion of greater weight. Finally, the housing complex is classified as a low level of urban insertion if the score falls below 30 points or fails to meet the minimum conditions described above.

We acknowledge that establishing objective ranges and classification criteria can lead to heated debates. Nonetheless, these debates should not inhibit methodological progress in developing analytical approaches for urban insertion. Instead, they should catalyse progress in the field, such as the ones that typically arise in

segregation measures. Hence, the introduction of the UII framework represents a valuable contribution as it enables comparative discussions on urban insertion, fostering advancements in the field.

			Insufficient (0)	Acceptable (1)	Good (2)	Weight	
Fixed	Public Facilities	Hospital	> 4.0 km	≤ 4.0 km	< 3.5 km	1	var1
		Health Center	> 3.0 km	≤ 3.0 km	< 2.5 km	3	var2
		Social services center	> 2.5 km	≤ 2.5 km	< 2.0 km	2	var3
		High school	> 2.0 km	≤ 2.0 km	< 1.5 km	1	var4
		Elementary school	> 2.0 km	≤ 2.0 km	< 1.5 km	2	var5
		Kindergarten	> 2.0 km	≤ 2.0 km	< 1.0 km	3	var6
	Stores and Services	Sporadic use	> 2.5 km	≤ 2.5 km	< 2.0 km	1	var7
		Occasional use	> 1.4 km	≤ 1.4 km	< 1.0 km	2	var8
		Everyday use	> 800 m	≤ 800 m	< 500 m	3	var9
	Leisure and sports activity	Sports practice	> 1.4 km	≤ 1.4 km	< 1.0 km	2	var10
		Parques	> 2.5 km	≤ 2.5 km	< 2.0 km	1	var11
		Leisure / culture	> 1.4 km	≤ 1.4 km	< 1.0 km	2	var12
Flows	Active mobility	Traffic parameters	> 60 km/h	≤ 60 km/h	< 40 km/h	2	var13
		Accessible routes	< 75%	≥ 75%	100%	3	var14
		Bike lanes extension	< 100 m	≥ 100 m	> 250 m	2	var15
		Adjacent block size	> 800 m	≤ 800 m	< 500 m	3	var16
	Public transportation	Bus stop distance	> 800 m	≤ 800 m	< 500 m	3	var17
		Available lines	< 3	3	4	3	var18
		Time gap	> 20 min.	≤ 20 min.	< 10 min.	3	var19
		Information available	< 75%	≥ 75%	100%	1	var20
	Sense of Safety	Close to urban fabric	< 40%	≥ 40%	100%	1	var21
		Visual permeability	< 40%	≥ 40%	≥ 60%	1	var22
	Environmental comfort	Streets with trees	< 75%	≥ 75%	100%	1	var23
		Street lighting	< 75%	≥ 75%	100%	2	var24
		Urban obstacles	>1	1	0	1	var25
		Street furniture	0	1	≥ 2	1	var26

Fig.1 Urban Insertion Index (UII)

4. Empirical validation of the model: a brief case study context

Our case study was conducted on Brazil, the largest country in Latin America in terms of population and territory, renowned for having the continent's most extensive social housing program, the Minha Casa Minha Vida Program (PMCMV). This program has facilitated the construction of over 6 million housing units, involving an investment of US$ 115 billion (Brazilian Government, 2020). Despite its remarkable quantitative outcomes, the program has been criticised for fostering the development of large, monofunctional, and standardised social housing complexes located in peripheral areas (Amore et al., 2015; Nascimento Neto et al., 2012; Nascimento Neto, 2019; Sousa & Braga, 2020). It has contributed to the ghettoization of the poorest, deepening urban segregation. The recent relaunch of the program in 2023 (MCMV Program, 2023) underscores the continued relevance of this topic, emphasising the importance of avoiding past mistakes in Brazil and other Latin American countries.

This paper does not intend to repeat the extensively explored policy design aspects of the PMCMV first cycle, particularly regarding criteria for different categories and funds. For comprehensive reports on these aspects, we recommend consulting Rolnik (2017), Cardoso et al. (2017), and Nascimento Neto & Arreortua (2020). Among the three categories of housing response, our focus lines on the first one, which targets low-income families (0 to 3 minimum wage). In Category 1, beneficiaries were charged only symbolic amounts, if any, in monthly instalments; public resources fully subsidised housing while local governments managed the demand.

Several critical studies examined the PMCMV's implementation during 2009 and 2020. These studies reported concerning location conditions for projects within Category 1, systematically in peripheral areas lacking essential urban infrastructure (Nascimento Neto & Ultramari, 2022; Nisida et al., 2015; Rolnik et al., 2015). Some local governments have used special zoning (ZEIS), promoting well-located housing projects with access to public services, transportation, and daily amenities (Klink & Denaldi, 2014; Marques & Rodrigues, 2013). At the same time, noteworthy cases also involved a specific program line called *Entidades*, organised through non-profit entities and social movements. Despite their recognised efficacy through self-managed and collective construction, these cases had been marginal in terms of housing units, indicating a detachment between housing policies and land use planning strategies. This brief contextual overview illuminates the primary characteristics of the PMCMV program, laying the groundwork for the subsequent analysis developed in the following sections.

5. Urban insertion of social housing in Brazil: framework validation

To validate the UII framework, we evaluated a comprehensive set of 55 social housing projects built in the metropolitan region of Curitiba between 2009 and 2020 under the Minha Casa Minha Vida Program (Fig.2). Our case study holds an important position in the Brazilian urban network as part of the twelve metropolises that encompass a significant part of the population and the national GDP. Hence, selecting the metropolitan area of Curitiba enables the application of the framework in a representative case within the national context.

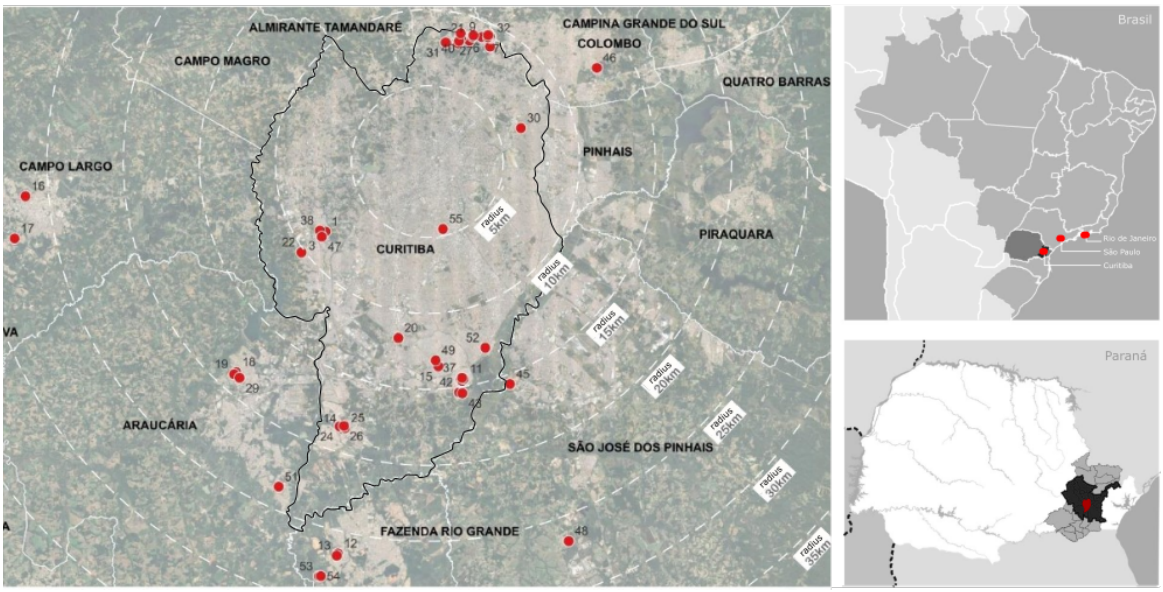

Fig.2 Metropolitan area of Curitiba, Brazil (the radial distances have Curitiba's central business district (CBD) as their starting point)

To exemplify the methodology's application, we present cartograms below depicting two specific cases – *Residencial Aroeira 1* (26) and *Residencial Novo Bairro IV* (11). The cartograms visually illustrate the points of interest used for variable calculations and their corresponding assigned weights (Fig.3). The individual results demonstrate the multifaceted challenge of guaranteeing the fundamental right to adequate housing. Both cases are situated in peripheral areas more than 10 km from Curitiba's central business district (BCD) and target the same recipient group (Category 1). Despite these similarities, they exhibit divergent outcomes in terms of urban integration, with a difference exceeding 50 points. Furthermore, it is noteworthy that even with a higher level of urban integration, the dimension of flows remains problematic for Case 2. This observation underscores the significance of facing urban inequalities beyond the mere presence of physically installed public services. It is crucial to account for the opportunities available for individuals to access distinct parts of the city using different modals of transportation.

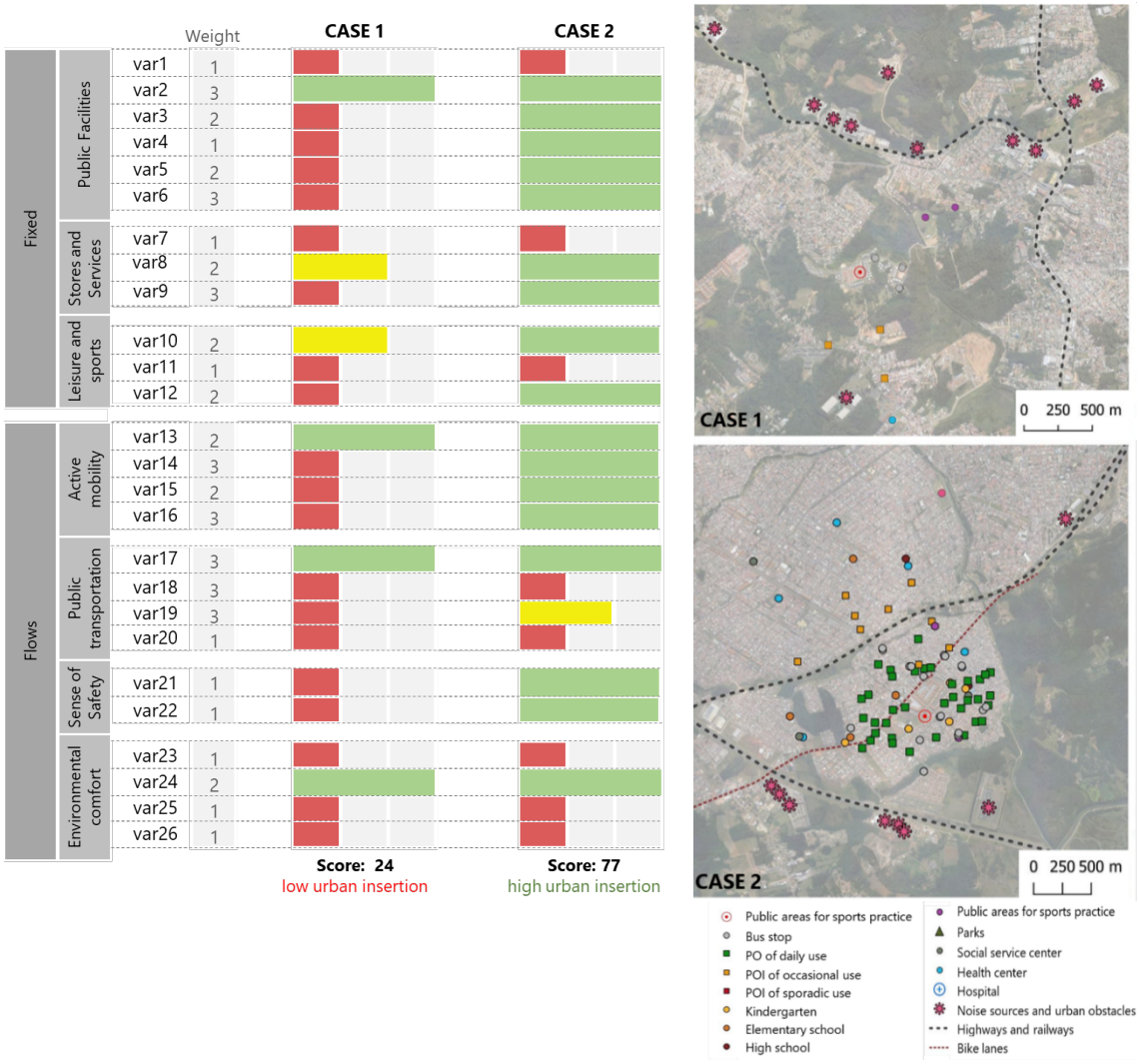

Fig.3 UII results and cartograms for selected social housing projects

Calculation of the Urban Integration Index (UII) across Curitiba's entire metropolitan area of Curitiba has provided significant insights. Among the 55 social housing developments assessed, only 22% achieved a high level of urban insertion. Most housing complexes (49%) reached moderate levels, while 29% exhibited a low level of urban insertion. Remarkably, proximity to the central business district (CBD) did not serve as a determining factor, as variations in urban insertion levels were observed even within the same distance range. Additionally, developments in other metropolitan cities demonstrated a response to their specific contexts rather than being solely influenced by their peripheral location in relation to Curitiba's CBD (Fig.4). This suggests that factors beyond geographical proximity influence the concept of urban insertion.

These findings underscore the relevance of urban insertion as a critical component of social housing policies alongside traditional segregation measures. The study reveals that urban inequalities extend beyond peripheral locations and are strongly correlated with the availability of public services, green spaces, and urban amenities nearby. These factors facilitate individual and collective development, supporting better urban policies that envision sustainable cities and communities. Definitely, addressing urban inequalities and promoting urban insertion becomes imperative in working towards sustainable development goals.

As recently reported by UN-Habitat (2023), "alarmingly, midway through the implementation of the 2030 Agenda, we are off track in progress towards SDG 11, […] without sustainable cities and communities, it will be difficult to realise the rest of the 2030 Agenda, and many other global agendas".

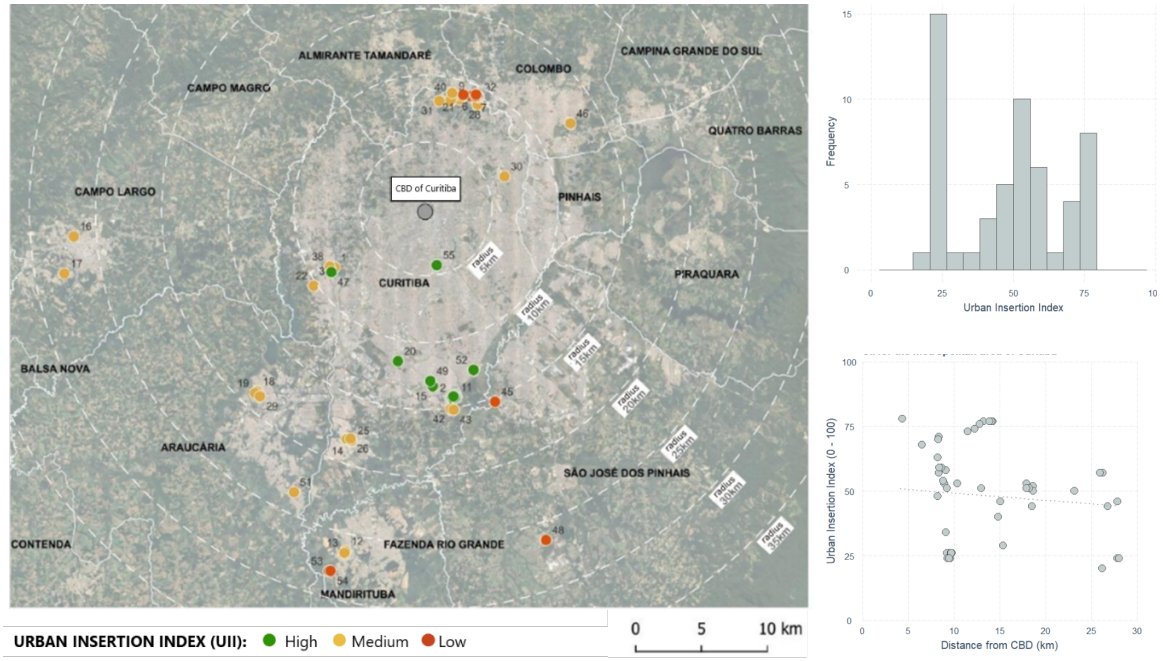

Fig.4 UII results for social housing projects in the metropolitan area of Curitiba

In this context, adopting a more nuanced understanding of urban inequalities that transcends the conventional emphasis on peripheralization and segregation is crucial. By embracing novel perspectives, we can broaden our comprehension of the diverse factors that contribute to promoting the right to the city and providing decent housing. This comprehensive approach empowers us to address the multifaceted conditions for inclusive and sustainable cities. It enables us to strive towards urban policies that offer more than just shelter for the poorest. We can actively transform Latin American cities into vibrant and equitable environments by creating opportunities for social and economic development, enhancing the quality of life, and ensuring equitable access to public services and amenities.

6. Conclusions

This paper sheds light on the concept of urban insertion as a critical aspect in understanding social housing programs and their impact on urban development in Latin America. By adopting a nuanced analytical perspective beyond traditional notions of peripheralisation and segregation, we have highlighted the significance of contextual conditions and their influence on equitable development within housing complexes. Establishing an objective concept of urban insertion and formulating comprehensive parameters for measuring its presence has provided a robust framework for analysing and comparing social housing initiatives across diverse contexts in the continent.

This framework encourages more rigorous evaluations of how these programs effectively address urban inequalities and promote inclusive and sustainable urban environments. As Robinson (2011) aptly noted, it is crucial to move beyond entrenched assumptions of incommensurability and embrace methodological designs and epistemological paradigms that support rigorous procedures for experimental comparativism in urban studies. Our findings challenge conventional approaches that overly emphasise geographic location (whether peripheral or central) and social homogeneity (whether segregated or integrated). While these factors retain relevance, our study highlights the need to consider a broader array of variables. Examining the underlying conditions that contribute to establishing equitable and inclusive neighbourhoods is imperative. By prioritising the concept of urban insertion, policymakers in Latin America can develop programs and initiatives beyond mere housing provision, thereby catalysing positive social change through a comprehensive understanding of urban dynamics. By directing attention to factors such as the availability of public services, green spaces, and

urban amenities nearby, urban policies can be better informed, leading to the promotion of socioeconomic development, the enhancement of quality of life, and the assurance of equitable access to public services for the entire population.

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Image Sources

Fig.1: Authors' elaboration;

Fig.2: Authors' elaboration;

Fig.3: Authors' elaboration;

Fig.4: Authors' elaboration.

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