

Special Section: Urban Inequalities and Segregation

doi: 10.1590/2175-3369.016.e20240000





Revisiting urban inequalities and segregation in Latin America: progress within and beyond research traditions – Special Section Editorial

Revisitando as desigualdades e a segregação urbanas na América Latina: avanços dentro e além das tradições de pesquisa – Editorial da Seção Especial

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How to cite: Barros, J., Feitosa, F. F., & Araujo, A. S. (2024). Revisiting urban inequalities and segregation in Latin America: progress within and beyond research traditions – Special Section Editorial. *urbe. Revista Brasileira de Gestão Urbana*, v.16, e20240000. https://doi.org/10.1590/2175-3369.016.e20240000

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This Special Section on Urban Inequalities and Segregation presents a selection of articles that illustrate the range of scientific studies regarding Latin America. While not necessarily representative of the Brazilian or Latin American academic production on the subject, it provides a sample of themes, methods, and approaches currently used to study urban inequalities and segregation in this region.

In what follows, we discuss the individual and collective contributions of such studies in the context of both regional and international literature on this subject. Our aim with this editorial is to provide an overview of the research being produced on this topic, how it situates itself within regional research traditions, and reflect on how the progress within and beyond these traditions can and should be made.

The importance of studying urban inequalities in Latin America is undisputed. It is a region characterized by social disparities where the urban space has been historically shaped by the unequal access to land into the so-called "centre-periphery" spatial pattern of segregation which, in turn, was aggravated and reinforced by decades of unmanaged urban growth. Hence, it is only logical that researchers should focus on understanding the different facets, dimensions and complexities of the patterns and processes that underlie urban inequalities.

The study of urban inequalities is not simply motivated by idealisms of justice, it is also driven by an actual need to find feasible solutions to what have been recognised as "wicked problems" - complex, multifaceted issues that are difficult to define and inherently unsolvable through traditional means (Rittel & Webber, 1973). Nevertheless, tackling these problems is essential to effectively help improving people's lives.

Thus, we (researchers) attempt to unravel the issue of urban inequalities, to unfold them in their various spatial and social dimensions, to detail their many contributing layers, and to unveil the roles and perceptions of distinct actors. We throw all our efforts - through theoretical and methodological approaches, traditional and novel techniques, and various datasets - into producing new insights and understanding patterns, processes, and their nuances. The ever-changing nature of such a wicked problem seems to elude our collective efforts but does not dissuade us. It does, however, explain the wide range of conceptual and analytical approaches used in urban and planning studies that deal with inequalities and segregation.

Within this context, it is unsurprising that the articles selected for this Special Section present a wide range of approaches and methods. They also exhibit considerable commonality, partly due to the "context-bound" nature of urban segregation (Maloutas, 2012) and inequality, meaning that these issues manifest themselves differently across various geographical contexts and societies. Consequently, certain aspects of these phenomena are empirically more relevant to our specific geographical context and society, aligning with the long-term research tradition in urban studies within the region.

By research tradition, we refer to a series of implicit guidelines that shape the study of inequality and segregation in specific geographical contexts. These consensuses can become so deeply embedded in our collective knowledge that they begin to be accepted as truths, sometimes persisting even after the realities they describe change - unless they are continuously critically reflected upon. Such traditions help to define research priorities, yet, researchers must keep questioning the validity of those consensuses and revisiting established assumptions. Therefore, we welcome studies that revisit well-

urbe. Revista Brasileira de Gestão Urbana, 2024, 16, e20240000

¹Examples of such wicked problems include differentiated access to urban infrastructures (Bichir, 2006; Vetter & Massena, 1982), the concentration and reproduction of poverty (Marques & Torres, 2004; Massey & Fischer, 2000; Ribeiro, 2005), poor school performance (Cunha & Jiménez, 2006; Koslinski & Alves, 2012; Palardy, 2013), social exclusion (Mustard & Ostendorf, 1998), and increased vulnerability (Kowarick, 1979).

known characteristics of the Latin American urbanization processes and update our understanding based on new evidence.

This is the case of the article by Pasternak & Bogus (2024), which presents an overview of the historical evolution of the sociospatial structure of the São Paulo metropolitan region, highlighting two important changes. The first is of a demographic nature: population growth has slowed down, and the internal migratory processes to São Paulo municipality have subdued. This trend, also observed in other large Brazilian cities and metropolitan areas (Baeninger & Peres, 2012; Tavares & Oliveira, 2017), brings urban areas previously known by their unprecedented speed of urban growth and "uncontrolled" mode of urban development to a pace of urban growth more similar to the Global North, with much lower rates than other parts of the world such as Africa and Asia. These findings challenge the long-term discourse on Latin American cities that blamed urban inequalities on the speed of the urban growth, labelling the urbanisation process as unmanageable, thus swiftly exempting the governments of the responsibility.

The second change that Pasternak and Bogus highlight is related to the economic nature of urban society, its occupational structure and the resulting impact on urban space. Their findings, which corroborate those of Marques (2016), challenge Sassen's (1991) hypothesis of an increasing process of polarization in the cities, advocating that such global processes have distinct local effects on spatial processes and patterns. This stresses the need for more more Southern theoretical perspectives on urban processes (Fix & Arantes, 2022; Vegliò, 2019) and emphasizes the importance of developing our own analytical frameworks - such as Caldeira's (2017) peripheral urbanisation, rather than borrowing concepts and mirroring research from Global North contexts.

The most remarkable urban transformation in recent decades in Brazilian cities refer to the changes in the nature of the core-periphery segregation pattern, also discussed by Pasternak and Bogus (2024), amongst other articles on this issue. Changes in both the demographic and the occupational structure of cities, combined with the well-documented emergence of high-income gated communities (Caldeira, 2000), and improvements in low-income neighbourhoods due to the country's political and economic dynamics since the return to democracy in the 1980s, includind better basic infrastructure, have contributed to an increased heterogeneity in the peripheral areas of São Paulo (Marques, 2016; Torres & Marques, 2001). Yet, evidence indicates that neither such changes, nor the decrease in overall inequality levels observed in the last decades, have translated (at least so far) into a downtrend in socioeconomic segregation levels (Feitosa et al., 2021; Marques, 2016). It is increasingly recognised that the link between socioeconomic inequalities and residential segregation is not straightforward but permeated by various layers of complex processes and possibly time lags (see Tammaru et al., 2021 for a discussion addressing the European context).

Pasternak & Bogus' (2024) article highlights that, despite such transformations, there is recent evidence of an increased number of households living in low-income underserviced peripheral settlements, as well as an increase in the amount of informal settlements (or *favelas*) across municipal areas of São Paulo's metropolitan region. Perhaps more importantly, the authors argue that the *favela* remains the "face of segregation" in the Brazilian context, an understanding that underlies several other articles within this Special Section.

Nonetheless, empirical quantitative studies have produced evidence that low-income groups are not the most segregated in Brazil (Feitosa et al., 2021; Marques, 2016). Despite the many differences between the Global South and North, studies have shown that the highest income groups tend to be the most segregated in both contexts (van Ham et al., 2021). It is the relative location of the low-income

groups in Latin America, independent of their measured segregation levels, that subject them to the most severe effects of segregation. Ultimately, the problem is *how* and *where* they are segregated, rather than being the most segregated group.

This fact reinforces the need for a continued attention to Latin America's macro-structure of segregation. In contrast to segregation studies on cities of the Global North, which tend to focus on the underlying processes of segregation, especially those concerning ethnic and racial dimensions, Latin American research tends to emphasise the spatial patterns of socio-economic segregation. This is also related to the fact that exclusionary processes of socio-economic segregation, despite their complex nature, are relatively well-known, in particular when compared to the more veiled underlying processes of ethnic and racial segregation (Barros & Feitosa, 2024; Manley, 2021).

As such, it is unsurprising that so many articles in the present Special Section seek to investigate the negative effects of macro-segregation patterns or focus on low-income residential areas as the "extreme face of urban segregation", borrowing Pasternak and Bogus' term.

Amongst the articles that discuss the adverse nature of spatial segregation patterns are studies focusing on inequalities in mobility and access to opportunities via transport. Santos et al. (2024) demonstrate the effect of fare integration policies on socio-economic inequality and their strong relation with peripheral residential areas in the city of Rio de Janeiro. Their findings revealed that the most resilient areas are not necessarily those of higher income, but rather those better serviced by public transport and availability of jobs, highlighting the role of land use and transportation policies in addressing sociospatial disparities. The article also emphasizes the need for planning policies to tackle the uneven distribution of (formal) jobs, as a means to increase opportunities for those living in peripheral areas, rather than trying to mitigate their relative disadvantage with policies of transport cost reduction. Such policies, although welcome, do not affect another well-known cost of transportation that greatly affects low-income populations: time.

Shifting the focus to medium-sized cities – a welcomed trend across this Special Section – Gonçalves et al. (2024) explore the effects of the macro centre-periphery pattern in the Brazilian Southern city of Pelotas (RS) by proposing a new accessibility measure. Like Santos et al. (2024), the authors analyze the inequalities in the access to opportunities, while exploring the racial aspect as well as the income dimensions of this phenomenon. Contrary to common assumptions, their study uncovered significant differences between race-based and income-based spatial patterns of accessibility.

Peres & Saboya (2024) examined the evolution of 125 medium-sized cities between 1985 and 2020, demonstrating that the urban expansion outpaced population growth in 60% of the studied cities. In contrast to the unprecedented urban expansion that marked large cities until the 1980s (Pasternak & Bogus, 2024), fuelled by migration and natural population growth, their results indicate that housing demand is not the sole driver of urban expansion. Previous research on Brazilian medium-sized cities (Barcella & Melazzo, 2020; Boscariol, 2017; Leme, 1999) suggested that, during this period, these cities shifted from a gradual incorporation of new subdivisions to a process of urban expansion driven by business logic. Yet, such transition has not occurred uniformly across all medium-sized cities due to the differences among local contexts and historical trajectories of urban land incorporation. Peres and Saboya's study advances this understanding by exploring the connections between segregation, morphological fragmentation and peripheralization through a comparative analysis of two Southern medium-sized cities: Blumenau (SC) and Pelotas (RS). They demonstrate how the fragmented nature of urban expansion relates to socioeconomic segregation in those cities differently, analysing isolation

levels of both high and low-income groups within recent expanded areas. These results corroborate the recent research findings on medium-sized cities in São Paulo state, highlighting that high- and low-income population are the most segregated groups (Araujo et al., 2024).

Bringing the discussion of spatial inequalities to the context of a medium-sized city in the Amazon, Bastos et al. (2024) explore changes in patterns of exclusion and inclusion in Macapá, the capital of Amapá, between 2000 and 2010. The authors highlight a decentralization trend in the spatial distribution of inclusion indicators during this period, which supports recent literature reports on the emergence of a more complex and heterogeneous pattern in Brazilian peripheries (also in line with the empirical observations of Peres & Saboya, 2024, as well as Gonçalves et al., 2024). Despite these changes, the authors emphasize the continued high levels of social exclusion in the city, identifying the primary indicators of this exclusion.

Spatial segregation: from macro to neighbourhood scale

Parallel to the study of the adverse effects of macro-segregation patterns, a set of articles in the present issue follows another tradition of Latin American studies which delve into low-income areas particularly *favelas*, informal settlements and social housing projects - as the place of utmost inequality and segregation.

Ribeiro and Costa-Lima (2024) focus on informal settlements in the Brazilian Northeastern city of Fortaleza, the capital of the state of Ceará. They investigate the evolutionary processes of these settlements from a historical perspective (mid-1800s to 2020), emphasizing the role of race and racism in the access to urban land. Their research points out the historical parallels between those exclusionary processes and the concentration of Black and Indigenous populations in informal settlements. Their study reveals interesting aspects of the evolution of informal settlements in Fortaleza, including centrally located settlements that "disappeared" between 1971 and 2013 due to "requalification" (upgrading) projects that displaced the local population. The authors also examine the role of local communities in resisting such processes by striving to achieve ZEIS (Portuguese acronym for Special Zones of Social Interest)² status for their settlements, as a means to protect and regularize them.

ZEIS in Fortaleza are also studied by Gerhard et al. (2024), who delved into the reality of three residential areas to provide a detailed picture of the deteriorating opportunities for those living within ZEIS. Using the capabilities approach (Sen, 2010) and Kaztman's (1999) social vulnerability framework, their research demonstrates the vulnerability of residents, for whom the lack of basic services and opportunities defeats any attempts of social mobility, perpetuating their disadvantaged status. The authors also show the relative inequalities within the studied settlements, identifying women and individuals with low levels of qualification as the most disadvantaged. Their article illustrates that achieving ZEIS status is a step forward but, alone, it is not a sufficient solution for the challenges faced by the informal settlements in Brazil.

Two other articles in this Special Section examine the conditions of low-income areas that were subjects or objects of government-led housing policies. Franco-Calderón (2024) focused on the social

² ZEIS are areas designated within a municipality for low-income housing settlements. They implement less restrictive urban planning regulations and standards to facilitate the regularization of these settlements through specific urbanization plans.

housing projects in Cali, Colombia, built as part of a national programme to address the housing needs of families displaced by armed conflicts. Echoing a problem observed throughout Latin America, where social housing is usually located in areas that are cheaper and far from the centre, the author reveals how planning and design decisions, such as relative location and housing estate layout, can negatively impact the resident's living conditions. This study contributes to the critiques on long-term urban planning practices adopted for social housing developments, which reinforce and exacerbate the conditions of poverty and segregation of the population that these programmes aim to alleviate (Caldeira, 2017; Rolnik et al., 2015).

Angelcos Gutiérrez et al. (2024) have further demonstrated that educational segregation is prevalent in residential areas with similar problems. Based in Santiago, Chile, the study investigates the social mobility strategies employed by families living in low-income urban areas known as "barrios populares críticos" (critical neighbourhoods), which include government-built housing developments identified as highly deprived. The article highlights the role of families in developing strategies for social mobility, which creates symbolic barriers between different families within the same neighbourhood. This debate is centred around controversial perceptions of a policy known as "the Inclusion Law", which removes the schools' autonomy to select students based on their prior attainments, aiming to democratise the access to good schools. By eliminating applications in what is seen as an exclusionary process of selection, the policy is perceived by the residents of segregated areas as detrimental to the families' long-term strategies to ascend socially (and economically) through their children's educational achievements.

Shifting gears: from a socioeconomic to an intersectional analysis - race, gender and beyond

Despite the Latin American tradition of examining spatial inequalities and segregation primarily through a socioeconomic lens, the papers presented in this Special Section mark a shift towards a more multidimensional and intersectional analysis. Such trend follows the growing recognition that inequality and poverty are better understood as multidimensional concepts (Sen, 2010) and can be observed in the international urban research literature (Boterman et al., 2021; Vallée & Lenormand, 2024; Wong & Das Gupta, 2023).

Hannas et al. (2024) explore different factors influencing the unequal access to opportunities in São Paulo through an intersectional lens of gender, income, education level, occupation and family arrangements. Their study reveals that women's commute times are generally longer than men's. However, such gender disparities in mobility decrease with higher income levels and larger family sizes. Conversely, the total number of trips undertaken by women rises when they are responsible for domestic activities, also increasing with higher income, larger family size and the presence of children.

Complementing their gender analysis, Gerhard et al. (2024) reiterate how women and individuals with lower education levels experience a heightened social vulnerability in the ZEIS areas of Fortaleza. Concurrently, the study by Bastos et al. (2024) reveals a high proportion of female-headed households in low-inclusion areas of Macapá, identifying a significant gender discrimination towards income autonomy.

While there has been a noticeable increase in studies dealing with gender inequality - a welcome advance in the field, as reflected in this Special Section - this dimension is often not addressed in segregation research due to its traditional focus on residential spaces. Having said that, the fact that residential segregation by gender may not stand out as a prominent issue does not mean that gender urban segregation,

in broader terms, does not exist or should not be studied. In order to bridge this gap, studies are conceptualising segregation to account for "segregation in people's everyday life spaces" (Schnell, 2002), hence expanding the definition to encompass the spaces where individuals engage in activities such as work, study and leisure, as well as incorporating a temporal dimension into the analyses (Li et al., 2022; Lisboa et al., 2023; Müürisepp et al., 2022). Individual-based quantitative approaches offer a promising prospect to the segregation study through the gender perspective - following developments in mobility and accessibility studies (Gauvin et al., 2020; Kwan, 1999; Li & Wang, 2016). Yet, qualitative studies looking into segregation from an individual experience approach are equally important (Morrell & Blackwell, 2022).

Another aspect of inequality and segregation that is often underrepresented in Brazilian and Latin American urban studies is race. The racial perspective brings additional nuances to the study of urban life in Latin America. Segregation encompasses not only the physical and geographical separation between different racial groups, which remains a significant material aspect, but also the symbolic segregation experienced by non-white groups who continue to face colonial relations. As argued by Sabatini and Sierralta (2006), this is a crucial subjective dimension of segregation.

The examination of racial segregation in Brazilian cities was pioneered by Telles (1992), who argued that segregation cannot be explained solely by socioeconomic status, and that race is a significant factor in the Brazilian context - an argument supported by recent research (Marques & França, 2020; Oliveira & Neto, 2015). In this Special Section, the studies by Andrade et al. (2024), Gonçalves et al. (2024), along with Ribeiro & Costa-Lima (2024) challenge the "myth of racial democracy" (Fernandes, 2008), exploring the urban struggles mediated by race, including disputes over access to and use of public spaces, urban well-located and regularised land, as well as urban services, facilities and infrastructure.

While Ribeiro & Costa-Lima (2024) highlight the restriction of access to urban land for non-white populations, Andrade et al. (2024) discuss the culture erasure process that the Black population is resisting through the *Kandandu*, an event that brings Afro groups together for the opening of Belo Horizonte's Street Carnival. The authors emphasize the Black community's struggle over the occupation of public spaces, illustrating the connection between the street carnival revival with the prominence of Afro blocks and public policies that restrict cultural events in the city's squares and parks. Their study reveals that there are other underlying factors, such as racism, that contribute to the emergency of segregation patterns in the region. In this sense, their perspective aligns with Lefebvre's (1999) definition of segregation as a disruption of social relations between different social groups.

Through the lens of accessibility, Gonçalves et al. (2024) also contributed to the racial debate by revealing that inequality patterns related to the access to opportunities tend to vary depending on the social marker analyzed, providing additional empirical evidence that racial inequalities are not merely a reflection of socioeconomic conditions. Beyond confirming that high-income and white groups have better levels of accessibility when compared to low-income and non-white groups, the results indicate that low-income groups perform relatively better than other-than-white groups, while high-income groups outperform white groups in accessing urban opportunities.

Methods and approaches: unveiling inequalities, revealing segregations

The combination of the various theoretical and analytical approaches adopted in the articles published in this Special Section allowed for a rich panorama regarding the inequalities and urban segregation in the Brazilian and Latin American context. The diversity of methods used in these studies

demonstrate a strong connection with both the nature of the issues being addressed and the scale of the analysis conducted.

Qualitative and mixed-method are the predominant approaches in case studies focusing on precarious settlements or social housing projects, which is consistent with the Latin American tradition of viewing these areas as the ultimate manifestation of the poor's segregation. These studies aim to deepen the understanding of the living conditions in selected impoverished neighbourhoods (Franco-Calderón, 2024; Gerhard et al., 2024) and/or draw attention to the role of individuals or minority groups in shaping their own lives and social realities, whether through the development of social mobility strategies (Angelcos Gutiérrez et al.; 2024), or through the struggle and resistance for the right to the city in a socio-racial context (Ribeiro & Costa-Lima, 2024; Andrade et al., 2024). Several ethnographic methods were employed in these studies, including participant observation, ethnographic walks, surveys, semi-structured interviews and document analysis. Some of these articles also incorporate quantitative techniques, such as exploratory and spatial analysis of indicators derived from secondary data, which provide a broader context to the qualitative analysis (Franco-Calderón, 2024; Gerhard et al., 2024; Ribeiro & Costa-Lima, 2024).

Quantitative approaches stood out in articles that considered broader geographical scales, including national, regional and city levels. Empirical studies based on indicators that operationalize key urban concepts and phenomena, such as segregation (Peres & Saboya, 2024), accessibility and mobility (Gonçalves et al., 2024; Hannas et al., 2024; Santos et al., 2024), as well as social exclusion/inclusion (Bastos et al., 2024) introduced methodological contributions by proposing new analytical strategies. These included proposing and applying new indices like the network-based index of potential accessibility (Gonçalves et al., 2024), innovatively combining indicators of segregation, urban sprawl and fragmentation at different scales (Peres & Saboya, 2024), and using temporally stable geographic units, such as the Statistical Grid provided by IBGE (the Brazilian Institute of Geography and Statistics), to enable temporal comparisons of social exclusion/inclusion rates (Bastos et al., 2024). Analytical contributions were also achieved by combining the use of secondary data with other quantitative methods, such as multilevel regression models, to identify gender inequalities (Hannas et al., 2024), applying fuzzy logic to handle the uncertainty and imprecision associated with the assessment of both mobility resilience and vulnerability in different districts (Santos et al., 2024), and using factorial analysis on a longitudinal census dataset to analyze the historical evolution of the socio-spatial structure of the São Paulo Metropolitan Region (Pasternak & Bogus, 2024).

The studies by Gerhard et al. (2024) and Bastos et al. (2024) prompted important reflections on the limitations of analyses derived from official aggregate data. Bastos et al. (2024), in their efforts to capture the social exclusion/inclusion patterns in Macapá, emphasized the challenges of analyzing and representing realities beyond the South-Central region of the country. Geographical contexts such as the Amazon, where historical practices have generated a "native repertoire" grounded in traditional knowledges and nature-based solutions (Cardoso & Silva, 2022) tend to be poorly represented by nationally available data, which are not always able to capture the vast diversity of urban realities in Brazil. Gerhard et al. (2024), by combining primary and secondary data to depict the socioeconomic inequalities in three ZEIS, uncovered nuances of life conditions in these areas that are not captured by official data. The authors show that, despite the poverty levels reported by the official data, a significant portion of the population lived in even more degraded conditions than expected. They further

demonstrated that the resident's accounts contrasted with secondary data on infrastructure, which indicated partial or complete infrastructure, while residents reported serious deficiencies concerning sanitation, paving and other public services.

Gaps, silos and research agendas: within and beyond traditions

An interesting development in the field which was not represented in this Special Section is the use of alternative data sources for the study of urban inequalities and segregation (Järv et al., 2015; Liao et al., 2024; Müürisepp et al., 2022). The main issue with "big data" sources such as mobile phone datasets is that they often lack information on individual characteristics, an issue usually addressed by inferring socio-economic characteristics based on the individual's home location. These are welcome developments towards a better understanding of individual approaches regarding inequality and segregation in urban studies, yet the fact that socio-economic information is not available at individual level limits its use to study intersectionality in segregation applying quantitative methods.

While other data sources such as Origin-Destination surveys appear to be promising for intersectional studies (Lisboa, 2022; Massucheto, 2024), progress in this field is hindered by the gaps in information. The "gender data gap" (Criado-Perez, 2020) is now a well-known issue, but similar discrepancies can also affect other social dimensions, as exemplified by the lack of racial data in Brazilian Origin-Destination Surveys (IPPUC, 2017; Metro de São Paulo, 2017). As a result, intersectional approaches remain underexplored and represent a critical area for further research.

Yet, segregation studies have embraced the multidimensional nature of segregation by looking at the problem from more than one social dimension whenever possible and exploring their interconnections - as illustrated by articles in this Special Section. Nevertheless, more quantitative studies designed to meet the needs of a larger number of social dimensions (as in Boterman et al., 2021) in the context of Latin America would be welcomed, with the purpose of expanding our understanding of inequalities and this issue beyond the perspectives traditionally studied in the region.

Another aspect that needs to be further explored is the use of mixed-method approaches, combining the power of analyzing large datasets at city and metropolitan scale, with the in-depth understanding of the drivers and motivations behind dynamic processes. Quantitative and qualitative research are too often developed in parallel with little crossover, despite their complementarity - as pointed out by Hanson (2010), referring to studies of gender and mobility.

The wicked nature of urban inequality and segregation, as well as their nonlinear interrelationship, challenge our best efforts to tackle their multidimensionality - not only in what refers to the various social perspectives (socioeconomic, race, gender, etc), but also to the multiple layers of processes that contribute to their formation and resilience: social, political, spatial, cultural and economic. We divide as an attempt to conquer: segmenting the problem, the data, the cities, the methodologies and the theoretical approaches. Because it is the only way, that we know of, at least, to dissect the problem. It is when we put these pieces together that the full - collective - picture starts to emerge, both of the phenomena studied and of the research that attempts to grasp them.

We would like to express our gratitude to URBE for the opportunity to gather these articles together and, as part of the process, also gather our thoughts, develop new ideas and gain a wider perspective. We are very thankful for the enthusiasm of this research community, which sent so many articles to be considered for this issue, for the dozens of reviewers who, by providing feedback to the

authors, also taught us valuable lessons. And finally, we would like to thank the authors, first and foremost for their contributions – and here we must extend our acknowledgment to the authors of the papers that did not make this final selection –, for their patience and tireless responses to our comments and requests.

We look forward to meeting again on the quest to understand the many inequalities and segregations that both shape and are shaped by our cities. Research is our means to fight for a more equitable and just urban reality for all peoples. We hope that our reflections on this Special Section have emphasized the pointless nature of segregating research in silos, traditions or methodological approaches. It is only by connecting the different research strands and building on each of their strengths that we will be able to contribute significantly to tackling such wicked problems.

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Editor: Joana Barros, Flávia da Fonseca Feitosa and Agnes Silva de Araújo