



# Limits of and opportunities for urban planning and social change in decaying housing estates: Some lessons from Barcelona

José-Ignacio Vila-Vázquez<sup>1</sup> · Petros Petsimeris<sup>2</sup>

Received: 8 June 2020 / Accepted: 14 January 2022 / Published online: 7 April 2022  
© The Author(s), under exclusive licence to Springer Nature B.V. 2022

## Abstract

Modernist large housing estates in southern Europe developed between the 1950 and 1970s have suffered from dual physical decay and stigmatization over the last three to four decades, challenging public, para-public and private actors. This article addresses recent regeneration strategies and urban policies in Barcelona in a context of the ‘marketization’ of housing, austerity and a decrease in public resources. By means of a comparative approach, two regeneration projects of housing estates in Barcelona are analysed in terms of modes of governance and their social consequences since 2000. The mixed methodology consists of direct observations and analysis of the designs of the urban interventions; semi-structured interviews with the main urban actors and a sample of residents; and a tentative evaluation of recent social changes in these neighbourhoods. The results show: first, the positive outcomes of initiatives and the limits of the different strategies of urban regeneration carried out to address persistent forms of social exclusion; and second, the relation of these positive outcomes and limitations to changes in governance and the structure of land ownership, which constitutes a controversial aspect in the development of the projects. The role of different actors in regeneration and the reproduction of social inequalities and segregation are discussed. This points to the contingent nature of neoliberal governance as evidenced by the complexity and heterogeneity of its operation at the intra-urban scale even in apparently similar large housing estates in southern Europe.

Modernist large housing estates in southern Europe developed between the 1950 and 1970s have suffered from dual physical decay and stigmatization over the last three to four decades, challenging public, para-public and private actors. This article addresses recent regeneration strategies and urban policies in Barcelona in a context of the ‘marketization’ of housing, austerity and a decrease in public resources. By means of a comparative approach, two regeneration projects of housing estates in Barcelona are analysed in terms of modes of governance and their social consequences since 2000. The mixed methodology consists of direct observations and analysis of the designs of the urban interventions; semi-structured interviews with the main urban actors and a sample of residents; and a tentative evaluation of recent social changes in these neighbourhoods. The results show: first, the positive outcomes of initiatives and the limits of the different strategies of urban regeneration carried out to address persistent forms of social exclusion; and second, the relation of

---

Extended author information available on the last page of the article

these positive outcomes and limitations to changes in governance and the structure of land ownership, which constitutes a controversial aspect in the development of the projects. The role of different actors in regeneration and the reproduction of social inequalities and segregation are discussed. This points to the contingent nature of neoliberal governance as evidenced by the complexity and heterogeneity of its operation at the intra-urban scale even in apparently similar large housing estates in southern Europe.

**Keywords** Regeneration · Barcelona · Housing estates · Governance · Gentrification

## 1 Introduction

Comparative analyses of the production and rehabilitation of housing constantly show the gap between northern and southern European countries (Balchin, 2013 [1996]). The latter are at the bottom of the European league table in terms of number of social housing units by country. They also show their weakness when it comes to playing the role of protagonist and regulating the market. In these countries, modes of governance of regeneration programs for large housing estates present a diversity of relationships between the actors, with pre-eminence given to top-down decision-making (Mugnano et al., 2005; van Beckhoven et al., 2005). The diversity of public actors involved entails a variety of forms of management and governance depending on the historical and territorial context. This article's analysis of case studies in Barcelona is based on the hypothesis that differences between estates in the city in the formulation, application and outcomes of policies for public housing call into question generalisations about housing regimes at the macro-regional scale. In order to examine this hypothesis, the paper focuses on how specific problems condition urban regeneration solutions.

Even before the post-2008 crisis era and the introduction of policies of so-called 'austerity', commentators on urban neoliberalism were pointing to its shifting shapes and forms, to its contingent nature (Wilson, 2004; Pinder, 2004). In these last two decades, Barcelona makes a pertinent case study in terms of regeneration of housing estates. Barcelona constitutes the second largest urban region in Spain with a significant stock of large housing estates, and several innovative programmes that have been developed for dealing with their decay, including sometimes changes in land ownership. Barcelona's municipal governance has recently been influenced by the interplay of radical anti-austerity struggles for the right to the city, participatory democracy and the commons (Blanco, 2015; Cristancho, 2015; Cumbers, 2015). This article focuses on the regeneration of housing estates in the metropolitan region of Barcelona between 2000 and 2020. The selection of the two case studies of regeneration programmes was based on their sharing three main criteria: (1) large estates developed in the 1970s (using industrial techniques and with a similar social mix of residents), which by 2000 had fallen into decay; (2) location in different municipalities within the conurbation of Barcelona; and (3) application of regeneration programmes since 2000. The modes of governance of these urban projects in relation to the evolving structure of properties and land uses is interpreted using a comparative analysis of two case studies: La Mina and Canyelles. This comparison is conducted by means of an analysis of the proposals and discourses of a corpus of the main planning documents. This corpus (plans, reports, projects and photographs) consists of documents obtained from the public

archives in Barcelona (Municipality of Barcelona, District of Nou Barris and La Mina), and those provided by semi-structured interviews with different stakeholders. Fieldwork missions provided direct ethnographic observation. In La Mina fieldwork was conducted on frequent occasions over the last ten years, and an intensive fieldwork exercise in the two case study areas was conducted during February–March 2019. Between September 2018 and December 2020, one focus-group and twenty semi-structured interviews were undertaken: seven members of local and regional agencies; six planners, architects or specialists in urban renewal in these areas; and seven neighbours and members of civic associations. Quantitative analysis of changes in incomes at the micro-scale gives a first evaluation of regeneration and gentrification in the two case studies. The results provide a number of insights from the experiences of one southern European metropolis, which may help to shed light on other European contexts.

The article begins by presenting research on the development, decline and the need for regeneration of public housing estates in southern Europe. An outline of the territorial context then introduces the case studies in Barcelona. This points to their complexity and specificity which opens up a perspective on their problems and possible solutions. An analysis of the urban regeneration programmes conducted in the two areas highlights an evolving pattern of housing tenure and land ownership, and makes clear the mode of governance used to deal with physical decay in these estates. The final part focuses on the insights provided by the case studies.

## 2 The experience of decline and the need for regeneration of housing estates in southern Europe

Public housing estates represent a strategic resource for affordable homes in metropolitan areas. A common trend in southern European countries has consisted of developing programmes of affordable housing funded by national government (Lanero, 2020; Petsimeris, 2018). In the case of Spain, the large housing estates in the last period of Franco's dictatorship (1960–75) represent the most recent national policy aimed at the provision of affordable housing for the most deprived population. The ideology behind the programmes was to provide a means of access to home ownership (i.e. after a number of years the tenant would become the owner). This explains the general structure of housing with low rates of rental housing, such that Spain is currently at the bottom of the European league table in terms of number of social housing units by country (Pareja-Eastaway & Sánchez-Martínez, 2017; Scanlon et al., 2015).

Most of the large housing estates developed in the country's two largest urban areas (Madrid and Barcelona) during this period were based on the implementation of several plans to demolish the slums and relocate their residents (Pareja Eastaway et al., 2005). In the case of Barcelona, the Urban Planning Commission of the municipality worked with national government (*Instituto Nacional de la Vivienda*), in order to elaborate two main plans (*Plan de Urgencia Social de Barcelona*, 1958; and *Plan de Supresión del Barraquismo*, 1961) for the development of around 24,000 housing units (Ferrer, 2010; de Solà-Morales, 2008). As the objective of increasing home ownership was progressively achieved, the mix of tenancy categories shifted from a majority of rentals to that of owner occupation. The mix in tenancies poses a long-standing challenge to integrated regeneration.

Strategies for dealing with the decay of the housing stock can be summarized by three different scenarios: demolition, renovation and permanence. The majority of regeneration strategies and public policies have privileged renovation or rehabilitation amongst the three options (Lelévrier, 2013; Musterd et al., 2006; Rowlands et al., 2009; van Kempen et al., 2005). This has mainly been the case in southern Europe, where the role of the state has been marginal in terms of capacity to guarantee a sufficient quantity of affordable housing (Allen et al., 2004; Arbaci, 2018; Harloe, 1995; Hess et al., 2018; Padovani, 2013).

In terms of actors in intervention programmes in housing estates in southern Europe, generalisations cannot be made. Different public actors have promoted a diversity of programmes of refurbishment and regeneration, including social programmes, notably in central neighbourhoods (Arbaci & Tapada-Berteli, 2012). Particularly sensitive neighbourhoods from a social point of view have been prioritized and have had various phases of intervention. The funding has been provided by different organizations, ranging from the European level to the national and local levels (with regeneration programmes, specific interventions, or development of urban plans). Physical transformations of the urban fabric have concentrated a good part of the funding despite the fact that they were part of integrated programmes. These types of interventions focus on the adaptation of the dwellings in terms of services and energy efficiency, and deal with the lack of essential services, open spaces or the obsolescence of structural aspects of blocks of apartments (Monclús et al., 2018; García et al., 2020).

The physical quality of the mass housing estates developed in Spain in the 1960s and early 1970s has deteriorated over time (see below concerning the quality of the housing when first developed). Governments at different levels have focussed public policies for inclusion and the reduction of social inequalities in urban contexts on programmes of regeneration in working-class neighbourhoods. Successive programmes—promoted and funded by local, regional and European public institutions—have sought to deal with marginalization and notably the physical decay of housing estates. Consequent on the decentralization of spatial planning, the regional and local levels substitute the Spanish central government in the leadership of the interventions in housing estates. Interventions in housing estates proposed by metropolitan institutions since the late 1980s have focused on the improvement of public facilities, the renewal of public spaces and the construction of main infrastructure projects. Planners in the metropolitan region of Barcelona have formulated and implemented a plan for the requalification of public spaces in peripheral areas (Bohigas, 1985).

The programme of interventions for mega-events such as the Olympic Games in 1992 included the construction of a ring road, which has directly affected the main housing estates in central Barcelona and the inner periphery. The construction of the Forum of Cultures in the north east of Barcelona has produced a physical transformation of the waterfront and introduced changes in public spaces near to the housing estates of the Besòs.

After the realization of the URBAN programmes, funded for the European Union (1994–1999 and 2000–2006), the Catalan government approved the law of neighbourhoods of Catalonia for an integral regeneration of vulnerable neighbourhoods between 2004 and 2006 (Generalitat de Catalunya, 2006). This regional-level of government-funded local plans of regeneration has included interventions in the urban fabric, programmes directed at social mix and the promotion of economic development. In local planning a major emphasis has been put on participation in projects. The target was to obtain an integral regeneration of specific areas of the municipalities. In the city of Barcelona, the local government adapted

the regional approach by adopting a plan for the neighbourhoods<sup>1</sup> in 2016. Even if this plan is limited to the central city, it insists on transversal aspects concerning urban regeneration and emphasizes the role of citizen participation in the conception and the management of the actions (Nel-lo, 2018). These programmes have contributed to the improvement of a large number of vulnerable housing estates in the metropolitan region of Barcelona.

The austerity policies adopted by southern European governments during the financial crisis have led to a reduction in public funding to develop comprehensive regeneration programs. This has had as a consequence the weakening of the role of public actors in the transformation of neighbourhoods. Central and local governments have proposed a transformation of the strategies used, including broadening participation with developers and other private agents, involving negotiation on the renovation of part of the urban fabric and the development of free-standing housing. Housing has become one of the multiple manifestations of the so-called financialization (Aalbers, 2017; Rolnik, 2013, 2019). The process whereby different public and para-public actors undertake procedures of putting social housing and land into the financial market in order to partially fund their interventions has become more frequent.

Opening up opportunities to property developers tends to be supported by discourses that indicate the positive effects of social mix (Bricocoli & Cucca, 2016; Lelévrier, 2013; van Kempen & Bolt, 2009). Despite public policies of social inclusion and the urban transformation programs that have been undertaken, social problems persist in terms of segregation, poor accessibility, marginalization and social exclusion (Arbaci, 2018; Hess et al., 2018; Hess & Tammaru, 2019). Other studies emphasize that the social mix policies can lead to processes of gentrification and create tensions and surveillance issues (Fernández Arrigoi-tia, 2018).

### 3 Territorial context of Barcelona

Barcelona represented one of the economic centres of Spain during the period of industrialisation following the Second World War, which quantitatively and qualitatively transformed the urban area between 1950 and 1973. The city attracted hundreds of thousands of domestic economic migrants resulting in unplanned urbanisation and the rapid production of large housing estates known as *polígonos de vivienda*. This reached its apex during the period in office of Mayor Porcioles (1957–73) and the famous planner Solà Morales, referred to as ‘Barcelona Proletaria’ (Tatjer & Larrea, 2010). These estates still constitute an important capital and an essential part of the stock of affordable housing for the metropolitan region of Barcelona (Ferrer, 1996). Despite their homogeneous appearance, they are characterised by high heterogeneity (Monclús & Díez Medina, 2016) in terms of quality, liveability, accessibility, tenure, reputation, human density, architectural aesthetics, degree of maintenance and socio-demographic characteristics.

In order to understand the housing renewal process in Barcelona, it is important to point to a number of institutions and their evolution at different scales and levels. The traditional local institution was the Municipal Housing Board (PMH) of Barcelona, which transferred

<sup>1</sup> This local plan of Barcelona developed by the former municipal government followed similar guidelines to the previous Catalan law. It is called *Pla de Barris* in Catalan, and it is available in the website: <https://pladebarris.barcelona/ca/plans-de-barris>, consulted in November 2020.

the property of the management of some housing estates located outside its administrative boundaries to the corresponding municipalities. Amongst the recent changes, PMH became Barcelona Municipal Institute of Housing and Rehabilitation (IMHRB) in order to include renewal programmes and to reinforce the stock of affordable housing in the city with the emblematic Plan for the Right to Housing in Barcelona 2016–2025. Other transformations include new departments oriented to urban landscape and environmental management, and the creation of a large municipal corporation to coordinate projects of public infrastructure, urbanization and public facilities: Barcelona Municipal Infrastructure (BIMSA). Since 2012, a number of public-private corporations have operated at the district level. These include 22@, Promotion of Ciutat Vella and Pro Nou Barris (a key agent in the case of Canyelles). They work in close relationship with BIMSA in order to reduce costs. At the metropolitan scale, development corporations such as Consortium of Besòs (CB), created in 1998, and Consortium of the Neighbourhood of La Mina (CBM), created in 2000, are key supra-municipal institutions for the renovation, redevelopment and implementation of social and environmental programmes in peripheral housing estates. Two main aspects of the territorial context are worth highlighting.

First is the leading role played by Barcelona Regional in the reshaping of the city of Barcelona from the period just prior to the preparation of the Olympic Games (held in 1992) through to today. This agency of architecture and planning is sponsored by the Municipality of Barcelona, and has been the main technical actor participating in most of the strategic public projects of the metropolis (see Table 1 for projects related to the case studies). The network of relations established by this agency with the majority of the local and metropolitan administrations constitutes a form of public-private partnership. This mode of governance facilitates the generation and fast development of complex urban and infrastructure projects. The work undertaken by this agency allows planners to reduce the cost and time of diagnosis, conceiving proposals and implementing urban redevelopments.

The second aspect concerns the diversity of approaches to the urban regeneration. Even if housing estates belong to the same metropolitan region, the structure of governance for each project differs in relation to the precise location. Only some metropolitan actors—such as the Metropolitan Area of Barcelona (AMB) or Consortium Besòs (CB)—lead projects in different municipalities. As a consequence, the group of actors involved in the projects of refurbishment in Canyelles are different to those in La Mina. Added to differences in actors are differences in sources of funding obtained by stakeholders, including in some cases European funds. In order to examine this complexity, it is necessary to compare and contrast individual case studies. Before doing so, one final aspect of the territorial context should be mentioned.

Radical anti-austerity struggles in Spain for the right to the city recently led to changes in municipal governments in four main cities, including Barcelona (Blanco, 2015, Crispancho, 2015, Cumbers, 2015). Ada Colau, with the coalition *Barcelona en comú*, won the elections in 2015 giving way to ‘new municipalism’. (Davies & Blanco, 2017) The role of these political changes at municipal level in the future development of the numerous housing estates is as yet unclear, and is likely to be hampered by a number of factors:

- municipalities have limited resources due to the continuation of austerity;

**Table 1** Comparison of the main institutional actors of the two housing estates studied in the metropolitan area of Barcelona. Sources: the authors, based on archives of La Mina and Camp de la Bota, the District of Nou Barris, and the Municipality of Barcelona, Verdagué Viana-Cardenas and Velázquez Valoria (2011), and interviews

	<i>Canyelles (Barcelona)</i>	<i>La Mina (Sant Adrià de Besòs)</i>
<i>Micro-level</i>	District of Nou Barris* BIMSA* (public company of infrastructures associated to Barcelona) Pro Nou Barris (former public company) Municipal Housing Board (PMH, or IMHRB) Association of neighbours of Canyelles	Municipality of Sant Adrià Municipality of Barcelona Platform of entities and a diversity of civic associations (including the Association of neighbours of La Mina)
Specific role of Barcelona Regional (private urban agency)	Conception of the ring road project of Barcelona, contributing to the accessibility of the quarter (before the Olympic Games)	Initial conception of the urban transformation project and technical assistance Conception of the ring road project of Barcelona, contributing to the accessibility of the quarter (before the Olympic Games) Plan of the area of the Forum of Cultures ( <i>Fòrum Universal de les Cultures</i> , 2004)
<i>Meso-level</i>	Department of Housing of Catalonia (AHC)*- Catalan government	Province of Barcelona Catalan government
<i>Macro-level or multilevel actors</i>	Private company partner in the GrowSmarter project (Naturgy) European Union (Horizon 2020 programme)	Consortium of the Neighbourhood of La Mina (CBM)* Consortium of Besòs European Union (URBAN II)

\*Leaders in the main projects of urban transformation

- municipalities with a positive year-end financial balance are not allowed to use their surplus to finance urban policies within their administrative area, rather they have to credit any surplus to the national government;
- the autonomous community of Catalonia remains the main actor in terms of housing production and regeneration;
- large housing estates are scattered mainly in the areas contiguous to the core municipalities (La Mina, for instance, belongs to the municipality of Sant Adrià de Besòs) and are thus outside of Barcelona's jurisdiction.

As Ada Colau put it:

“The tools are very tiny and the expectations are great. How can the City Council of a city that is globally located on the map of the relevant cities in the world, which attracts migratory flows, capital flows... how can it manage a power that it does not have? The City Council does not have the power of the city. It is a very small portion of power.” (Quoted in Davies, 2017).

In a context of austerity and reduced resources, the council has even less power to deal with the question of housing estates.

## 4 Complexity and specificity: Architecture, tenure and initial perspective on urban problems

Canyelles and La Mina constitute two case studies that point to the diversity of strategies for the regeneration of large housing estates developed in the 1970s in Barcelona. The former Municipal Housing Board (PMH) developed these estates with the financial contribution of the INV, an organization related to the Spanish ministry focusing on housing questions. Canyelles and the first plan for La Mina were initially conceived by the same agency of architects (LIGS—López Íñigo, Giráldez and Subías—). These architects represented ideas of modernism in planning and architecture, and industrial methods of construction were applied in their development (Tena Gómez, 2010). In the last phase of La Mina, highly standardized techniques of construction such as prefabricated concrete modules were used to reduce time and costs in construction. These housing estates represent the legacy of modernism in urban planning design, and exhibit heterogeneity in their resulting forms (Monclús & Díez Medina, 2016). They are located in different parts of the metropolis: Canyelles is in Barcelona's northern district of Nou Barris, and La Mina is in the municipality of Sant Adrià de Besòs (close to the seafront). This partially explains the different structures of government and strategies for the transformation of these estates (Table 1).

In order to requalify a housing estate through methods of governance and planning its structure of home ownership (tenure) has to be borne in mind. Most of the social housing developed in Spain since the Second World War is comprised of *vivienda de protección oficial*, or protected public housing. This was developed by the Spanish government in order to allow residents to become owners after a period of around 20 years on condition of making regular payments of rent and service charges. In the case of Canyelles, even if the majority of the housing units were initially in public ownership, some of the blocks were private developments in the eastern part of the estate (Fig. 6). In this working-class neighbourhood, most tenants have now acquired their apartments. In 2018, more than 95% of the housing units were owner occupied. For the vast majority of these residents, this housing constitutes their sole dwelling (Observatori Metropolità de l'Habitatge de Barcelona, 2018).

In terms of home ownership, La Mina is very different to Canyelles. Since the estate's origins, residents have experienced severe problems of poverty and social exclusion that have further intensified since the financial crisis of 2008. Due to the lack of employment opportunities and low wages, residents on La Mina are dependent on state aid and have little or no alternative for affordable housing. This has resulted in a tendency for residents to resist radical proposals, such as the destruction of housing blocks or rehousing, for fear of displacement. Detailed information on the tenancy structure of the estate was not available, but the estate is broadly characterised by a mix of tenancies comprising owner occupation, and tenants who rent housing units from local and regional public bodies (the CB and the regional social housing administration).

Since its foundation, La Mina has constituted one of the most renowned housing estates in the metropolitan area of Barcelona, related to the social problems of its working-class residents (Montesinos et al., 2014; Sainz Gutiérrez, 2011). These social issues include low rates of alphabetization, high levels of unemployment, problems of incivility and a concentration of illegal activities. The trading and consumption of classes A and B drugs, notably heroin, since the 1980s has affected the social networks, families and life in general in this



quarter. La Mina has become one of the most stigmatized housing estates of Barcelona, reinforced by the media's focus on marginal individuals living in the neighbourhood<sup>2</sup>.

Similar to other old housing estates, Canyelles had structural social problems, including forms of incivility and delinquency, evident two decades after its inauguration. This was mainly the result of the relocation of inhabitants coming essentially from slums. Long-term residents indicated the lack of identification of the population, and the presence of a group of problematic families at the origin of the main problems. Drug consumption in the 1980s increased the problems. The residents interviewed during the fieldwork, pointed to the negative image generated by a documentary focussing on drug consumption among teenagers in the neighbourhood<sup>3</sup>. This contributed to creating a bad image and stigmatising the neighbourhood.

Following a tradition of working-class neighbourhoods, residents and associations of neighbours play an essential role participating in projects on housing estates. Canyelles and La Mina have a history of active neighbourhood associations dating back to the dictatorship. The co-owners of each block elect a representative member in order to discuss their interests in refurbishment. Their persistent social mobilization and constestation have helped them to obtain most of the improvements in the conditions of the neighbourhoods. As will be seen below, the CBM's programme in La Mina since the 2000s has also greatly benefited from citizen participation activities.

As concerns the physical fabric of the two estates, it is fair to say that from an early stage many of the buildings in Canyelles started to show severe structural problems in the dwellings. Meanwhile some blocks of La Mina did not have elevators and others suffer a degradation of the common spaces related to forms of incivility and the high densities. Some of the blocks of Canyelles with exposed concrete in their façades have suffered from problems due to carbonation, such that the rundown nature of both estates has become very evident since the 1990s. Common to most of the large estates of housing developed in Barcelona in the 1960s and early 1970s, both estates had problems of accessibility to the city-centre and a general absence of public spaces and essential public services and facilities. Successive attempts by the residents have been essentially focused on requesting that the public actors lead physical interventions on the decaying urban fabric of the estates and address the lack of public facilities.

## 5 Programmes for regeneration

Two strategies of regeneration based on the construction of similar types of housing estate and their outcomes can be compared. Table 2 summarises the succession of plans and programmes of urban regeneration in these two neighbourhoods of Barcelona. The Consortium of the Neighbourhood of La Mina (CBM) was created to manage an integrated plan of regeneration consisting in physical and social interventions based on multilevel funding over a long period (since 2000). In the case of Canyelles, a diversity of projects focused on

<sup>2</sup> Since the late 1970s, some Spanish films focused on the life of delinquents directly identified with the neighbourhood (notably the "Vaquilla", surname of the most known antihero of these films) contributed to build this stigma.

<sup>3</sup> This documentary is available in the web: <https://www.youtube.com/watch?v=IEGT6ubwWOK&t=325s>, consulted in November 2020.

**Table 2** Comparison between the main urban interventions in the two housing estates. Sources: the authors, based on Archives of the District of Nou Barris, of the Municipality of Barcelona, Historical of La Mina and Camp de la Bota, and interviews

<i>Housing estates (area)</i>	<i>Canyelles (23.6 ha)</i>	<i>La Mina (21.21 ha)</i>
<i>Period of development until inauguration</i>	1974–1978	1970–1974
<i>Initial housing units (% of public developments)</i>	2920 (86.4%)	2722 (100%)
<i>Major physical interventions in urban fabric</i>	Refurbishment of blocks (façades, insulation and repainting) Renewal of public spaces	Refurbishment of blocks (insulation, elevators and new entries); Renewal of structural public spaces; Improvement of accessibility, introduction of tramway lines and transformation of main streets towards the city centres of Barcelona and Sant Adrià; Artistic interventions in public space; Mixed functional urban redevelopment (public facilities, housing and commercial activities)
<i>Main social programmes</i>	Not integral social programmes specifically orientated for this neighbourhood (but, activities for fighting incivility in public spaces with “street community workers”; or programs of social and cultural promotion associated to local civic and neighbourhood associations)	Social Action plan in 7 aspects: training and social and occupational integration; work-family life balance; local economic development; participation and community development; social and educational support; public space and civic-mindedness; and improvement of co-existence and fight against illegal activities and incivility
<i>Funding of the main urban regeneration project</i>	40.2 million euros (2009–2019)*	251.74 million euros (period 2000–2020), including approximately 40 million euros for the social programmes (16% of the total funding)
<i>Other projects of urban renewal</i>	Improvement of accessibility: ring road of Barcelona (ronda de Dalt, 1991) and new subway station of Canyelles (2001); Renewal of the central public park, <i>plaza</i> and underground parking (1994–1998); Sustainable mix development in the North-eastern edge of the neighbourhood (phase of conception)—European 14 Productive cities (2018...)	Development of urban park of Besòs (1982–1984); Forum of Cultures (1999–2004); University Campus—Besòs Forum (UPC) and associated park (2007-...)

\*Based on budget estimates for two of the main renewal projects in Canyelles: refurbishment of blocks 2009–2019 and the last phase of renewal of public spaces of the neighbourhood (2019)

physical interventions benefit from a convention between regional and local actors, and the contribution of residents.

The following analysis enables, first, the evaluation of the recent improvements in the urban fabric in housing estates, and the organization of the local actors involved in these regeneration projects. Second, we will analyse the orientation and planning tools, which concern land uses and property adjustments in relation to the PTBM and the surrounding urban projects in order to illustrate new types of strategy on housing estates. The urban

transformations in these housing estates produced by their strategies are heterogeneous. As a consequence, we consider the evolving social compositions of the two estates.

### 5.1 La Mina: Social mix and administratively-led gentrification

In the case of La Mina, since the 1990s a number of studies and projects have proposed alternative scenarios for the improvement of housing conditions in the area. The Barcelona Regional agency proposed a closed competition. The contract was awarded to the company of architects Llop, Jornet and Pastor (Llop et al., 2008; López de Lucio, 2009). Since 2001, the development of a complex and ambitious Plan of Transformation of the neighbourhood of La Mina (PTBM) has followed the guidelines established by this architectural company for intensive spatial interventions. This has also been accompanied by the CBM's programme for the social and economic inclusion of residents. The PTBM is led by a multi-level consortium (Consortium of the Neighbourhood of La Mina, CBM) composed of various institutions, including the municipalities of Sant Adrià del Besòs and Barcelona (contributing 2.5 and 9.9% of the total funds respectively), the province of Barcelona (7.9%), and the autonomous community of Catalonia (16.3%)<sup>4</sup>. European URBAN II initiative also supported this plan and funded around 6% of the budget used since 2000. Local residents and businesses, and notably some of the civic associations of the neighbourhood (Association of neighbours of La Mina, and the Platform of entities and neighbours of the quarter of La Mina<sup>5</sup>) followed the formulation and the development of the plan from the beginning. They were consulted by the planners and CBM in the processes of public participation. In both case studies, the neighbourhood associations constituted the main actors, and maintained a strong position in the procedures of public participation.

Since the 2000s, the consortium CBM has led a more ambitious project in La Mina in terms of time scale and the level of investment (more than 251 million euro over two decades), which is several times larger than in Canyelles (Table 2). Changes have concerned the renewal of the urban fabric, with the demolition of public facilities in the central part of La Mina and the redevelopment of a new functionally-mixed neighbourhood. The requalification of the main public spaces includes the realization of a *rambla* in order to open La Mina to the sea front and improve accessibility with the city of Barcelona and Sant Adrià de Besòs. Planners in the consortium CBM have worked in collaboration with the agency of architecture, which conceived the project. During this process, a number of specialists linked to Barcelona Regional have advised on specific aspects of the redevelopment process. Amongst the aims are the refurbishment of the original housing blocks, which had become characterized by severe physical decay and high densities, the improvement of accessibility and inclusion of the elderly. Figure 1 shows some interventions in public spaces and the incorporation of elevators in blocks of La Mina Vella. In the large and massive blocks of La Mina Nova a number of new entries have been created in order to improve accessibility and reduce physical degradation due to high density usage of stairwells. During this process, interaction with residents has played a key role, with residents designating a representative for each stairwell.

<sup>4</sup> <https://www.barrimina.cat/index.php/pla-de-transformaciinmenu-46>, consulted in February 2020.

<sup>5</sup> This Platform have been created to represent a great variety of the civic associations based on La Mina (sports, culture-religion, storekeepers, social groups, etc.).

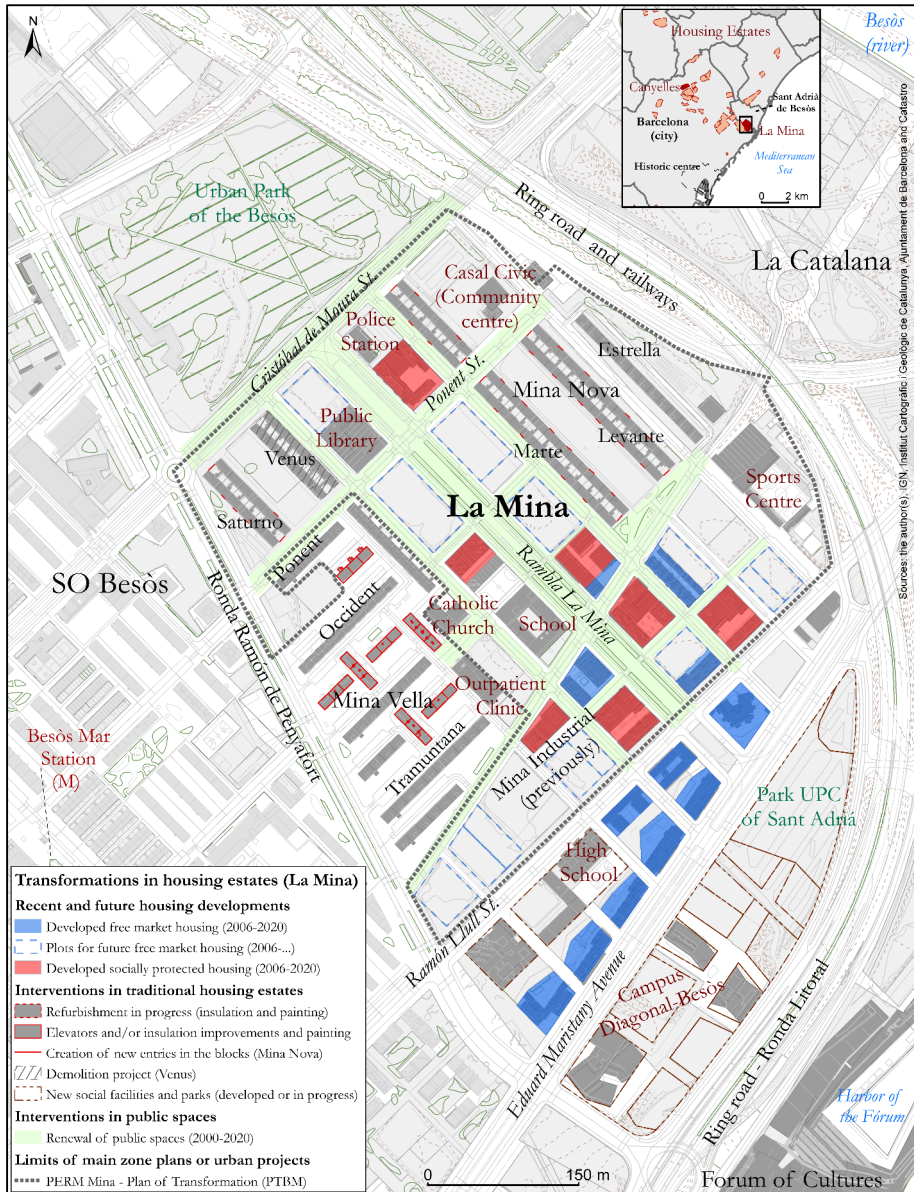


**Fig. 1** Some light interventions in public spaces and incorporation of external elevators in two original blocks of La Mina Vella. Source: the authors, February 2019

Citizen participation activities have gone beyond just validating the urban plan. The project was presented to residents and users several times at different phases, and some active members of civic and neighbourhood associations successfully obtained changes to the initial plan. Citizens insisted on having a direct connection between the neighbourhood and the seafront, which has been afforded by the extension of the axis of the *rambla de La Mina*. The location of some public facilities—including the school and sports centre—were changed after residents pointed to ways of improving accessibility and safety. One of the key parts of the plan and an important part of the activities of the CBM since 2015 has been the realization of a programme for social inclusion. The extension of the programme managed by the consortium is aimed at obtaining social and economic targets.

Some of the changes in ownership structure and land uses clearly conditioned the strategies for dealing with physical decay. Figure 2 represents the transformation of the urban fabric of La Mina since the beginning of the PTBM plan. The construction of the new central axis of the *rambla*, and the demolition and redevelopment and of some public services opened up the neighbourhood. This also involved the relocation of some public services, including the sports centre and the school, resulting in a significant improvement to social welfare facilities. The CBM adopted an incremental strategy, involving changes in the structure of property, land uses and plot readjustments, and a partial relocation of residents.

The plan for the renewal of La Mina, the PERM (2002), proposed a requalification of the industrial zone (Mina Industrial) close to the sea front, in order to develop a mixed-use scheme of buildings (commercial activities, and private and social housing). Following one



**Fig. 2** Main physical interventions including land readjustment and a strategy of types of housing within the plan of transformation of La Mina. Sources: the authors, based on documents provided by Llop, Jornet and Pastor (2008); and López de Lucio (2009)

of the main ideas of the regeneration plan, the CBM sought to recreate social and economic dynamism in the new central public space: *la rambla de La Mina*.

A part of the financial input for the CBM was based on the sale of expropriated and requalified plots of land. Planners and the CBM undertook the procedure of expropria-

tion and plot readjustment. The CBM acquired some plots on both sides of the new axis of *rambla* in order to pursue the urban development. After demolition, a number of real estate developers took on parts of a mixed scheme. While the social housing element was completed by the CBM, lack of investment due to the financial crisis brought the construction of private housing to a halt in the locations in the closest part of this axis to the original blocks of the housing estates. Even if some undeveloped plots have been sold and became part of “toxic” assets of banks, the CBM has retained ownership of most of the undeveloped plots, with the intention of disposing of them in more favourable market conditions. This has required the CBM to increase its bank loans in order to finance the last phases of housing redevelopment.

A number of radical interventions were also decided but not accomplished, notably the demolition of 350 housing units comprising Venus, a problematic block in terms of decay and social problems, and a part of two other blocks. These demolitions were planned in order to open passages through the larger developments, and improve accessibility between blocks, public space and safety. This was delayed or dismissed by the limited budget after the crisis and strong opposition by a number of the residents of these buildings. While the local administration has retained the demolition order, the relocation of residents is currently the subject of a legal dispute. The conflict between the CBM and the residents relates to the right and means of access to the new social housing. The attribution of social housing is a long-standing issue, which predates these interventions. Some residents of Venus claim rights of access to the new social housing in other parts of the neighbourhood in exchange for their demolished apartments. The administration has offered the residents the difference in price between the old housing units in Venus and the new socially protected units as compensation. In 2017, before the attribution of these dwellings and the final court verdict, some former residents of the neighbourhood started an illegal occupation of part of the recently built social housing units<sup>6</sup>.

In order to address the main urban and social problems, the planners proposed a social mix strategy based on two main factors. First, a dispersion of the ‘conflictual’ families in the neighbourhood. The term ‘conflictual’ families is used in order to translate how the interviewees referred to dysfunctional families involved with frequent anti-social behaviour, illegal activities and/or crime. According to one planner interviewed:

Venus, despite being smaller [than the other blocks of La Mina Nova], didn’t work ... it was the only place where you had a sense of insecurity, an aggressive look. There were two options (...) (1) we isolate them (...) (2) we proposed and I believed that (...) if we took out one of the 2 parts [blocks of Saturno and Venus]: we affected this one here [pointing to the block of Venus], the other block was integrated into a park, cultural centre... Quantitatively, there were 240 families that remained here (in the block proposed for demolition). And this [population] we’d distribute them among the houses: we’d dissolve the conflict a little in the seven blocks of socially protected

<sup>6</sup> These occupations of apartments appear in the newspapers and a process in the court of law has been initiated: <https://www.elperiodico.com/es/sociedad/20170713/el-consorcio-de-la-mina-denuncia-la-ocupacion-de-unos-40-pisos-de-proteccion-6165831>, consulted in February 2019. According to some direct interviews during the fieldwork in March 2019, these occupations continue.

housing that were going to be produced later. (Urban planner who conceived and followed the implementation of the PTMB) <sup>7</sup>

The second factor was that the plan of transformation proposed a mix of tenures in housing and in terms of a targeted social composition of residents. Planners conceived a strategy of promoting the arrival of middle and upper-class families in order to introduce a greater diversity in the social composition of the neighbourhood:

We proposed to demolish approximately 350 homes and the plan proposed 1100 more homes, that is, it is a great change in the sense that La Mina does not displace anyone, La Mina incorporates a different population. (Urban planner who conceived and follow the implementation of the PTMB)

Outside of the zone of the PTBM and the PERM, a high school has recently been built and another consortium of local public administrations (Consorci del Besòs, CB) has led the development of an inter-universities campus and a new park on the seafront (Fig. 2). Private developers have produced housing for offer on the free market. This conforms to the area



**Fig. 3** Recent upper-class housing developments in La Mina's seafront. Source: the authors, February 2019

<sup>7</sup> This extract and the following ones from interviews or focus groups have been translated by the authors from Spanish.

of the new waterfront of the neighbourhood of La Mina. The prime location and the quality and size of the apartments determine very high prices in relation to the incomes of the population of the neighbourhood. These new developments have attracted mainly the middle-upper class and multi-ethnic new comers (Vila Vázquez, 2020). Luxurious plots on the waterfront, such as the tower in Fig. 3 with its rooftop swimming pool, contrast dramatically with the undeveloped plots located only some meters away in the interior of the neighbourhood. Housing is the main land use in the master plan for these vacant plots. The CBM has ownership of only a part of this site, most of which is owned by a mix of owners including banks and hedge funds. The development of these plots therefore depends on the investment decisions of different stakeholders. In our interviews with a number of long-term residents, they often claimed that these new developments and the newcomers are not becoming an integrated part of the quarter:

[The inhabitants of the new buildings, they are] totally, totally disconnected from here! They only want to know from Ramón Llull street to Eduardo Meristany St. and to the Forum [of Cultures]. But here, at the core of La Mina, they don't even come to buy some water. (Long-term resident of La Mina)

This global social mix strategy implies a combination of the three types of urban layouts described by Lelévrier (2013) for the French case: (1) new public and private housing developments in the central part of the neighbourhood in an alternated spatial disposition; (2) several co-residences between relocated long-term neighbours and new comers in blocks with a mix of tenures. Finally, even if the area of the Forum is outside the initial plan of transformation, (3) is it closely related to the latter one and the zoning plan enables developers to produce private housing developments on the edge of La Mina. The realised buildings are taller than the rest of the inland developments, and constitute a new barrier between the heart of the neighbourhood and the seafront.

The area next to the Forum of Cultures and the seafront has experienced a radical social transformation. This includes the arrival of newcomers with higher educational levels (a 51.6% increase in the number of residents with tertiary studies between 2001 and 2011)<sup>8</sup> and corresponding incomes. This represents a gentrification process along the waterfront. An analysis of their perceptions shows a gentrification process that produces new forms of residential segregation, in an area comprising multiple divisions and overall discontinuity. A degree of segregation exists in spatial practices and representations that it is explained by social criteria at the scales of the neighbourhood and blocks:

In the neighbourhood, each street marks a lot, it is a border. (...) From there to there is a border [the street], from here to there is a border [La Mina Vella and La Mina Nova]. And now the new [developments]... another border (...) social situations of each family [... that they are different] mark the building. Each one gets used to where he lives and moves just what is necessary. It is marked how the building works: people with money, with a base and rules, are not the same as people with little money, little

<sup>8</sup> The included statistic values are calculated by the authors, based on official data from the Spanish Statistical Office (INE): <https://ine.es/>, and from the Statistics of the municipality of Barcelona: <https://ajuntament.barcelona.cat/estadistica/angles/index.htm>, both consulted in November 2020.



[educational] base and without any norms and without the strength of the administration. (Long-term resident of La Mina)

In nearly all of the interviews conducted with residents, institutional actors and workers, the drugs market emerged as the biggest problem in public space and a critical issue for the liveability of this neighbourhood. This situation is visible and measurable in certain public spaces and some residential blocks, and the increasing activity in La Mina is directly related to the policial pressure which displace this illegal activity from the central and more visible neighbourhoods in the historical centre of Barcelona. Long-term social programmes focused on sensitive social groups (children, women, etc.) have produced significant improvements in education level, social behaviour and conditions, even if the situation is nowadays far from being ideal. Despite the actions of social programmes and the efforts of the complex network of civic associations and local residents, a strong stigmatization and marginalization of La Mina continues (Aricó, 2015). A permanent social problem is reflected in indicators such as: the low level of median incomes in relation to the metropolitan area (it represented 50% of the metropolitan indicator in 2017), and very low levels of educational attainment (32% of over 18 years old had not attained the basic level of education, in 2020).

The social profile of La Mina currently shows a growing segregative duality: on the one hand, 'conflictual' families that continue to live in the original blocks of the neighbourhood, and people in a situation of intense poverty; and on the other hand, the newcomers having a much higher social class living in the private residential developments near to the seafront. This situation appears clearly in the degree of polarisation in terms of incomes (the 8th decile being between 3.5 and 4 times higher than the 2nd decile), and a spatial inequality in median individual incomes between the census tracts. In 2017, the census tracts near the Forum and the seafront had values of median individual incomes more than two times higher than the tract corresponding the core of this neighbourhood.

## 5.2 Canyelles: Physical interventions and progressive social change

Two decades after the inauguration of Canyelles, neighbourhood groups demonstrated in order to demand that the municipality of Barcelona provide essential public facilities and services (from paved routes to access to schools) to cover the basic needs of the residents. A number of projects that were developed between the 1980 and 2000s by the local actors were focused on two main issues. First, specific interventions were realized in the blocks and towers of Canyelles for solving structural issues of stability and insulation, without success notably in the latter aspect. Secondly, successive projects were aimed at improving accessibility and the overall image of the neighbourhood. New features included: underground parking, the arrival of the subway, a partial recovering of the ring road, and a partial realization and renewal of public spaces. Between 1994 and 1998, local government undertook the laying out of the central park of Canyelles, the main green public space of the neighbourhood, where the initial plan for these estates indicated the development of a new residential block.

The problems on the residential blocks were followed by persistent attempts by the neighbours' association to obtain a full diagnosis of the structural problems of the estate. The outcome of this local activism was the realization of two plans by two agencies of architecture for the local authorities of the district: a colour plan for the estate (2009), and a

diagnosis and plan for the refurbishment of the entire publicly developed parts of the estate (from 1995 to 2008), both implemented during the main refurbishment programme.

Following the trend initiated by the Catalan law for the regeneration of declining neighbourhoods, in 2006, a new project of refurbishment for three selected housing estates was promoted with special aid from the Catalan government. A convention between the municipality (IMHRB), contributing 25% of the total funds, the regional government (AHC) contributing 60% of the total cost, and home owners on the estates enabled a refurbishment project from 2009. Residents of each block had to agree to pay 15% of the total cost for the development of the project. After securing partial funding from different multi-level public actors, the AHC coordinated the project of refurbishment of the blocks and towers in seven different phases. The project included treatment of the material decay of the structures, insulation and repainting of the facades following the colour plan for the neighbourhood.

In late-2020 these projects were at mid-term, which represents a considerable delay relative to the initial schedule. Nevertheless, the problems of concrete carbonisation of the façades and the problems of insulation have progressively been solved (Fig. 6). The housing has been given a modern outward appearance thanks to the repainting of the façades and roofs with warm and vivid colours (Fig. 4). In one part of the estate, a public-private partnership chose block A16 to realize a pilot project for improving the energy efficiency of housing units at the same time than the development of the refurbishment project (Fig. 6). This project consists of adjustments to shading elements, metallic carpentry (windows, doors



**Fig. 4** Refurbishment of the towers of Canyelles. Sources: the authors March 2019

and floor coverings), boilers, water taps and the installation of a home energy monitoring system. These modifications have resulted in savings of over 30% on heating and cooling<sup>9</sup>.

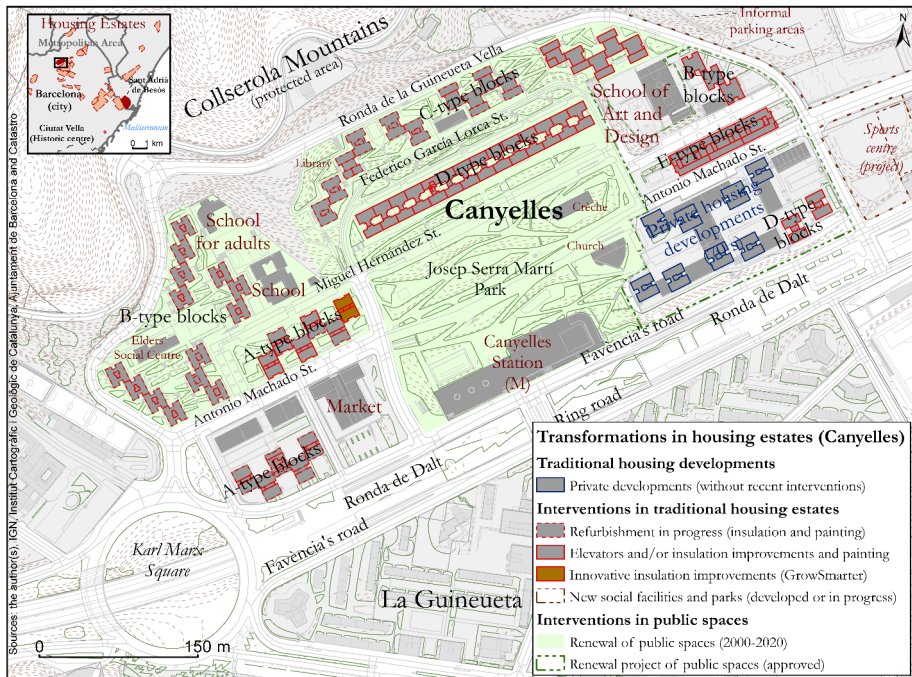
Since the last years of the 20th century, different projects for the renewal of public spaces have been promoted, amongst others, by the local development company of the district, Pro Nou Barris. Since 2012, the projects have been managed by the department of infrastructure (BIMSA) together with the district (Fig. 6). These projects included some landscaping interventions aimed at greening the western part of the quarter. These physical changes constituted a significant improvement to accessibility for persons with reduced mobility, consequent on the introduction of new ramps without lateral walls, and elevators along steep slopes on the estate.

In 2017, the district and BIMSA proposed a new programme of requalification of public spaces in different phases in order to include the western parts of the neighbourhood developed since the 2000s. The urban design project for this last phase concerns the eastern part of the estate. This was initially approved in 2020, but has not yet been initiated. This project includes important adaptations in terms of reordering mobility (promoting soft mobility and reducing parking zones), improvements to accessibility (ramps and elevators), and the incorporation of new street furniture, lighting and games in public space. These are aimed at adapting public spaces in accordance with the new politics of inclusion for the young and elderly, and a gender-informed approach to increasing security (Figs. 4 and 5). A considerable improvement in the quality of public spaces and in mobility within the neighbourhood



**Fig. 5** Project of renewal of urban spaces, with an image of a future urban elevator. Sources: 3D rendering of MVAPM, im3 and BIMSA, 23<sup>rd</sup> October 2018 (working document provided by the agencies MVAPM and im3)

<sup>9</sup> This factual data has been provided on published concluding reports of the European research project of the Horizon 2020 programme: GrowSmarter: [https://grow-smarter.eu/fileadmin/editor-upload/Reports/GrowSmarter\\_Concluding\\_Report\\_WP2.pdf](https://grow-smarter.eu/fileadmin/editor-upload/Reports/GrowSmarter_Concluding_Report_WP2.pdf), consulted in January 2019. Information also provided by the interviewed architects leading the refurbishment of the neighbourhood.



**Fig. 6** Map of the urban transformation of Canyelles since the late 1990s, including the current refurbishment of housing estates and the renewal of public spaces. Sources: the authors, based on the documents provided by the Department of Housing of Catalonia, the planning documents of Canyelles and the agency of architecture MVAPM

will be achieved. Furthermore, their designs and materials seek to preserve the coherence of these spaces in relation to the rest of the quarter. These kinds of interventions respond to specific, successive and place-specific physical interventions, that adapt the large open spaces of Canyelles to the new urban trends, making the area increasingly attractive to residents.

Finally, on the eastern edge of the neighbourhood and in the limits of the protected area of the Collserola Mountains and the neighbourhood of Les Roquetes, a site of informal parking in the district of Nou Barris will possibly be transformed into a mixed functional and sustainable project to counter existing deficits in public facilities (Fig. 6). The winning project of the urban planning competition<sup>10</sup> includes areas for a multisports centre (an historical revindication of the neighbours association, never accomplished), communal green gardens and activities related to the ecological transition. The entire plan for this area is currently under discussion and this urban project, mainly based on municipal plots, seems far from being undertaken.

The urban planners' analysis of projects points to a lack of coordination between the refurbishment programme (coordinated by the regional Department of Housing of Catalonia -AHC-), and the different projects of renewal of public space, under the supervision of the local actors of the District of Nou Barris and the municipal agency: BIMSÀ. The reorgani-

<sup>10</sup> This competition is realised by European 14, in 2017: <https://www.european-union.eu/en/news/e14-sites-barcelona-canyelles-es>, consulted in March 2019.

zation of the entities related to the city of Barcelona calls for more effort when following the guidelines for the different thematic departments of the municipality. These changes also generated difficulties accessing documents for the renewal of public space, which hampered the coordination of the new and precedent phases of the renewal by the urban designers.

In terms of the governance of these urban interventions, the association of neighbours plays a key role in the participatory process, and it is the place for discussing and organising collective contestations. Residents' claims focus on the development of public facilities and services, and progress towards the promised renewal of public spaces. Their comments on car parking needs, made during the participatory process of the last project for renewal, obtained a less significant reduction of the parking zones in the current proposal.

Concerning the refurbishment in the residential blocks, although the leadership of AHC in this programme, the role played by the residents representing each block in accomplishing the mission was frequently underlined in interviews with the authors. Even if some residents were initially not too enthusiastic about some aspects of the proposed refurbishment, the verified improvement in the structure of the housing estate has generated their complete agreement with these transformations. Some of them even wail that the pilot project of GrowSmarter could not have been proposed for other buildings in the neighbourhood.

During the realization of the indicated transformations in Canyelles, the indicated initial social problems and the negative image generated of the neighbourhood have been progressively erased, notably since the mid-1990s. In that sense, long-term residents highlighted the displacement of several 'conflictual' families as a key turning-point:

'Conflictual' families [*familias conflictivas*] were in the neighbourhood, there are still some of them. They were in conflict with each other and inside the houses. The houses were sold, they left, they returned to the slums [*barracas*]. (...) When we saw that people became aware of what Canyelles was, people began to defend Canyelles, they confronted the families and cornered them. And they [these 'conflictual' families] realized that they had lost their strength, that no one feared them anymore (...) [this] made all these people either leave or be excluded. (Long-term resident of Canyelles).

The interviewed long-term residents of Canyelles indicate how the interventions in the quarter in terms of accessibility, public spaces or public services contribute to increase the identification of people with the neighbourhood and its image becomes more attractive. The result is that people tend to stay longer in the neighbourhood until older ages, and a small process of social substitution is operated with families of higher incomes. In that sense, neighbours point that housing rents have increased in Canyelles and they are now much higher in the quarter than in other working-class surrounding areas:

In other neighbourhoods, such as Les Roquetes, the rent is 450–550 euros. Meanwhile, in Canyelles, rare is the rent that falls below 800 euros. And [Les Roquetes] is here next door (...) Here most of us are all owners and then when a person dies, what I told you before, generally, the heirs, either come to live or rent and they are the ones we have more or less. We do not have immigration, very little. (Long-term resident of Canyelles).

Current inhabitants built their identification with the neighbourhood of Canyelles over the years and now they are proud of its liveability, and these facts contribute to an enhanced attractiveness for future residents. Therefore, this situation could explain a certain stability in the spatial trajectory of the residents and owners. In fact, data on incomes indicate values of internal inequality inferior to those of the city of Barcelona, what represents a certain homogeneity inside the neighbourhood. Meanwhile, some of the ancient neighbours of the traditional blocks of La Mina indicate that they would like to leave this area in case they had the economic means to do it. This could partially explain the difference between those two neighbourhoods: an increasing median age of the inhabitants in Canyelles, meanwhile in other ancient housing estates such as La Mina, they have a much younger demographic composition.

Canyelles has changed its social profile since its initial development in terms of incomes, level of education, aging and household composition. This neighbourhood, in a traditional working-class district of Barcelona, has a median level of incomes by individuals that is slightly inferior to the same indicator for the metropolitan area in 2017 (18,550 euros/year for the neighbourhood, and 18,750 euros/year for the metropolitan area). There is a lower degree of inequality of incomes at the scale of census tracts for this neighbourhood than in the rest of its district or the entire city of Barcelona. This is shown by the Gini Index (inferior to 30 for Canyelles) and the ratio between deciles 8 and 2 indicate (around 2.5 times the income value of these deciles). The observed changes also include an improvement in the education level of the population (16 years or more in 2020), with an increasing share of university-level education (13.2%), and a higher and increasing proportion of elderly inhabitants than on other housing estates. The number of people by housing unit is also inferior to other neighbourhoods of the district of Nou Barris and other neighbourhoods such as La Mina. Internal differences can be observed in the neighbourhood: the private developments in the south-east show residents with higher median values of income (22,050 euros/year in 2017) than the rest of the quarter.

## 6 How can the experience of Barcelona help to inform other contexts?

From our analysis it emerges that housing estates are heterogeneous, even within one city region adopting the same overall policy of social housing provision. Diversity in Barcelona comes through in the ways in which individual estates and parts of estates were assessed, managed, progress reviewed and outcomes appraised. The mix of residents and their participation in each of these stages and at different scales help to account for some of the diversity. This has to be added to the diversity of public, para-public and private actors to be found in each of the case studies. This heterogeneity is a further warning against the adoption of a one-size-fits-all approach to urban neo-liberalism, and instead the need to approach urban governance under neo-liberalism as being complex, nuanced and contingent (Wilson, 2004).

The outcomes of long-term urban regeneration in Canyelles and La Mina show that a number of improvements have been achieved through various strategies of requalification. These include enhancing interconnections between the estates and other parts of the metropolis through innovative and efficient modes of transportation (tram, metro), as well substantial upgrading in terms of maintenance, architectural aesthetics and quality of public space. New housing has been developed in nearby areas, and a number of essential services—such

as cultural centres, libraries, sport facilities and a university campus—have been provided. Degrees of liveability and the reputation of estates are, however, less amenable to physical adjustments, and many of the new functions have not been integrated so as to guarantee equal access across all parts of the community. These will continue to be dependent on the socio-demographic characteristics of residents, different forms of tenure and the commitment of neighbourhood associations to engage with and call into question the policy procedures of urban governance.

Experience from the metropolis of Barcelona shows that housing and neighbourhood regeneration must take into account the structure of home ownership and the social profile of residents. Adaptation to these specificities will contribute to the success of urban refurbishment and regeneration programmes. Reflection on the governance of the types of projects and the social transformations that have already taken place has also to be considered. In the light of these twin groups of conditioning variables, we present four insights.

**Governance.** Even if citizens participated in the urban regeneration projects of the Barcelona housing blocks, the projects' governance and management was focused on a top-down approach. This is consistent with observations on other estates in Barcelona (Mugnano et al., 2005). The reorganization of the relations between public stakeholders and their role in urban transformation reflect a general trend of liberalisation. In the case studies presented in this article, this involved the multiplication of partnerships and the evolution of the governance of the institutions responsible for public housing. It also involved the redefinition of the public sector's role relative to that of the market in terms of welfare provision. Nevertheless, the case studies also exhibit a diversity of situations in the same metropolitan region.

The innovation of stairwell or block representatives elected by residents, helped to slim down procedures and avoided the multiplication of exchanges with individual tenants. This served to effectively convey the specific problems of apartment or block residents further up the governance structure, allowing people lacking the skills or confidence in the operation to have representation. Residents, managers and technicians valued the creation of this intermediate figure between residents and community president for the transmission of information and the best management of rehabilitation projects.

**Property structure.** A property structure characterized by deferred access to housing requires negotiation on structural or light interventions with the communities of owners or future owners. The housing estates in the countries of southern Europe that are fully considered as social housing represent a very small proportion of the total stock of housing. This implies that the capacity of public entities to carry out structural renovation for the blocks is reduced because they are not in public ownership. If the housing blocks still have public property because the residents have not yet obtained ownership of their home, a refurbishment programme can be established. Neighbourhood consultation will help to both identify the main problems and ensure collaboration. In the event that the ownership of the homes has passed into the hands of the occupants, obtaining the agreement of the communities on structural arrangements is even more important as it will help guarantee the permanence of residents in their homes, thereby avoiding social displacement.

***Social profile.*** The social profile of neighbourhoods conditions (sometimes hindering) the implementation of structural transformations of housing blocks. In cases in which social marginality and stigmatization are profound, it would be necessary to carry out a social programme prior to and then simultaneously with the physical transformations. Maintaining these social programmes over time is essential for social changes to take place. In neighbourhoods with serious social problems, minor interventions in housing blocks are less effective and lasting due to the persistence of forms of incivility and marginal activities that advance the degradation of what is built. Current social programmes fail to attract newcomers, which further contributes to the weakening of social integration. In more socially cohesive housing estates, the effects of structural and light improvement programmes for buildings and public spaces are more long lasting. By contrast, projects of structural transformation of blocks that involve rehousing residents, generate unsettling situations, tensions or social conflict.

***The gentrification/stigmatization paradox.*** The financial solutions for budgetary balance in neighbourhoods with housing estates through reclassification of the land (brown or green) and the construction of new housing based on mixed residential use can generate a process of administratively-led gentrification. This can result in new forms of segregation due to the arrival of incomers from higher social classes who do not identify with the neighbourhood. They do not contribute to solving the social problem, and as Fernández Arrigoitia (2018) indicates, this process can lead to mounting social tensions. The stigmatization process constitutes one of the factors that would explain uneven urban development between different parts of neighbourhoods such as that of La Mina. The plots located near the initial housing blocks do not have buyers or their development will take place later than that of the plots in proximity to other neighbourhoods and the seafront. Nowadays, there are not enough social programmes capable of helping to fill the spatial and social gaps between newcomers and working-class long-term residents. These gaps were mainly the result of the regeneration programmes not having sufficiently addressed the vicious cycle of deep social problems. The fight against the negative, over-simplified and stigmatized image of these neighbourhoods must constitute one of the main axes of long-term social action programmes. In this way, the individualized visibility of each of these neighbourhoods constitutes an effective means by which to demonstrate the diversity of its inhabitants, the quality of housing and urban spaces, and the opportunities linked to its location and accessibility.

Meaningful regeneration projects should not only take into account the historical and territorial context of the area but also need to address the involvement of future users during the stages of plan formulation and implementation so as to ensure favourable mid- and long-term outcomes. However, even if strategies of renovation are innovative, well designed and carefully implemented they cannot alone address long-term marginality. Radical anti-austerity struggles for the right to the city have impacted on Spain, leading to political changes at municipal level. In the case of Barcelona, the coalition led by Ada Colau points the way to 'new municipalism', the workings of which are constrained by the powers accorded to city government and the financial constraints of austerity. This article has demonstrated how the regeneration of large housing estates in Barcelona has been driven by a range of stakeholders and local interactive policies. This focus on interest-based actions at the local level would benefit from a parallel examination of how broader ideological and party-political pressures impact on policy formation and implementation. As the chronic



shortage of public housing continues to be aggravated by land banking due to financial uncertainty, policies addressing social mix and improving the housing for more deprived groups of residents struggle to find a place in which to be implemented. Ambitious renovation projects, the scale and speed of implementation of which partly depend on the availability of private funds, while capable of bringing about physical spatial transformations are less suited to the development of sustainable mixed communities and may lead to processes of gentrification and new forms social divisions, as in the case of La Mina. Our empirical analysis has focussed mainly on the stakeholders and long-term residents in these housing estates. Further research could address displaced residents and newcomers in order to widen the analysis of both social dynamics and the degree of appropriation of the regeneration strategies by different groups. Empirical research on the role of diversity in the varied outcomes of large-scale projects of housing regeneration, such as that achieved in the last two decades in ‘Barcelona Proletaria’, highlights the importance of urban fabric (social, economic and political) and the diversity of interconnected scales (local, regional, national, international). Such work, conducted in cities in southern Europe and beyond, will be a means of understanding ongoing processes of claiming, retaining, reclaiming and reimagining the right to the city in our times.

**Acknowledgements** The authors would like to thank the neighbours and the neighbourhood associations of La Mina and Canyelles, the interviewed architects, building engineers and planners, who found the time to take part in this research and provided access to their archives. We also extend our thanks to the three anonymous peer reviewers and the editors of this thematic issue for their comments on drafts of this article.

**Funding** This research was partially funded by the Cluster of Excellence Territorial and Spatial Dynamics (LabEx DynamiTe) and the UMR 8504 Géographie-cités, University of Paris 1 Panthéon-Sorbonne.

**Ethics and conflicts of interest declaration** No potential conflicts of interest are reported by the authors.

## References

- Aalbers, M. B. (2017). The variegated financialization of housing. *International Journal of Urban and Regional Research*, 41(4), 542–554. <https://doi.org/10.1111/1468-2427.12522>
- Ajuntament de Barcelona. (n.d.). Pla de Barris de l’Ajuntament de Barcelona: Pla de xoc vers les desigualtats dins la ciutat. Accessed 11 July 2021 <https://pladebarris.barcelona/ca/inici>. Accessed 11
- Allen, J., Barlow, J., Leal, J., Maloutas, T., & Padovani, L. (Eds.). (2004). *Housing and welfare in Southern Europe*. Malden, MA: Blackwell Publishing: Oxford
- Arbaci, S. (2018). *Paradoxes of segregation: Housing systems, welfare regimes and ethnic residential change in southern European cities*. Hoboken, NJ: John Wiley & Sons
- Arbaci, S., & Tapada-Berteli, T. (2012). Social inequality and urban regeneration in Barcelona city centre: Reconsidering success. *European Urban and Regional Studies*, 19(3), 287–311. <https://doi.org/10.1177/0969776412441110>
- Aricó, G. (2015). *La pacificación de la periferia. Conflictividad social y regeneración urbana en el barrio de la Mina, Sant Adrià de Besòs (Barcelona)*. Universidad de Barcelona, Barcelona
- Balchin, P. (2013 [1996]). *Housing policy in Europe*. London: Routledge
- Blanco, I. (2015). Between democratic network governance and neoliberalism: A regime-theoretical analysis of collaboration in Barcelona. *Cities*, 44, 123–130. <https://doi.org/10.1016/j.cities.2014.10.007>
- Bohigas, O. (1985). *Reconstrucció de Barcelona*. Barcelona: Edicions 62
- Bricocoli, M., & Cucca, R. (2016). Social mix and housing policy: Local effects of a misleading rhetoric. The case of Milan. *Urban Studies*, 53(1), 77–91. <https://doi.org/10.1177/0042098014560499>

- Cristancho, C. (2015). A tale of two crises: Contentious responses to anti-austerity policy in Spain. In M. Giugni, & M. Grasso (Eds.), *Austerity and protest: Popular contention in times of economic crisis* (pp. 193–216). Abingdon, Oxon: Routledge
- Cumbers, A. (2015). Constructing a global commons in, against and beyond the state. *Space and Polity*, 19(1), 62–75. <https://doi.org/10.1080/13562576.2014.995465>
- Davies, J. S. (2017). *Governing in and against austerity: International lessons from eight cities*. Leicester: De Montfort University, Available at SSRN <https://ssrn.com/abstract=3023953>
- Davies, J. S., & Blanco, I. (2017). Austerity urbanism: Patterns of neo-liberalisation and resistance in six cities of Spain and the UK. *Environment and Planning A: Economy and Space*, 49(7), 1517–1536. <https://doi.org/10.1177/0308518X17701729>
- de Solà-Morales, M. (2008). *Diez lecciones sobre Barcelona: los episodios urbanísticos que han hecho la ciudad moderna: urbanistic episodes that have made the modern city = Ten lessons on Barcelona*. Barcelona: COAC, Col·legi d'Arquitectes de Catalunya
- Fernández Arrigoitia, M. (2018). The gentrification of social housing. In L. Lees, & M. Phillips (Eds.), *Handbook of gentrification studies*. Cheltenham, UK: Edward Elgar Publishing
- Ferrer, A. (2010). Barracas y polígonos de viviendas en la Barcelona del siglo XX. In M. Tatjer, & C. Larrea (Eds.), *Barracas: la Barcelona informal del siglo XX* (pp. 61–79). Barcelona: MUHBA, Museu d'Història de Barcelona
- Ferrer, A. (1996). *Els polígons de Barcelona*. Barcelona: Edicions UPC
- García, S., Oliveira, V., Monclús, J., & Díez Medina, C. (2020). UR-Hesp: A methodological approach for a diagnosis on the quality of open spaces in mass housing estates. *Cities*, 103, 102657. <https://doi.org/10.1016/j.cities.2020.102657>
- Generalitat de Catalunya. (2006). *Llei 2/2004 de 4 Juny, De Millora De Barris, Àrees Urbanes I Viles Que Requereixen Una Atenció Especial*. Barcelona: Departament de Política Territorial i Obres Públiques
- Harloe, M. (1995). *The people's home? Social rented housing in Europe & America*. Oxford, UK; Cambridge, USA: Blackwell
- Hess, D. B., & Tammaru, T. (Eds.). (2019). *Housing estates in the baltic countries: The legacy of central planning in Estonia, Latvia and Lithuania*. Cham: Springer International Publishing
- Hess, D. B., Tammaru, T., & van Ham, M. (Eds.). (2018). *Housing estates in Europe: Poverty, ethnic segregation and policy challenges*. Cham: Springer International Publishing
- Lanero, D. (Ed.). (2020). *De la chabola al barrio social. Arquitecturas, políticas de vivienda y actitudes sociales en la Europa del Sur (1920–1980)*. Granada: Editorial Comares
- Lelévrier, C. (2013). Social mix neighbourhood policies and social interaction: The experience of newcomers in three new renewal developments in France. *Cities*, 35, 409–416. <https://doi.org/10.1016/j.cities.2013.03.003>
- Llop, C., Jorret, S., & Pastor, J. E. (2008). El Plan especial de transformación urbana del barrio de La Mina, premio nacional de Urbanismo. *Urban*, (13), 166–169
- López de Lucio, R. (2009). *Ordenar el territorio: proyectar la ciudad: rehabilitar los tejidos existentes: la relevancia del planeamiento a través de los Premios Nacionales de Urbanismo, 2004, 2005, 2006*. Madrid: Gobierno de España, Ministerio de Vivienda
- Monclús, J., & Díez Medina, C. (2016). Modernist housing estates in European cities of the Western and Eastern Blocs. *Planning Perspectives*, 31(4), 533–562
- Monclús, J., Díez Medina, C., & García-Pérez, S. (2018). Modernist mass housing in Europe: Comparative perspectives in Western and Eastern Cities (1950s–1970s). *Urban visions* (pp. 67–78). Cham, Switzerland: Springer
- Montesinos, E., Puig, M., Ruiz, I., & Llovet, M. (2014). El control sobre la rehabilitación de las periferias metropolitanas: análisis del Plan de Transformación del Barrio de La Mina en Barcelona. *Scripta Nova. Revista electrónica de geografía y ciencias sociales*, 18(493), 1–17
- Mugnano, S., Pareja-Eastaway, M., & Tapada-Berteli, T. (2005). Building partnerships in Spanish and Italian regeneration processes. *Restructuring large housing estates in Europe: Restructuring and resistance inside the welfare industry* (pp. 211–229). Bristol: Policy Press
- Musterd, S., Murie, A., & Kesteloot, C. (Eds.). (2006). *Neighbourhoods of Poverty*. London: Palgrave
- Nel-lo, O. (2018). Hacer la ciudad metropolitana: segregación residencial y políticas urbanas en el ámbito metropolitano de Barcelona. *Ciudad y territorio: Estudios territoriales*, L(198), 697–715
- Observatori Metropolità de l'Habitatge de Barcelona (2018). *L'habitatge a la metròpoli de Barcelona* (p. 57). Barcelona: Observatori Metropolità de l'Habitatge de Barcelona. [https://www.ohb.cat/wp-content/uploads/2019/07/Habitatge\\_metropolis\\_2018.pdf](https://www.ohb.cat/wp-content/uploads/2019/07/Habitatge_metropolis_2018.pdf). Accessed 23 March 2020
- Padovani, L. (2013). Italy. *Housing policy in Europe* (pp. 188–209). London: Routledge
- Pareja Eastaway, M., Berteli, T., Van Boxmeer, T., B., & Garcia Ferrando, L. (2005). *Large housing estates in Madrid and Barcelona, Spain; Success and fail factors of policies*. Utrecht: Faculty of Geosciences, Utrecht University

- Pareja-Eastaway, M., & Sánchez-Martínez, T. (2017). Social housing in Spain: what role does the private rented market play? *Journal of Housing and the Built Environment*, 32(2), 377–395. <https://doi.org/10.1007/s10901-016-9513-6>
- Petsimeris, P. (2018). Social and Ethnic Transformation of Large Social Housing Estates in Milan, Italy: From Modernity to Marginalisation. In D. B. Hess, T. Tammaru, & M. van Ham (Eds.), *Housing Estates in Europe: Poverty, Ethnic Segregation and Policy Challenges* (pp. 265–288). Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-92813-5\\_12](https://doi.org/10.1007/978-3-319-92813-5_12)
- Pinder, D. (2004). Commentary—writing cities against the grain. *Urban Geography*, 25(8), 792–795. <https://doi.org/10.2747/0272-3638.25.8.792>
- Rolnik, R. (2013). Late neoliberalism: The financialization of homeownership and housing rights: Debates and developments. *International Journal of Urban and Regional Research*, 37(3), 1058–1066. <https://doi.org/10.1111/1468-2427.12062>
- Rolnik, R. (2019). *Urban warfare: Housing under the empire of finance*. London: Verso
- Rowlands, R., Musterd, S., & van Kempen, R. (Eds.). (2009). *Mass housing in Europe*. London: Palgrave Macmillan UK
- Sainz Gutiérrez, V. (2011). Repensar la vivienda, reinventar la ciudad. La transformación del barrio barcelonés de La Mina. *Proyecto, Progreso, Arquitectura*, (5), 108–157. <https://www.redalyc.org/articulo.oa?id=517651585008>
- Scanlon, K., Fernández Arrigoitia, M., & Whitehead, C. (2015). Social housing in Europe. *European Policy Analysis*, 17, 1–12. <http://eprints.lse.ac.uk/62938/>
- Tatjer, M., & Larrea, C. (Eds.). (2010). *Barracas: la Barcelona informal del siglo XX*. Barcelona: MUHBA, Museu d'Història de Barcelona
- Tena Gómez, P. (2010). *Universalidad y adecuación en la obra de LIGS. Pedro López Iñigo, Guillermo Giraldez Dávila y Xavier Subias Fages 1956–1966*. Barcelona: Universitat Politècnica de Catalunya
- van Beekhoven, E., van Boxmeer, B., & García Ferrando, L. (2005). Local participation in Spain and the Netherlands. *Restructuring large housing estates in Europe* (pp. 231–255). Southampton: The Policy Press
- van Kempen, R., & Bolt, G. (2009). Social cohesion, social mix, and urban policies in the Netherlands. *Journal of Housing and the Built Environment*, 24(4), 457–475. <https://doi.org/10.1007/s10901-009-9161-1>
- van Kempen, R., Dekker, K., Hall, S., & Tosics, I. (2005). *Restructuring large housing estates in Europe: Restructuring and resistance inside the welfare industry*. Bristol: Policy Press
- Verdaguer Viana-Cárdenas, C., & Velázquez Valoria, I. (2011). *Regeneración urbana integral Tres experiencias europeas innovadoras: Île de Nantes, Coin Street y Barrio de la Mina*. Madrid: E.T.S. Arquitectura (UPM)
- Vila Vázquez, J. I. (2020). Les limites de la requalification des espaces publics dans une périphérie métropolitaine stigmatisée: le quartier barcelonais de la Mina. *Geotema*, 62, 130–141.
- Wilson, D. (2004). Toward a contingent Urban neoliberalism. *Urban Geography*, 25(8), 771–783. <https://doi.org/10.2747/0272-3638.25.8.771>

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

## Authors and Affiliations

José-Ignacio Vila-Vázquez<sup>1</sup> · Petros Petsimeris<sup>2</sup>

✉ José-Ignacio Vila-Vázquez  
jvilavazquez@gmail.com

Petros Petsimeris  
petros.petsimeris@wanadoo.fr

<sup>1</sup> UMR LATTS—Chaire Aménager le Grand Paris, University of Paris-Est-Créteil, Champs-sur-Marne, France

<sup>2</sup> CNRS UMR Géographie-Cités, University of Paris 1 Panthéon-Sorbonne, Paris, France