

MDPI

Article

Vulnerated Urban Areas under Regeneration: Strategies to Prevent Neighborhood Expulsion in Barcelona or How to Improve without Expelling?

Gonzalo Piasek * and Pilar Garcia-Almirall

Barcelona School of Architecture, Polytechnic University of Catalonia, 08028 Barcelona, Spain; pilar.garcia-almirall@upc.edu

* Correspondence: gonzalo.piasek@upc.edu

Abstract: This article explores the negative effects of gentrification, especially in vulnerable areas of contemporary cities, by focusing on five case studies of the city of Barcelona. This relevant question is addressed here following a double strategy (quantitative and qualitative). In an attempt to engage on a debate around the scope and limitations of current urban regeneration interventions, the phenomenon of gentrification is quantified throughout time drawing from official statistics. At the same time, the voices of local entities' representatives are included to introduce a level of representation on the phenomenon. The results suggest that, even though urban regeneration strategies are absolutely necessary, especially in the more vulnerated areas, it is necessary to include more comprehensive approaches and tools that take into consideration not only the physical and urban effects of rehabilitation, but also the economic and social aspects. Thus, it may be necessary to engage in a more consequential discussion not only on how vulnerability and regeneration are theorized, measured and dealt with, but also on some less studied dimensions of the socio-urban phenomenon, such as the social capital and the social infrastructure of neighborhoods.

Keywords: urban regeneration; gentrification; social capital; social infrastructure



Citation: Piasek, G.; Garcia-Almirall, P. Vulnerated Urban Areas under Regeneration: Strategies to Prevent Neighborhood Expulsion in Barcelona or How to Improve without Expelling? *Urban Sci.* 2024, 8, 118. https://doi.org/10.3390/urbansci8030118

Academic Editors: Luis Hernández-Callejo, Sergio Nesmachnow, Pablo de Frutos Madrazo, Tigran Haas, Yu-Sheng Shen and Marcia Eugenio-Gozalbo

Received: 29 May 2024 Revised: 11 July 2024 Accepted: 14 August 2024 Published: 19 August 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Contemporary urban areas, their history and current state are not a consequence of chance or natural causes, but a result of struggles between different actors with interests and specific power to define rules and produce the cities through their interactions. According to Pírez [1], the city is a product of diverse processes, independent and still contradictory. Within this framework, economic actors are those whose activities answer to a logic of profit; political or governmental actors produce the city either in a direct or indirect way within the logic of power; actors determined by the logics of need (meaning their necessities are met outside the market or the public policy spheres) contribute via processes of self-production of the city; finally, actors moved by the logics of knowledge (scientific, technical, ideological) provide inputs that the three other actors take in order to define their own interventions. Thus, cities are a result of struggles and negotiations between these actors.

Since its very origin, sociology has studied the urban phenomenon, especially interested in the translation of social differences into the urban space. The Chicago School, especially from the 1920s and 1930s [2], is a necessary reference. From this framework on, one of the main concerns of urban studies would be around segregation, which is related to how social classes and groups are distributed among the urban space [3], as a materialization of social differences already present on a material level. Researchers have studied this phenomenon, contributing with very important findings that relate segregation to differences in income [4,5], while others have tried to disentangle the concept incorporating new variables, such as origin or ethnicity [6–8], which have also helped explain the formation of areas like ghettos [9]. This very clear separation of social groups, sometimes enclosed in

specific areas of the cities or suburbs, is a tendency that is of course not new and has been addressed usually by promoting policies towards social mixture [10,11]. More recently, authors agree that COVID-19 has led to new forms of segregation [12] whose impacts researchers are still trying to understand fully [13]. With the end of the salary-centered society, in which having a job meant a more or less stable social integration, new patterns and forms of participation in society appeared, where one could actually be in "grey" areas or spaces "in between" the traditional poles of integration and disintegration [14]. Thus, the concept of vulnerability intends to capture these situations "in the middle", that are not explainable by the integration–disintegration binomial, but as a state of being "at risk of" [15] (disaffiliation, impoverishment, losing one's stability, etc.).

Throughout time, due to the specialization of different areas of the city as well as being a result of processes of segregation, some places, especially in old city centers, but also in suburbs or *banlieues* [16] faced processes of abandonment and/or change of functions that have put them at risk of becoming more and more relegated, becoming vulnerable neighborhoods [17]. There have been many efforts in academia to measure and identify the distribution of vulnerability throughout urban areas [18–24]. At the same time, there has been a very important debate on its very conceptualization, where some explain the fact that these are not vulnerable but vulnerated [25] emphasizing the fact that there is a responsibility that is not of residents themselves, but that should be found outside these areas, and that is related to other political and economic actors' responsibilities. However, no matter the definition that is adopted, at least two things related to this phenomenon are clear: first, the fact that urban vulnerability is a multidimensional phenomenon that incorporates not only economic, but physical and social dimensions [26]; secondly, the fact that these areas of the city represent a serious challenge to urban planners, which also needs to be addressed from a multidimensional perspective [27].

In Europe, in general, where most cities are old and dense, there is no much place for growth [28] because city limits are quite established, even after the processes of suburbanization. This means that it is not possible to grow via new construction, even when there is an increasing demand of new residents as well as a need to rehabilitate, resulting in a great deal of pressure on cities that makes access to housing more and more difficult. Thus, the intervention into the existing building stock is not important, but necessary, in order to improve the habitability conditions and the quality of life of residents, especially in vulnerated areas. This is the paradigm of regeneration, renovation and rehabilitation [29] which has changed over time and has become a parading for contemporary sensible sustainable intervention. When historicizing this process, a transition is observed from actions focused on improvement in the physical characteristics of the buildings to policies that gradually incorporate new perspectives and dimensions [30]. This evolution has led to programs with a comprehensive intervention will, encompassing previously unconsidered socioeconomic and/or structural aspects [31]. These modifications are not only theoretical, but are expressed through Conventions and Acts at a European level and will not be consolidated in Spain until after the 2008 crisis [32], especially with the enactment of the "3R-Law" (of rehabilitation, regeneration and urban renewal) in 2013 [33].

This work is written within the framework of two research projects [34,35] and a doctoral thesis, which have contributed with new tools towards the measurement and identification of vulnerable areas of the city. Within these frameworks, the main goal of the paper is to analyze how the intervention and improvement in vulnerable/vulnerated areas is being addressed, and whether an anti-speculative/anti-expulsion approach is a part of the discussion. The hypothesis is that gentrification is becoming a more and more relevant issue within urban regeneration actions, especially in lower-income areas of consolidated cities. This work will thus entail a double approach (quantitative and qualitative) that will focus on the analysis of specific vulnerated areas of Barcelona (selected from previous work), reflecting on the effects that existing tools of urban regeneration have had, whilst advocating for more comprehensive and humane ways of intervention

that take into account not only the economic but also the "social gains" throughout the contemplation of the social infrastructure and social capital dimensions.

2. Theoretical and Analytical Framework

Within this research, the issue of gentrification [36,37] is a crucial point. Typically, when an area is improved, there is a risk of changing the population and altering the area's identity. This is mainly because improved spaces can undergo a valorization process, leading to increased prices, particularly in rent and local businesses [38,39]. This change in the residents' composition takes place when a certain area is "appropriated" by newcomers, usually of higher incomes, causing a more or less explicit expulsion of previous residents [40,41]. Aside from the resulting rise in prices, this phenomenon is also related to the potential presence of more vacation or tourist accommodations that can in turn place a significant strain on the rental market [42]. Thus, although there is quite a general agreement on the fact that gentrification and touristification have consequences of many kinds (cultural, economic, social, urban, etc.), their scope is something still under debate. There is also no agreement as to how gentrification should be measured and identified, mainly because it is only perceivable throughout time, making it harder to realize and prevent some of its negative effects. Some recent work suggests following the variables of rent, origin and job category [43] whilst others focus on gastronomic trends [44] and so on. What is clear is the fact that it entails a multidimensional phenomenon impacting not only on an economic but also a social level. This specific work intends to be a part of the ongoing discussion on the need to capture gentrification at an early stage, and will focus on specific vulnerated areas of the city of Barcelona.

At this point, it is also important to mention that gentrification is not only present at a local level but it is in fact a global phenomenon affecting most contemporary cities. However, its manifestations and responses vary widely across different contexts. For example, in the United States, gentrification often involves significant displacement of lower-income residents in cities like New York and San Francisco, which have implemented measures such as rent control and inclusionary zoning to mitigate its adverse effects. In the United Kingdom, gentrification has been closely linked to urban regeneration projects, particularly in cities like London. Policies like the New Deal for Communities and the Housing Market Renewal Initiative have aimed to revitalize deprived areas while attempting to balance economic growth with social equity [36]. Germany's approach to gentrification includes a strong emphasis on social housing and tenant protections. Berlin, for instance, has implemented measures such as rent caps and the prohibition of luxury renovations in specific areas. In Australia, cities like Sydney and Melbourne have seen significant gentrification, often linked to broader economic restructuring and globalization. Across these examples, the impacts of the implemented measures still continue to be debated.

Furthermore, this work aims to integrate some not-so-studied dimensions in urban research, mostly related to the characteristics of the built environment that may promote or defer processes of socialization, that can, in turn, translate into higher levels of civic engagement and/or participation. The first concept portraying the characteristics of the built environment is related to shared spaces, such as parks, bars, pedestrian streets, libraries, etc. and is usually defined as social infrastructure (SI) [45]. This author analyses how face-to-face interactions—at the school, the playground and the corner diner—can turn into the building blocks of all public life, directing planners' attention from grey or hard infrastructures "to a series of spaces and facilities—often overlooked and underfunded—that supports a robust public collective life in cities, and helps build into urban neighborhoods the capacity for all sorts of ways of being with others" [46]. It has become more important than ever to highlight the importance of ensuring very high standards of these shared spaces, especially when an urban area is being regenerated [47], due to its importance in social capital formation that can lead to community resistance to external threats, such as evictions.

Urban Sci. 2024, 8, 118 4 of 25

The second concept, referring to everyday social interactions between residents, could be conceptualized as social capital (SC) [48]. Its differential degree can be explained in terms of its bonding and bridging forms, where the former entails strong relationships between individuals, and the latter is the case when these networks actually lead to higher levels of local organization and civic engagement. Thus, if higher levels of SC are desirable, given their effects on happy and healthy environments [49], there is still an underlying question related to vulnerable neighborhoods' ability to transform bonding into bridging forms of SC, which would speak of their power to stay cohesive and united amidst the different threats they may encounter (related to for example the visible and invisible forms of expulsion that will be explained later). The harm evictions can cause has been studied and it has been established that impacts are not only on the individual, but especially on the community level as a whole [50], showing how important it is not only to maintain but to find new ways to strengthen local social networks.

3. Materials and Methods

This manuscript focused on 5 neighborhoods (as can be seen in Figure 1), selected following multidimensional tools, given their interest as a representation of the spatialization of vulnerability in the city of Barcelona.

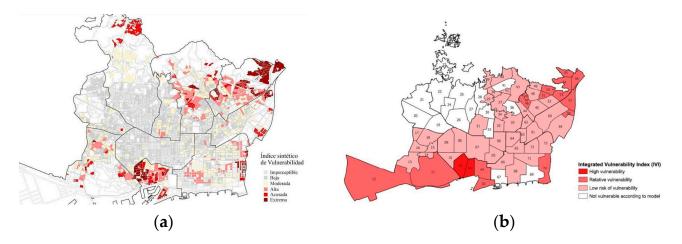


Figure 1. (a) Vulnerability index at a census section [22]; (b) Integrated Vulnerability Index at a neighborhood level [24].

The 5 selected case studies in Barcelona respond to previous work focusing on the identification of vulnerability [22], following a multi-scale and multi-disciplinary study, which incorporated some mapping of social, economic and urban indicators. The results were weighed following statistical tools, as well as a series of discussions maintained with a panel of experts in the field. This work has helped identify areas of the city with a higher concentration of multidimensional problems, which has in turn allowed the local administration to focus on specific areas, and design relevant programs and policies that adjust to these complex realities (as opposed to general interventions to which local communities have to adapt). The 5 neighborhoods that appeared to be at greater risk of vulnerability will be briefly introduced here in order to understand their relevance to this study's goal. However, a deeper analysis of their characteristics (in quantitative and qualitative terms) will be a part of this paper's Section 4.

La Barceloneta's origin is related to the economic activity of fishing in the middle of the XVIII century. Even though planned for a specific population (mostly low- and middle—low-income families), its particular location (right at the center of the city and in front of the sea), and the city's touristification process, have made this area especially attractive to private investment, resulting in a subdivision of most apartments, some renovations and a change of use (especially ground floors becoming commercial), which have made it almost

impossible for old-renters to compete with newcomers, being directly or indirectly forced to leave their homes.

El Raval is also a neighborhood in the Ciutat Vella central district, which was born as a result of the extension of the walls of the old city. Although its first constructions could be traced to the XIV century, its growth and development was related to the early industrialization of XVIII century. From this time on, it has been home to low-income classes, especially immigrants from the Global South, that have endured big regeneration policies.

Trinitat Vella is a much younger neighborhood of the city and is a result of the "developmentalism" of the 1950s, when internal migrations resulted in a need for rapid housing which was met building big blocks in remote unconnected areas of the city that would little by little be incorporated into the urban fabric, mainly because of neighbor struggles.

Ciutat Meridiana's history is similar to *Trinitat Vella* and its blocks were built in the 1960s during the *Franco* dictatorship with no surrounding infrastructure or basic urban services, but with an added problem: it is quite inaccessible due to slopes, which has been its major neighbor concern.

Besòs i Maresme is also a result of the quick and massive construction of blocks of housing of the late 1950s and 1960s. The lack of basic urban services has been the center of neighbor demand. However, in recent years, its surrounding area has been facing a revitalization process that has started to bring pressure into this neighborhood.

For this paper, a double methodological strategy (quantitative and qualitative) was followed. It is essential to note that this division is theoretical, as both strategies contributed to a broader overarching strategy, as will be clear in the following section outlining the achieved results. As for the quantitative strategy, the intention was to characterize the case studies in relation to the effects that more or less recent urban interventions and trends have had at a local level, specifically in terms of rental prices (and other costs) and also on probable processes of resident expulsion. Thus, a series of indicators were selected following recent literature on the subject, with the intention to portray to what extent the neighborhoods are at risk of—or are already—experiencing gentrification and/or expulsion. An ad hoc database at a neighborhood level was built from available open-source official information portals [51–54]. Some indicators' behaviors were traced in time since complex dimensions such as gentrification demand a certain follow-up that a cross-sectional study cannot capture. As for the qualitative strategy, 13 interviews were conducted with local entities' representatives between 2021 and 2023, as well as with two housing policy technicians (See Table 1 for details).

Table 1. Interviewed entities from case studies
--

Neighborhood *	Neighbor Association	Housing Related Entity
La Barceloneta	2	1
El Raval	2	2
Trinitat Vella	1	1
Ciutat Meridiana	1	1
Besòs i Maresme	1	1

^{*} The 13 interviews associated with each case study were complemented with 2 interviews with local policy technicians that intervene in most neighborhoods.

As shown in Table 1, two types of local entities were consulted: those directly related to neighborhood issues and those focusing on housing. To maintain some degree of anonymity, their full descriptions are not provided here. However, it is noteworthy that some of these entities have a long history of local organization, advocating for the implementation of crucial policies concerning urban services, accessibility, social institutions and housing, some of them working very actively since their foundation during the second part of the last century. Others are especially active in the aftermath of the 2008 real-estate crisis, working locally to prevent evictions that would result in the erosion of the social fabric. As for the consulted technicians, they are specialists in either local housing and licensing or social programs.

The questions—full interview guide available in Appendix A—revolve around their representations on the phenomenon of urban regeneration, its scope, and its limits and opportunities, as well as its consequences on a local level. The selection of interviewees was made based on prior knowledge of these territories gained through the aforementioned research projects, as well as a result of "snowball effect" (where conversations with one social leader and/or representative would lead to another key actor). The interviews were recorded, transcribed and introduced into the *Atlas.ti* program [55] (8.4.3-1077 version), which is specialized software for qualitative data analysis. This permitted a better treatment of the information, allowing an identification of common, reiterated or opposite views on specific topics within the different interviewees. The analysis of discourse research technique [56] was followed, which is a practice commonly used in qualitative analysis with the intention of capturing the level of representation of a specific phenomenon, taking into account the power relations that are expressed via speech. The interviews were conducted until theoretical saturation of data, meaning that a new interview would not contribute any new relevant information.

In order to assess the quality of the research data that was produced for the purposes of this work—especially the qualitative data obtained from semi-structured interviews—specific actions were followed to guarantee that some degree of credibility, transferability, dependability, confirmability and authenticity [57] would be taken into account. The selection of interviewees, the construction of the interview guides and the strategies followed for data treatment incorporated these elements and also those present in another system, that are related to transparency, personal reflexivity and triangulation [58]. All in all, the design of the research strategy, the gathering of data, its treatment and dissemination have been carried out ensuring that data were of high quality, that the sources were respected and the results would be as transparent as possible.

4. Results

This section presents the results obtained throughout this research. It is divided into two different subsections that are very well connected to a third analysis section (see Figure 2). The next sections follow this structure: Gentrification: part of the problem of expulsion in Barcelona? Local strategies addressing the negative effects of gentrification; Incorporating the social capital and social infrastructure dimensions in anti-gentrification measures. The first topic is mostly related to the concept of gentrification and the threat of expulsion in vulnerated areas of Barcelona city, which are undergoing present or potential future valorization processes. Section 4.2 depicts some of the local strategies of Barcelona's administration and entities that aim to respond to urban problems that in turn also intend to tackle some of the negative effects of gentrification. Finally, the analysis aims to incorporate the variables of social capital and social infrastructure, suggesting that a comprehensive approach is needed (both for studying and intervening in vulnerated areas), in order to truly answer the need to improve habitability conditions and residents' quality of life, overcoming tools that have proven to have unwanted consequences which resulted in vicious cycles of impoverishment, expulsion and/or segregation.

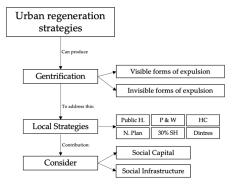


Figure 2. Organization of paper's results and analysis.

Urban Sci. 2024, 8, 118 7 of 25

4.1. Gentrification: Part of the Problem of Expulsion in Barcelona?

The purpose of this subsection is to assess whether a gentrification process has been occurring or is likely to take place in the case studies. This analysis is intended to overcome traditional measures of urban poverty mostly related to income, that lead to not contemplating some neighborhoods as vulnerable/vulnerated, adopting a more comprehensive approach. Thus, some key indicators were traced in order to shed some light on the existing or potential changes in some of the economic and/or social trends. Starting from a recent work [24] where some physical characteristics were contemplated as a result of a factorial analysis, new variables like rent prices, household income and other dimensions related to the social profile and the commercial behavior of the area [59] were taken into account. Gentrification can be traced throughout a deep analysis of both a social and commercial change.

Resident's profile change

Probable ongoing or future gentrification processes could be deduced by taking a look into whether some socio-demographic characteristics of the population change over time. Although the inhabitants register is a useful source of information, it does not inform about the reasons people move, where they come from and where they go to. Figure 3a shows the inner migration rate (people leaving their neighborhood by 1000 inhabitants), indicating that 2010 was a high peak in all cases, following the 2008 real-estate crisis. However, <code>Besòs-Maresme</code> in 2022 is almost at its 2010 level, above but still very close to <code>Barceloneta</code>, and they are almost as high as <code>Raval</code>, which has been systematically going down since 2010 (the tendency is related to its characteristic as a host location for immigrant newcomers). Figure 3b shows the same rate but considers new arrivals, where a similar trend is observed. In both figures, the percentages of these three case studies are way above the average of Barcelona city, which is very similar to those of <code>Trinitat Vella</code> and <code>Ciutat Meridiana</code>, and works as an indicator of the neighborhoods' dynamism.

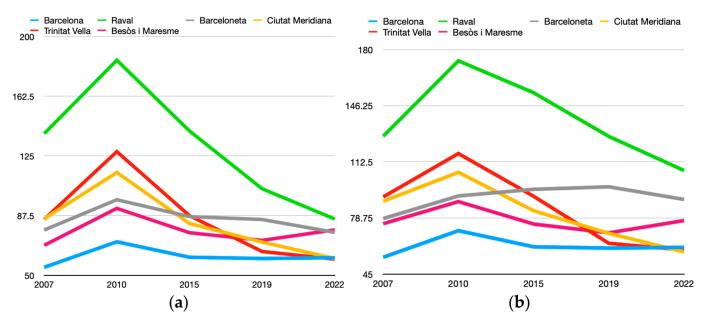


Figure 3. The 2007–2022 residential changes in the case studies: (a) change of residence (deregister); (b) change of residence (register). Source: Public Inhabitants Register.

Another important variable is age, which has also been studied in relation to gentrification trends [60]. Figure 4 portrays the percentage of young people in relation to the total population, showing that the *Barceloneta* case is most noticeable. Also, the case of *Besòs-Maresme* shows a positive trend in recent years and that of *Raval*, which seems to be slowing down, should also be followed closely.

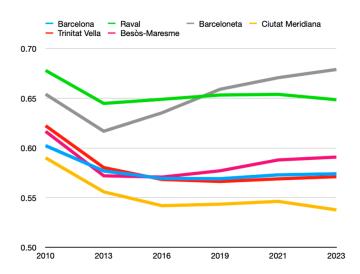


Figure 4. Age evolution in the case studies (2010–2021). Source: Barcelona Open Data.

This trend has been identified [61] in relation to digital nomads' (especially from European countries) residential choices as an indicator of the expulsion of older residents (as can be seen in Figure 5 portraying the concentration of high-income foreigners throughout the city). The combination of high-income immigration and a certain rejuvenation should raise some alarms as to profound socio-demographic ongoing changes.

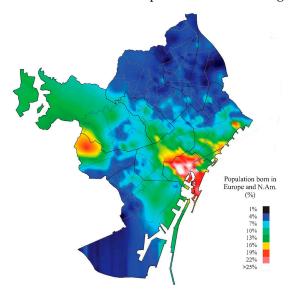


Figure 5. Population born in EU countries and USA. Source: adaptation from [61].

Another important variable is the education level of the population, a very good indicator of the individual cultural capital and a relevant agent of the processes of gentrification [62]. As can be seen in Figure 6, there is a general positive trend in Barcelona. However, the cases of *Barceloneta* and *Raval* are especially relevant in terms of the education level, but probably for different reasons. Although they are both part of the *Ciutat Vella* district—the most central and demanded one in terms of tourism—the rising level of education in *Raval* probably corresponds to immigrants' children that are the first generation to study at a higher level; *Barceloneta*'s improvement probably corresponds to the arrival of highly educated newcomers.

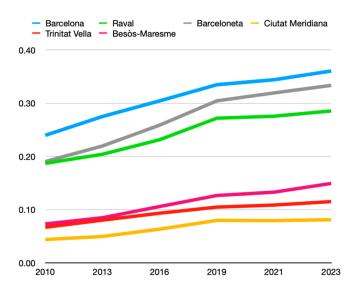


Figure 6. High education level (university) in the case studies (2010–2023). Source: Barcelona Open Data.

Another interesting approach is taking into account the number of people living in each dwelling: single occupancy of households between the ages of 18 and 64 years old [60]. Figure 7 shows how this indicator is over-represented in the case of *Raval* (which could be explained by the lack of information on overcrowded flats), and also of *Barceloneta* (more likely associated with small attractive apartments).

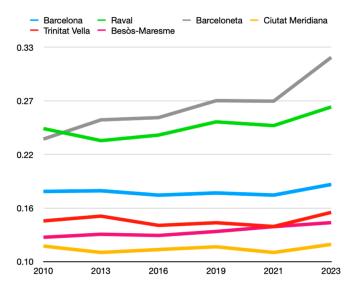
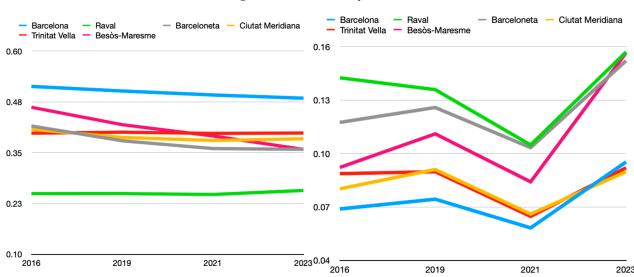


Figure 7. Dwelling's single occupancy in case studies (2010–2023). Source: Barcelona Open Data.

The number of years living in the same place is also an interesting piece of information. Figure 8a shows that neighborhood identity is something very important in Barcelona, related to its history where most neighborhoods used to be separate towns; Figure 8b shows which have been some of the most attractive areas of the city in past years (*Barceloneta*, *Raval* and *Besòs-Maresme*).

Up to this point, the analysis has shown there is an ongoing very real socio-demographic profile change in the case studies, especially perceptible for the neighborhoods of *Barceloneta*, *Raval* and *Besòs-Maresme*. This last one's behavior is probably less consolidated, meaning it should receive greater attention. These changes combined with touristification and real-estate market speculation could impact the sustainability of neighbor relationships



and the thickening of social capital since expulsion (direct or indirect) can harm the social fabric, something which will be analyzed later.

Figure 8. Years living in the same neighborhood. (a) more than fifteen years registered in the same neighborhood; (b) less than 1 year registered in the same neighborhood. Source: official register of inhabitants.

(b)

203

388

609

139%

234%

132%

"Urbanism investment, in the end, is gentrifier itself. [...] The administration is one of the main gentrifying agents" (Barcelona technician).

"Many very engaged female neighbors have encountered expulsion themselves at first hand, which made civic engagement strength to fade away" (Barceloneta entity).

• Commercial profile change

Ciutat Meridiana

Trinitat Vella

Besòs-Maresme

(a)

Another very important question related to the topic of gentrification is the local economy: new social profiles demand and consume goods and services that are not necessarily the ones present at the territory before their arrival. Thus, one very visible consequence (and cause) of displacement is related to the mutation of local commerce, that, at the same time, has a direct effect on the urban landscape [63]. Table 2 shows the rise in the use of establishments for commercial activities between 2016 and 2019 in the case studies.

Case Study	2016	2019	Change
Barcelona	60.265	80.553	134%
Raval	2.355	2.967	126%
Barceloneta	545	746	137%

Table 2. Commercial activity in case studies (2016–2019 change).

Source: Commerce, Restauration and Consumption Direction, Barcelona City Council.

146

166

462

Although some information on the type of activity is available (via the commercial census every 3 years), it does not specify the quality of establishments, whether they are "used" by residents or visitors, whether these correspond to old or new establishments, their importance on a local level, etc., making it necessary to incorporate some qualitative information: the idea of a certain commercial change was recurrent in the interviews, especially by older tenants referring to some kind of identity loss, especially since bars' and restaurant's terraces constitute very important spaces for socialization in the Spanish culture.

"The minute people with middle or high incomes arrive, this entails a whole new different type of economy takes place" (Besòs-Maresme entity).

4.1.1. "Visible" or Direct Displacement: Evictions

A quite striking thing is the fact that causes for evictions have been changing throughout recent years. Historically, Spain has been "a country of property owners" [64], meaning that access to housing used to be associated with buying a property. However, after the 2008 crisis, many evictions took place since Spanish people could not afford their mortgages. After the economic recovery, a new "generation rent" has begun to become the norm [65]. Thus, in recent years, non-payment of rent has become the main reason for eviction: in Barcelona only, from 2013 to 2021, 55,325 people were evicted, corresponding to an average of 6147 inhabitants each year, over 3.3% of the entire population [66]. Although it is difficult to gather data (especially at a disaggregated or neighborhood level), some entities have been collaborating with the local administration to map the eviction situation and identify possible concentrations [67]. This shared effort also allowed the identification of property owners who were more likely to evict: SAREB, Blackstone and Cerberus Capital Management (which are all legal persons, and control only a third part of the total households).

"An old lady living in a bank-owned apartment: in these cases, even politicians come help us stop the evictions" (Trinitat Vella entity).

"The existing support networks see themselves deteriorated because people are expelled, which complicates even more the associational life" (Barceloneta entity).

Even though eviction is a visible and direct form of expulsion, there are other forms whose low-visibility, silent—and because of that, also very intricate—processes can also lead to displacement. The role of SC and SI as barriers against this kind of threat is a part of the following section.

4.1.2. "Invisible" or Indirect Forms of Displacement

• Rise in rent prices

The rental market is an important indicator since more than 40% of housing in Barcelona corresponds to this segment (94% when focusing only on young people). As is clear in Figure 2a, the increase in rental prices in the last 20 years is significant, not only at a city level (that could be associated with economic trends and overall inflation), but it is specifically relevant in recent years in the case studies (see Figure 9b).

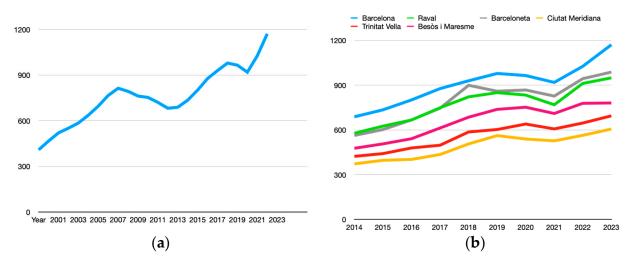


Figure 9. Changes in rent prices. (a) Average rent price per year in Barcelona (2000–2023); (b) average rent price per year in case studies and in Barcelona (2014–2023).

This situation has had direct consequences in terms of access to housing, especially for those mostly in need, and has been especially worsened by new market trends, such as the increasing number of temporary rentals (as opposed to long-term ones), and the rise in room rentals (as opposed to entire units), especially after COVID-19. Even though specific national housing norms aim to regulate the sector (actually, new national (*Ley de Vivienda* 12/2023) and local (rent regulation of February 2024) legislation was put forward recently) establishing minimum requirements for newly signed contracts—such as a 5-to-7-year minimum period of rent (depending on whether the property is owned by a natural or legal person)—new market trends and forms tend to "escape" from legislation, making it very hard to regulate contracts between private parties.

"The administration goes at a 10 km/h speed and the reality goes at 120 km/h, which is why we are always late" (technician, Barcelona).

When looking into the quantity of contracts signed throughout the city in recent years, it is quite clear that, even considering the 2020 drop related to COVID-19, these seem to be going down (Figure 10a,b). However, the overall number of people living in the city has not changed much, suggesting that the housing offer is undergoing some kind of alteration that could be related to the aforementioned trends and the fact that official data cannot capture them entirely (at least, for the time being).

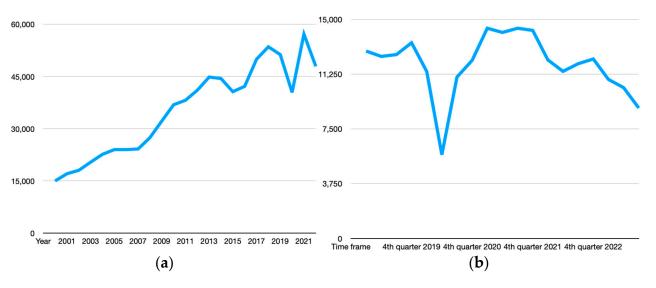


Figure 10. (a) Quantity of rent contracts in Barcelona (2000–2023); (b) quantity of rent contracts by quarter in Barcelona (2019–2023).

At the same time, accommodation offered to tourists also seems to be dropping when taking the August 2020 to August 2023 period into account (see Figure 11). This could be related to the Special Tourist Accommodation Plan (PEUAT), which was an instrument created to have some control over the increasing accommodation destined for touristic use. However, the presence of tourists in the city is still rising.

Thus, a relevant question is where this offer of accommodation is actually going (if, as has been said, tourist accommodation is being controlled and fewer long-term rent contracts are being signed). A possible answer could therefore be found in the increase in informality in the rental sector, suggesting a rise in temporary contracts (less than 1 year long and hence "escaping" from regulation), flat-sharing (where one person holds the contract and sub-lets the rooms) or even illegal tourist accommodation (since the aforementioned regulation establishes no new touristic rentals, especially in those areas at greater risk).

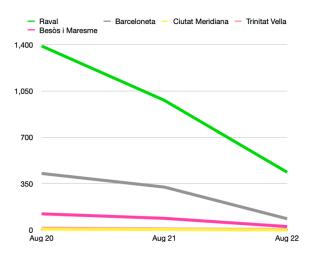


Figure 11. Housing offered to tourists (2020–2023).

What is even more worrying is the fact although income per capita seems to have followed a positive trend until COVID-19 (see Figure 12), the effort towards paying rent takes up most of this income in all case studies (see Table 3), even when the theoretical ideal percentage should be around 30%. A recent work [68] measured this in 2019 at a district level, showing similar results: the fact that the actual average effort in paying rent in the city was around 50%, and around (or higher than) 70% in vulnerable areas.

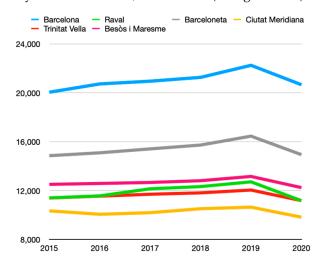


Figure 12. Income per household per neighborhood (2015–2020).

Table 3. Effort towards paying rent (2015–2020): relation between income and rent prices.

Neighborhood	2015	2016	2017	2018	2019	2020
Barcelona	44.0%	46.1%	50.2%	52.4%	52.8%	56.0%
Raval	65.8%	69.2%	73.9%	80.0%	80.2%	89.5%
Barceloneta	48.7%	53.0%	58.0%	68.6%	62.7%	69.7%
Ciutat Meridiana	46.0%	48.0%	51.2%	57.8%	63.3%	65.9%
Trinitat Vella	46.5%	49.8%	51.0%	59.5%	60.0%	68.6%
Besòs i Maresme	48.6%	51.6%	58.1%	64.2%	67.3%	73.7%

Source: Barcelona Statistics Department.

Another crucial point is that official statistics often fall short in fully capturing the complexities of real-world situations: non-registered residents, overcrowded flats, empty dwellings, second residences belonging to foreigners, apartments being exploited with other than residential use (commercial, sometimes illegal activities, etc.), are among the problems

that were mentioned during the interviews. However, these are not usually captured by official data, making it very difficult to trace and tackle housing-related problems. This is why it is very important to implement qualitative strategies in order to truly capture the level of complexities that these issues entail.

"Against the idea that the neighborhood is conflictive because of its interculturality... the actual problem is with tourists and the competition for apartments, public space, consumption of goods and services" (Raval entity).

"The pressure of tourism, everywhere but especially here, has had a direct impact on rent prices" (Barceloneta entity).

"Sub-letting rooms with no contracts has become a common thing" (technician, Barcelona).

• Overall increase in prices

Another very important problem also related to gentrification is not only the rise in rent prices but an overall increase in the cost of living, which can also result in a more silent form of expulsion. Again, it is not easy to trace price changes throughout time and throughout the different neighborhoods. Although it could be possible to choose some products or services and follow their behavior in order to account for this, a deeper analysis on the change in the commercial profile is probably more accurate and will be presented later.

"Recent changes in the neighborhood surrounding are attracting more fashionable and modern establishments" (Besòs-Maresme entity).

"Many shops are aged; they close and these spaces are being exploited especially by newcomer immigrant population" (Trinitat Vella entity).

These testimonies are particularly relevant, especially as the interviewees considered more "active" streets with shops related to safer environments, while streets with no commercial use seemed to be sometimes more abandoned and related to higher risks or danger. Thus, analyzing gentrification through the increase in rent prices and everyday costs but also tracking how these changes are lived and represented by residents is key, as these have an effect on the whole area's identity (commercial, but also social).

Residential mobbing

Another very important situation that takes place, according to the interviewees, are situations of conscious neglect and abandonment of the dwellings by property owners. Aware of some of the market tendencies, they sometimes tend to speculate that higher benefits can be extracted from their properties, especially in vulnerated areas under renovation. Even though it is very difficult to obtain data that support these situations (that can go from not responding to renters' complaints, to not making necessary renovations, even threating tenants to increase rent prices, etc.), both the literature [69] and the interviews speak of these very unfair situations.

"People suffer pressure and harassment so they leave, with completely abandoned dwellings because the landlords do not fix or maintain them, with no elevators and deteriorated stairs" (Barceloneta entities).

"Landlords as owners are obliged to maintain their property. Not doing so, passive mobbing, is a crime and can affect tenants even more than a more direct eviction" (Raval entity).

By taking into account the behavior of some social and economic variables related to gentrification—and a more or less explicit threat of residential expulsion associated with it—it has become quite clear that not all case studies are affected in the same way. Centrality, attractiveness and tourism appear to be crucial dimensions that are not necessarily captured in depth by official statistics, making it necessary to develop other qualitative tools in order to fully understand the negative effects of undergoing valorization processes. In the following subsection, local strategies from the Barcelona case are presented.

4.2. Local Strategies Addressing the Negative Effects of Gentrification

So far, efforts have been made to capture the issues related to potential current or future gentrification processes in the case studies. At this point, it is also necessary to present the alternatives that the local administration together with local entities are putting forward in order to tackle some of the negative effects. This subsection presents some of the specific public programs and policies that are more or less related to the prevention of residents' expulsion and, at the same time, introduces the key role of local entities; the relevance of social capital and social infrastructure within the subject will be explained in the next section.

When some urban regeneration interventions prove to have negative impacts on the territories, driving up real-estate and other prices and expelling residents, at least two possible ways of action come into place. The first alternative is to leave things as they are, refraining from promoting any changes to break the apparent vicious circle where public actions may further harm the areas of intervention. A blind vote on the free market is probably not a valid way to go, when recognizing the fact that the starting point is already urban areas where spatialized forms of segregation and inequality are the norm. However, there is another way, which seems to be more suitable for a context in which access to adequate housing is at stake, forcing law-makers to implement strategies for the improvement of the existing tools and the creation of new ones aligned with the right to housing and the right to the city. A notable example of active involvement in the improvement and intervention of the real-estate market is the case of Barcelona.

- Public housing: having a big public residential stock would entail that the administration becomes a player that can compete with the private sector. However, the Spanish case is very different from other (especially Northern) European countries on this subject. Apart from being only 1.5%, "Official Protected Housing" (VPO in Spanish) has been predominantly developed for sale and not for rent and most of these dwellings will lose their protection status within the next 30 years. In spite of recent efforts from the municipal administration, the public building stock is definitely an unresolved matter [70] both in Spain and at the municipal level (taking into account the limited resources of the local administration and the fact that the housing law is a national one).
- Rehabilitation funds: the combination of old building stock, sometimes with patrimonial value, within a city with high levels of segregation—without mentioning the bureaucratic issues that public help entail and that is one of the main reasons for not reaching vulnerated areas—result in a very problematic situation in which a great deal of community organization is needed in order to go through any renovation. The result is that most granted subsidies end up in middle- or high-income neighborhoods [71] (when they are indeed put forward).
- The Neighborhood Plan: this very progressive and comprehensive policy is focused on the more vulnerated areas of the city and intervenes in multiple dimensions, including the urban and physical one. The work gained throughout some of its interventions has given place to the "High Complexity Dwellings" subsidies, which focuses on the recognition of social differences in the city and thus concentrates on buildings where ordinary economic help is not reaching.
- Some other specific policies such as the *Dintres* Plan (whose goal is to combat landlord harassment by imposing fines to prevent mobbing situations); the Preferential and Withdrawal Right (which establishes an obligation to inform the public administration before any property sale, allowing the municipality to buy before any other private actor); the compulsory 30% of social housing in all new buildings and/or big rehabilitations; the recent stimulus given to housing cooperatives; etc. All these do not seem to tackle the problem fully, as the housing crisis is bigger than ever. There is thus a need to further investigate the impact of these measures and at the same time come up with new valuation tools, indices or reference prices before and after any urban

intervention in order to identify and capture any surplus values that could result from public investment [72].

The analysis so far has provided a better understanding of the case studies, highlighting the changes they have experienced at various levels over past years and the consequent impacts on their characteristics and identity. At this point, it becomes clear that the value of regeneration and other urban interventions cannot be solely measured in economic terms, since their effects are multidimensional, which justifies the need to bring other (social) dimensions into the discussion.

5. Incorporating the Dimensions of Social Capital and Social Infrastructure Into the Analysis

At this point, it is important to realize that, while our focus may be on only a few case studies, the undergoing processes are assimilable to other Southern European cities (at the national or international level) and that the methodology and indicators selected—that were based on the recent literature—could be replicated in such contexts. The results here have shown that, despite the efforts of administration and entities, there are still very intricate problems associated with the risk of—or actual—gentrification and resident displacement, especially in those more central neighborhoods or areas undergoing processes of valorization, but also in some other areas of the city that have started to become attractive to real-estate investment. This entails there is a need to come up with more innovative tools to capture these dynamics and at the same time provide the city with more innovative solutions that leave no one behind. Thus, incorporating SC and SI, which are extensively studied and not necessarily captured by official surveys and censuses, could contribute to a more comprehensive study and planning of urban regeneration interventions. This section has been organized starting from the interviewee's views and ideas (see Figure 13).

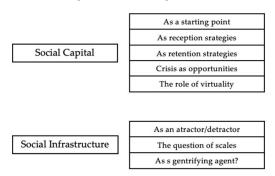


Figure 13. Social capital and social infrastructure for a comprehensive urban regeneration.

5.1. Social Capital

5.1.1. Social Capital as a Starting Point for Urban Renewal

As has been clear throughout this work, urban interventions can produce effects on the social and economic composition of the territories and generate—more or less visible or invisible, direct or indirect—forms of expulsion. Thus, an analysis on the social capital dimension might help shed some light on alternative ways of studying and addressing urban regeneration.

"The isolation due to highways favored proximity relations which makes this the most organized neighborhood, in terms of associations" (Trinitat Vella entity).

"The few elder neighbors that still remain today have a sense of belonging that is very strong. The problem is they are less by the minute" (Barceloneta entity).

The interviewees agreed upon the fact that the degree of organization is a key factor, to the point it can even define whether a specific policy or program is put forward or not, when the consulted technicians and representatives of local organizations referred to a certain need to lean on the communities when promoting any urban intervention. Actually, there is

a recognized need to create social bonds where they do not exist, since experience has shown that, if there is no organization, no renovation/regeneration/rehabilitation is practicable at all. This idea was referenced at different scales: from housing interventions (bringing together horizontal property landlords was necessary when rehabilitating dwellings) to public space programs, concerning one or more building blocks (for the installation of elevators or the improvement of shared spaces such as parks).

"The different situations and places for informal relation between neighbors are the ones that are absolutely vital, functional and can generate stronger solidarities" (Barceloneta entities).

"Self-management, which used to be the common thing, has been degrading and falling on less and less people, that are at the same time ageing. It is prone to disappear" (Besòs-Maresme entity).

Taking into account the social capital component should entail things like mapping the level of association between neighbors before proposing any urban intervention, gathering residents and getting to know them in order to truly capture their needs and interests, building trust before any change in the urban landscape, communicating the alternatives for housing/neighborhood improvement and making the communities a central part of the programs in question, as co-designers and co-creators of the interventions. These kinds of situations where there is active citizen engagement—related to the bridging form of SC that was introduced in the theoretical section—have proven to have positive and long-lasting impacts, allowing a greater transformation of the environment and infrastructures. Thus, social capital gains and losses should be considered in any type of urban intervention. Some questions related to this issue are necessary: Is there a strong social fabric to rely on? Will the planned interventions be practicable, in relation to possible conflicts? What will the interventions imply in terms of potential valorization? What effects may the interventions have in terms of direct or indirect expulsion and breaking/strengthening of social ties?

5.1.2. Social Capital as Reception Strategies

Social capital, within the interviews, is also related to strategies for the adequate reception of new people arriving in the neighborhoods. These are especially relevant in vulnerated areas, where newcomers tend to be foreigners from the Global South, as is the case of *Raval*, but also of *Trinitat Vella* or *Ciutat Meridiana*. The role that public spaces play in creating positive "contexts of reception" for immigrants of such "arrival neighborhoods" has been studied as a key factor [73]. Within this context, some of the consulted entities' representatives mentioned there is a conscious effort in welcoming newcomers, making them feel a part of the social fabric. In vulnerated areas, where multiculturality tends to be the norm, co-operative and/or collaborative actions are not always easy to accomplish, especially when language and other cultural barriers operate strongly. In such cases, entities, social leaders and policymakers should act as facilitators, not concentrating on the differences, but drawing on common ground.

"We need to make newcomers get involved more in neighborhood related issues and implicate in its entities, which will at the same time make them feel it, live it and want to improve it" (Trinitat Vella entity).

5.1.3. Social Capital as Retention Strategies

Apart from playing an important role in the reception of newcomers, social capital can also serve as a neighbor retainer, especially in the context of visible or invisible forms of expulsion that can impact negatively not only individually, but also collectively. Social capital is in this case a key dimension in urban regeneration since it would not only serve as a starting point, but as a mitigator of some of its possible negative effects. Neighbor network construction leading to collective action against the threat of expulsion has been proven to be a of absolute importance [74] and local examples of formal or informal neighbor organizations have been key in preventing further expulsion. Thus, taking this dimension into account by urban regeneration plans entails an active recognition of the existing social

ties as well as the promotion of spaces for interaction, as will be seen when focusing on the role of social infrastructure.

"A hypothesis to be confirmed is whether strong proximity relations favor a sense of belonging, making even young people want to stay [in the neighborhood]" (Trinitat Vella entitiy).

"There are networks of mutual support, related to the cultural element of the neighborhoods, that are informal yet entirely strong" (Raval entity).

"At some level, you could think of the associational tissue as an element of attraction" (Trinitat Vella entity).

5.1.4. Crisis as an Opportunity for Rapid Social Capital Generation

Recent crisis situations, such as the one during COVID-19, have had many impacts in different dimensions of everyday life. However, and at the same time, this situation has proven to what extent crises can have a potential to become true "sources" of social capital formation [75].

"This situation [COVID-19] has been a way for young people with a certain social consciousness, to quickly get involved for the first time because of their 'availability" (Barceloneta entity).

"The pandemics has shown how very quickly people organize towards common goals" (Ciutat Meridiana entity).

Although such crises are obviously undesirable, they can raise awareness of the importance of the local level and the power of bonding and bridging forms of social capital to counter external threats.

5.1.5. The Role of Virtuality in Social Capital Making

Recent work has highlighted the role of the internet in maintaining existing social ties and creating new ones [76]. In the interviewees' discourses it was quite clear that virtuality could become a means for socialization and social capital formation, especially when it was the only channel left (in relation to COVID-19 lockdown). Thus, the internet should be recognized as a valuable tool in social capital making and an effort should be made towards its democratization, especially within vulnerable populations, such as the elderly or people with lower education levels [77].

"Social networks, internet, are ways to mobilize an entire neighborhood" (Barceloneta entity).

Within urban analysis, traditional statistical measures do not usually intend to capture this social capital dimension, showing less interest in the identification of the association levels between neighbors, even when these have proven to be very important. As has been explained here, to the point that some interventions do not even seem to be realizable without an active community; social capital also serves as a powerful resource in the reception and retention of population against the threat of expulsion; its development is stimulated during times of crises, mostly related to the concept of resilience [78]; virtuality seems also to be an important means. However, sometimes high levels of SC are not enough shield to resist external threats, especially when speculation in the form of very powerful actors is present in vulnerated territories. Thus, it is necessary to also focus on some characteristics of the built environment that can serve as a scenario for the formation and strengthening of SC. The concept of social infrastructure intends to capture the quality of these environments—places and spaces in which people meet, gather and interact—and where there is an opportunity for the formation of long-lasting social bonds. Where, why and how are these ties built? In shared spaces such as the stairs of the building, the terrace of the bar, the patio of the community school, even the pedestrian street.

5.2. Social Infrastructure

5.2.1. Social Infrastructure as an Enhancer of Social Interaction or Segregator

When attractive, of good quality and well-conceived, SI can become a key element in social capital formation. As an element of attraction, utilized and inhabited, it can promote the co-existence of people gathering in the same area; SI can also increase socialization, lead to trust building and network formation. In this sense, elements like parks, restaurants or streets can have a positive impact at a community level, as true enhancers of social interaction, bonding and civic engagement. Some examples of urban regeneration interventions in the case studies speak of a certain increase in the time spent outside the private spaces of home, where social interaction can happen, and have a long-lasting impact on the overall quality of the shared environment, an idea which has also been supported by research [46].

"At an urbanistic level, some things have had a positive effect on the neighborhood because these make you want to be outside, wander and stay in the street" (Barceloneta entity).

"All public space interventions will, in the end, have positive effects in neighbor quality of life" (Trinitat Vella entity).

However, and at the same time, inexistent or poorly planned shared spaces do not call for any kind of socializing which can in turn have negative social and physical effects, diminishing the opportunities for bonding and network building. In some cases, because of their poor planning, or even because there is no actual availability of space for social encounters to take place, SI can have serious social negative effects. Abandoned areas, poorly lit parks and streets that are too much vehicle oriented, are among the elements that can discourage social interaction, even aggravating pre-existing problems related to (dis)connection, (un)safety or (in)civism.

"The lack of spaces for interaction—other than the streets—do not stimulate the creation of a strong associational movement. There is no formal physical point of reference that can keep and stabilize ties" (Barceloneta entity).

"Some public spaces should not be thought as a beautiful Barcelona catalogue model, but towards the concretion of very specific resident's needs and demands" (Barcelona technician).

"Some areas [...] can turn into "no-land" areas" (Barcelona technician).

The tension between SI as a promoter or discourager of social interaction also becomes very relevant when analyzing some transitional places, meaning areas that are affected by urbanistic planning or buildings that are emptied before their use changes. A good example of this situation in the case studies is the old prison in *Trinitat Vella* that was supposed to become a housing and commercial related project and was abandoned for a very long time, generating negative effects on the surrounding area, due to a progressive loss of local businesses and an abandonment of public spaces, since no intervention was planned for the transitional phase. This kind of situation needs to be taken into account, providing with solutions, even when these are not final.

5.2.2. SI and the Question of Scales

There is an ongoing debate on the very concept of social infrastructure, mostly related to its comprehensiveness. Which urban shared spaces—private, semiprivate or public—should fall under its definition and which ones should not? Can certain elements commonly associated with the private sphere (like dwellings or buildings) or the public one (like institutions or even streets) be a part of the definition? And also, is it possible to measure the degree of influence that each of these elements have on SC formation?

If a broader conceptualization is accepted, then housing-related elements, but also elements of the neighborhood level (such as parks, the presence of institutions like schools or sport facilities, the layout of streets, even the presence of some nature-related features that act as socialization promoters), would be taken into consideration when measuring the quality of SI, turning it into a multi-scale concept (with dwellings', cities', and in-between elements). This would entail that regeneration policies aiming at SC formation through SI

should pay attention to many different variables from apparently different worlds, from local economy to family interaction at the school door, from library users to pedestrians and cyclists, which would turn any regeneration plan into a comprehensive one.

"Rehabilitation policies, when their true goal is to recuperate a certain degraded area, are accompanied by the improvement of not only the building, but also of the street. It makes more sense to intervene by whole areas, not unconnected pins" (Besòs-Maresme entity).

Thus, there is a need to increasingly recognize the value of SI elements in SC building [45]. Besides focusing on the physical improvement of streets, schools, restaurants or bars, the gains of investing in SI in social terms (not only economic ones) should also be considered. Thus, an integrated or comprehensive vision is necessary, where the focus not only revolves around creating diverse spaces for encounters that bridge differences, but also more socially homogenous places where affinity groups can share concerns, claims and interests [73].

5.2.3. Is SI a Gentrifying Agent?

An unresolved debate persists: whether to improve a vulnerated area (potentially causing unwanted effects related to valorization and population expulsion) or leaving things as they are (which may seem to protect residents, but can result in a greater abandonment of the area bringing further impoverishment and worsening pre-existing issues). Thus, regeneration is sometimes on the horns of a dilemma, especially in places where there is imminent or ongoing gentrification [79], as has been demonstrated for the cases of *Barceloneta*, *Raval* and *Besòs-Maresme*.

"Urbanism related investment is the greatest gentrifier and this is our biggest threat [especially when combined with] degradation" (Besòs-Maresme entity).

Also, the interviewed entities' representatives refer to a series of SI-related potentially exclusionary factors. Besides the risks associated with urban interventions leading to a potential rise in prices [41]—promoting social and commercial change that can in turn end up expelling residents—other situations related to the resident's representations of what the neighborhood means to them were added to the discussion.

"What is common? In vertical property, who's responsible for what happens between my door and the street door?" (Trinitat Vella entity).

"This neighborhood is somehow like a town, in the sense that people are from here feel like they belong" (Trinitat Vella entity).

"We feel we are a separated part from the rest of the city" (Ciutat Meridiana entity).

This apparent sense of belonging is related to what authors conceptualize as neighborhood pride [80], which is built throughout time and implies more or less strong links and relations between residents as well as those between residents with their environment. SI plays a crucial role not only in social capital building, but also in the identification of people with their known surrounding environment. Which brings us to the need to recognize the role of residents in the appropriation and shaping of their neighborhoods, within the city construction scheme presented at the beginning [1]. Whether the existing urban regeneration policies seek to accomplish higher levels of civic engagement towards the promotion of participating social infrastructures that are destined for resident's benefit and not a source of intended valorization and expulsion is perhaps one of the most important and unresolved issues.

6. Conclusions

This paper, written within two competitive projects, intended to be a part of an ongoing discussion on urban regeneration and its consequences. One of its main concerns has been to identify probable gentrification processes in five case studies. A series of indicators were taken into account in order to demonstrate whether gentrification is present and

trace some of its associated impacts, mostly related to a possible identity change both economic and social. Gentrification can imply apparent improvement (because better levels of education, income or economic activity are desirable), but these cannot be at the expense of residents' lives, homes and businesses. Thus, researchers and policy makers need to generate innovative and comprehensive tools to understand but also tackle gentrification's negative effects urgently. At the same time, capturing the successful aspects of ongoing policies implies a question of measuring not only the economic but also the social gains of urban regeneration. In this sense, the incorporation of the SC and SI dimensions may be a part of the answer.

On a more methodological level, the mixed-method strategy followed here is susceptible of being replicated either in the same case studies in the near future or in other similar contexts. The first operation would allow the extraction of stronger conclusions related to probable gentrification processes (that a cross-sectional study cannot capture), whilst the second one could give a more complete picture of gentrification on a more general level. This is particularly important given that the phenomena affecting Barcelona are not isolated but respond to complex regional and global causes that also need to be traced [81].

Finally, urban regeneration seems to be an absolutely necessary strategy: a certain degree of intervention in the existing building stock and the neighborhood's environment is essential to answer some of the contemporary urban challenges, especially in vulnerated areas. Thus, we need to be able to control (some of) its effects and at the same time combat the negative impacts of gentrification. Before, during and after our interventions we need to be able to identify whether some sort of change in residential and/or commercial identity is expected (and act on it); also, we need to be able to identify whether the level of local association is affected (and in which direction) and which infrastructures are being offered for the purpose of social capital bridging and bonding forms. Taking these elements into account would entail more comprehensive, socially inclusive and just urban regeneration interventions for the benefit of all residents.

Author Contributions: Conceptualization, G.P. and P.G.-A.; methodology, G.P. and P.G.-A.; software, G.P.; validation, P.G.-A.; formal analysis, G.P.; investigation, G.P.; resources, G.P. and P.G.-A.; data curation, G.P.; writing—original draft preparation, G.P.; writing—review and editing, G.P. and P.G.-A.; visualization, G.P.; supervision, P.G.-A.; project administration, G.P.; funding acquisition, G.P. and P.G.-A. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Spanish Research Agency (Agencia Estatal de Investigación AEI) grant number PID2022-142352OB-I00.

Data Availability Statement: All quantitative data was used from official and open sources. Qualitative data was a result of interviews, which cannot be published due to anonymity requests.

Conflicts of Interest: The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

Appendix A

Full interview guide:

Characteristics of the population

Presentation of the person, institutional affiliation, origin.

How would you describe a resident of this neighborhood?

Can you identify one or more neighbor profile? Has this changed in the last years? How is the population that comes and goes, and what implications?

Is there any population loss?

What is the socioeconomic profile of the population? Is there any segregation? Do you consider that the population is generally different depending on the area?

• Characteristics of the buildings

What aspects would you highlight about the neighborhood? (positive or negative) Currently, what main issues can you identify in the neighborhood? What is the general state of the buildings in the neighborhood? Are there areas considered good and bad? Why? Are there vacant houses? And occupied ones? Are evictions taking place? How is the rental market in the neighborhood (price, supply...)? Who owns an apartment here, generally speaking? Use of ground floors: commerce or housing.

Urban regeneration and public spaces

Which are the main policies, programs, and laws you rely on to solve them? Are you familiar with rehabilitation calls, the Pla de Barris, others? What rehabilitation interventions have taken place recently? Impacts Are there parks, green areas, facilities? (use of public areas, profile of users) Are there architectural barriers in the neighborhood? Are there "black spots"? And regarding commerce in the neighborhood, what trends/issues?

Neighborhood and Associationism

How is the neighborhood organization? What are the main entities? What social agents can you identify in the neighborhood? And leaders? Would you say it is a neighborhood with a strong identity? Are there places to talk about neighborhood issues? Which ones? Cooperative housing experiences in the neighborhood?

Vision about the future

What impact has the current COVID-19 crisis had? What issues are you able to work on, and which ones are slipping away? What vision do you have of the neighborhood in 10 or 20 years?

References

- 1. Pírez, P. Actores Sociales y Gestión de la Ciudad. 1995. Available online: https://www.researchgate.net/publication/274313532_Actores_sociales_y_gestion_de_la_ciudad (accessed on 26 March 2024).
- 2. Park, R.E. Human Ecology. *Am. J. Sociol.* **1936**, 42, 1–15. Available online: http://www.jstor.org/stable/2768859 (accessed on 14 May 2024). [CrossRef]
- 3. Sun, C.; Shibuya, Y.; Sekimoto, Y. Social segregation levels vary depending on activity space types: Comparison of segregation in residential, workplace, routine and non-routine activities in Tokyo metropolitan area. *Cities* **2024**, *146*, 104745. [CrossRef]
- 4. OECD. Metropolitan Areas; OECD Regional Statistics; OECD Publishing: Paris, France, 2018. [CrossRef]
- 5. OECD. Divided Cities: Understanding Intra-Urban Inequalities; OECD Publishing: Paris, France, 2018. [CrossRef]
- 6. Frutos, T.; García, E. Diferenciación socio-espacial y segregación racial en España. Barataria 2016, 21, 91–109. [CrossRef]
- 7. Kauppinen, T.; van Ham, M. Unravelling the demographic dynamics of ethnic residential segregation. *Popul. Space Place* **2018**, 25, e2193. [CrossRef] [PubMed]
- 8. Mateos Rodríguez, P. Segregación residencial de minorías étnicas y el análisis geográfico del origen de nombres y apellidos. *Cuad. Geogr.* **2006**, *39*, 83–101. Available online: https://revistaseug.ugr.es/index.php/cuadgeo/article/view/1502 (accessed on 14 May 2024).
- 9. Powell, R. Loïc Wacquant's 'ghetto': The case of Gypsy-Travellers in the UK. Int. J. Urban Reg. Res. 2013, 37, 115–134. [CrossRef]
- 10. Musterd, S.; Andersson, R. Housing Mix, Social Mix, and Social Opportunities. *Urban Aff. Rev.* 2005, 40, 761–790. [CrossRef]
- 11. Galster, G. Neighborhood Social Mix: Theory, Evidence, and Implications for Policy and Planning. In *Policy, Planning, and People: Promoting Justice in Urban Development*; Carmon, N., Fainstein, S., Eds.; University of Pennsylvania Press: Philadelphia, PA, USA, 2013; pp. 307–336.
- 12. Li, X.; Huang, X.; Li, D.; Xu, Y. Aggravated social segregation during the COVID-19 pandemic: Evidence from crowdsourced mobility data in twelve most populated U.S. metropolitan areas. *Sustain. Cities Soc.* **2022**, *81*, 103869. [CrossRef] [PubMed]
- 13. Heiki, L.; Aldrich, D.; Faiad, C.; Aoki, T.; Tseng, P.; Aida, J. The Role of Social Capital in Depression During the COVID-19 Pandemic. *Int. Perspect. Psychol.* **2024**, *13*, 68–78. [CrossRef]
- 14. Castel, R. Las Metamorfosis de la Cuestión Social. Una Crónica del Asalariado; Paidós: Buenos Aires, Argentina, 1997.
- 15. Beck, U. Risk Society: Towards a New Modernity; SAGE: London, UK, 1986.
- 16. Lauwe, P. Périphérie des villes et crise de civilisation. *Cah. Int. Sociol.* **1982**, 72, 5–16. Available online: http://www.jstor.org/stable/40689992 (accessed on 14 May 2024).

Urban Sci. 2024, 8, 118 23 of 25

17. Hernández Aja, A.; Alguacil Gómez, J.; Camacho Gutiérrez, J. La vulnerabilidad urbana en España. Identificación y evolución de los barrios vulnerables. *Empiria Rev. Metodol. Cienc. Soc.* **2014**, 27, 73–94. [CrossRef]

- 18. Havard, S.; Deguen, S.; Bodin, J.; Louis, K.; Laurent, O.; Bard, D. A small-area index of socioeconomic deprivation to capture health inequalities in France. *Soc. Sci. Med.* **2018**, *67*, 2007–2016. [CrossRef] [PubMed]
- 19. Egea Jiménez, C.; Nieto Calmaestra, J.A.; Domínguez Clemente, J.; González Rego, R. *Vulnerabilidad del Tejido Social de los Barrios Desfavorecidos de Andalucía: Análisis y Potencialidades*; Centro de Estudios Andaluces: Sevilla, Spain, 2018. Available online: https://www.centrodeestudiosandaluces.es/datos/factoriaideas/ifo11_08.pdf (accessed on 14 May 2024).
- 20. Hernández-Aja, A.; Rodríguez Alonso, R.; Rodríguez Suárez, I. *Barrios Vulnerables de las Grandes Ciudades Españolas*. 1991/2001/2011; Spanish Ministry of Development: Madrid, Spain, 2018.
- 21. Fernández Aragón, I.; Ochoa de Aspuru Gulin, O.; Ruiz Ciarreta, I. Análisis de la desigualdad urbana. Propuesta de un Índice Sintético de Vulnerabilidad Urbana Integral (ISVUI) en Bilbao. *ACE Arch. City Environ.* **2021**, *15*, 9520. [CrossRef]
- 22. Garcia-Almirall, P.; Gemma, V.; Moix, B.M.; Ferrer Guasch, M.R.; Vima-Grau, S. *Estudi i Detecció a la Ciutat de Barcelona D'àmbits de Vulnerabilitat Residencial*; Ajuntament de Barcelona: Barcelona, Spain, 2017. Available online: http://hdl.handle.net/2117/114548 (accessed on 14 May 2024).
- 23. Hanoon, S.K.; Abdullah, A.F.; Shafri, H.Z.M.; Wayayok, A. Comprehensive Vulnerability Assessment of Urban Areas Using an Integration of Fuzzy Logic Functions: Case Study of Nasiriyah City in South Iraq. *Earth* **2022**, *3*, 699–732. [CrossRef]
- 24. Piasek, G.; Fernández Aragón, I.; Shershneva, J.; Garcia-Almirall, P. Assessment of Urban Neighbourhoods' Vulnerability through an Integrated Vulnerability Index (IVI): Evidence from Barcelona, Spain. Soc. Sci. 2022, 11, 476. [CrossRef]
- 25. Fajardo, G.; Merino, F.; Caraffa, M. Innovación en el Acceso a la Vivienda: Masovería, Cesión de Uso y Cohousing; CIRIEC: Valencia, Spain, 2022.
- 26. Temes, R. Valoración de la vulnerabilidad integral en las áreas residenciales de Madrid. *EURE (Santiago)* **2014**, *40*, 119–149. [CrossRef]
- 27. Ochoa-Ramírez, J.A.; Guzmán-Ramírez, A. La vulnerabilidad urbana y su caracterización socio-espacial. *Legado DE Arquitectura y Diseño* **2020**, *15*, 27. [CrossRef]
- 28. Martín-Consuegra, F.; Alonso, C.; Frutos, B. La regeneración urbana integrada y la declaración de Toledo. *Info. Cons.* **2015**, *67*, 2. [CrossRef]
- 29. Tejedor, J. Nuevo paradigma normativo sobre la ciudad: Retornando a la ciudad tradicional. Info. Cons. 2015, 67, 22. [CrossRef]
- 30. Montaner, J.M. Cap a una nova cultura de la rehabilitació a Barcelona. *Qüestions d'Habitatge* **2019**, 23, 8–19. Available online: http://hdl.handle.net/2117/335652 (accessed on 15 May 2024).
- 31. Hernández-Aja, A.; Rodríguez-Suárez, I. De la rehabilitación a la regeneración urbana integrada. *Ciudades* **2017**, 20, 1–20. [CrossRef]
- 32. Piasek, G.; Vima-Grau, S.; Garcia-Almirall, P. Brechas Y oportunidades en el diseño y la gestión de políticas de regeneración urbana. Estudio de 5 barrios vulnerables de Barcelona. *Inguruak* **2021**, 70. [CrossRef]
- 33. 8/2013 National Spanish Law. Available online: https://www.boe.es/buscar/act.php?id=BOE-A-2013-6938 (accessed on 15 May 2024).
- 34. RE-INHABIT Project. Available online: https://vimac.upc.edu/es/re-inhabit/presentacion (accessed on 15 May 2024).
- 35. ENER-REGEN Project. Available online: https://futur.upc.edu/36993491 (accessed on 15 May 2024).
- 36. Lees, L.; Slater, T.; Wyly, E. The Gentrification Reader; Routledge: New York, NY, USA, 2010.
- 37. Smith, N. The New Urban Frontier. Gentrification and the Revanchist City; Routledge: New York, NY, USA; London, UK, 1996.
- 38. Hübscher, M. Gentrificación y Vulnerabilidad. Evaluación de Aspectos Sociales y Urbanísticos en Santa Cruz de Tenerife (Islas Canarias). In *Ciudades Medias y Áreas Metropolitanas*. *De la Dispersión a la Regeneración*; Abellán, F.C., Ed.; Ediciones de la Universidad de Castilla-la Mancha: Cuenca, Spain, 2018; pp. 633–651.
- 39. Lin, L.; Di, L.; Zhang, C.; Guo, L.; Di, Y. Remote Sensing of Urban Poverty and Gentrification. Sustainability 2021, 13, 4022. [CrossRef]
- 40. Janoshcka, M.; Hidalgo, R. *La Ciudad Neoliberal*. *Gentrificación y Exclusión en Santiago de Chile*, *Buenos Aires*, *Ciudad de México y Madrid*. *Santiago de Chile*; Pontificia Universidad Católica de Chile: Santiago, Chile, 2014.
- 41. Sorando, D.; Ardura, A. First We Take Manhattan; Catarata: Madrid, Spain, 2016.
- 42. Piñeira, M.J.; Fernández, A.; Mínguez, M.C. Vulnerability and Touristification, Who Are the Losers of the Urban Center? In *Sostenibilidad Turística: Overtourism vs. Undertourism*; Pons, G.X., Blanco-Romero, A., Troitiño-Torralba, L., Blázquez-Salom, M., Balears, I., Eds.; Societat d'Història Natural de les Balears: Palma, Spain, 2020.
- 43. Brown-Saracino, J. Explicating divided approaches to gentrification and growing income inequality. *Ann. Rev. Soc.* **2017**, *43*, 515–539. [CrossRef]
- 44. Lütke, P.; Jäger, E.M. Food Consumption in Cologne Ehrenfeld: Gentrification through Gastrofication? *Urban Sci.* **2021**, *5*, 26. [CrossRef]
- 45. Klinenberg, E. *Palaces for the People: How Social Infrastructure Can Help Fight Inequality, Polarization, and the Decline of Civic Life;* Crown Publishing Group: New York, NY, USA, 2018.
- 46. Latham, A.; Layton, J. Social infrastructure: Why it matters and how urban geographers might study it. *Urban Geogr.* **2022**, *43*, 659–668. [CrossRef]

Urban Sci. 2024, 8, 118 24 of 25

47. Stender, M.; Nordberg, L. Learning from COVID-19: Social infrastructure in disadvantaged housing areas in Denmark. *Urban Plan.* **2022**, *7*, 432–444. [CrossRef]

- 48. Larissa, L.; Harlan, S.; Bolin, B.; Hacket, E.; Hope, D.; Kirby, A.; Nelson, A.; Rex, T.; Wolf, S. Bonding and Bridging: Understanding the Relationship between Social Capital and Civic Action. *J. Plan. Educ. Res.* **2004**, 24, 64–77. [CrossRef]
- 49. How's Life? OECD's Statistical Report. 2015. Available online: https://www.oecd-ilibrary.org/economics/how-s-life-2015_how_life-2015-en (accessed on 4 July 2024).
- 50. Schwartz, G.; Leifheit, K.; Arcaya, M.; Keene, D. Eviction as a community health exposure. *Soc. Sci. Med.* **2024**, 340, 116496. [CrossRef] [PubMed]
- 51. Open Data Barcelona. Available online: https://opendata-ajuntament.barcelona.cat/en/ (accessed on 15 May 2024).
- 52. Barcelona Statistics Department. Available online: https://ajuntament.barcelona.cat/estadistica/castella/index.htm (accessed on 15 May 2024).
- 53. Catalonia Statistics Department. Available online: https://www.idescat.cat/?lang=en (accessed on 15 May 2024).
- 54. Barcelona Online Data Portal. Available online: https://portaldades.ajuntament.barcelona.cat/es/ (accessed on 15 May 2024).
- 55. Atlas.ti software. Available online: https://atlasti.com/ (accessed on 15 May 2024).
- 56. Van Dijk, T.A. News as Discourse; Lawrence Erlbaum Associates, Inc.: Mahwah, NJ, USA, 1988.
- 57. Guba, E.G. Criteria for assessing trustworthiness of naturalistic enquiries. Educ. Commun. Technol. J. 1981, 29, 75–91. [CrossRef]
- 58. Treharne, G.; Riggs, D. Ensuring Quality in Qualitative Research. In *Qualitative Research in Clinical and Health Psychology*; Rohleder, P., Lyons, A., Eds.; Bloomsbury Publishing: London, UK, 2014.
- 59. López-Gay, A.; Sales-Favà, J.; Solana-Solana, M.; Fernánez, A.; Peralta, A. El avance de la gentrificación en Barcelona y Madrid, 2011–2019: Análisis socioespacial a partir de un índice de gentrificación. *Estud. Geogr.* **2021**, *82*, e084. [CrossRef]
- 60. López-Gay, A.; Ortiz-Guitart, A.; Solana-Solana, M. Vivienda, cambio poblacional y desplazamiento en un barrio en proceso de gentrificación. El caso de Sant Antoni (Barcelona). EURE (Santiago) 2022, 48. [CrossRef]
- 61. Cocola-Gant, A.; López-Gay, A. Transnational gentrification, tourism and the formation of 'foreign only' enclaves in Barcelona. *Urban Stud.* **2020**, *57*, 3025–3043. [CrossRef]
- 62. Bridge, G. It's not Just a Question of Taste: Gentrification, the Neighbourhood, and Cultural Capital. *Environ. Plan. A Econ. Space* **2006**, *38*, 1965–1978. [CrossRef]
- 63. Hernández, A. De la Botiga a la Boutique. *URBS Rev. Estud. Urbanos Cienc. Soc.* **2016**, *6*, 79–99. Available online: https://dialnet.unirioja.es/servlet/articulo?codigo=5641798 (accessed on 26 March 2024).
- 64. Pareja-Eastway, M.; Sánchez-Martínez, M.T. El sistema de vivienda en España y el papel de las políticas ¿qué falta por resolver? *Cuadernos Económicos de ICE* 2015, 90, 149–174. Available online: https://www.revistasice.com/index.php/CICE/article/view/6111/6111 (accessed on 19 March 2024).
- 65. Byrne, M. Generation rent and the financialization of housing: A comparative exploration of the growth of the private rental sector in Ireland, the UK and Spain. *Hous. Stud.* **2020**, *35*, 743–765. [CrossRef]
- 66. Domingo, G.; Escorihuela, I. Qui Desnona a Barcelona? Anàlisi del Paper dels Grans Propietaris Privats en les Expulsions de la Ciutat. Observatori DESC. 2022. Available online: https://observatoridesc.org/sites/default/files/publication/files/informe_quidesnona_web.pdf (accessed on 26 March 2024).
- 67. Collaborative Eviction Map. Available online: https://cmmm-maps.eu/barcelona/ (accessed on 23 May 2024).
- 68. Arellano, B.; Roca, J. Informe Relatiu a la Valoració del Impacte de la Nova Proposta Normativa de Mesures Urgents per Millorar l'Accés a l'Habitatge Regulada al DLL 17/2019. 2020. Ajuntament de Barcelona. Available online: https://llnq.com/4NtR8 (accessed on 19 March 2024).
- 69. Illa, M. *La Falsa Solució Turística: Concentració de Beneficis i Deute Social*; Observatori del Deute en la Globalització (ODG): Barcelona, Spain, 2019. Available online: https://llnq.com/vvlg2 (accessed on 19 March 2024).
- 70. Navarro Soler, L.; Díez, O. La crisi de l'habitatge. Barcelona Metròpolis Dossier, 24 July 2021. Available online: https://www.barcelona.cat/metropolis/ca/continguts/la-crisi-de-lhabitatge (accessed on 16 May 2024).
- 71. Uzqueda, A.; Garcia-Almirall, P.; Cornadó, C.; Vima-Grau, S. Critical Review of Public Policies for the Rehabilitation of Housing Stock: The Case of Barcelona. *Buildings* **2021**, *11*, 108. [CrossRef]
- 72. Uzqueda Martínez, Á.L. La Intervención Pública en Rehabilitación y Regeneración Urbana en Barcelona: Caracterización de Claves Operativas y Metodológicas. Ph.D. Thesis, Technology of Architecture-Polytechnic University of Catalonia, Barcelona, Spain, 2024. [CrossRef]
- 73. Németh, J. Briding and Bonding. Public Space and Immigrant Integration in Barcelona's el Raval. In *Compation to Public Space*, 1st ed.; Mehta, V., Palazzo, D., Eds.; Routledge: London, UK, 2020. [CrossRef]
- 74. Alabart Vilà, A. Polítiques Urbanístiques i Moviment Associatiu Veïnal. *Barc. Soc. Rev. d'Inform. Estud. Soc.* **2010**, *19*, 87–97. Available online: https://ajuntament.barcelona.cat/dretssocials/sites/default/files/revista/revista-19-art7-politiques-urbanistiques-moviment-associatui-veinal.pdf (accessed on 23 May 2024).
- 75. Storr, V.; Haeffele, S.; Grube, L. Crisis as a Source of Social Capital: Adaptation and Formation of Social Capital during the COVID-19 Pandemic. *Cosm. Taxis* **2021**, *9*, 94. Available online: https://cosmosandtaxis.org/wp-content/uploads/2021/05/storr_et_al_ct_vol9_iss_5_6.pdf (accessed on 5 April 2024).
- 76. Pénard, T.; Poussing, N. Internet Use and Social Capital: The Strength of Virtual Ties. J. Econ. Issues 2014, 44, 569–595. [CrossRef]

77. Alessandrini, M. Getting Connected: Can Social Capital be Virtual? *Webology* **2006**, *3*, 1–8. Available online: https://www.webology.org/data-cms/articles/20200515034902pma33.pdf (accessed on 5 April 2024).

- 78. Manyena, S.B. The concept of resilience revisited. *Disasters* **2006**, *30*, 434–450. [CrossRef] [PubMed]
- 79. Domínguez-Mujica, J.; González-Pérez, J.M.; Parreño-Castellano, J.M.; Sánchez-Aguilera, D. Gentrification on the Move. New Dynamics in Spanish Mature Urban-Tourist Neighborhoods. *Urban Sci.* **2021**, *5*, 33. [CrossRef]
- 80. Renzaho, A.; Richardson, B.; Strugnell, C. Resident well-being, community connections and neighborhood perceptions, pride and opportunities among disadvantage metropolitan and regional communities: Evidence from the neighborhood renewal project. *J. Community Psychol.* **2012**, *40*, 871–885. [CrossRef]
- 81. Domínguez-Mujica, J. The Urban Mirror of the Socioeconomic Transformations in Spain. Urban Sci. 2021, 5, 13. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.