

Qüestions d'Habitatge

23

NOVEMBER 2019

**The Barcelona
Renovation Model**

Contents

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Presentation: Renovation, a tool for transformation Lucía Martín González, Councillor for Housing and Renovation at Barcelona City Council	5
Towards a new culture of renovation in Barcelona Josep Maria Montaner, architect and professor of theory and history of architecture (ETSAB-UPC)	9
The transformational potential of renovation Jordi París. Chair of the Chamber of Professional- Service Enterprises in Construction	21
Renovation: The challenges of construction enterprises Josep Gassiot i Matas. Chair of the Builders' Guild of Barcelona and Counties	25
Conversation with Carme Borrell, Manager of the Barcelona Public Health Agency: "Physical housing conditions influence people's health" Núria Pedrals. Architect.	31
Annexe: examples of renovations	
Renovating the Canyelles neighbourhood	41
Renovating Lope de Vega, 111	47
Renovating the public housing stock	53





Presentation





Renovation, a tool for transformation

People's health, quality of life and well-being are directly linked to good living conditions. This is what the scientific studies say and it is patently obvious in cities that look after residential buildings through renovations. In addition, maintaining dwellings in good condition is a key tool against inequalities and gentrification and in defence of the right to live in decent housing.

Having a housing stock in good repair in Barcelona is a major challenge. We have our own city model, which we reformulated during our previous term of office with the aim of putting not just people and their well-being, but also sustainability and energy efficiency at the centre of our model. Examples can be seen from the Authority's lines of proactive aid for allocation to the most vulnerable communities and making aid to owners conditional on them renting out their properties at an affordable price.

In addition, our commitment to renovation has brought about the revitalisation of a specialist and highly skilled professional sector. In other words, it has a positive impact on the economy and employment in the small and medium-size enterprises in the city and its neighbourhoods.

We at the City Council are sparing no effort to promote renovations, but this is not a task that can be carried out solely by the Administration and professionals from the sector. Also needed is the co-responsibility of the property owners,



**Lucía Martín
González**

Councillor for Housing
and Renovation at
Barcelona
City Council

who have to ensure their properties are properly maintained.

The following pages offer an in-depth analysis not only of what renovation in Barcelona entails, but also its successes and the challenges that lie ahead of us. This issue 23 of *Qüestions d'Habitatge* includes an article by the Councillor for Housing and Renovation who preceded me, Josep Maria Montaner, which takes an in-depth look at the city's renovation model. We are lucky to have the legacy of his expertise.

The publication will continue with two authoritative voices from the renovation guild: Jordi París and Josep Gassiot. Note should be taken of what they say as they represent a group that plays a key role in bringing about the renovation model the city needs. Below, you will find a conversation with Carme Borrell, Manager of Barcelona's Public Health Agency, highlighting one of the reasons for going ahead with renovations, namely to improve people's health.

We completed this issue with a collection of examples of the public and private housing stock's renovation projects. Some are already a reality and others are projects at the drafting stage that will soon enable numerous families to have a comfortable and sustainable home in a good state of repair.

We hope you find this useful.





The Barcelona
renovation
model

Sargfabrik, in Vienna, from the BKK-3 team, an example of renovation that takes account of sustainability and energy saving.

CHAPTER





01

Towards a new culture of renovation in Barcelona

The future of cities lies in the renovation of their neighbourhoods rather than new buildings. This change relates to the new values of citizenship, with its raised awareness of ecological problems and championing of city sustainability.

While restoration of monuments was a human activity which first began in the 18th century, and currently includes intervening in fragile modern architecture, as championed by DOCOMOMO¹, recognition of renovation has been notable over the last few decades, different in scale and values. Renovation — in contrast to restoring unique buildings — is focused on ordinary buildings, residential networks, whether or not historical, whether or not social housing complexes, built under modern-movement principles; it is not about objects but rather about systems, where the city is understood as an ecosystem, and it not only involves what is built but also extends to the public space and to the level of urban regeneration.



Josep Maria Montaner

Architect and professor of theory and history of architecture (ETSAB-UPC)

Renovation has its own history: as a contemporary concept it arose from a proposal from Patrick Geddes' *conservative surgery* and from the pioneering initiatives of British philanthropists such as Octavia Hill and Lady Aberdeen, and it improved existing neighbourhoods around the turn of the 20th century. It was consolidated during the 1970s, under the Urban Plan for a typological, infrastructural and chromatic restoration of the historical centre of Bologna, in Italy; the urban plan was started in 1969 to gradually redo the medieval areas, one by one, based on a study of architectural types, introducing improvements in accessibility, bathrooms, kitchens and facilities, attempting to recover the traditional city's chromatic image, while following the goals of left-wing urban thinking.

These methodological antipodes show us what has been carried out in Chinese cities, such as Xi'an, Shanghai and Beijing, where monumental enclaves have been embalmed and historical residential fabrics, *hutongs*, systematically razed, to make way for the construction of new areas with tower blocks for offices, hotels and apartments. China consumes 40% of the world's cement and yet its buildings are not expected to last longer than thirty years.

1. DOCOMOMO stands for the *International Working Party for Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement*. It is a non-profit organisation dedicated to the conservation of important buildings.

Renovations are key to responding appropriately to climate change.

CHAPTER





02 The transformational potential of renovation

According to the dictionary, *to renovate* is to restore something to its former state. When it comes to buildings, however, renovations have to go beyond restoring to original states. Renovation has to meet present and future needs rather than those of the period the buildings concerned were constructed in.

We therefore need to imagine what we would want from buildings in a not so distant future. We would very probably need to expect a high level of resilience from them.

Resilience, in contrast to fragility, is an ecosystem's capacity to return to a normal state after being affected by disturbances or interferences. The resilience of a building is its capacity to adapt to changes. It is the closest thing to being smart, but not necessarily digitally speaking.

What changes?

It all seems to point to buildings increasingly having to adapt to climate and functional changes.

Climate variability is increasingly present, over here too, and buildings are a key element for responding to it appropriately.

Here we have an interesting feature, given that our climate, unlike in many other parts of the globe, has always faced two challenges: achieving comfort when it is hot and when it is cold.

In many countries, the question had been simpler up to now: either it was cold (and the



Jordi París
Chair of the Chamber of Professional Service Enterprises in Construction

solution was capturing as much solar radiation as possible with maximum insulation), or it was hot (and the solution was protection from solar radiation and managing ventilation and thermal inertia with a certain degree of insulation). In these countries, it will be extremely difficult to adapt to variability since their building culture does not allow simultaneous adaptations to the two adverse conditions. Episodes of *canicules* (heat waves) in France are good examples of this.

If we make the most of a building culture that enables adaptations to different situations and use the building technologies we have at hand (materials, systems, calculation tools), we can make considerable energy and economic savings and make these compatible with the comfort of spaces, even in situations of greater climatic variability.

Another type of change that we will have to face are functional changes in buildings, and renovations can also play a notable role here. Such changes are hardly new, but they never happened at the accelerated pace we see today.

After major reforms are completed in a hospital, we often find that plans are under way to implement a new reform of some functional packages, because the needs of their functional programme have started to change. A primary school built today may soon need to be turned into

Specialisation of the players is the main challenge when it comes to approaching renovation work.

CHAPTER





03 Renovation: The challenges of construction enterprises

This communication is meant to be a reflection, the result of personal but shared experiences, on the situation of enterprises dedicated to reforming, renovating and maintaining buildings. Mainly on commonhold dwellings or from the public housing stock managed by the various authorities. My reflections on aspects of managing the execution of works that start with projects commissioned by the various developers and which are awarded to the enterprises that have to carry it out with the quality necessary for satisfying the needs and aspirations of the end users who will be living in the dwellings. The first issue that has to be pointed out is that those who manage renovation projects often have no connection with the people later using the dwellings (the end users), thereby leading to problems and dysfunctions.

The first challenge facing us when approaching a renovation project is the specialisation of the players intervening in projects and their execution.

The first player that intervenes as a manager is the management agent, who detects the needs of the buildings and manages their maintenance. Their function in the usual operations is repetitive and they organise initiatives with seriousness and rigour, and regulate all forms of management in accordance with the legislation



Josep Gassiot i Matas
Chair of the Barcelona and Counties Builders' Guild

in force. Management work becomes all the more complicated with special situations arising from building pathologies and special work having to be carried out as a result of technical building inspections (ITEs). They need technical advice from competent professionals and, above all, have to manage the aims of the owners, which do not always coincide with one another in terms of opinions and interests, and have to help to obtain everyone's consensus. The situations become complicated when there are problems arising from unstable financial or social situations. In the case of properties with dwellings with major problems and in especially difficult areas, managing projects requires teamwork and the dedication of an expert in management in collaboration with the various players (managers, experts and builders) that make up the management collaboratively acting together and seeking out all the possible resources.

The second players intervening in renovations are the renovation projects' technical designers. These are expert architects, depending on the case, who have the skills to make diagnoses, propose initiatives, carry out projects and direct them as project managers. As in all construction-related cases, not all the skilled experts have experience in renovation, which is a speciality requiring expertise, both in diagnosing and in preparing projects. In some cases teams have to be set up

CHAPTER



04 **Carme Borrell:** “Physical housing conditions influence people’s health”

Conversation with the Manager of the Barcelona Public Health Agency



Núria Pedrals
Architect.

The conversation with Carme Borrell focuses on the relationship between housing conditions and people’s health. The problem of energy poverty, which affects a large number of families, has come to the fore over the last few years. Up to now, to alleviate such situations, the Administration has been covering the payments of energy-consumption bills, but this will end up a bottomless pit unless some other type of long-term measure is taken.

We have a very extensive constructed housing stock with very inadequate qualities as regards building shells; this stock has to be renovated for adaptation to today’s quality requirements and because, in any case, renovating is much cheaper than building anew.

Renovating buildings has a high initial investment cost but guarantees, through passive measures, the improved behaviour of dwellings, a reduction in energy demand and substantial improvements to comfort conditions, even though there are no extra energy contributions.



Borrell is a physician, specialising in preventive medicine and public health.

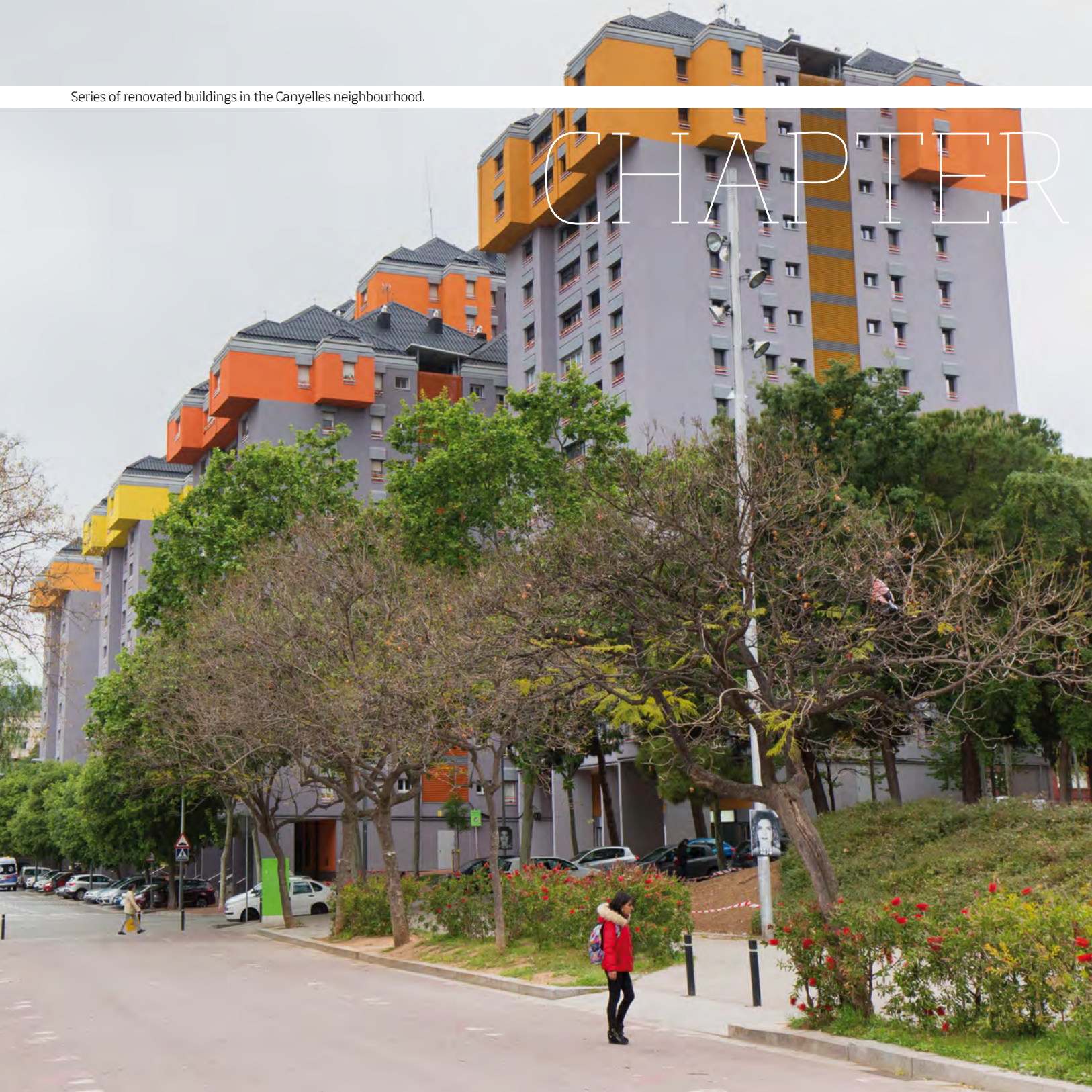




Annexe: examples
of renovations

Series of renovated buildings in the Canyelles neighbourhood.

CHAPTER





05 Renovating the Canyelles neighbourhood

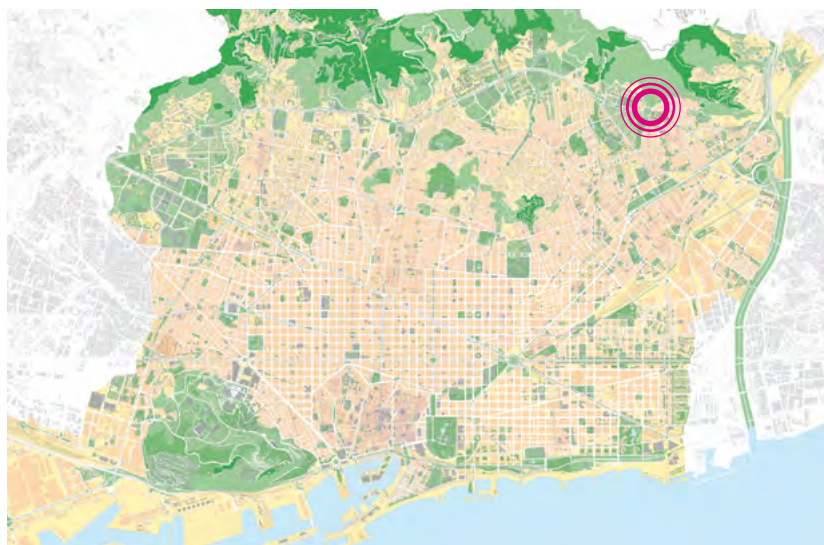
As we drive along the Ronda de Dalt de Barcelona ring road, we cannot help but notice the changes that the Canyelles neighbourhood, located in the highest part of the city, has been undergoing. Made up of a series of detached houses and 14-storey buildings, this neighbourhood has been gaining a personality of its own and seeing changes in the colours of its building façades. These apparently formal changes conceal a much more profound renovation process.

The Canyelles neighbourhood was built back in the 1970s to provide accommodation for the city's burgeoning population, some of whom had come from other redeveloped neighbourhoods. The façades of its buildings have been in need of renovation because of carbonation (decomposing concrete) problems.

This need has offered an opportunity for carrying out fuller renovations as well as improving the façades' insulation.

This was all explained to us by César Gutiérrez, the Chair of the Residents' Association, who lives in one of the renovated former detached houses and has been at the fore, through his enthusiasm and conviction, of a good part of the renovation process.

He tells us that, given the need to carry out work to monitor the carbonation of the concrete, the opportunity was taken to participate in the Grow



Smarter European project alongside the cities of Stockholm and Cologne. The process, which was led by the former Barcelona Housing Trust, applied for extraordinary European funding, and the Catalan government, Gas Natural and the UPC also took part to assess the results obtained.

The project, explains César Gutiérrez, included insulating façades and roof spaces and, in the case of César's house, replacing the windows with recycled aluminium with thermal bridge breakage

Renovated façade of the Lope de Vega estate, 111.

CHAPTER





06 Renovating Lope de Vega, 111

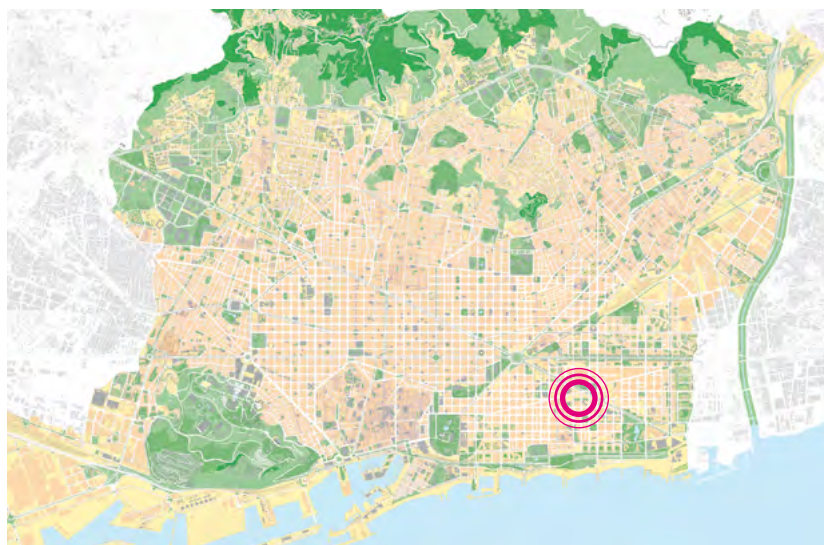
When we arranged to meet Carlos Pérez for an interview in Carrer de Lope de Vega, 111, he suggested it would be better to meet in Carrer de Pallars, where we could get a better view of the façade.

In fact, it is from the square that is currently being completed, open as a public space along Carrer de Pallars, that he explains this unique project combining energy renovation and urban regeneration. The renovated façade corresponds to the lower part of the Lope de Vega estate, 111. It formerly looked onto a wall, as Carlos Pérez tells us, but now it has the privilege of looking onto an open, public space, with excellent light facing east and extensive views.

This intervention was carried out for several reasons. Firstly, the keenness of the Cornerstone company, located opposite it in the same block, which wanted to dignify the lower part of its building, which would be looking onto the future square on Carrer de Pallars.

Secondly, the aim of an owner, in this case of the entire building at Lope de Vega, 111, who understood that improving the building's posterior façade would bring considerable value to the dwellings.

Thirdly, the father and son architects who designed the project and managed the works, Carlos Pérez Sánchez and Carlos Pérez Mir, who quickly realised



the possibilities that would be offered by carrying out a different kind of project on this façade.

Fourthly, the possibility of taking part in the European-level Grow Smarter project, and applying for extraordinary subsidies given all the above circumstances.

The initial façade looking onto the square was exactly the same as the one of the other residents, as can be seen from the photos. The central idea of this renovation was to enlarge the existing

Façade of the renovated building on Pg. Sta Coloma, 55-71

CHAPTER





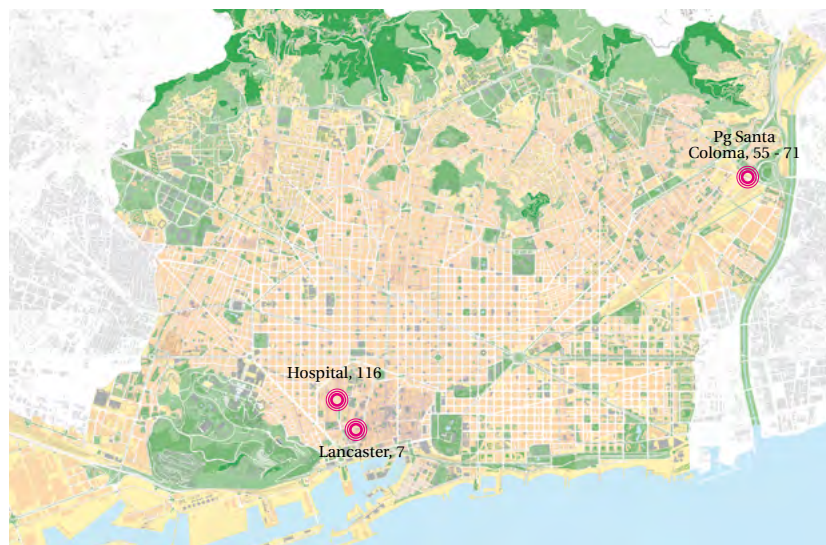
07 Renovating the public housing stock

The field of renovation is very broad and complex. The Barcelona Municipal Institute of Housing and Renovation (IMHAB) has been working on several lines to promote renovations of buildings. As regards privately owned buildings, the best-known and usual line consists of sinking-fund subsidies that are awarded through annual calls for subsidy applications, which fund part of the renovation work being carried out by owners.

There are also other renovation methods, however, which are being carried out in the area of housing owned by the municipal authorities. This is an expensive renovation policy, given that, in some cases, we are talking about the acquisition of entire privately owned buildings. Most are in poor repair owing to neglect by their previous owners and usually have differing degrees of occupancy, from both physical and legal points of view. In other cases they are buildings owned by the City Council and managed by IMHAB that require renovation.

In all, IMHAB manages over 8,000 dwellings in various ways. Most are intended for social or affordable rental housing.

In the case of newly acquired buildings, the purpose of such purchases is to fully renovate the building. In some cases, even the type and number of dwellings are changed so they can be



allocated to social or affordable rental housing. There are several buildings that have already been renovated, and where the homes have been awarded to various candidates.

Managing these projects and works is very complex and requires not just financial resources but also time and teams of people specialising in several aspects of management. Legal management is needed, owing to the range of technical legal situations in which many of these



Ajuntament
de Barcelona