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CONSERVATION OF THE URBAN HERITAGE AND SUSTAINABILITY: Barcelona as a Paradigm

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Abstract

The legislation in force provides for the protection of natural areas, not only for their scenic qualities but also as agricultural or environmental reserves. However, this strategic conservation of the rural landscape is not matched by similar conservation measures for the built fabric in large cities. This paper considers how to bring about, in a city with a major architectural heritage such as Barcelona, a programmatic change in a manner similar to what is happening in the rural environment, understanding and promoting the conservation of large urban areas as a form of strategic environmental conservation, as the reserving of area for the future and as part of an ecosystem.

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Keywords: Heritage, adaptive reuse, Barcelona, building typology, legislation for the protection of architectural heritage.

1. Introduction

Over the course of the twentieth century, society has become increasingly aware of the need to preserve and conserve natural areas to prevent their degradation and to halt the innumerable attacks to which the industrial model of economic development has subjected the planet. To this end, the legislation for the protection of nature has gradually acquired more complexity.

While we can trace the most significant European precedents for this shift in perception to the First International Conference for the Protection of Nature, held in Bern in 1913, and the First International Congress on the Protection of Landscapes, including flora and fauna and natural monuments, which took place in Paris in 1923 (Feijo & Lorenzo, 2005)[1], it was not until the second third of the twentieth century that the concept of natural area was extended to include rural and agricultural areas shaped by human intervention as environmental reserves, given that human action

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also configures the landscape, identity and biodiversity of an area. It has been shown that this type of ecosystem constitutes a heritage and cultural resource of the first importance for municipalities, for their socioeconomic development and for the quality of life of their citizens. Rural and agricultural areas help to balance urbanization, lessen the ecological footprint and bring the primary sector into closer contact with population centres, as well as contributing to the conservation and decongestion of other more significant areas with a much smaller capacity to accommodate urbanization.

In the case of Catalonia, in 1992 the autonomous regional government of the Generalitat drew up the Plan for Areas of Natural Interest, PEIN (*Pla d'Espais d'Interés Natural*), which only includes the 'natural areas', and it was not until the beginning of the present century that it begins to develop Special Plans for agricultural and rural areas. This is the case, for example, of the Special Plan for the protection and improvement of the Baix Llobregat Agricultural Park (*Pla Especial de protecció i millora del Parc Agrari del Baix Llobregat*)[2], finally adopted on 17 December 2003 and revised in 2015, which affects 15 municipalities in the Barcelona metropolitan area. Within eleven years there had been a shift from protecting only the natural areas of the Llobregat Delta to protecting and conserving the whole of the agricultural area (fig. 1). The new Special Plan defends the ability of this area to act as a green lung and as a natural area of great ecological wealth; and at the same time, it limits urban congestion in the metropolitan area, partially guarantees the supply of the area's food needs and encourages the existence of agricultural plots with social and recreational uses in a densely populated environment. The protection of this area is also concerned with halting the abandonment of many agricultural plots which were 'waiting' to be rezoned and, at the same time, with resisting the threatened implementation of major infrastructure and services linked to the development of the metropolitan area.

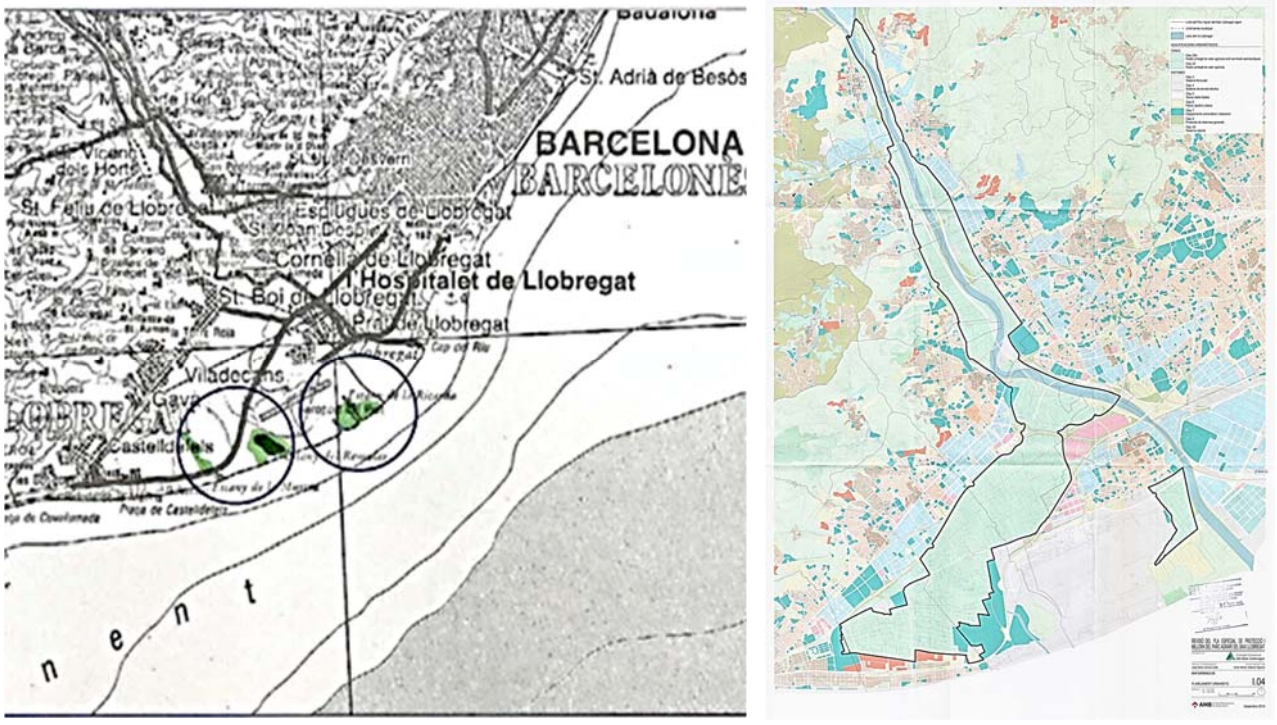

Fig 1. Comparative figure showing the area of the Llobregat Delta protected by the PEIN (1992) and the area protected by the Special Plan (2003).

However, this strategic conservation of the rural territory for environmental reasons and as a reserve of space for the future has no equivalent in most of the large cities, among these being Barcelona. As was the case in the first plans for the protection of the landscape or its 'natural monuments', in most cities it is only the 'monuments' that are protected: a few exceptional pieces of the architectural heritage or, at best, a few groups or ensembles. But as yet there is no sign of the programmatic shift towards the conservation of large sectors that is taking place in the rural territory,

nor is the existing urban fabric classed as 'shaped by human intervention': as in agricultural areas, these are valuable assets which must be protected strategically to help balance the urban ecosystem as a whole. And just as in the past the cultivated fields and plots of the Llobregat Delta were abandoned, in many cities today buildings are being 'abandoned' in the expectation that their inevitable degradation will result in their demolition, thus removing the constraints entailed in rehabilitation or reuse.

2. Heritage, urban conservation and energy saving

Conserving the existing urban fabric in order to reuse it entails significant savings not only for buildings but also for the whole of the city and the region. Not demolishing a construction avoids consuming the great amount of energy required to create a similar volume of new-build space. 50% of the energy that goes into a building – its embodied energy – corresponds to the manufacture of basic architectural materials and components (Jackson, M., 2005)[3]. Conserving not only avoids wasting the material that constituted the demolished structure but also saves on new materials and resources. To quote Gunther Moewes (1997): *The idea that low energy-consumption buildings are respectful of the environment and that, through the construction of more buildings of this type, we will fulfil the promises made at the Rio de Janeiro Summit in order to reduce the emission of CO^2 for 2005 to 25 per cent of the level existing in 1990 is, naturally, a stupidity. A new building never saves energy, but it generates new energy needs, and the qualification of new land for urbanization is basically anti-ecological*[4].

The recovery of abandoned or underused buildings, giving them functions different from those they originally accommodated, is a key factor in reducing urban sprawl and in land conservation. In addition, avoiding the destruction of supposedly obsolete property, facilities or infrastructure constitutes a reserve of space for future events. A very significant development in this regard is the recent decision of the International Olympic Committee regarding the facilities of future Olympic cities. According to the IOC's *Agenda 2020*, the model of urban transformation applied until now, based on the gigantic scale of the constructions and the profligate expenditure of resources, must be seriously questioned and candidate cities will have to submit plans for temporary facilities and extensive use of existing buildings, introducing sustainability into every aspect of the Games[5]. In fact, the 2012 Summer Olympics already included major strategic use of urban areas, with good results, demonstrating in the early twenty-first century the need to protect, conserve and utilize urban areas, in much the same way as was done with natural and agricultural areas in the late twentieth century.

The need to integrate the urban heritage with environmental issues, economic development and habitability of the city is reflected in the 'Recommendation on the Historic Urban Landscape' adopted by UNESCO in 2011. According to this document, the heritage, the economy, the environment of our cities and their social and cultural factors should not be in conflict, but should be integrated into what is defined as Urban Landscape: *The historic urban landscape is the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of 'historic centre' or 'ensemble' to include the broader urban context and its geographical setting […] This definition provides the basis for a comprehensive and integrated approach for the identification, assessment, conservation and management of historic urban landscapes within an overall sustainable development framework*[6].

While some of its proposals are generalised rather than detailed, the UNESCO Recommendation provides a far more realistic view of current needs for the conservation of our tangible and intangible historic urban culture. The issue is not addressed in piecemeal terms, individualising parts and, at most, buildings from their surroundings, but is presented in all its complexity as linked to energy expenditure, the need to reduce CO^2 emissions, and the desirability of conserving the heritage in general to a much greater extent.

However, the solutions put forward in the UNESCO document for providing this architectural heritage with functional programmes are all too predictable. It recommends policies for promoting cultural uses and tourism for the Historic Urban Landscape, while relegating to the sidelines the incorporation of residential use to regenerate the life of large urban areas on the basis of habitability. Nor does it take into account those buildings, groups or urban fabrics which may not be catalogued as historic or be of particular heritage interest but have clearly demonstrated architectural qualities that make them readily transformable and adaptable to new uses (adaptive reuse) and should be incorporated into new special plans for protection and conservation as a basic strategy for the saving of energy and resources.

2.1. Adaptive reuse

Adaptive reuse should be a strategy for conserving not only the heritage urban fabric but also abandoned and underused urban buildings, adapting and transforming them to new uses according to their morphology, structure and construction characteristics. In light of this we understand adaptive reuse to be the adaptation of new uses to suit existing buildings, and not vice versa. Unfortunately, if we look at many of the operations that have been carried out to date, we find that, in general, the buildings have been adapted to the new uses, with traumatic consequences for their integrity (fig.2).

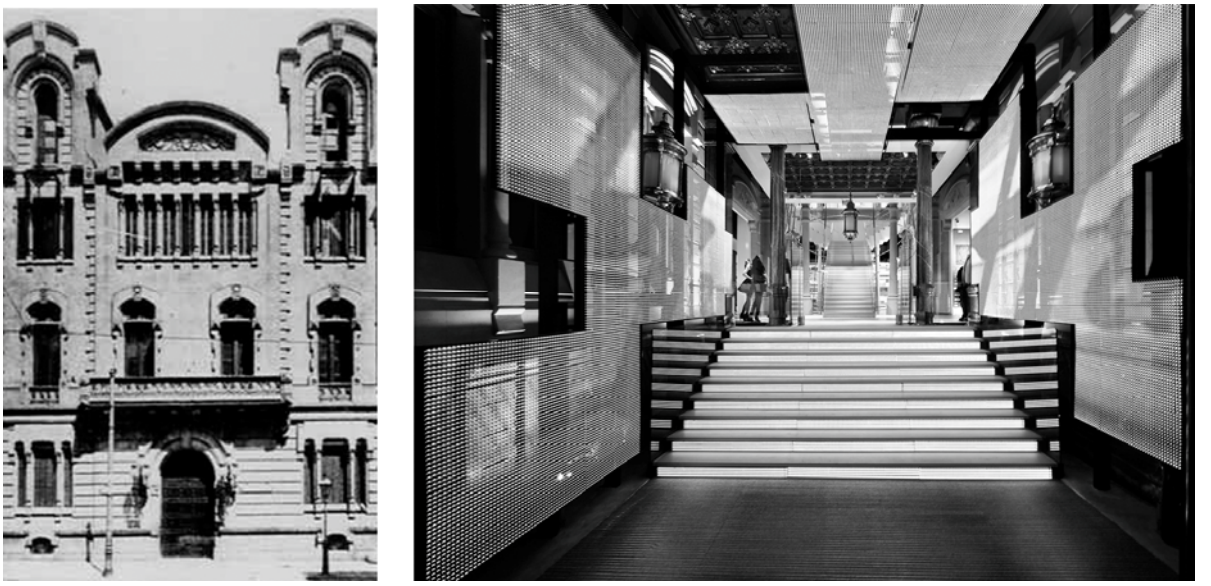

Fig 2. Comparative figure showing the adaption of the Catalan Gas Company office building (1893) to the actual use, an H&M store (2008).

The recent updating of one of the most internationally prestigious 'green' certifications, and one that addresses the improving of activities in cities in all its complexity, the USGBC's LEED *(Leadership in Energy and Environmental Design*) introduces, in its *Neighborhood Development* category (updated April 5, 2016), the 'Historic Resource Preservation and Adaptive Reuse' credit[7]. The aims of this credit are to prevent the demolition of historic buildings and also those buildings that contribute to a historic urban fabric, and to avoid interfering in the cultural or heritage landscapes, in order to optimize the resources of a population: '*do not demolish any historic buildings or contributing buildings in a historic district, or portions thereof, and do not alter any cultural landscapes as part of the project.*

2.2. Historical context of heritage conservation beyond singular buildings

The commitment to protect the architectural heritage, not just in the case of singular buildings but also embracing certain sectors of the city and the region, was first championed by the Italian architect and theorist Gustavo Giovannoni (1873-1947). In his book *Vecchie città ed edilizia nuova* (Giovannoni, G., 1931)[8] he relates the need to preserve the urban fabric to the imperatives of history (documentary value), art (aesthetic value) and life (use value). Giovannoni rejected the museumizing of historic centres as a mistake and advocated keeping the sectors of the city 'active', celebrating the heritage ensembles as part of a living fabric which has to maintain an essential relationship with its surroundings.

From the Athens Charter of 1932[9], inspired by Giovannoni, through to the Venice Charter of 1964[10], concern for heritage preservation remained focused on individual buildings and architectural ensembles, at most expanding the field of action to a part of the environment. It was the Norms of Quito in 1967[11] that first made evident the need for heritage buildings to be integrated with the larger historic centre or complex in order to safeguard the city's environmental values. Any intervention in a historic asset to facilitate its use must not detract from its nature and character, while also bearing in mind that these must be reconciled with urban development and modernisation plans.

The term coined in Quito, 'value enhancement', envisages the heritage as an economic resource, on a par with other natural resources of the country and as such a generator of profit. However, the authors of the Norms thought of these profits as deriving mainly from tourism.

Historic complexes are envisaged in the Norms of Quito as economic resources, as forms of 'natural wealth' comparable to a region's natural parks and rural and agricultural resources. The urban heritage is regarded as part of the natural heritage. In this sense, the term 'Landscape Heritage' is entirely appropriate.

3. Barcelona as case study

3.1. Barcelona, heritage and urban conservation

The set of regulatory measures for the protection of Barcelona's architectural heritage in matters of preservation, reuse and conservation falls a long way short of the new considerations reflected in the Norms of Quito or UNESCO's recommendations of 2011. There is a lack of an overall policy such as exists for natural parks and rural and agricultural areas to promote the maintenance of the construction characteristics of the building stock, prevent further land occupation, establish a reserve of space and protect the environment. Parts of the urban fabric that should be considered as reserves of building stock are conserved only at the epidermal level, in order to provide a superficial image of the 'historic' city for tourist consumption, thereby missing the opportunity to act in a way that is more respectful of the environment and the city.

The laws that form the basis of architectural heritage protection in Barcelona are:

- Law 22/1998, of 30 December, of the Municipal Charter of Barcelona[12].
- Law 9/1993, of 30 September, of the Catalan Cultural Heritage[13].
- Planning Regulations of the General Metropolitan Plan for protection of the heritage, 2001[14].
- Catalogue of Protection of the Architectural Heritage of the city of Barcelona by districts, 2000[15].

The classification derived from these laws orders the building stock according to four levels of protection:

- Level A is reserved for Cultural Assets of National Interest to Catalunya.
- Level B takes in buildings of local interest which are also included in the cultural heritage of Catalonia but whose characteristics are not sufficient to qualify as Cultural Assets of National Interest.
- Level C is for assets of urban interest, namely buildings that are not catalogued at either the national or the local level but possess significant historical and artistic values for the urban sector in which they are located.
- Level D applies to assets of documentary interest, buildings whose characteristics are such that they can be moved from their original location without this being a conservation problem, and also buildings scheduled for future demolition which must be documented to conserve their memory.

The Special Plans for the Protection of the Architectural Heritage and the Catalogue adapted to the districts of the city of Barcelona, approved in the course of 2000, together protect a total of more than 8,300 buildings and ensembles. Level A, the most restrictive in conservation terms, contains 113 buildings; Level B, 1,509; Level C, 1,915; and Level D, 4,809 buildings or architectural ensembles. A special category has also been added for retail premises of interest, Level E, with 211 shops and businesses.

The types and degree of protection afforded to buildings and ensembles in levels A and B are sufficient to ensure the preservation of their main morphological, structural, spatial and material characteristics. Unfortunately, however, the reality is that not all operations for the restoration of Cultural Assets of National or Local Interest have been respectful of their object or very fortunate in their results.

For buildings listed in level C (more numerous than the sum of levels A and B together), the types of protection afforded by the legislation range from maintaining the typological structure (taken as comprising the façade and layout of communal elements: entrance halls, stairwells, patios and structure) to the obligation simply to maintain the façade.

This second option allows the complete demolition of the interior and replacement of the whole of the building with new elements provided this has no aesthetic impact on the façade.

In the case of urbanistically protected ensembles, the legislation extends its field of action to include, on the one hand, preservation of the environs of Cultural Assets of National or Local Interest, with the aim of ensuring that adjacent buildings are not aesthetically discordant with the protected 'monument', and, on the other hand, to allow the municipal or district council to delimit urban areas of historic or aesthetic interest within a specific perimeter. This protection only applies to façades visible from the public highway and, in some instances, from the interior of the block. In exceptional cases especially significant ensembles may be afforded protection that extends beyond their façades.

Analysis of the current regulations in Barcelona for the protection of buildings, ensembles or sectors of the city makes it clear that the obligation to maintain the structural, material and morphological characteristics of these is relative and that, except for assets covered by the levels A and B, a high percentage can be almost entirely demolished except for their façades. The savings in energy and reduction of CO^2 emissions which rank among the advantages of reusing existing buildings fail to occur. On the contrary, there is an increase in applied energy and emissions as a result of producing and removing tons of rubble, propping up old façades using expensive systems, and bringing in new materials and labour to reconstruct the interiors.

3.2. Barcelona and the adaptive reuse of buildings

Parallel to the parameters established by current legislation on the Architectural Heritage, the history of Barcelona shows that the city has been reusing existing buildings for hundreds of years. Barcelona has a very considerable number of individual buildings, built ensembles and urban precincts both small and large that were constructed at some particular moment in time to meet some specific need. Over the years many of those original needs have changed or disappeared and the buildings have changed use, sometimes more than once, to accommodate different functional demands, yet they have substantially retained the structural and morphological characteristics of the original architecture. Private houses, palaces, apartment buildings, offices, theatres, cinemas, hospitals, monasteries and convents, factories, sports facilities and various other constructions built for major events (fairs, expositions, sporting events, forums, etc): in all, more than 800 buildings whose structural, spatial and material characteristics are sufficiently clear and potent for them to survive any subsequent interior redistribution or partition. Their relatively uncomplicated recovery for new uses resists the passage of time, enabling them to adapt to necessarily changing realities without losing their morphological identity.

There are paradigmatic examples all over the city(fig.3): the *Drassanes* shipyards, begun in the thirteenth century, from the seventeenth century housed various military and hospital functions before becoming the *Maritime Museum* in 1936; the *Ciutadella army barracks* was transformed, thanks to the Universal Exposition of 1888, into a park, the Catalan Parliament and the Museum of Modern Art before returning to parliamentary activity in 1980; the great cistern of the *Dipòsit de les Aigües* in the Ciutadella, also from 1888, became the library of the Universitat Pompeu Fabra in 1999; a part of the *Hospital de la Santa Creu*, which dates from 1401, has housed the Library of Catalonia since 1931, another part became the Massana art school in 1935, another part became the Royal Academy of Pharmacy in 1955, and yet another was the District Library from 1970 until the end of the twentieth century, while the chapel has been converted into an exhibition space; the old *Casa de la Caritat*, in a building dating from 1749, has been the Centre de Cultura Contemporània de Barcelona (CCCB) since 1994 and its former theatre a multipurpose space since 2011, while the *Batlló* factory, built in 1875, requisitioned in the late nineteenth century by the Ministry of War and later used as a military hospital, went on to become the Industrial School and student residence in the early twentieth century, and part of the complex was subsequently occupied by the offices of the Provincial Government of Barcelona.

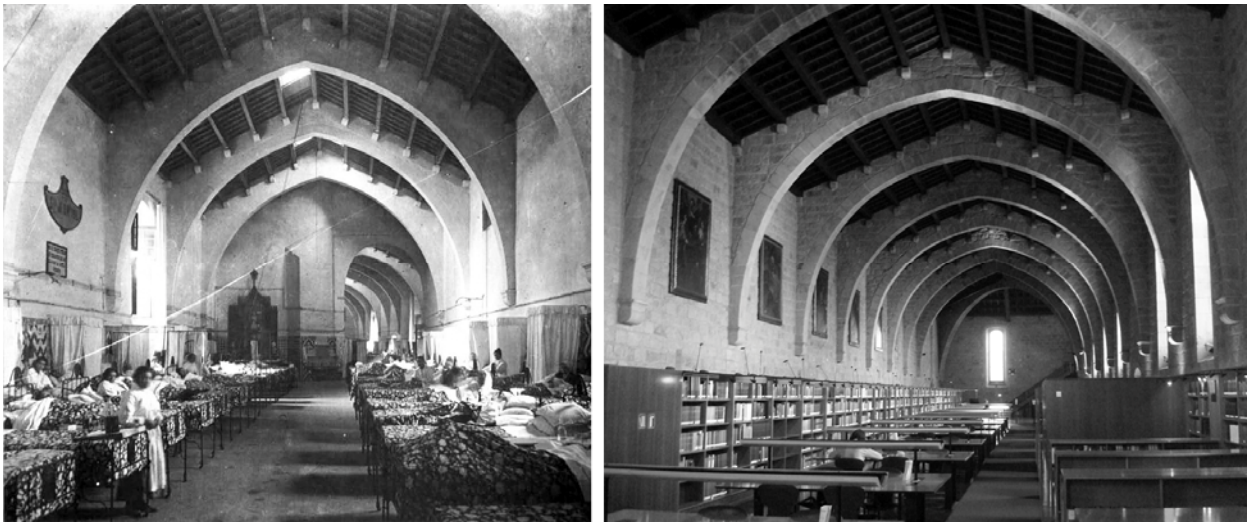

Fig. 3 Comparative photographs of the Hospital de la Santa Creu in Barcelona (1401-1929) with the actual use the National Catalan Library (1931-nowadays).

Fig. 4 Barcelona's map of reused buildings, 878 dots, mostly located in Ciutat Vella and Eixample. @ HABITAR

3.3. Atlas of reused buildings in Barcelona

The research project Atlas of Reused Buildings in Barcelona being conducted by the Universitat Politècnica de Catalunya's Habitar Research Group has a register of 878 reused buildings or architectural ensembles (fig.4). The total number of reused buildings is still growing. At this moment the group has checked the architectural guides of Barcelona, the architectural heritage catalogue of Barcelona, the publicly well-known buildings which appear in the press or which have been documented in newspaper archives, but the field work has just been done in Ciutat Vella, Eixample, and Poblenou neighbourhoods. Funded by the Spanish government's Ministry of Economy and Competitiveness, this research project is studying the impacts on the city of the reuse of many of its buildings, both old and recent. It also examines the adaptability of buildings in terms of their type, size, configuration and location in the city, questioning and reformulating both the concept of 'type' and policies for the preservation and conservation of the architectural heritage, nuancing the functionalist notion of 'form and function'.

The great majority of these 878 buildings are located in Ciutat Vella (40.09%) and the Eixample (24.49%), with the remainder distributed between Sarrià-Sant Gervasi (10.02%), Sant Martí (8.43%), Horta-Guinardó (4.44%), Sants-Montjuïc (4.21%), Les Corts (3.42%), Gràcia (2.51%), Sant Andreu (1.48%), and Nou Barris (0.91%) (fig. 5).

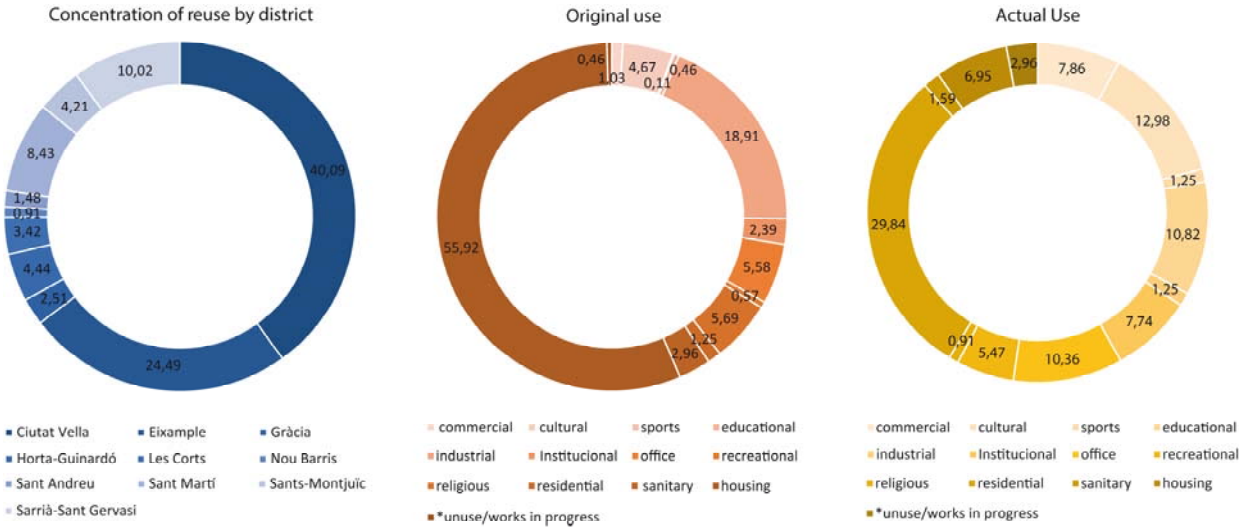

Fig. 5 Circle charts of the original (dark blue) and most recent (orange) uses of the reused buildings in Barcelona and the concentration of reuse by district. Source: Sauquet, R & Taskin, D. (2016) [19]

The Atlas of Reused Buildings established three categories of use – general, special and detailed (fig. 6) – and found that the general use for which most buildings have been adapted is residential (excluding housing) (29.98%), followed by cultural (13.04%), educational (10.87%), office (10.41%) and commercial (7.89%). At the same time, more than half of the re-used buildings were originally housing, specifically 491 of the 878 buildings studied, or 56.18% of the total, followed by industrial (166: 18.99%), religious buildings (50: 5.72%), and offices (49: 5.61%) (fig.5).

What are the key characteristics of these buildings that make them more readily reusable and flexible in terms of change of use and in the process allow major savings in CO^2 emissions? Should these buildings, and the areas that configure them, be protected in view of their special adaptive capabilities that make it an energy resource and guarantee urban biodiversity? (Fig.6).

1. Housing	**1.1.** Single-family	Villa, Urban house, Palace, Masía
	1.2. Multi-family	Apartment building
2. Residential	**2.1.** Hotel	Hotel, Hostel/Guesthouse, Touristic apartment
	2.2. Residence	Student residences, Nursing homes
3. Commercial	**3.1.** Commercial	Commercial center, Department stores, Small business
	3.2. Restaurant	Restaurant
4. Offices	**4.1.** Offices	Offices, Banks, Multinationals, Cultural production
	4.2. Institutional offices	Service companies, Consulates, Professional Associations
5. Industrial	**5.1.** Industrial	Factory, Parking, Technical elements, Industrial warehouses, Laboratories
6. Sanitary	**6.1.** Hospital service	Hospital, Sanatorium, Clinics
	6.2. Healthcare service	Healthcare centers
7. Religious	**7.1.** Religious temples	Church, Cathedral
	7.2. Religious residencies	Monastry/Convent, Orphanage/Refuge
8. Cultural	**8.1.** Cultural	Library, Museum, Art center, Cultural association, Exhibition
	8.2. Spectacles	Theater/Movie theater, Auditorium
9. Recreational	**9.1.** Recreational	Party halls/Clubs, Civic centers, Others
10. Educational	**10.1.** Primary/Secundary ed.	Nursery school, Daycare centers, School/High school
	10.2. Higher education	University
	10.3. Training center	Training center
11. Sports	**11.1.** Sports	Sports center, Gymnasiums
12. Institutional	**12.1.** Military	Barracks, Defense towers
	12.2. Civil	Prison, Post office, Police station, Fire station, Administration, Market, Archive/Warehouse
	12.3. Transportation	Metro/Train station, Depots

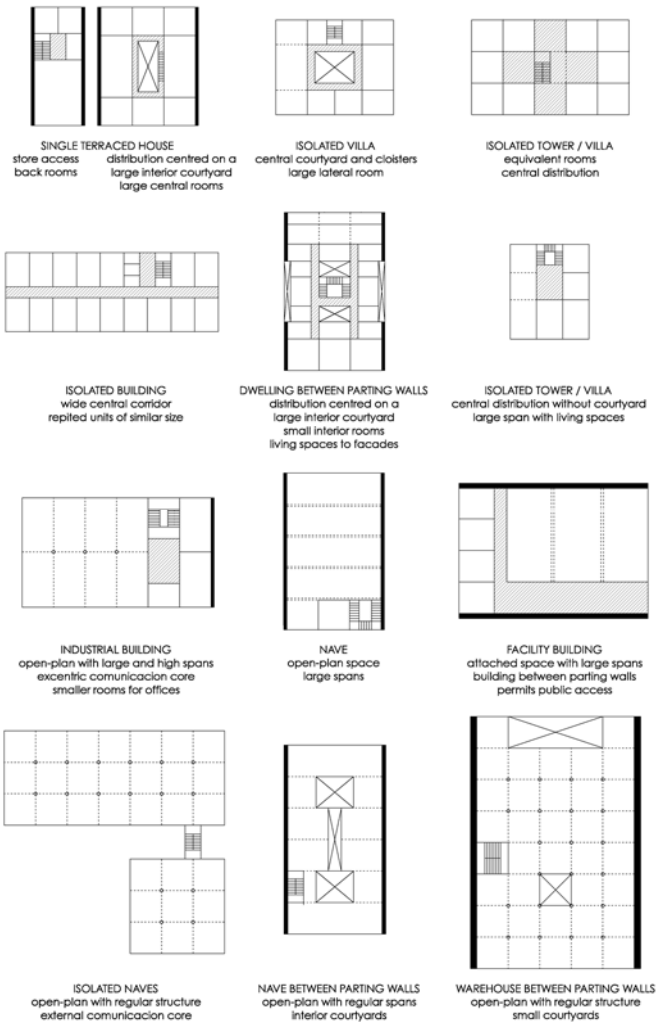

Fig. 6 Table of uses. The three categories of use established by the research, and a possible table of architectural typologies or patterns. HABITAR Atlas of Reused Buildings.

In short, faced with this object lesson in living history in our day-to-day surroundings, we have to ask what the city is doing to encourage the ongoing practice of minor changes in buildings to accommodate new functional needs, and how this could be extended to large areas of Barcelona.

4. Conclusions

The need for a paradigm shift

In line with these various formulations which propose, on the one hand, extending the protection of the architectural heritage to large sectors of the city and, on the other, adapting the new uses to the existing buildings in order to favour their morphological integrity and prevent the destruction of their energy content, we must ask ourselves how we are to engage from now with the urban reality of Barcelona and its regulatory measures, which at present are

indifferent to the series of problems affecting the environmental qualities of the planet, despite the importance being given to these by international bodies.

We can see that these regulatory measures are drafted on the basis of a morphological and typological perspective which regards the buildings – and, rarely, architectural ensembles – to be preserved as historical facts. In other words, they are regarded as constructions from the past which are to be protected because they bear witness to the origins of our culture and because they have a scenic environmental quality within the urban context. These values were incorporated into the Real Estate Law of 1954, and although they are no less legitimate and relevant today, they are now woefully inadequate. There is a real and pressing need to rethink and expand these values, as has been done in relation to the protection of natural areas (fig. 7).

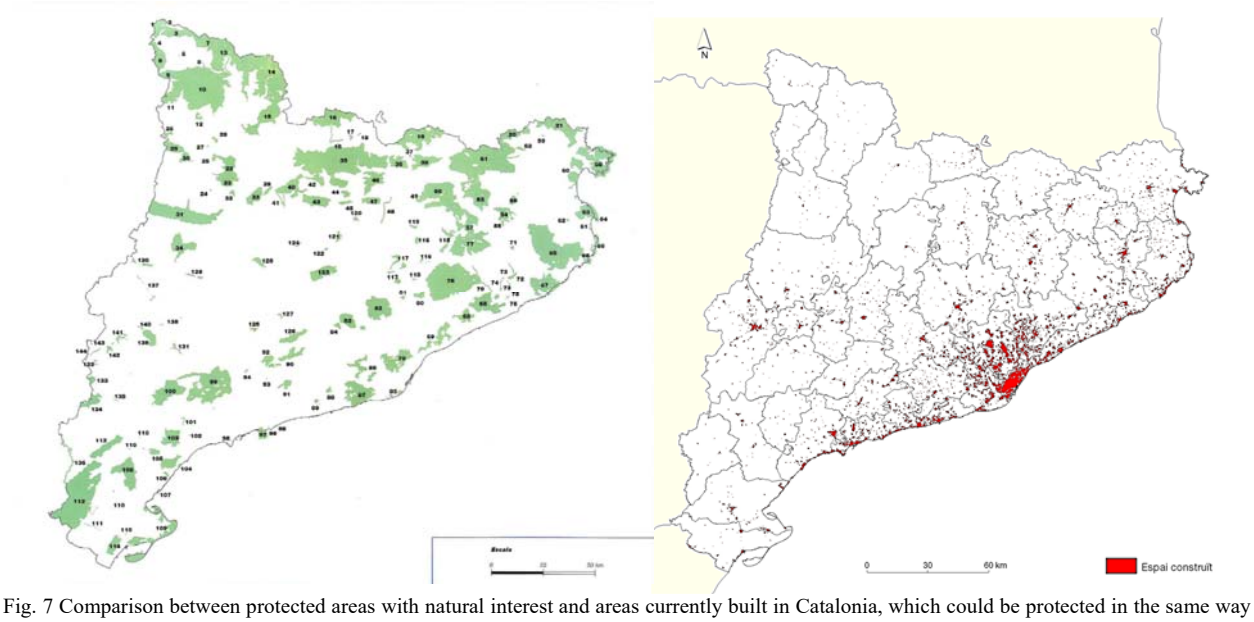

Fig. 7 Comparison between protected areas with natural interest and areas currently built in Catalonia, which could be protected in the same way as natural areas are.

The current legislation fosters a disturbing functional reductionism in the categories affording a higher degree of conservation, and in certain sectors of the city in which industrial buildings predominate, and this state of affairs is clearly out of step with the great diversity of uses found in these buildings throughout their history – a diversity that demonstrates a very high capacity for adaptive reuse. For example, the new 22@ district specifically prohibits colonisation of historic industrial buildings for residential use, even though this would enhance the habitability and urban quality of the area. That housing is the catalyst of life in our cities and, by extension, of the 'urban' was demonstrated by Jacobs, J. (1967) [16] and Lefebvre, H. (1972) [17], and as such is to be recommended as a proven means of avoiding the spread of theme parks or tourist ghettos over all of the city's urban districts. Barcelona is a city that still retains a considerable amount of heritage fabric which has not suffered major traumatic changes because much of it is occupied by housing.

At the same time, the city has an extensive and varied stock of buildings that, emblematic or not, are unused or underused [18]. An effective approach to the conservation of all of this built fabric, whether included in the city's Architectural Heritage Catalogue or not, calls for a change of paradigm. It is essential that the regulatory measures be shifted towards criteria that consider the buildings and urban ensembles as areas shaped by human intervention, in order for them to form part of a balanced environmental system, to constitute a reserve for future uses capable of being adapted to these, to ensure the conservation of the territory and avoid squandering their contained energy.

One of the principal strategies which should underpin this new paradigm is precisely the one we have defined as adaptive reuse. Until now the tendency has been to adapt buildings to their new uses, with the traumatic consequences that this entails for their morphology and the energy costs. It is time we reversed this tendency and prioritised the

building over the use. Addressing the regulatory measures from this point of view entails a fresh emphasis on other parameters, especially that of matching new uses to existing spatial characteristics.

If we are to advance in this direction we will need to undertake a task of selection, simplification and exclusion of buildings and urban complexes, highlighting their main architectural features in order to open up a wide range of possible future uses. The functional requirements of the new programmes could be linked to specific spatial and structural needs, and would find in the city's stock of existing buildings an extensive, varied and 'new' catalogue to adapt to on the basis of affinity.

The features of the buildings thus evaluated, in addition to those currently listed for conservation, such as the façade, entrance hall, patio or stairwell, might include the equivalence of rooms, a structure with a large span, a specially strong floor slab, volumetric spatiality and so on. The guiding principle would be to provide options for an 'adaptive use' that has more to do with the architectural characteristics of the building in question than with the typologies historically associated with it, as a way of facilitating functions with attributes such as 'capable of being accommodated in repeated units of similar size', 'capable of coexisting with other uses', 'requires wide interior corridors', 'permits public access', 'needs open-plan interiors with large spans', 'needs homogeneous compartmentalization', 'needs double- or triple-height spaces', 'needs a distribution centred on a large interior courtyard', etcetera.

These parameters for the evaluation of the existing building stock for the purpose of preserving it primarily on the basis of its potential for adaptive re-use would transform the current ambit of protection based on points dotted more or less homogeneously around the city into broad stretches of urban fabric that would form – much as natural, rural and agricultural parks do – part of an ecosystem in which the 'wealth of the existing architecture' would be comparable to the 'wealth' of all the other natural resources, and in which the whole will be more than the sum of its parts because it will engender new qualities that are not to be found in the individual elements.

In short, it would allow us to understand the built fabric with a high capacity for re-adaptive use as an 'urban natural resource' to be maintained and protected, not only as a series of historically significant individual elements but also as substantial protected areas, configured as a sum of 'cultivated and humanised' plots. In doing so we would be contributing to a heritage conservation policy that is also based on sustainability.

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