

From Master Plan to punctual interventions

Alternative urban approaches for the renewal of former slums in Barcelona

Abstract

The sloppy process of urbanization that took place in the outskirts of Barcelona from mid XIXth to mid XXth century resulted on large informal slums with evident urban deficiencies. The Metropolitan Masterplan of 1976 and its subsequent amendments could only partially improve the conditions of these areas of the city. Since 2005 some initiatives, in which local community or academic research played an important role, were undertaken following a tactical approach. The paper summarizes six proposed strategies that are a reaction to the traditional planning and zoning approach for the area. Some of them are currently been discussed or have already been included in the planning framework of the city.

Keywords: Nature vs Urbanization, neighborhood, universal accessibility, intermodal transport system, activity diversification, selective urban regeneration.



The limits of Master Planning

What is usually called the first periphery of Barcelona shows the limitations and the shortcomings that the traditional planning, the 1976 Metropolitan Master Plan (PGM), has to influence in certain territories. The first modern urban plan in Barcelona (Pla d'Eixample of Ildefonso Cerdà, 1859) avoided this part of the Barcelona territory, so that the occupation of this city area occurred informally. Neither the massive investments in areas around the city for the 1992 Olympic Games, the development of the current plan (PGM), or its amendments, have been able to improve the precarious urban conditions resulting from this informal process of urbanization. The inability of the legal framework and the current planning has frequently generated uncertain urban situations that have contributed to further degrade both physical and social conditions in these neighborhoods. An analysis commissioned by the City Council of Barcelona [CARRACEDO, SOTOCA 2011] shows how immigration rates, extreme density and aging are, in this part of the city, well above the average for the rest of the city (fig 1).

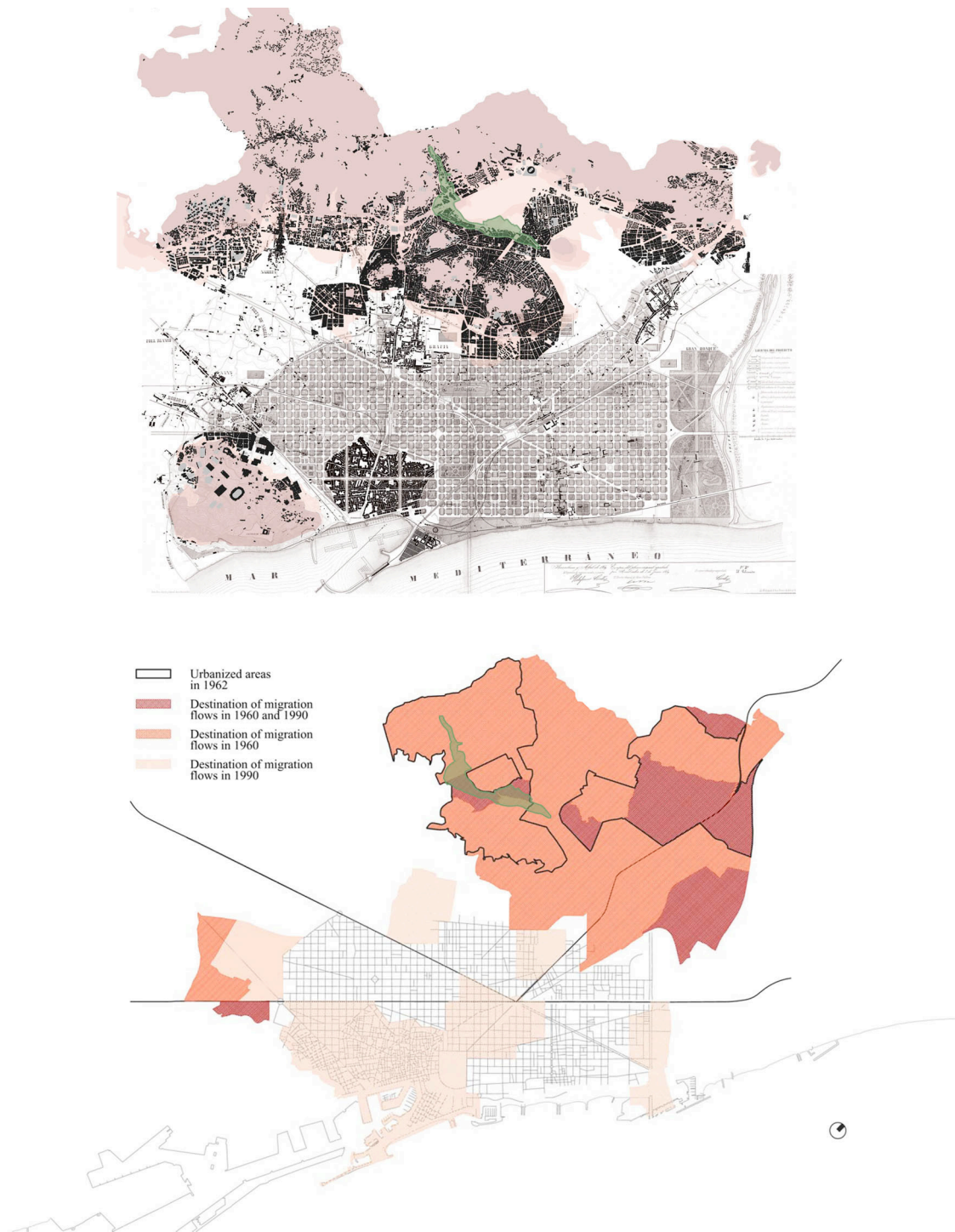


Fig. 1: Unplanned Barcelona. Above, the XIXth century extension of Barcelona (grey) and the informal slums on steep land (black on brown background). Below, main destinations of migration flows: districts that repeatedly host migration flows are marked in dark red. All of them are informal slums on slope.

Three reasons of the current urban abandonment

In 2004 the MPGM Vall d’Hebron, planned as the basis for the renewal of this part of the city, was approved [MPGM VALL D’HEBRON, 2004]. The document claims that the reasons for the deficiencies of these neighborhoods are in the irrational land occupation, the poor infrastructure and the obsolete building stock.

Irrational land occupation

The lack of an urban vision to establish the logical urban project for this territory has been the reason why, for over a century, this part of the city has been occupied informally and speculatively.

As stated in the MPGM of El Carmel [MARTIN, A. 2010] a continuous process of densification took place in the informal slums on slope during the first half of the XXth century (fig. 2). The result has been an urban fabric with obvious deficiencies of public space and dramatic discontinuities of the road network. Some recent amendments to the General Master Plan propose specific actions to readdress these deficiencies. A very complex legal framework makes them, nevertheless, hardly feasible.

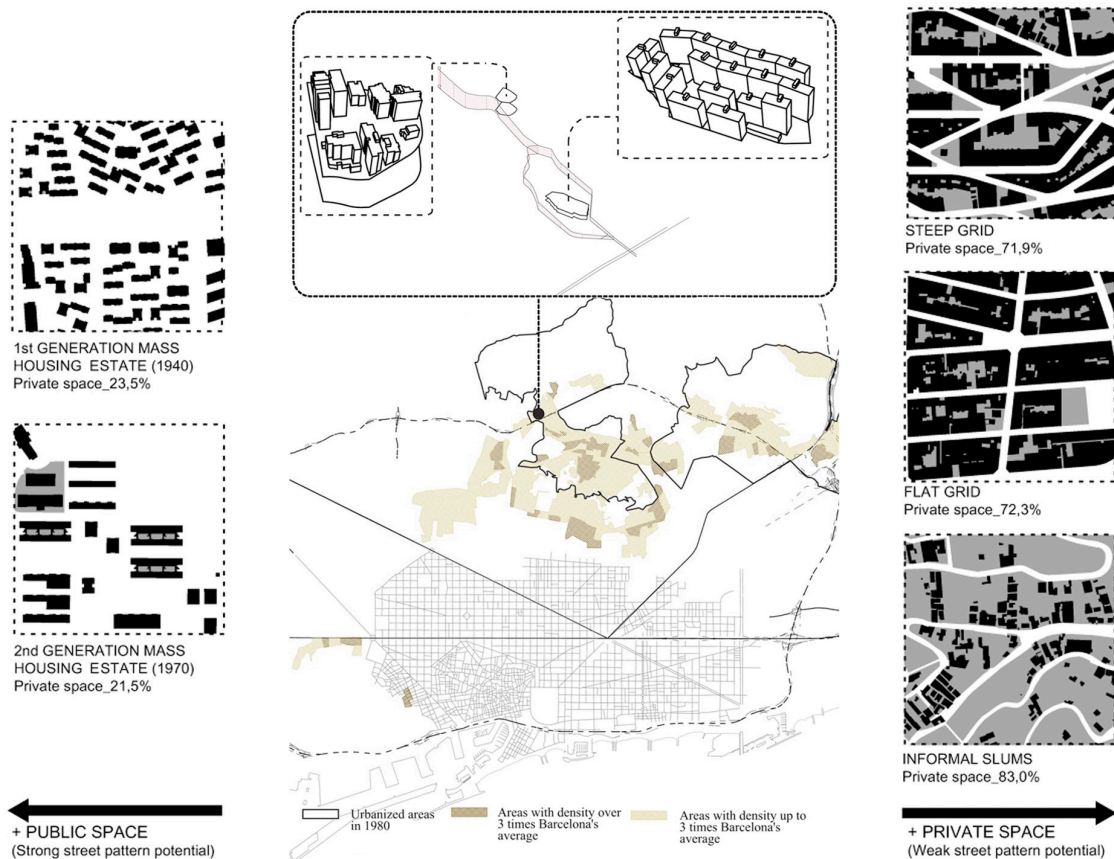


Fig. 2: Density and street pattern. Middle: districts where density of housing units per hectare is higher than the average density of Barcelona. On both sides, urban morphologies of slums on slope Left: Urban morphologies (mass housing estates) with more public space than the city’s average. Right: Urban morphologies (informal slums) with less public space than the city’s average.

Precarious infrastructure

One of the most obvious lacks of these neighborhoods is the inability of the road infrastructure to serve the extremely dense residential fabric. Firstly, the original tracing of streets didn't consider the slope of the site, resulting into very steep streets; secondly, the ratio of street surface is extremely low in relation with other areas of the city; finally, basic public infrastructure, such as basic urbanization, was not implemented until very recent times (fig. 3). Therefore basic mobility for residents is severely diminished. Despite recent investment in public transportation systems and in the construction of the traffic belt of Barcelona, the area still needs an integrated mobility strategy. Unfavorable morphological conditions could have been addressed with an integrated transportation policy, able to promote intermodality as a mean for infrastructure optimization.



Fig. 3: Precarious infrastructure. Left: Street pattern in 1929. The drawing shows the inefficient tracing of streets where slope is higher than 8%. The extreme slope made impossible the arrival of the tram to the area. Right: image of El Carmel neighborhood in late 70'. Streets were still very poorly urbanized.

Inadequate building stock

The provision of basic shelter for working class immigrants was behind the informal occupation of the first periphery of the Barcelona. In less than 50 years more than 50.000 new housing units were built without any control. This sudden occupation resulted in most of the cases in a deficient housing stock, unable to accomplish our current living condition standards. While average dwelling surface is not enough to match contemporary housing programs, increasingly urgent building pathologies point out the necessity to renew, if not remove, much of the housing stock built in this area of the city. Since the beginning of the 80's many urban renewal processes have been focused not only in renewing the buildings but also in removing entire extensions of urban fabric. Uncritical demolition and replacement, in which basic elements of existing urban structure were not considered, have produced the loss of the site identity (fig. 4).

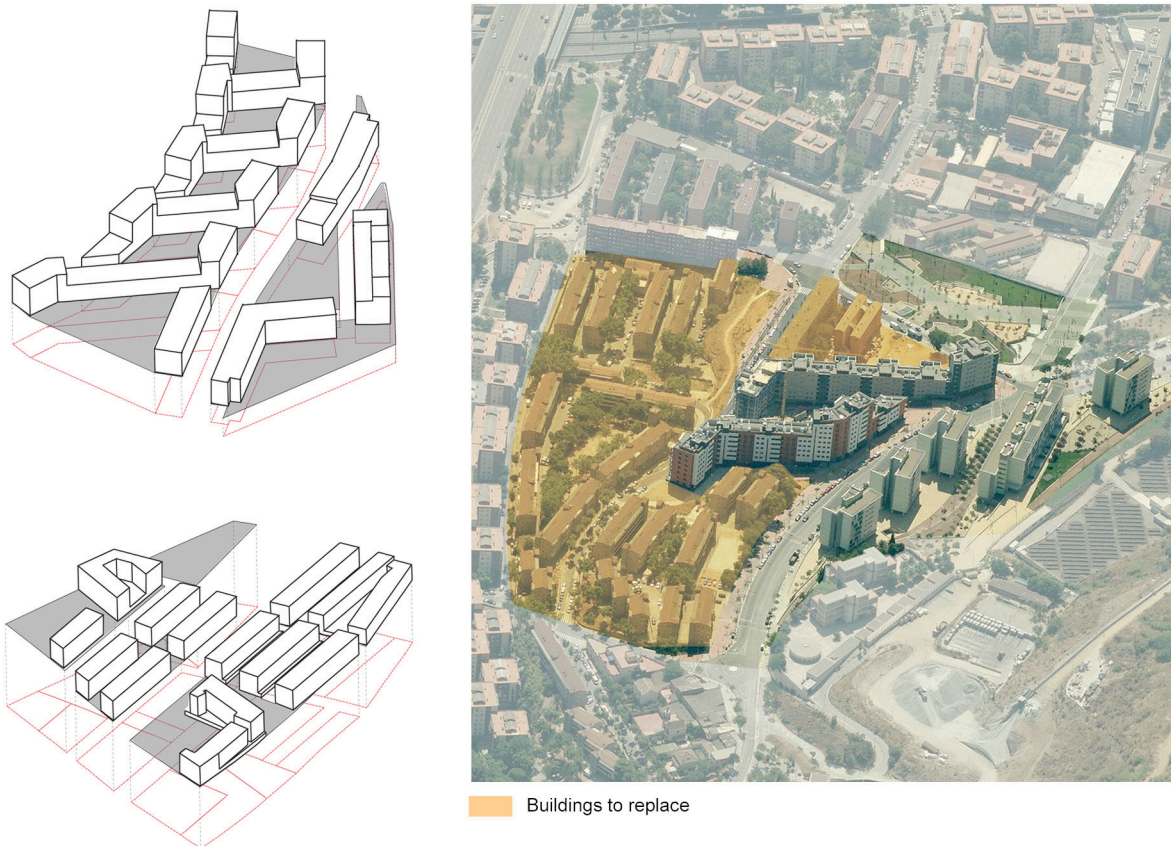


Fig. 4: Urban renewal of obsolete housing estates has been a major task undertaken by public administration in Barcelona during the last three decades. Left: resulting layout in 'Trinitat Nova' and 'Habitatges del Governador' neighborhoods after renewal. Right: Aerial view of 'Trinitat Nova' during transformation. Existing urban fabric and resulting layout have very few to do.

Tactical urbanism: six strategies against urban abandonment

Lack of public space, discontinuity and monofunctionality of the urban fabric, daily mobility difficulties, deficiencies in transportation systems and an obsolete housing stock were the problems identified by the Study of the Steep Neighborhoods (SSN) [CARRACEDO, SOTOCA 2011]. Recent interventions and proposals on this part of the city have open to debate different strategies that seek to overcome the traditional planning approach to these challenges.

1. From nature to city, a reinterpretation of public land use

In 2011 the City Council promoted the international competition "Collserola Gateways", aiming to redefine the relationship between the city and the Collserola Natural Park [AJUNTAMENT DE BARCELONA 2012]. The terms of the competition proposed 16 areas in which the conditions for accessing to the park were necessary to define. Giving a new point of view to the competition, the statement of the proposal TRANSECT says that, instead of giving access to the Park from the city, it is necessary to introduce the natural values of the Park into the urban fabric (fig. 5). Unlike to the traditional view of planning, focused on urban extension, TRANSECT proposes on one hand to limit urban development and, on the other hand, the naturalization of the urban environment. To achieve this idea, the TRANSECT proposal opens the scope and the object of the competition as well as the area of intervention. The latter is defined along a strong, and currently obsolete, infrastructural axis that links the mountain and the center of Horta neighborhood. Interpreting the definition of the TRANSECT term, the proposal generates a series of specific habitats that reinforces the natural values, blurring the boundary between the natural and the artificial. Thus, although the intervention focuses only in an infrastructural axis, public space conditions are improved, avoiding hard transformation strategies proposed by the City Council.

2. From one neighborhood to another, beyond zoning

The improvement of the living conditions of the urban fabric was also ignored by the competition guidelines. Again, as happened with the urban transformation of the Olympic Area of the Vall d'Hebron, an intended initiative of metropolitan scale proves to be unable to transfer part of the profits to the nearest local context. The areas proposed for the contest are extremely precise in their definition, corresponding in many cases to planning sectors that the '76 Master Plan already defined. These areas ignore the physical reality and the current needs of these neighborhoods. In contrast, TRANSECT asserts the transformative potential of public space and extends its attributes to the nearby existing urban fabric. Through the definition of pedestrian routes and pathways, the proposal links the local facilities and existing public spaces with the main metropolitan civic axis (fig. 6). Thus the public space becomes the joint element between neighborhoods that, as previously mentioned, were not structured as a continuous urban system. The Urban Improvement Plan (PMU) of La Clota [CARRACEDO, SOTOCA 2008], specifically designs one of these pedestrian routes and establishes its physical planning and management conditions.

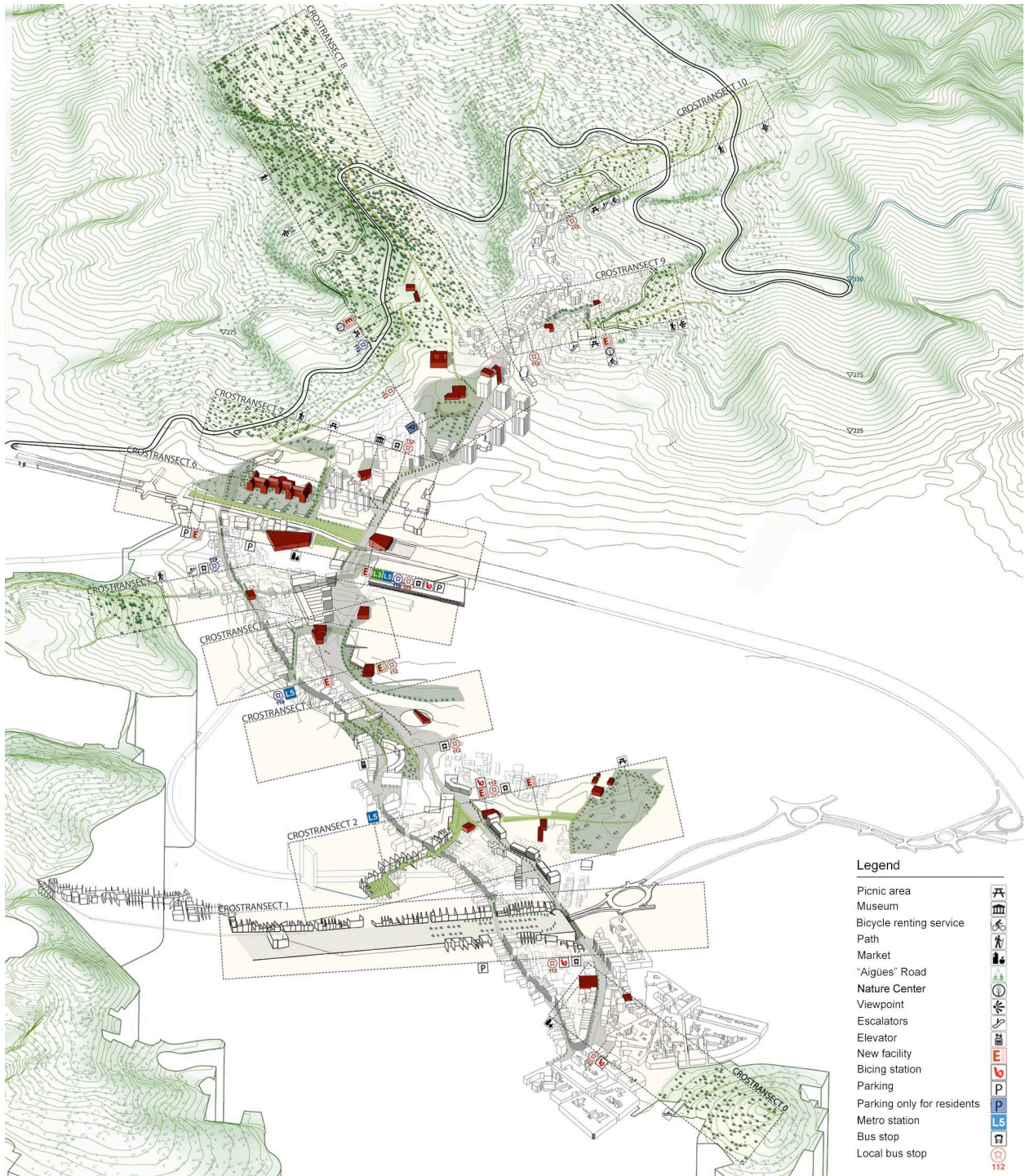


Fig. 5: TRANSECT: from Nature to City. The main goal of the proposal is to improve the urban conditions of the former slums through the nature-metropolitan public space. A continuous strip-system of streets, public spaces and diverse set of collective activities will foster the relation of the former informal slums with the natural park of Collserola. A series of local streets, named as “cross-transects”, will bring the central strip attributes to the local neighborhoods.

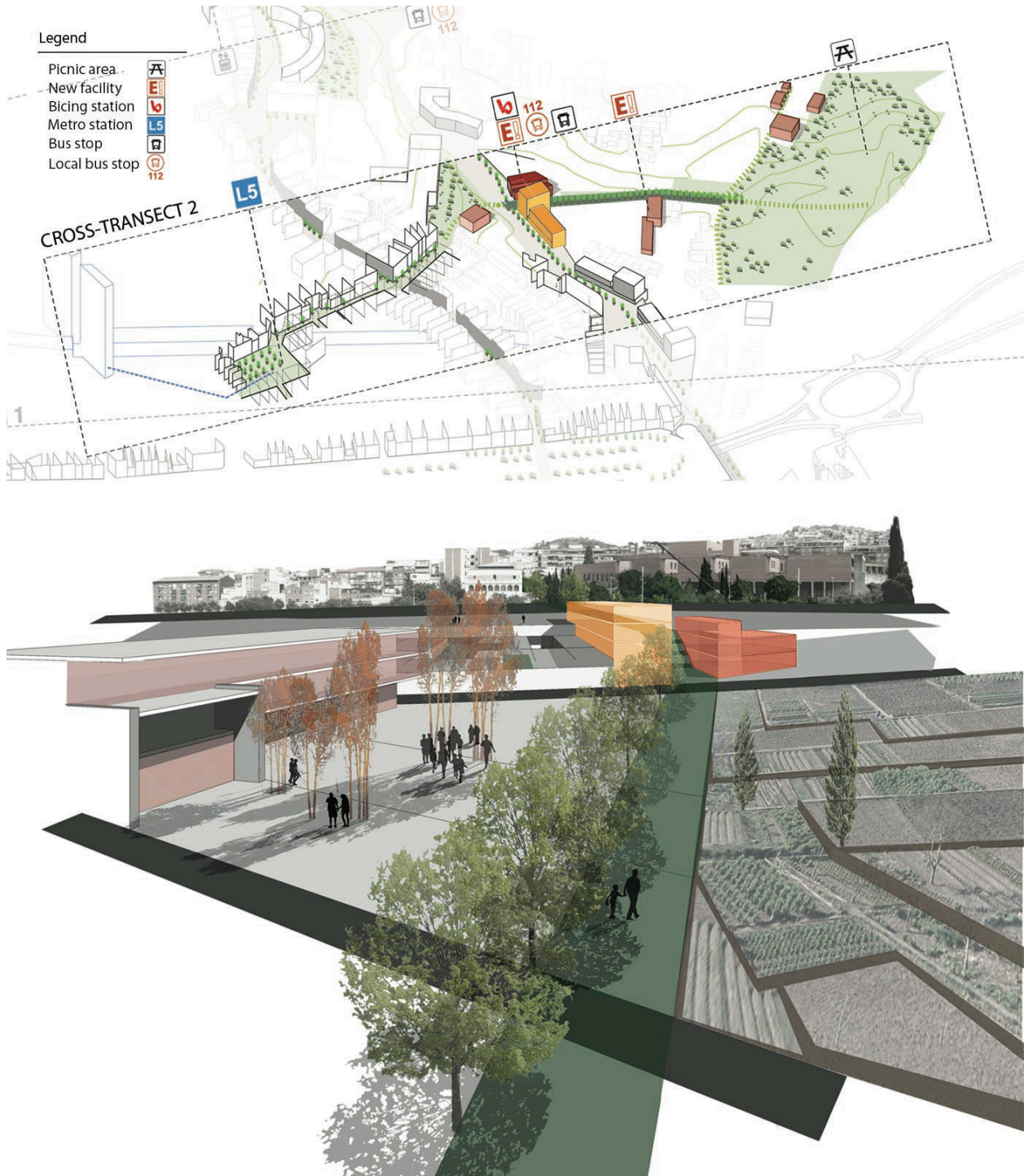


Fig. 6: CROSS-TRANSECT: from the city to the local-scale. The proposal will enhance the relations among existing public spaces. Through punctual interventions on existing streets, such re-urbanization under pedestrian friendly criteria, or strategically located new local facilities (in red-orange on the image) a renewed and coherent system of public spaces will be created.

3. Universal mobility, the right to the city

As mentioned in “Irrational land occupation”, the extreme slope is considered as one of the most significant conditions of this area of the city. From the sociological point of view, the high rate of aging is also a very important characteristic of the former periphery of the Barcelona. Both conditions, critical by themselves, are especially negative when given simultaneously: the presence of potentially handicapped population in an unfavorable urban environment exponentially increases the risk of marginalization. Thus, some of the actions proposed by TRANSECT are addressed to the construction of basic mobility infrastructures that enable residents to move in the urban environment. Those very basic infrastructures, strategically located in the most critical sites, will open a new net of relations and itineraries impossible to imagine today.

In this sense, TRANSECT proposes specific and small scale tactical actions, such as escalators, ramps or lifts that will guarantee equal mobility and accessibility to all residents (fig. 7).

4. Metropolitan accessibility and local mobility

The so called first periphery of Barcelona, and more specifically the area of Vall d'Hebron, has been transformed from being an isolated area of the city twenty years ago to a current highly accessible site. The completion of the motorway belt –Ronda de Dalt– and the recent construction of two new subway lines, provide this area with a remarkable accessibility at a metropolitan scale. Resulting from this unprecedented condition, new metropolitan uses and activities have been located in this area of the city during the last two decades. One of the main hospitals of Catalonia, the Olympic area of Vall d'Hebron, a new university campus or the largest natural park of the metropolitan area of Barcelona, are some of the most significant.

Despite all recently implemented infrastructure, the local mobility for residents and the chances for intermodal exchange are still very deficient. Regarding mobility at the local scale, there are evident discontinuities between the residential urban fabric and the large-scale facilities. New nodes of facilities are very well connected with the metropolitan public transportation network but poorly related to the local street pattern. Although new infrastructure was built, the modes of transportation were not planned coherently and, thus, chances for intermodality and complementarity are scarce. Consequently, private modes of transportation are still very prominent, exerting a big pressure on the local network of streets and public spaces.

TRANSECT proposes an integrated public-private transportation network in order to optimize existing infrastructure. Thus, the proposal focuses on the reorganization of the local bus network and its efficient exchange with the subway lines by the strengthening of urban nodes for intermodality. Dissuasive parking areas (park & ride), strategically located as intermediate facilities between the motorway belt and public transportation stops, will diminish the presence of private car in the local streets (fig. 8).

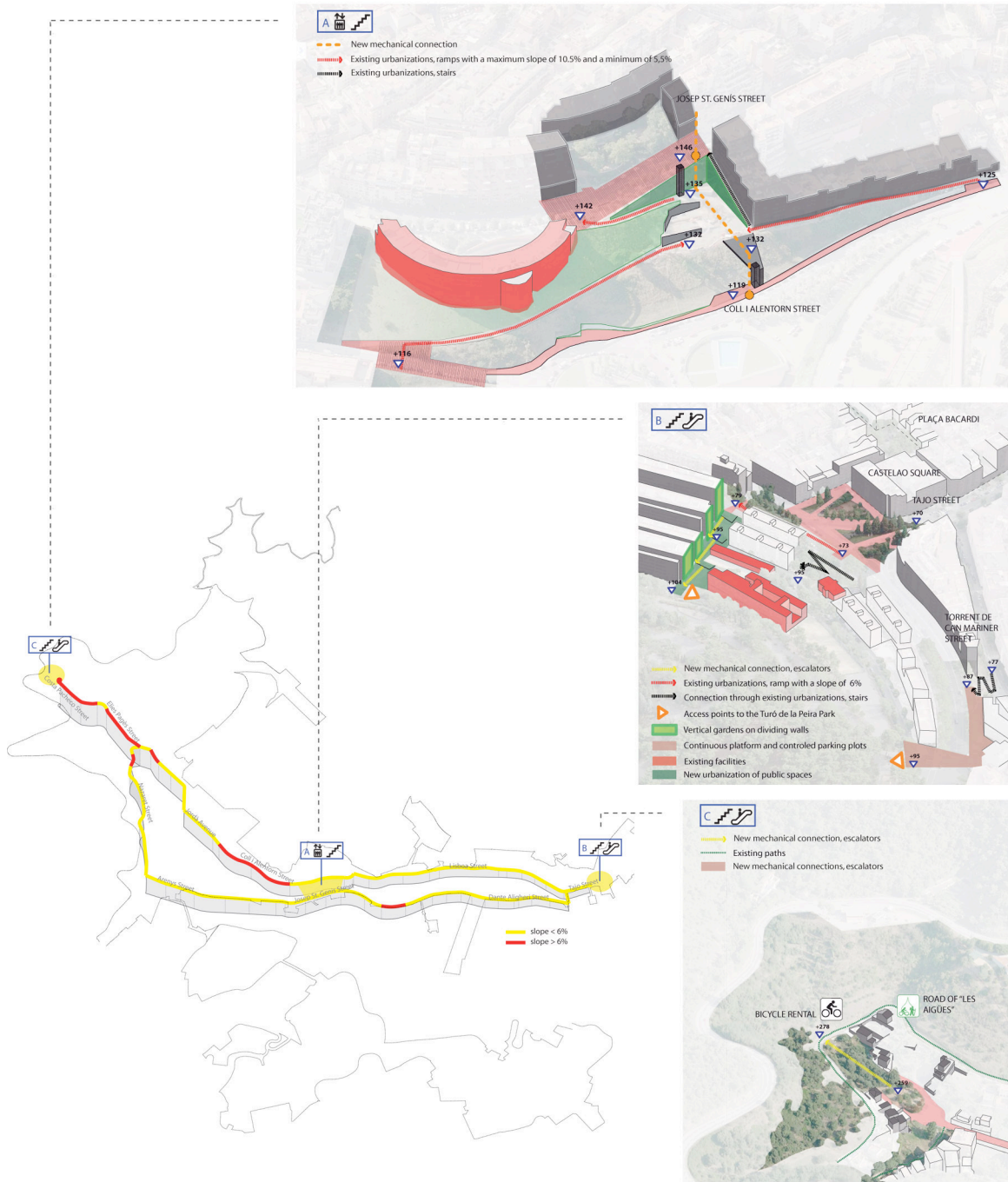


Fig. 7: Universal mobility is one of the main objectives of TRANSECT. The proposal focuses on specific points with extreme slope and foresees a set of punctual interventions that, through mechanical means, will guarantee universal mobility in public space.

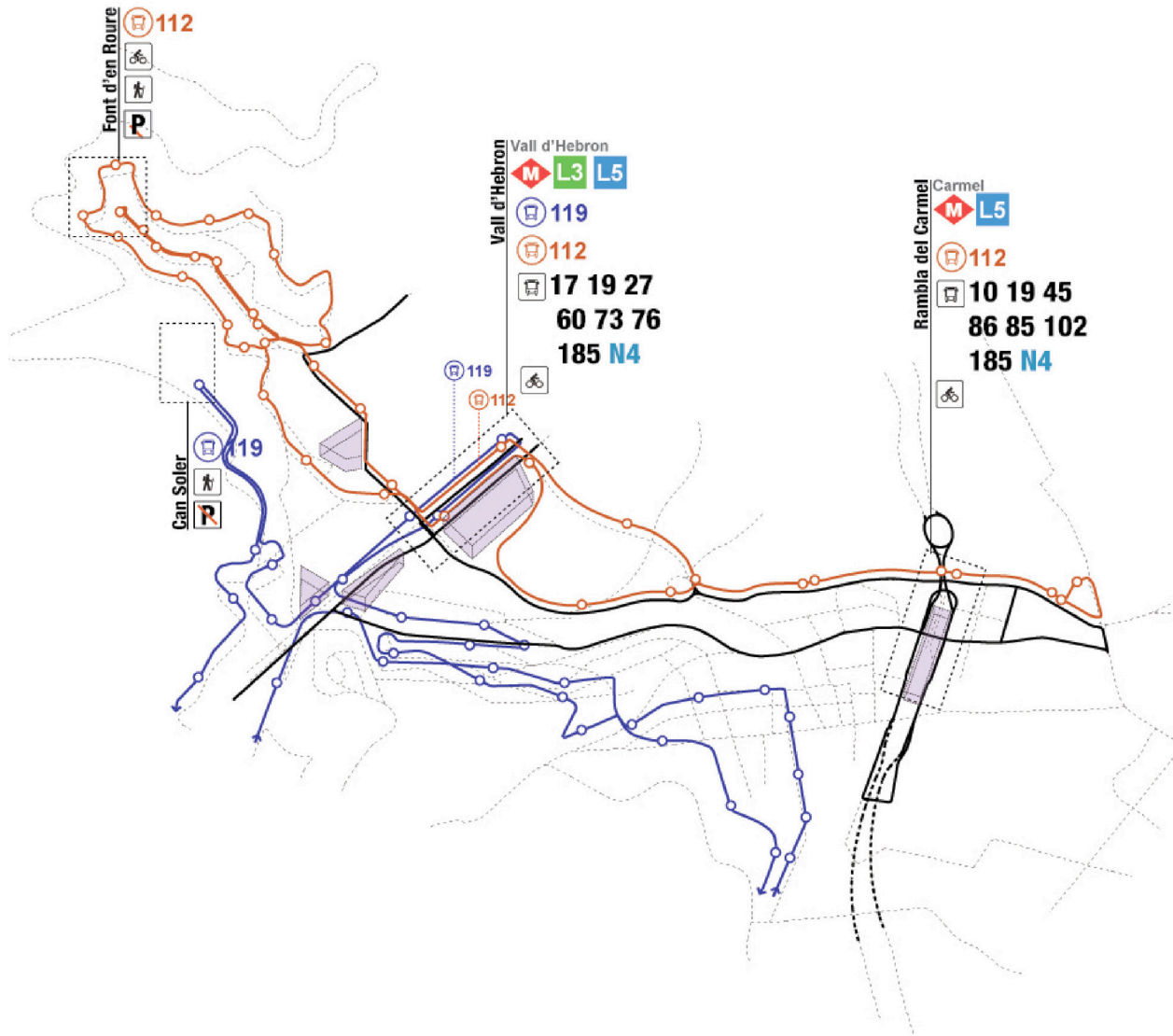


Fig. 8: An integrated network of public transport. The intermodal nodes of Vall d'Hebron and Rambla del Carmel will enable commuting from metropolitan to local scale and from private transport to bus or subway. The nodes of Can Soler and Font del Roure are the gates to the natural park of Collserola. These last nodes are only accessible by bus and give access to pedestrian itineraries that enter into the park.

5. Ecotones: towards a diversification of activities

As shown in fig. 3, the first periphery of the Barcelona was from the very beginning very poorly connected with the functional structure of public transportation system. This isolated position, which has endured along years, reduced its capability to host tertiary uses and economic activities, condemning this area of the city to be a monofunctional space for low-income housing. The provision of an innovative system of transportation, based on the intermodality between the city belt -Ronda de Dalt- and the public transportation system, will provide new metropolitan accessibility to the area and, consequently, the basic condition for city-scale economic activities or facilities (fig. 9). Previous experiences in Barcelona, such as the transformation of Via Julia, prove that increased accessibility results in economic reform and diversification of the urban fabric.

TRANSECT proposes the transformation of an existing obsolete, unbuilt and periurban road into a civic axis where intermodal system at metropolitan scale will provide high accessibility by public transport at the local scale. This new axis will become the joint where diverse neighborhoods will meet and define a series of newly built “activity façades”. These new fronts, named after the term “Ecotones”, will meet formal typological and functional diversity, as shown in the already planned and designed Ecotone of the PMU La Clota.

6. Selective urban repair

Obsolete residential urban fabrics have been replaced by new housing developments in this area of the city. All urban renewal processes have followed criteria of economic viability, technical feasibility or social emergency. As previously mentioned, the morphological quality of the urban tissue has never been taken into consideration. The Urban Improvement Plan of La Clota neighborhood, also known as La Clota Preservation, highlights the morphological values of the urban fabric and considers them as prior criteria from where intervention guidelines are obtained.

The Metropolitan Plan of 1976, currently in force, qualifies La Clota as an “area of transformation” but it does not define the specific conditions and timeline of the urban renewal process, and neither establishes the future destination of the neighborhood. The lack of a specific planning framework for La Clota had two different consequences: on one hand all improvements in the housing stock have been, since 1976, stopped and, therefore, the neighborhood has suffered an accelerated degradation; on the other hand, the neighborhood was set apart from the real state business, thus avoiding any transformation and preserving the identity of its urban morphology. Unlike other urban renewal processes, the PMU of La Clota does not consider the demolition of the whole housing stock, but its selective renewal. The plan is based in a careful analysis of the urban fabric morphology. Conditions such as the building pathologies and age, density or building typology were essential in drafting basic guidelines for intervention. The Plan not only avoids the widespread demolition of urban fabric, but it also sets up three specific smart codes that ensure the preservation of urban morphology.

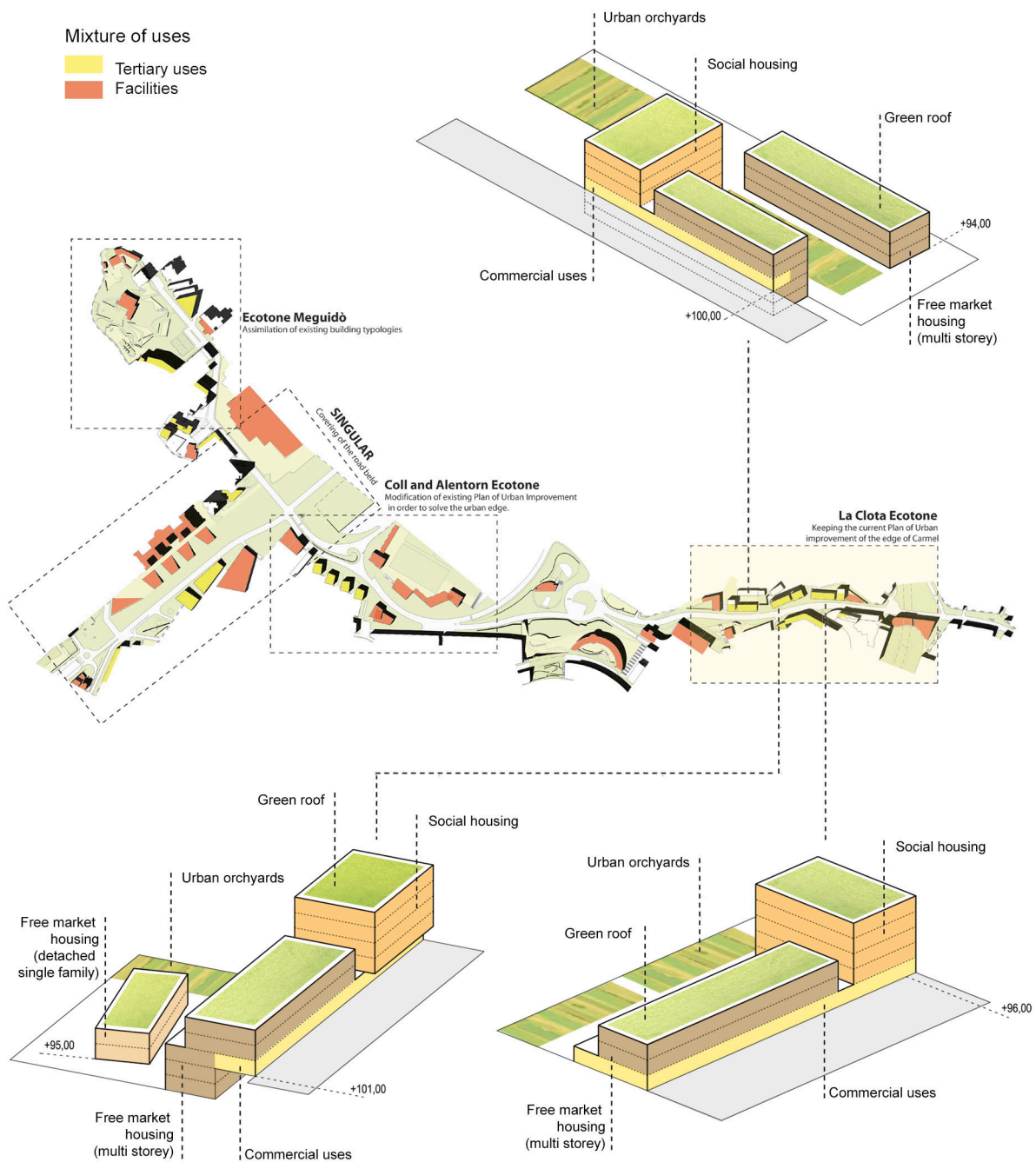
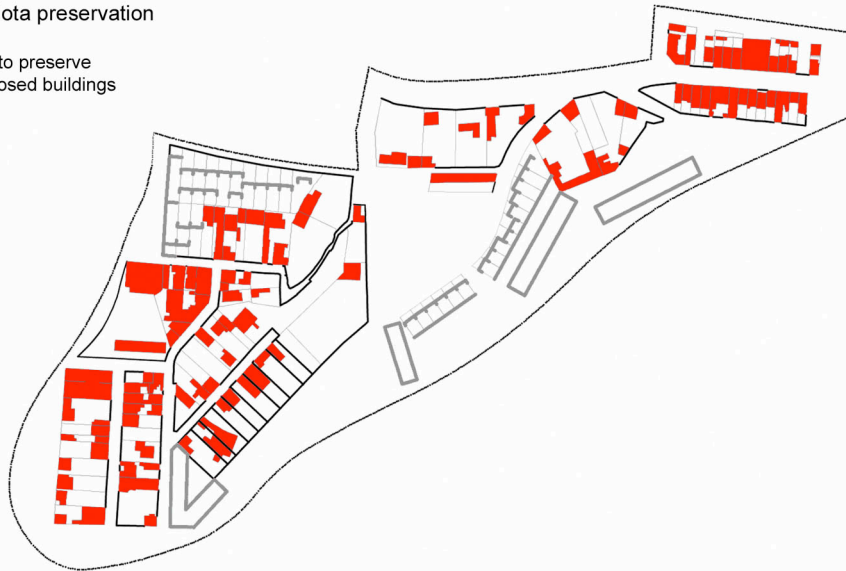


Fig. 9: Urban complexity: the civic strip proposed by TRANSECT will function as a condenser of multiple and complementary activities. Under the name of “Ecotones”, four specific sites, today terrain vagues, are seen as an opportunity to bring functional complexity to the city. La Clota Ecotone was developed by the very detailed “Urban Improvement Plan” (PMU). Smart codes were established as design guidelines for the development of three living communities where a diverse range of housing typologies, activities and land use will be promoted.

Proposal for La Clota preservation

- Buildings to preserve
- New proposed buildings



Aerial view of the area of La Clota



Fig. 10: Selective urban repair: unlike previous urban renewal interventions, the uncritical and systematic demolition of the urban fabric is avoided. The PMU of La Clota is based on an historical and morphological study of the existing tissue and points out the values that should be preserved. Some existing areas (in red) are qualified as “urban environments to preserve” and, through smart codes regulations, their urban identity is strengthened.

Transect: A renewed urban approach*Public space as urban structure: reinterpreting streets into natural corridors*

The public space is, still today, a structural element of the city. The approach to public space policies proposed by TRANSECT provides innovative themes for discussion related to its management and scale. The provision of new public space can no longer rely on land acquisition through demolition and replacement of obsolete urban areas; reprogramming obsolete infrastructures is becoming an increasingly useful resource to obtain land for public purposes. Moreover, in the current European context, a new awareness of metropolitan public space is being fostered in the planning practice: the former peripheral terrain vague are seen today as new public spaces that offer the opportunity of introducing environmental and landscape attributes into the compact city urban fabric. The green corridor proposed by TRANSECT becomes a mean for bringing the attributes of Collserola Natural Park to the very dense urban environment.

Local intermodality: a collaborative mean for urban public-private transportation system

Most of the mobility policies in Barcelona have opted for public transportation systems as a mean for rationalization. Despite all these policies meant an obvious diminishment of the environmental impact and a more efficient use of resources, it can be clearly stated that all modes of transportation are operated and planned separately, thus resulting in a loss of all its potential. An integrated system, focused in intermodality, would enhance commuting among different modes of transport and a better relationship between metropolitan and local mobility. The modal nodes of Ronda de Dalt and Turó de la Rovira will foster a fluid integration between metropolitan and local transportation systems.

Integral Urban Regeneration: basis for an holistic urban approach

The continuous deterioration of the housing stock has significantly worsened the basic living conditions in this part of the city. However, the conviviality of residents in public space has generated a strong identity in many peripheral districts of the city. Most of the urban renewal processes undertaken in the last three decades have uncritically and systematically demolished the urban fabric, dramatically changing the morphology of public space that enabled local identity. TRANSECT, and more specifically the PMU Clota, read and considered the morphological values that constitute urban identity. A much more selective regeneration preserves, and sometimes highlights, the identity of the place.

A new understanding of public space, innovative transportation policies and selective urban regeneration appear to be three innovative strategies with a great potential in the renewal of the former slums of Barcelona.

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