IDENTITY, SPACE, TIME:
Three core approaches for an unprecedented housing planning process in Catalunya (2007-2009)

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The paper states the need to rethink the planning approach that deals with housing developments of the future city. Considerations regarding the scale of the project, its role in a wider temporal context and the identity of the site where new extensions will be located, are necessary considerations in the field of urbanism. Between 2008 and 2009 Catalonia became a research field of exceptional interest in this series of reflections. During this short period of time a huge effort in planning and managing policies for housing development was done. As a result of it three major key Plans where undertaken by public administration. CSArquitectes*, the planning office of which the author of the article is a founding partner, was the only invited firm to actively participate in all three processes. Through the description of CSArquitectes’ proposals the article argues the need to take in special consideration the concepts of scale, time and identity when planning new housing areas.

Keywords: urbanity, landscape, infrastructure, public space, environmental balance, urban structure.

Planning the next city in Catalonia (2008-09): a matter of housing

On 8 October 2007 the Regional Government of Catalonia approved the National Housing Pact. The document included nearly 200 specific actions addressed to establish basic guidelines that all housing policies should follow between 2007 and 2016. The two main aimed objectives where the updating of the obsolete existing housing stock and the provision of a shelter for young population and other social strata with difficulties of accessing into the Real State market [DTS, 2007]

In this context of special attention to the issue of Housing, and closely linked to it, three major planning actions were undertaken between 2008 and 2009 in order to plan the future residential extensions in Catalonia. The first of these actions was a set of Housing Territorial Plans – PDUH- that envisioned strategic housing extensions for the whole Catalan territory [DTS, 2009]. The two remaining actions were the Detailed Master Plans for two sectors conceived as continuous extensions of two medium-scale Catalan cities. The PDUH, which were approved in early 2009, established specific planning regulations for some 90,000 new homes spread over a total amount of one hundred Strategic Residential Areas –ARE- [DPTOP, 2010]. The two strategic sectors, in turn, should mean a total of 14,000 new homes and some 900.000 m2 of floor area for non-residential activities. Unlike the PDUH, the Master Plans for both strategic sectors started as open reflections under the form of urban planning competitions, to which international offices were invited as previous consultants. This process became an exceptional framework for reflection in which the criteria for future residential growth could be discussed.
The by CSArquitectes submitted proposals for both areas stated a clear and radical reading of the context where new residential growth should be located. And they did it from critical and complementary decisions that differed from the designing rules established by the competition promoters. The first controversial decision was the replacement of the intervention area boundaries by limits more attached to morphological items than legal considerations. Second action was addressed to place the site in relation with the urban history of the city and, by that, providing a diachronic vision of the project that pointed out the role of the site in urban history. Third decision had to do with the specificity of the site and its integration into the future development of the area.

![Diagram](image.png)

**Fig.1:** Proposal for El Prat northern extension. The site for the competition covers a total area of 163 ha. The program included a total set of 8,000 housing units and more the 600,000 m² addressed to non-residential uses, which meant 20-30,000 new employments. Once the extension will be developed more than the 40% of the total site area will become public space.
Fig. 2: Vilanova i la Geltrú northern extension covers an area of 106 hectare. The new development should host 6,000 housing units and 250,000 m² for non-residential uses. 25% of the total area is pointed as public space.
Fig. 3: Two very different landscapes. On the left, el Prat high-speed deltaic plain. The advertising boards face the motorways taking advantage of the huge metropolitan visibility of the site. On the right, Vilanova i la Geltrú agrarian landscape. An ancient set of relations between water streams, drystone walls and historical buildings performs the identity of the site.
Framing space, placing in time and reinforcing the identity of the site become three common strategies when facing the challenge of planning two extensions located in territories which, in principle, are very unlike.

**Framing in space**

The northern extensions of El Prat de Llobregat (fig. 1) and Vilanova i la Geltrú (fig. 2) share very obvious common features: both are located as natural continuous enlargements of the existing mature urban fabric; both also mean a significant increase up to 50% of the already urbanized residential area; finally, both have an excellent strategic position in relation to the Catalan territory, since they are highly accessible and they occupy a central position on the urban systems in which they are located. For all these reasons, any future intervention on these areas should necessarily consider the territorial scope thereof. The participating rules and given data for both competitions obviated this forethought and uncritically assumed the site boundaries directly derived from previously defined sectors of obsolete Master Plans.

It seems clear, however, that the city shouldn’t be built from the addition of enclosed and autonomous areas, but from continuous and transversal elements which structure and relate the diverse parts of the territory. These elements arise from a simple and careful gaze to the qualities of the site.

**Urbanity**

The ubiquitous advertising boards planted along the motorways crossing El Prat site explicitly point the showcase potential of this area. This extension could potentially become a metropolitan facade which will be perceived and experienced from the long distance and beyond the boundaries of the area (fig. 3a). Designing El Prat northern extension means, particularly, designing the project of a large metropolitan avenue which will be the continuity of urban Gran Via. No other road in Catalonia gathers the size, rotundity and formal potential of this urban axis. El Prat’s northern extension, placed where the clarity of the Gran Via gives way to the confusion of knots and road junctions, becomes a great opportunity to extend the urbanity through a large-scale avenue. CSArquitectes’ proposal capillary extends El Prat along the Gran Via. According to it, it is vital to read the logic of this avenue, how its façade is formally built and how all its diverse urban nodes of activity are displayed along its 15 kilometers length. From a rigorous understanding of this territorial scale element, we may obtain criteria able to bring Gran Via’s qualities within the area and, consequently, able to link El Prat’s extension to its territory and, particularly, to Barcelona.

**Landscape**

The site qualities in Vilanova also derived from a wider territory: the network of roads, water streams and farming fields that characterize this plain extend far beyond the given boundaries defined in the competition bases (fig. 3b). The proposal for Vilanova’s extension should be a commitment with landscape. Located on a narrow plain of slight slope, between the foothills of the Massís d’Olèrdola and the coastline, the given site appears as a paradigm of the Catalan Coastal landscape, where a close relationship between seashore and Coast Mountains takes place. Thus, the project tries to establish the spatial continuities between two areas of preserved landscape and ecological values: Massís d’Olèrdola and Platja Llonga [DTS, 1996].
Fig. 4: Historical evolution of the deltaic system of settlements. Above: linear scheme of villages located alongside the ancient road to the Santa Creu de Calafell. Middle: situation in the 90’s, when the new motorway C-32 was built and a new territorial system of relations is established. Below: proposal for the transformation of the existing motorway and road junction: a new metropolitan avenue with a strong urban character will joint el Prat with the linear system of villages along the road to Calafell.
The proposal for Vilanova, unlike El Prat’s, will be more attentive to the continuities of open spaces that the enlargement of urban and infrastructural elements. The designing criteria will be obtained from the careful study of the landscape qualities of the place, the attention paid to existing water streams and the particular material culture of this site, where banks and stone walls are intimately related to farming culture.

**Placing in history**

Reading the territorial logics and incorporating them in the planning criteria were primary decisions in the designing process of these two extensions. As previously argued, urbanity and landscape become key elements on which the full integration of new housing areas is relied. But they are far to sufficiently exhaust the comprehension of territorial logics. A rigorous morphological reading of the site seems a proper approach at first, and it is certainly a necessary condition for interpreting current reality. But it is by no means a sufficient condition if we face the project from a procedural point of view. A timeline approach is necessary when considering that every transforming action shouldn’t be concluded in itself but should be integrate in a complex timeline of interdependent actions. Contextualizing is also about placing proposals in time assuming, therefore, the enormous impact that both extensions will have in El Prat and Vilanova. And placing in time means not only referring to the past and ensuring consistency and coherent integration. It also means anticipating, understanding the natural tendency of a site in order to obtain criteria for building new proposals. Any deliberate gaze backwards will impulse the launching of future proposals forward.

**Infrastructure**

El Prat is the only historic village placed on Llobregat river delta. The subsoil of this area has, for its geomorphology conditions, exceptional values for farming. Consequently the other towns of the area are traditionally placed at the edges of the delta, just at the inflection point between the Coastal Mountains and the deltaic plain. Until the first third of the twentieth century the villages around the Delta and el Prat were structured as a n urban string along the historical road of Santa Creu de Calafell. This ancient logic was dramatically modified after the 50’. With the industrial development of the second half of the twentieth century an accelerated process of new infrastructure building took place in the Delta. This phenomenon immediately compromised the historical relationship between el Prat and the rest of the villages: the airport, the new tourism settlements and the C-32 motorway will have a definitive impact on the spatial deltaic logic. The emergence of complex knots and road junctions severely affected the continuity of the historical road of Santa Creu de Calafell and, therefore, the relationship of el Prat with its environment [SABATÉ, 2004].

The extension of el Prat towards its northern extension is an unexpected opportunity to reverse this process and restore the previous system of relations between villages in the delta. One of the most significant proposed actions is the deconstruction to the road junction located inside the area and its replacement by a more rational and urban road pattern that will guarantee territorial continuities. The rigorous reading of the historical background points out the importance of transforming a seemingly neutral element such as a road junction and the consequences this action may have in a vast and complex territory (fig. 4).
Fig.5: Vilanova i la Geltrú thought its urban evolution. Left above - Foundational villages of Vilanova and La Geltrú, premodern settlements located in close relation with the main water stream of the plain. Middle left - XIXth Century extension and its main features: strictly framed area for extension, continuous built urban fabric and discontinuous urban nodes of public space. Left below - The explosion of the city: unlimited and uncontrolled suburban dispersion and discontinuous urbanization. Right - Future vision for Vilanova i la Geltrú – Territorial scale open spaces will readdress the extension of the city. From the Mountain to Sea, the open space becomes the continuous element that will recover the main identity values of the site.
**Public space**

Vilanova i la Geltrú was the stage for one of the most remarkable episodes of Catalan urbanism in the nineteenth century: in 1876 the modern extension of the city was approved under the name of Eixample Gumà. This extension (eixample in local terminology) constitutes, together with the extensions of Mataro, Sabadell and Terrassa a core of minor plans that, following the guidelines traced by Eixample Cerdà in Barcelona, became the framework for all urban growth in intermediate Catalan cities until the first third of the XXth century [DTS, 1976]. Apart from its remarkable urban qualities, Eixample Gumà represents a very particular way of planning city extension: geometrically clear and precise delineation of the area addressed to growth, continuity of built fabric and enclosure of urban public space are the three most important features of the XXth Century eixsamples. One hundred years later, at the turning point to the second half of the twentieth century, urban growth in Vilanova was guided by other principles: undefined limits to the city growth, discontinuous built fabric and fragmentation of public space were the dominant trends. This particular phenomenon of urban extension has been described as “the Explosion of the City” [FONT, 2010].

In present times Vilanova faces a challenge with a comparable grade of ambition to the 1876 Eixample Gumà. However, the conditions have varied significantly and, therefore, current proposals should readapt the topics drafted in 1876 to the current paradigms that govern contemporary cities extensions: instead of a clear and geometrical delineated boundaries a gradual transition strip between city and territory is proposed; rather than a contiguous and undifferentiated built urban fabric, the new proposal will envision a new system of neighborhoods where every single district will have its own identity; front a discontinuous sprawled group of enclosed public spaces, a new territorial continuum of open spaces will be displayed in order to ensure the opening of the city towards the landscape (fig. 5). And thus, from this dialogue with past experiences, contemporary but coherent criteria for ruling the future growth of Vilanova will arise.

**Reading the site**

Once the general strategies are set, the proposals are framed in their territory and placed in time. Then we should ask ourselves about the specificity of the particular area were the new city will be extended. A much closer scale approach, derived from the tradition of Site Planning, seems an appropriate way.

**Environmental balance: the landscape of water**

As previously shown, the future northern extension for el Prat is located on a territory where agricultural uses have been historically dominant. The water infrastructure necessary for farming has greatly conditioned the deltaic landscape. Irrigation canals, ponds and ditches shape the morphology of the Llobregat delta. Moreover, drainage infrastructure means only the visible part of a complex hydrologic system that, apart from the ground level infrastructure, comprises two large aquifers in the subsoil.
Fig. 6: Hydraulic infrastructure for El Prat extension. The delicate ecological equilibrium of the deltaic landscape will be preserved through the special consideration towards the water cycle. A complex system of canals and ponds will control the infiltration of aerial water to the subsoil, resulting in a long-term decontamination action of the aquifer. This very complex system will finally shape the public space structure of the new extension.
The delicate balance between aquifer and river flow infiltration was characteristic of this ecosystem for centuries. However, due to the intensive land use carried on in the last century, this balance has been disrupted: the common use of pesticides for agricultural uses, the accelerated construction of infrastructure affecting the subsoil and the progressive installation of heavy industrial activities on the delta have heavily polluted the aquifer system. The development of the 160 hectares in northern Prat and the eventual sealing and occupation of land could mean serious difficulties to water infiltration and, therefore, a new threat to this delicate ecosystem [SABATÉ, 2004].

According to this critical condition, CSArquitectes’ proposal integrates the existing hydraulic structure in the delta and transforms it into a system of open spaces, which, apart from providing spaces for leisure and outer enjoyment, remains as an hydrological system that will ensure the environmental balance of the site. The system of open spaces, canals, ponds and irrigation systems will become a complex device that guarantees the infiltration of rainwater towards the underground aquifers. The gradual infiltration of clean rainwater will, eventually, restore pH levels in the polluted water of underground level. A complex system of lamination and infiltration ponds designed by a multidisciplinary team of architects, environmentalists and hydro geologists will fulfill these functions (fig. 6).

We can state that the proposal not only aims to minimize its environmental impact, but also seeks to actively participate in reversing processes that had previously damaged environmental values. And this will be clearly readable in the system of open spaces that will structure the future city.

Heritage: masies, paths, plots

As mentioned above, the proposal for Vilanova extension assumes the historical process that lead to the current morphology in the plain: the fragmented and sometimes unbalanced growth of the city. This particular explosion of the city is mainly due to the division of farming properties in this area, which all along the last seventy years have randomly shifted from agrarian uses to industrial and postindustrial activities. The size of new neighborhoods historically developed in Vilanova, correspond literally to the limits of previously existing agricultural properties. And that has created a certain culture and rhythm of city growing, both in terms of local Real State industry and also in terms of capability for assuming new social demands deriving from new developments (fig. 7).

Far from denying an obvious feature of the site, the proposal for Vilanova extension reads it and makes it active part of the designing process, not only in terms of urban design but also in terms of urban management and timeline development. The project frames the existing agrarian structure and preserves its most significant elements: the main historical building for each plot ("masia" in local terminology), the access road to it and, in some cases, banks and dry stonewalls that witness the plot geometry. The five new districts proposed for the extension will be organized and structured around these significant items, which, in the future city of Vilanova, remain as formal and social benchmarks.
Fig. 7: Vision for the future extension of Vilanova i la Geltrú. According to the existing property structure the circa 100 ha. area will be divided in five quarters which can be conceived as autonomous neighborhoods linked to the whole by a strong system of public spaces and facilities. Two main statements arise from this first decision. One the one hand, a programed phasing for the whole extension will be the alternative to the “one step” development defined in the previous Masterplan for the area. The proposed 10-12 hectare quarters are considered, therefore, as basic management unit. On the other hand, and from the social and morphological point of view, each quarter will be considered as a place with strong and single identity, where existing heritage –coloured in the zooms- will be pointed as condensers of urbanity and social life.
The system of open spaces and facilities where the public sphere of the city is referred to will be coincident with the previous traces and existing buildings of the site. But, for the first time since the industrial development of the city began, they will work as a coherent system that will give chance to the reinterpretation of the original values of the site.

The rest of the new urban fabric, that which is not structural, is regulated by a system of flexible urban codes, decisively specific in determining those urban parameters that are considered essential, but also flexible enough to allow the necessary adaptability to the changing conditions that shape the contemporary city.

**Scale, time and identity: three approaches to be considered**

Urbanity, landscape, infrastructure, public space, environmental balance and heritage: these are six of the concepts that may explain some of the reflections that CSArquitectes proposed for future Housing Developments in Catalonia (fig. 8-11).

It must be said that at the time the proposals for el Prat and Vilanova were delivered, at the very moment when the PDUH were approved, the world's economy indicators announced a clear change of paradigm. These new conditions warned, in the case of Spain, about the need to introduce changes in an economic model which, up to the moment, was significantly depending on the building industry. The Real Estate Market suffered a sudden stop and the development of el Prat and Vilanova extensions were postponed as it was done with the Strategic Residential Areas.

However, these three Plans were not motivated by the Real Estate Market but, taking advantage of its dynamics, were conceived as means to respond to social needs that, still today, have not been met. And the social demands that justified their conception still remain. It seems difficult to forecast whether urban planners will face in the future the need for drafting a plan for 100,000 new homes in Catalonia. Probably they won’t. But, nevertheless, methodological and conceptual reflections arisen in this recent unique experience can be considered a legacy with which to address disciplinary challenges of future planning. Either operations of new growth of urban reform, whether in large developments or punctual interventions and either central or peripheral environments, any consideration regarding the territorial framing, the fitting in time or the identity of a place can be appropriate strategies for any commitment undertaken by urban planners.
Fig. 8: Proposal for El Prat extension: existing urban fabric and new development become a single city through the continuity of public spaces which, on the other hand, rely on ancient traces and hydraulic infrastructure of the deltaic territory.
Fig. 9: Territorial scope of Vilanova’s future extension: from the Mountain all the way down to the Sea.
Fig. 10: Public space as main structure for future Housing Developments. Above: El Prat system of canals and ponds functioning as spaces for leisure and nature enjoyment. Below: Vilanova’s new north façade, where a delicate transition between urbanity and landscape will be established.
Fig. 11: The image of the City: new entrance to El Prat coming from the North. A complex system of visual relations is discovered when approaching to the city center along the new avenue. Four medium-rise buildings function as landmarks very precisely placed in relation with the trace of the future road. A diverse set of large-scale public spaces allows the long view distance for landmark perception.
Bibliography


Consorci Prat Nord, El Prat de Llobregat, 2009
http://www.consorcipratnord.cat/

Consorci Vilanova Nord, Vilanova i la Geltrú, 2009
http://www.vngeixamplenord.cat/

CSArquitectes, “Prat Nord”, Barcelona, 2009
http://www.youtube.com/watch?v=An3pVe9nFCM


DTS: “PEIN” (Plan of Spaces of Natural Interest), Generalitat de Catalunya, Barcelona, 1996
http://www20.gencat.cat/portal/site/mediambient/menuitem.198a6bb2151129f04e9cac3bb0c0e1a0/?vgnextoid=9b03a993bed47210VgnVCM1000008d0c1e0a0RCD&vgnextchannel=9b03a993bed47210VgnVCM1000008d0c1e0a0RCD&vgnextfmt=default

http://www20.gencat.cat/portal/site/territori/menuitem.14fa444b9994def1145f13a9e92b0c0e1a0/?vgnextoid=49f56f7ead9e5310VgnVCM1000008d0c1e0a0RCRD&vgnextchannel=49f56f7ead9e5310VgnVCM1000008d0c1e0a0RCD&vgnextfmt=default

DTS: “Plans Directors Urbanistics de les Àrees Residencials Estratègiques”, Generalitat de Catalunya, Barcelona, 2009
http://www20.gencat.cat/portal/site/territori/menuitem.dbf7b17bb47ca345f13ae92b0c0e1a0/?vgnextoid=6bb4f5358b9b7210VgnVCM1000008d0c1e0a0RCD&vgnextchannel=6bb4f5358b9b7210VgnVCM1000008d0c1e0a0RCD&vgnextfmt=default


*CSArquitectes is a catalan architecture office working and researching on the field of urbanism. The team committed with el Prat and Vilanova extensions was participated by Bea Alba, Núria Noguer, Maria Massuet, Laura Cancelo, Carlota García, Marc Deu, Julia Espinosa, Alejandro de Guezala, Pere Ponsati, Julia Manrique and Laia Vilaubí, under the leadership of Oscar Carracedo and Adolf Sotoca.