

Barcelona: A Case of Urban Palingenesis

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This paper reports on a recent urban design study undertaken for the Poble Nou neighborhood in Barcelona, Spain, and chronicles the antecedents in the development of the city as regards its urban growth. The design proposal is considered to belong within the latest of a continuing cycle of regenerative episodes in the history of Barcelona that repeat the evolutionary narrative of its unique culture.

While many other cities are ignoring or delaying the pressing need to reclaim, restore or improve their identity, Barcelona is taking full advantage of its regenerative tradition where the merger of what has been and what is to come is carefully balanced and is tied to the commitment for continuity and the preservation of a rich and rewarding life for its citizens.

The insight to be acquired from the Barcelona experience is that the cycle of regenerative episodes of its urban development are intrinsically linked to the intellectual and artistic participation and contribution of architects and urban designers in the political and cultural life of the city. The result is a self-perpetuating reliance on the ritual of consistently actualizing the ideal of a better life in a better place.

In Olinda, if you go out with a magnifying glass and hunt carefully, you may find somewhere a point no bigger than the head of a pin which, if you look at it slightly enlarged, reveals within itself the roofs, the antennas, the skylights, the gardens, the pools, the streamers across the streets, the kiosks in the squares, the horse-racing track. That point does not remain there: a year later you will find it the size of half a lemon, then as large as a mushroom, then a soup plate. And then it becomes a full size city, enclosed within the earlier city and presses it towards the outside.

Olinda is certainly not the only city that grows in concentric circles, like tree trunks which each year add one more ring. But in other cities there remains, in the center, the old narrow girdle of the walls from which the withered spires rise, the towers, the tilted roofs, the domes, while the new quarters sprawl around them like a loosened belt. Not Olinda: the old walls expand bearing the old quarters with them, enlarged, but maintaining their proportions on a broader horizon at the edges of the city; they surround the slightly newer quarters, which also grew up on the margins and became thinner to make room for still more recent ones pressing from inside; and so, on and on, to the heart of the city, a totally new Olinda which, in its reduced dimensions retains the features and the flow of lymph of the first Olinda and of all the Olindas that have blossomed one from the other; and within this innermost circle there are already blossoming—though it is hard to discern them—the next Olinda and those that will grow after it.¹

— Italo Calvino



Fig. 1. Aerial view of Barcelona-Cerda grid.

It was almost two centuries into the Roman occupation of the Iberian peninsula that the town of Barcino was founded on the hilly Mediterranean coast line north of the already well established Roman provincial capital of Tarraco. (Tarragona). The Romans enclosed the city with walls in the fourth century and through the Visigoth, Muslim Berber, and Franks occupations for more than five centuries, it remained virtually unchanged.

It was not until the establishment of the Kingdom of Catalonia in the eleventh century, with Barcelona as its seat of government, that it was cast into an active period of growth. With the development and expansion of the realm, (The Kingdom of Aragón), Barcelona became a pivotal trading center through Mediterranean shipping corridors. The city, as a result, prospered and experienced consequential development, her dockyards were expanded, civic buildings to house the new bureaucracies were constructed, the catholic church flourished and erected a number of churches, monasteries and convents. More significantly new boundary walls were constructed expanding the city beyond its Roman definition. With the amplification, however, came an edict that all growth was to take place within the walled perimeter. The circumscribed city, thus, through its medieval age densified dramatically, both physically and in its population.

In 1469 the Kingdom's of Aragón and Castilla are merged creating the definitive hold of Christian rule in Spain. The subsequent support of the New World explorations, as a further ambition for Christian expansion and dominance, shifted Barcelona's importance both a regency seat and a shipping port to Madrid and Sevilla respectively. In addition, Barcelona had already lost its Mediterranean trading power with the fall of Constantinople in 1453.

As the Spanish crown prospered from its conquests in America over the next three centuries Barcelona struggled to maintain its economic stature and unhappy with monarchic rule repeatedly staged rebellions against it. The city was incrementally reduced in stature, down to being merely a provincial capital, it was stripped of its governing autonomy and placed under military rule. To establish military dominance in the city the construction of the military fort, La Ciutadella, on the razed lands of the Ribera neighborhood, was undertaken. Almost concurrently, the Castle of Montjuic, (built in 1640 during the Els Segadors War), was fortified, book-ending the city, on the north and south, assuring martial surveillance.

The dislocation of some ten thousand citizens from the Ribera neighborhood resulted in one of Barcelona's first planning projects outside the medieval walls. On a small triangular peninsula on the coast adjoining the Ciutadella the new district of Barceloneta, designed by Prosper de Werboom, was constructed beginning about 1750.

In the latter part of the eighteenth century Barcelona is, perhaps in great part because of its expanded population, selected as the location for new industrial ventures. During the first half of the nineteenth century industrialization took hold in Barcelona primarily in textiles and paper processing. Most of these industries sprouted within the confines of the medieval city and as they prospered the population increased to alarming proportions; densities swelled to numbering more than three hundred and forty persons per acre. This condition manifested its predictable outcomes of pollution, squalor, and disease. The infusion of industry into the already crowded assemblage of the hemmed in city, on the one hand, revealed a serious lack of infrastructural utilities and services and on the other, a shrinking availability of land for habitation and open space. In 1854 the central government in Spain permitted the dismantling of the medieval walls, the sale of lands held by the military and moved to obtain plans for the expansion of the city. The expansion was basically intended to occupy the plain between the boundaries of Barcelona and the peripheral hamlets of Gracia, Sarria, and Sant Gervasi.

The planning/urban design tradition in Barcelona begins decisively with Idelfons Cerda's master plan for the expansion of the city in 1859. Cerda, then a surveyor and urban theorist was invited to draw up an expansion plan. Cerda's efforts coincided with a competition promoted by the local Barcelona government for the expansion design and which was won by a local architect, Antoni Rovira. The Cerda Plan, through political supremacy of the national government, ultimately prevailed and was implemented.

It is important to note that Cerda was, at that time, already framing his urban theories, primarily based on egalitarian principles. (His book on urban theory: *Teoria General de la Urbanizaci3n*² is to be published in 1867). Cerda's urbanistic speculations, while primarily driven to seek the ideal by the scientific and rational impulses of the time, were also shaped by his experiences in a city that was enduring the calamities wrought by the industrial revolution. He envisioned an organization of the city that was non-hierarchical as to social class and in which all peoples were provided and shared equal amenities and services. He advocated a society committed to a life of dignity and collective identity.

The physical manifestations of the plan clearly represented this ideal. There was to be space and light, appropriate housing and access to transportation, recreation, education and health facilities. The plan called for densities of only one hundred persons per acre distributed over neighborhoods that were composed of twenty five blocks each, four neighborhoods formed a district, four districts a sector of which there were two. This assemblage was devised for the fitting provision and distribution of public facilities such as parks, hospitals, markets, schools, and social centers.

The design essentially consists of a geometric grid of streets that define blocks one hundred thirty three meters square. The blocks have the unprecedented characteristic of having chamfered corners

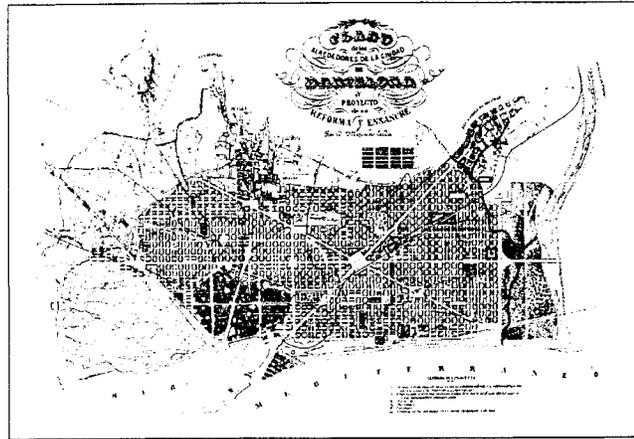


Fig. 2. Cerda plan for the expansion of Barcelona, 1859.

to allow, in Cerda's conception, the more convenient turning of transportation vehicles from one street to a transverse one and to facilitate delivery of commodities. In addition, the sectors were laced by primary arteries to provide for circulation throughout the city.

The Cerda plan is unique in city planning history in that it was almost completely implemented. Though many factors, over time, have produced variations within the scheme, its basic structure has, for the most part, generated an urban pattern that is consistent, wholesome and engaging. The most influential consequence on the evolution of the plan was the unpredictable population growth that was to take place over the next century. Densities have far exceeded the one hundred persons per acre that Cerda proposed resulting in the occupation of much of the garden spaces that he envisioned in each block of the grid. This city of gardens preceded Ebenezer Howard's Garden City by forty years.³ From an architectural standpoint the elaboration of the plan resulted in the formation of an identifiable set of building typologies that are unique to the city image. Cerda himself, in 1863, designed a project for a typical chamfered corner and though not architecturally noteworthy stood as a substantiation of his intentions.⁴

The early building activity in the Barcelona expansion, (l'Eixample), took place roughly between 1863 and 1914. This time frame coincides with the *modernisme* period in Barcelona; a time in which a search for a regional expressive identity in architecture is embraced by catalan architects and whose buildings from the time stand as historically notable architecture; Antoni Gaudi, Josep Vilaseca, Lluís Domenech, Josep Puig i Cadafalch and, Francesc Berenguer to name a few. These architects, and others through the spirited expression of *modernisme* provided significant contributions to the typologies in the grid and memorable nuances among them.

Cerda's Barcelona expansion plan and the feverish implementation and development that followed must be regarded as a case of a city literally being reborn. It represents, in addition, that indomitable catalan character that while embracing fiercely its rich cultural heritage is willing, with daring, to engage in reflection, experiment and, innovation in the service of meaningful aspirations for a better way of life.

The early part of the nineteenth century is not a particularly memorable period for Barcelona's development. The economy in Spain weakened through the war years (1914-18) and political unrest culminated in the dictatorial regime of Primo de Rivera which was to last through 1930. The collapse of the dictatorship resulted, for Barcelona, in the establishment of an autonomous government, which in spite of tenuous political continuity, lasted until the beginning of the Spanish Civil War in 1936. The early years of this

government, as David Mackey asserts: “gave institutional backing to the rationalists approach to architecture and town planning.”¹⁶ The rationalist movement in architecture had been gaining ground in Spain since about 1925. Architects in Madrid had already been participating in the CIAM (Comite International pour la Architecture Moderne) initiative. Barcelona architects, led by Josep Lluís Sert and Sixt Yllescas were pressing to influence local interest. In 1929, after staging a successful show of modern architecture, (in protest over the preponderance of monumental and arrogant Spanish baroque works exhibited at the International Exhibition in Montjuïc) they formed the GATCPAC group (Grup d’ Artistes i Tecnic Catalans per al Progrés de l’Arquitectura Contemporània) to consolidate their intentions to influence urban and architectural design in Barcelona. Although, GATCPAC’s first conceptual initiative was to design a modernist recreational “city” near Barcelona, an expected response to the theoretical fever that existed for utopian schemes, they also offered a number of tangible proposals for solving local and regional problems.

The local government, the Generalitat, which had just regained autonomy from the central government and in affinity to its political ideology was eager to provide Barcelona with a new vision of its future. Its ambitions were conveniently represented and supported in the enthusiastic and pragmatic commitment of the GATCPAC group. The common zeal that was generated at that time amounted to what David Mackey describes as: “the spirit of a nation ‘born again’, fired by the ideal of a Brave New World.”¹⁶

In 1932 Le Corbusier was invited back to Barcelona, for the third time, to participate in the organization of the IV Congress of CIRPAC (CIAM). During this visit the proposed plan for Barcelona, the Pla Macià, was defined and elaborated. The plan was essentially based on a functional premise that distributed uses according to their preferred location within the city. This strategy was related to a scheme that would create extensive city blocks by incorporating nine of Cerda’s islands into one, capturing open space and allowing the potential introduction of the modernist ideal, the *immobles viles*. GATCPAC was commissioned to design one such building for housing, the *Casa Block*, which was constructed but never used for housing.

The modern movement in Barcelona is well represented by a number of notable buildings by architects such as Sert, Folguera, Yllescas, Goday, and Benavent; however, the grander schemes of GATCPAC never matured, its members caught up in the conflicting political ideologies that preceded the Civil War. In the beginning Barcelona mustered republican resistance to the military insurrection led by General Franco, against the Spanish crown, but by 1939 was subdued initiating a period of odious repression and persecution. Franco, fearing catalan intrepidity banned the use of catalan language, suppressed all forms of regional intellectual and artistic expression and, maleficently encouraged the migration of foreigners and Spanish nationals into Catalonia to attenuate their ranks. For the next three decades, during the Franco dictatorship, there was little noteworthy activity in architecture or urban planning in Barcelona.

In Italy, however, architects like Aldo Rossi and Carlo Aymonino had commenced to evolve urban design theories based on an interest in the renovation of traditional European cities that contrasted with the functionalist strategies of the modern movement. These emerging theoretical ideas were being heeded in Barcelona by Catalan architects who readily recognized their city as historical/traditional model where transformations and renewal must take into account the existing urban configurations and its extant architecture.

The restitution of the Spanish monarchy and the consequent creation of a democratic nation, initiated an era of remarkable growth in Spain and, in particular, Barcelona. There was a resurgence of intellectual and artistic production and a renewed interest in the future of the city itself which had been denied care and for which its citizens suffered. Oriol Bohigas, who was named Director of Barcelona’s Department of Architecture and Urban Design,

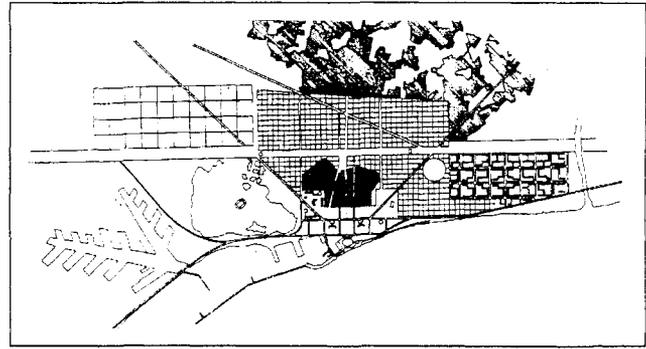


Fig. 3. Le Corbusier-GATCPAC, Macià plan of Barcelona, 1932.

wrote: “It was not by chance that despotisms destined their funds for endless infrastructures, for ‘systematic’ operations, while the street, the plaza, the garden, the aspects of the neighborhood are always absent from the investment programs. It is also appropriate to remember which class this politic of great systems favored, and who suffered by the absence of adequate attention to the neighborhoods.... Now in a democratic administration, it is time to compromise, and to understand the city more as a sum of realities than as an ideal model of systematization and, as such, a regressive utopia.”¹⁷

The International Architecture Exhibition in Berlin provided, beginning in about 1979, a forum for testing new and evolving urban design theories which focused on the value and preservation of the historic European city. Berlin became the laboratory for the concrete application of the new urban theories and was regarded as the prototype for the renovation of the typical post-war European city. The success of the Berlin effort lay mainly in the impressive integration of architecture in the planning and urban design schemes. The Berlin model proved to be an immediate stimulus to other cities in Europe, most notably Barcelona. Bohigas recognized, that even though Barcelona was not war ravaged, the emerging design theories were advantageous to Barcelona’s need to refurbish particular points in the urban fabric. His strategy of “benign metastasis” reasoned that well placed, well conceived interventions in the urban environment would regenerate their surroundings due to their positive influence. The design program concentrated on key public spaces as the principal interventions.

Peter Buchanan describes the regeneration of Barcelona:

....While the public realm of so many cities is deteriorating, or even being deliberately destroyed and/or privatized, Barcelona stands out for expanding and enriching its public realm with proper concern for the city’s spatial and symbolic quality. Some though may see the emphasis on public life, especially in plazas where it is both out of doors and outside of any market function as anachronistic. Yet, if also fueled by a certain Catalan chauvinism, there is nothing nostalgic about the strategy being pursued or its products, even when these evoke or actually reuse components from the past or conserve old buildings. Much of the excitement about what is happening in Barcelona is precisely because it is redefining a particularly vivid vision of civic life in the late twentieth century. More than that, this vision is both thoroughly modern, yet essentially Mediterranean; celebrating hedonistic civic traditions that were themselves an original inspiration to certain phases of Modernism. Barcelona’s new public architecture and open spaces, thrill then for their poise between past and future, often fusing familiar archetypal and avante-garde forms”¹⁸

The new urban plan, through which Bohigas was zealously commissioning public space interventions in Barcelona’s neighborhoods, also included a number of larger restoration projects in the

Gothic Quarter and the coastal areas, an ambitious program to provide for schools, social services and public utilities, improving circulation, and providing much of the city with appropriate lighting and street furniture.

The progressive and assertive mood that was everywhere in Barcelona surely propelled the bid that was extended by the Municipality to host the 1992 Olympiad; it signaled the advent of a certain perceived maturity of the city itself, ready to become a world class metropolis and, perhaps, more significantly, the awareness that all of the sociopolitical, cultural, and economic conditions were present to move the city into an aggressive and enlightened cycle of regenerative development. This awareness carried both the weight of Barcelona's rich traditions and a sensibility for what it was to seek for its future.

With the successful award of the Olympic venue the process of regenerative urban development takes on a more comprehensive strategy that not only seeks to provide the necessary Olympic facilities but is committed to promoting and providing for all aspects of an improved civic life in the public realm. Once again, Barcelona is repeating its evolutionary history.

The most salient of the urban design projects resulting from the Olympic enterprise is the project produced for the maritime district to be known as Nova Icaria. Designed by the architectural firm of Martorell, Bohigas, Mackey and Puigdomenech (MBMP) it was produced initially to house the Olympic athletes the project was, however, conceived to eventually become a new neighborhood. The project is significant in that it is a clear attempt to synthesize the two urban planning models of the historic/traditional city and that of the functionalist/modern city. The urban design principles of both the Cerda plan of 1859 and the Macia plan of 1932 are, in the project, skillfully combined to create an environment that is a worthy experiment in blending existing urban configurations with emerging architectural typologies; which is, without a doubt, the most compelling present challenge for architects and planners.

Following the Olympic Games and the completion of the Nova Icaria project, Barcelona's urban planning officials had accumulated, over the period 1991-1995, an impressive compendium of physical and social data and were in a position to undertake an extensive and detailed analysis of the city's urban condition. This effort formed the basis of a new set of urbanistic objectives that focused primarily on issues such as the regeneration of a number of Barcelona's neighborhoods, circulation and transportation, infrastructure, housing, and perhaps, most importantly, both the potentials and impacts of private initiative. This corollary of urbanistic objectives is amply detailed and explained in a book published by the City's Office of Publications entitled "la Segona Renovació." The title, referring to a second renovation is undoubtedly a reference to the Post-Franco urbanistic campaign being the first; in a sense, historically considered, a misnomer.

Significantly one of the principal aims of these renewed urbanistic operations is on testing specific architectural interventions in the urban pattern by acknowledging the emerging and differentiated morphologies produced by recent innovative building programs.

One of the most sensitive neighborhoods presently being studied by Barcelona's Planning Services Office is that of Poble Nou. The neighborhood is located in the southeastern sector of the city and formed a part of the Cerda expansion plan and the Macia plan. The area is fast becoming the site for a number of projects advanced both by public and private initiative.

In mid-year of 1998, by way of an academic summer program held in Barcelona, this author and a group of students engaged in developing a schematic urban design proposal for the area.

The Poble Nou neighborhood is contained within a trapezoidal area which roughly extends from the Parc de la Ciutadella (City Park) on the south-east, Avenida Meridiana on the west, the coastal edge on the south-east to the Plaza de las Glorias and Gran Via de los Corts Catalanes on the north-west and Rambla de Prim on the

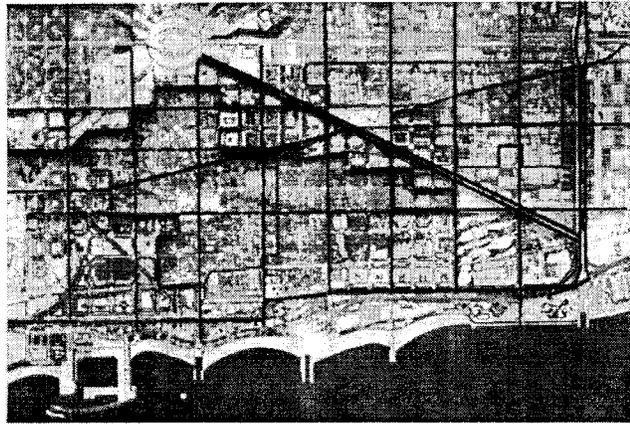


Fig. 4. Plan of Poble Nou neighborhood indicating circulation network.

northeast. Three important preexisting urbanistic conditions are found in Poble Nou which influence any design proposal:

First, the organizing grid of the Cerda expansion plan, next, the cadastral layout of agrarian land ownership prior to the Cerda grid, and finally the existing position of the former transportation road that linked the Barcelona maritime ports to France, a road which traverses diagonally across the Poble Nou grid, now named Carrer Pere IV.

In addition, the study undertaken acknowledged several important introductory antecedents embraced by the City's Planning Services Office: First, the Poble Nou study area was delimited by those tracts in which there were designed projects (proposed or under construction), all of which emerged after the Plan General Metropolitano of 1976 (PGM), (General Metropolitan Plan). Those tracts resulted from designed proposals which attempted to fill in where the PGM had no clear directive, primarily in the coastal area along the extension of the Ronda Litoral Highway and along the prolongation of Avenida Diagonal through Poble Nou to eventually terminate at the coast line.

Second, the study adopted the city's proposed Circulation Network within the Poble Nou sector which consisted of an expanded grid of primary vehicle intensive streets in both directions of the Cerda grid and on the diagonal avenues (Av. Diagonal and Carrer Pere IV). Last, the Study assimilated the premise that the Poble Nou neighborhood should evolve strategies to incorporate new "clean" industrial uses (such as Information Technologies, Research Centers, etc.) in concert with housing and basic urban services.

With this background the study formulated the following set of initiatives within and for its development:

1. Conservation of existing buildings.

The Poble Nou neighborhood, as a result of its location relative to the trucking and railroad corridors evolved a predominance in industrial uses. Many of the early industrial buildings and their adjacencies were constructed conforming to the older agrarian land parcelation and later buildings accommodating the Cerda grid. Internal reform of the area necessarily includes the conservation of those buildings that contribute to its urban life and image, those that are in good condition and are occupied in appropriate uses and, finally, those which are architecturally notable.

2. Typological Survey and Analysis.

The Poble Nou neighborhood constitutes a localized example of the Cerda plan in that it exhibits both the typical Cerda grid and its chamfered square islands and the diagonals that bisect the grid. The typical island pattern contains a few notable examples of the typologies that the Cerda plan engendered in both the chamfered corner condi-

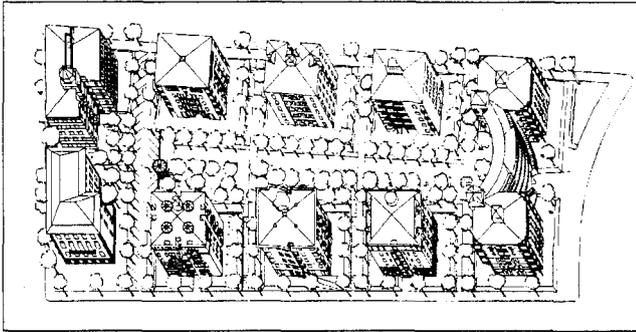


Fig. 5. Axonometric Drawing of Urban Villas on Rauchstrasse, Sudliche Tiergarten.

tion as well as the infill mid-block typologies. In addition, the diagonal bisecting streets produced a number of scalene, odd shaped, islands (those that David Mackey calls "awkward sliced islands")⁹ in which one finds cases of "hybrid" buildings where the known typologies had to be transformed to fit the unusual geometry of their sites. This "hybrid" architecture can be found elsewhere in Barcelona and represent, in many instances, some of the finest architecture it has to offer (two notable examples are Puig i Cadafalch's Casa Terradas, also known as the "House of Spires," and Josep Maria Jujol's Casa Planells).

The study considered the "hybrid" islands along the diagonal boulevards an important opportunity to develop buildings that would accommodate many of the proposed "clean" industries which by their very innovative and complex functions would evolve "hybrid" programs. The obvious models for this effort were the 1987 IBA Urban Villas on Rauchstrasse, Sudliche Tiergarten in Berlin, Germany and the Nexus World Kashii project in Fukuoka, Japan. The challenge to elaborate distinctive and evolutionary architecture was a key ambition. A six block area along Carrer Pere IV was selected as a precinct to develop a scheme which would examine these architectural propositions, (by various architecture students), in the context of the various urbanistic objectives also advanced in the study.

3. Macro-grid.

The analysis of existing conditions in PobleNou revealed a neighborhood somewhat suffering physical and social misfortune. A strategy which could promote regeneration of the area's fabric was discerned as that one which would produce identifiable micro-neighborhoods where the population would find and enjoy the facilities and amenities of healthy communities, which are now lacking.

A macro-grid was conceived which overlaid the Cerda grid in six, nine and twelve block components; each component forming a micro-neighborhood. The macro-grid was positioned so that it was shifted by one block north-east from the proposed circulation network grid. This offset position had the effect of placing one principle circulation network crossing within each of the nine-block or twelve-block micro-neighborhoods. The six-block components typically occur along the diagonal streets and contain the "hybrid" sites referred to earlier.

4. Rambla Typologies as a Social Instrument.

In concert with the overlaid macro-grid, a recommendation was advanced to position three additional pedestrian ramblas to the existing Rambla PobleNou, a street typology highly regarded by Barcelona citizens for social gathering, that would occur in alternative five and six block spacings and connect all the micro-neighborhoods to the coastal area. The ramblas would be inlaid on the following streets: Carrer d'Avila, Carrer del Fluvia and Carrer de Puigcerda.

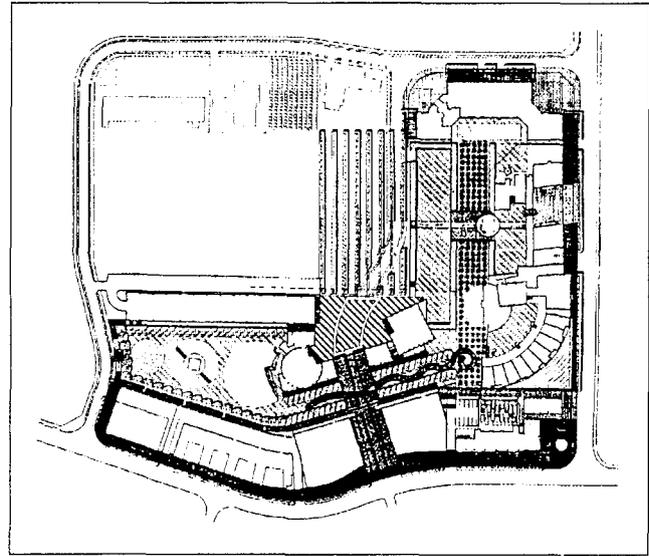


Fig. 6. Nexus World Kashii; Fukuoka, Japan.

5. Hierarchy of Streets.

The implementation of the macro-grid and its position with respect to the Circulation Network has the additional intention of creating a hierarchy of streets relative to their proposed traffic capacities, their intended local uses and ultimately their architectural development.

The capacity of streets to carry traffic is, of course, already signaled by the proposed primary Circulation Network. Those streets in the network are intended to move traffic through the sector linking it to the rest of the city. All other streets within the network would hierarchically accommodate internal traffic in reduced volumes and pedestrian movement. This hierarchy obviously cues the potential uses that would appropriately be located in each type of street, culminating in that street type where residential uses claim street environments that are safe, quiet, and visually satisfying to the pedestrian.

6. Relationship of Hierarchy to Architecture.

The study, in the end, proposes through its strategies an urban design practice that should yield buildings that are more compatible and better suited to their purpose by being architecturally designed addressing a revealed set of urban design guidelines for each location within the hierarchy. The guidelines would necessarily draw from the wealth of architecture extant in Barcelona and provide for beneficial contextual relationships and continuity and would more specifically demand compliance to appropriate design rules specifically compiled for every hierarchical location in the PobleNou sector.

Looking back on the process and results of the Study it is possible to infer some important issues that can reasonably announce objectives and guidelines for future work.

Having taken on the project as merely temporary visitors in the city our early procedure in the work was guided by what Adolfo Natalini describes as "reconnaissance" and "acceptance." The data obtained, turn from quantity to quality and the information as a whole becomes the agent of transformation. This reconnaissance and acceptance are not purely passive, but synthesis and integration."¹¹ These actions allowed for a deeper understanding of the historical and cultural legacy of the city and the neighborhood. Our findings inflected all the decision making that followed.

We were committed early on to observing both physically and ideologically the outcomes of the Cerda Plan. We recognized, however, that whereas the Cerda grid had conceptually traversed

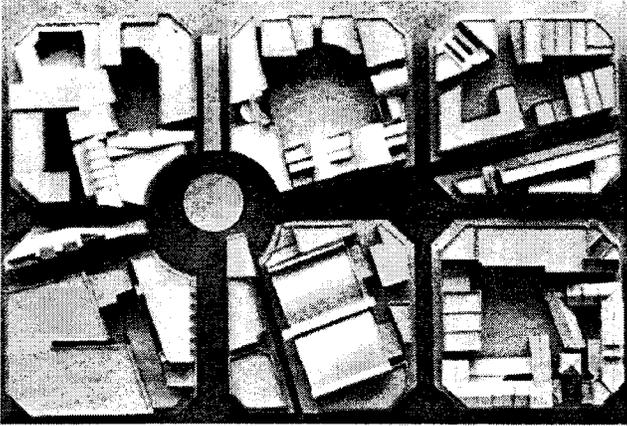


Fig. 7. BSP Study-Model of schematic project for six block area in Poble Nou.

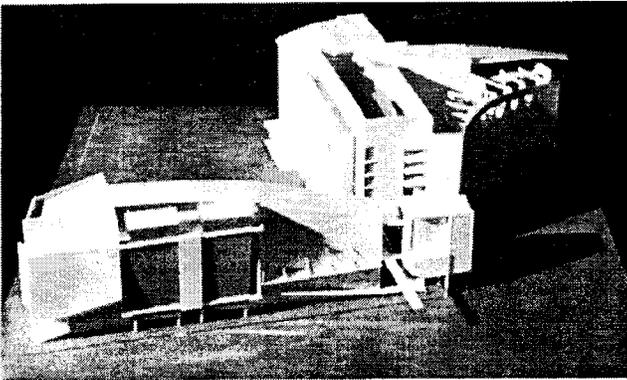


Fig. 8. BSP Study-Student project by C. Glover and A. McLellan.

persistently over the Poble Nou area, there were a number of significant local developmental patterns that had and were presently challenging the continuity of the geometry. It was necessary to admit these conditions and yet proceed with a scheme that would attempt to reinforce the Cerda goals. The laying of our virtual macro-grid, creating a set of micro-neighborhoods, was clearly in concert with Cerda's neighborhood concept, but allowed for the increased densities that compose a suitable neighborhood today. We further reasoned that in each micro-neighborhood there might occur an intervention in the spirit of Oriol Bohigas' "benign metastasis" concept that would provide a local symbol of shared participation and pride in their community.

Last, we generated a strong commitment to provide strategies and models for the community that would resolve the intensifying brunt of the automobile, and to develop some alternative building typologies and to determine their distribution and to begin to accommodate the emerging technologies and industries that will be commonplace in the new millennium.

NOTES

¹ Italo Calvino, *Invisible Cities* (New York: Harcourt/HBJ, 1974).

² Ildefonso Cerda, *Teoría General de la Urbanización* (Barcelona: Editorial Ariel I Vicenz Vives, 1968).

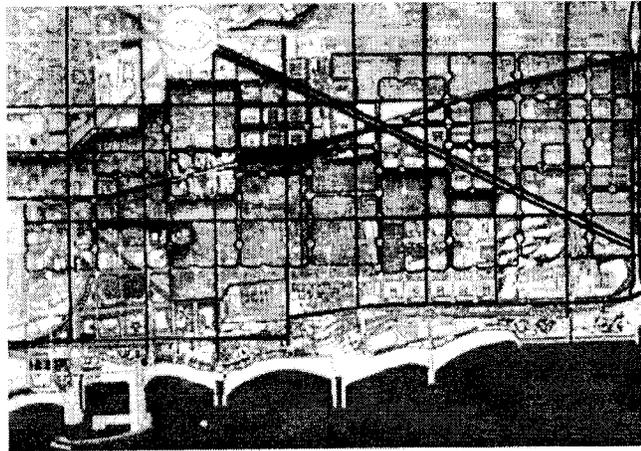


Fig. 9. BSP Study-Virtual macro-grid overlaid on the Poble Nou area map.

- ³ David Makay, *Modern Architecture in Barcelona 1854-1939* (New York: Rizzoli, 1991), p. 16.
- ⁴ Christopher Woodward, *The Buildings of Europe: Barcelona* (Manchester: Manchester University Press, 1992), p. 52.
- ⁵ David Makay, *Modern Architecture in Barcelona 1854-1939* (New York: Rizzoli, 1991), p. 94.
- ⁶ David Makay, *Modern Architecture in Barcelona 1854-1939* (New York: Rizzoli, 1991), p. 104.
- ⁷ Robin Cembalest, "Post Franco Flourish: Barcelona's Parks and Plazas Come Alive" *Stroll* (dn/a), p. 19.
- ⁸ Oriol Bohigas, *City and Architecture 1980-1992* (New York: Rizzoli, 1991), p. 21.
- ⁹ Ajuntament de Barcelona, *La Segona Renovación* (Barcelona: Ajuntament de Barcelona, 1996).
- ¹⁰ David Makay, *Modern Architecture in Barcelona 1854-1939* (New York: Rizzoli, 1991), p. 52.
- ¹¹ Adolfo Natalini, *Figures of Stone* (Milano: Electa Editrice, 1984).

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