

# The Neighborhood Parks as Generators of Urban Landscape: the Case of Valencia

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How could the urban and architectural practice be improved, based on the deepening reading on the morphological configuration of the urban space throughout history?

Giancarlo Cataldi. Meeting in Artimino (Carlotti, P. 2017).

**Keywords:** neighborhood parks, morphology, social use of space, environmental aspects, strengths and weaknesses, improvement projects.

**Abstract:** Knowing more precisely the morphology of the Neighborhood Parks (NP), allows us to detect their socio-environmental strengths and weaknesses, which can help to make political decisions about public investment priorities and better adjust the projects to the needs and aspirations of NP users.

For 8 years, we have been developing an urban research that aims to create analysis tools for the improvement of the Neighborhood Parks. (Colomer, V. 2017) (Urios, D. 2017).

The general objective of the research is to improve the knowledge of NP, to adjust the projects to the real needs and aspirations of the users of these urban spaces. (Alexander, C. 1977), (Gehl, J. 2,000).

One of the aspects of the research has consisted in the landscape definition of the NP, through the characterization of their enclosures (Marshall, S. Zang, Y. 2017), in which we have analyzed the way in which the 4 basic components that structure the landscape: soil, sky, architecture and vegetation. (Cullen, G. 1961) (Lynch, K. 1960) (Panerai, P. 1980) (Prinz, D. 1980).

The specific objective of this paper is to improve the analytical system of the NPs, completing the quality indicators of the urban landscape generated by the NPs. To this end, 5 new indicators have been developed, which include aspects related to the social use of space and the environmental sustainability of NPs.

## 1. The Neighborhood Parks (NP) as a research object and a project subject

The basic components of urban reality, which serve us, both to analyze it and to establish the keys to its transformation, through urban projects, are undoubtedly public spaces, plots and buildings. (Panerai P.H., 1980).

But in many cases there are transformation and improvement initiatives that affect only public spaces. These projects have the virtue, proven by experience, to induce initiatives of

transformation and improvement of the parceled spaces to which they provide services, because they are structuring spaces of the urban reality.

The analysis of the NP system of a city or a part of it, as is the case of our research of the NP of Valencia, gives us the keys of its conformation and its current situation, in its morphology, in the building type, as well as in the uses of the parceled spaces and buildings to which the NP serve directly.

We can observe many cases in which integral urban improvements are induced through specific improvements of their public spaces (Gehl J., Gemzøe L., 2000), so we are convinced that NPs are a social and morphological field of investigation, very interesting so that the public administrations can adjust and update the allocation of resources and to improve the projects and the construction of the public spaces of our cities. All with the purpose of improving the quality of life and relationships of human beings in our urban societies.

## 2. Recognizable form and social use of space

Phenomena that we do not understand can not fit into our active experience. This statement, applied to the urban phenomenon, was motivated Kevin Lynch (Lynch K., 1960) to apply himself to the study of the city from a perceptual point of view.

In the NP case, which are structuring urban spaces, small-scale and long-term, the variables of movement lose importance in favor of those variables that are capable of demarcating boundaries, which are composed of skies, soils, facades and vegetation, acquiring visual importance, the conical perspectives, based on a central vanishing point of the composition.

It is pertinent to refer here to the call of attention of Kevin Lynch about the capacities of the elements of the urban structure to be understood. Although, in the case of Lynch, he puts the emphasis on the “orientational” component, as opposed to others such as identity, understanding of space, historical layers, active domain or aesthetic experience. (Fernández B., 2018).

It is convenient to highlight the interest that the perceptual aspects have for the understanding and the actions of improvement, transformation and updating of NPs. The main question is to answer the following question: How do we dispose the elements that make up the NP landscape? Which of them should be highlighted, since the projects for the NPs should have as an object the harmonization, in each situation, of the skies, the soils, the facades and the vegetation, from a point of view, not so much orientational, as of control of the limits of some scenarios, whose character is more seasonal than of movement, so that they are able to foment the social relations of the users, thus increasing their interest in the place. Consequently, we must understand NPs, as catalysts of neighborhood relations.

If we refer to the constitutive elements of a certain urban landscape, such as the NP, we will have to refer to those authors who have been concerned with its definition, through its “figuration”. In the case of Gordon Cullen, (Cullen G., 1961) by means of the precise drawing of urban situations with people, the quality of the drawing being not a minor issue. In its verification of the urban reality at a specific moment, it underlies Cullen’s drawing, the search for harmony between things (skies, floors, façades and vegetation) and socially active people on the ground and encouraged by a set of stimulating perceptions (Figure 1).

Through the concept Urban landscape, we transcend the architecture of the building to fix our attention on the relationships between buildings and their possibilities for joint design.

The relationships between buildings are shaped by streets, squares, banks, trees, traffic signs, kiosks, bus stops... and we perceive all this through their dynamic vision, identifying places and

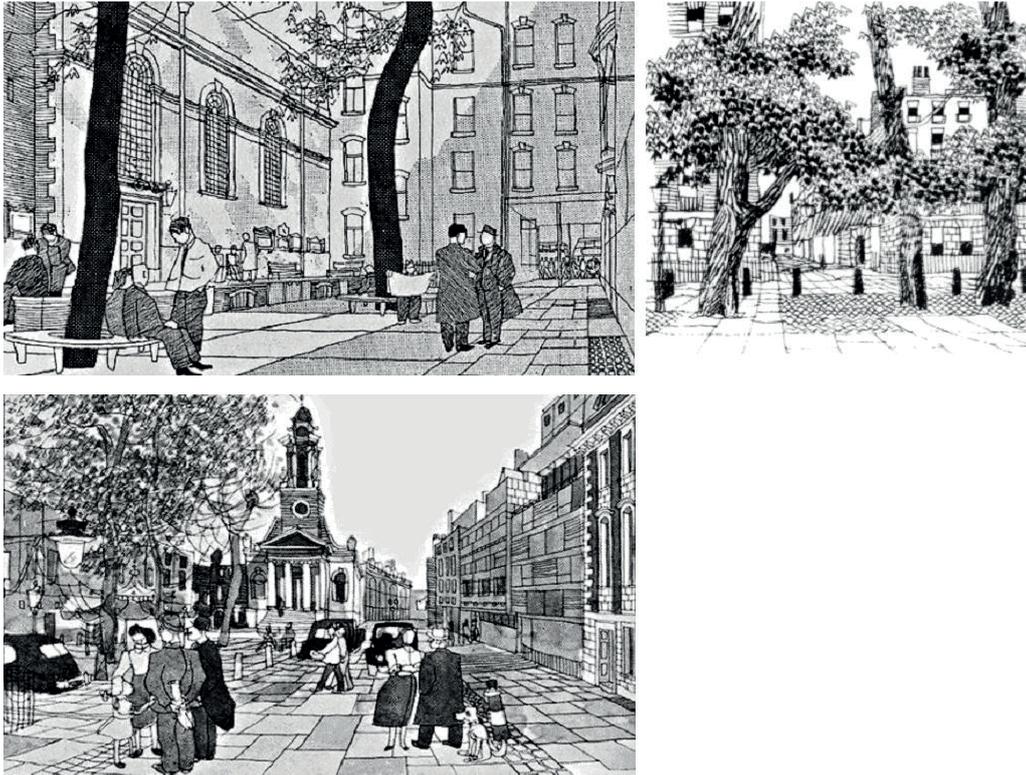


Figure 1. Urban socio-environmental drawings by Gordon Cullen.

providing them with content. In the case of an NP, we will try to identify the perception of the place, from its access, through a street, the perception of its main geometries, the way in which light reaches us from the sky, Soil management, which mark itineraries and living spaces, as well as their content, of grouped people, who adopt attitudes more or less in keeping with the roles that “the designer” expects from them.

All this leads us to consider the space of NPs, on the one hand, as a container scenario for the appropriate social uses, as an expression of its usefulness (the vitrubian “utilitas”), for certain user profiles, under certain temporary conditions. On the other hand, as perceived spaces that provoke us a certain aesthetic fruition and in this case we refer to its degree of beauty (the “venustas” of Vitrubio).

An NP will be well designed, when it constitutes a comfortable urban scene, serves to indicate and harmonize itineraries and stay areas, be sure, allow us to observe, move and evoke situations capable of moving us. If these conditions are met, we can affirm that a certain NP is a beautiful public space.

“The moral condition of urban planning is that of respect for environmental conditions” (Prinz D., 1980). The adaptation to new needs requires the evaluation of the existing, to then put in order the components, linking them with their own history. It is about valuing the existing. Prinz also, in terms of configuration, proposes to be attentive to detail, presenting a set of urban references, as an inventory to draw on and from which we can extract a whole field of project materials.

By this way, we come to the definition of the NP urban landscape, as controlled visual openings, which for its proposed rationalization, we can divide into 4 components: Heavens, Soils, Facades And Vegetation and the project solutions, we will find them in the combination of the four basic components, in complete images (Figure 2).

## 2.1. Skies

They have a constant quality and provide different degrees of natural lighting to the place, characterized by a climate that provides certain degrees of humidity, temperature and ventilation. The light, the darkness, the sunlight, are controlled through the knowledge of the limits of the scene that is formed by the facades of the buildings, the soils and the vegetation.

The light of the sky intensifies, as we approach the upper perimeter of the facades. The basic casuistry can be summarized in 4 cases: symmetry, background domain, right domain and left domain (images 1,5,9,13 in Figure 2).

## 2.2. Soils

It is a component that the projects can define in their entirety: hard, soft, permeable, waterproof, limits at the base of the facades and in the encounters with other soils not belonging to the scope of NP, safety, universal accessibility, sociability, plant limits or artificial, utilization adjustments, importance of the stationary component, safety, resistance, durability, proximity in the extraction of materials, traditions and their reinterpretation, sociability, user groups or profiles, limitations to the use of “parterres”, relations of the NP with vehicular mobility in its surroundings, furniture as landscape configurator.

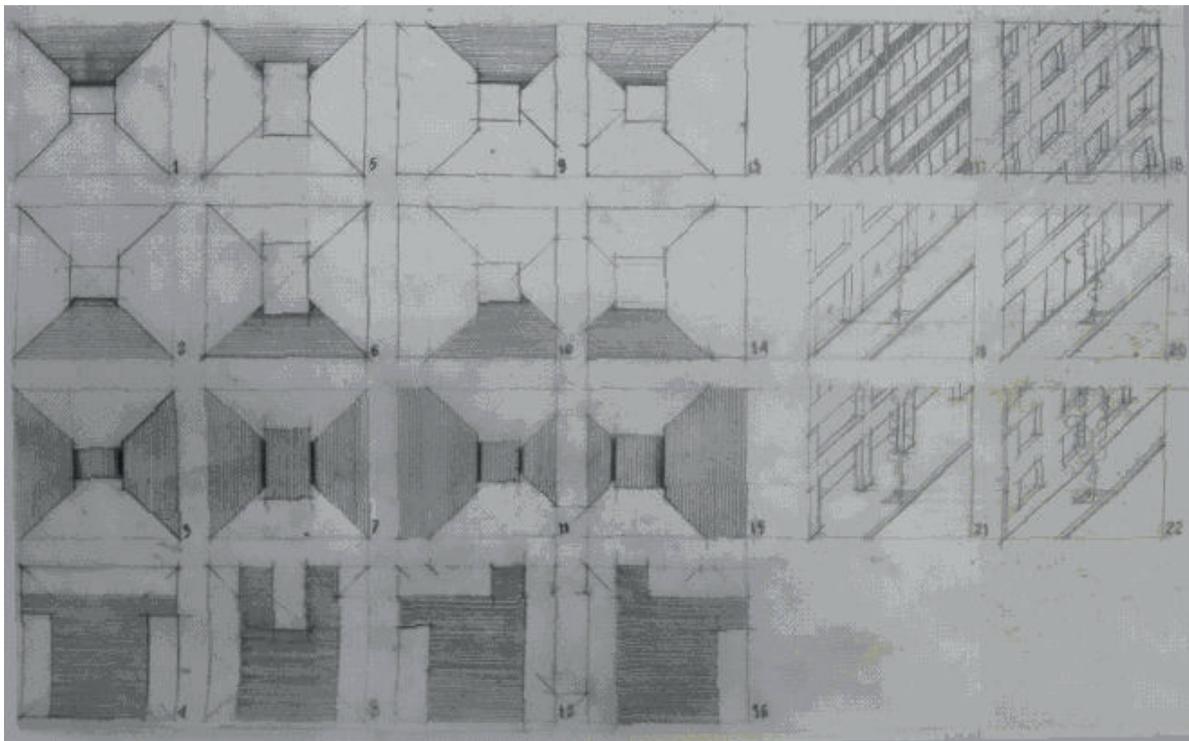


Figure 2. Visual limits in NPs; Upper line, skies: symmetrical: 1, background domain: 5, left lateral domain: 9, right lateral domain: 13 2nd line, floors: symmetrical: 2, background domain: 6, left lateral domain: 10, right lateral domain: 14 third line, Facades: symmetrical: 3, background domain: 7, left lateral domain: 11, right lateral domain: 15 Bottom line, Plants: symmetric: 4, background domain: 8, left lateral domain: 12, right lateral domain: 16 Top line (right part) double facades with terraces: 17, simple facades with windows: 18 Line 2 (right part) Relationships facades – floors: hollow-solid patterned: 19, all gap: 20 Bottom line (right part) Relationships facades – floors: “porticado”: 21, relationship denied: 22.

The contrast of light intensifies, as we approach the vanishing point of the background. As in the heavens, the basic casuistry can be summarized in 4 cases: symmetry, background domain, right domain and left domain (images 2,6,10,14 in Figure 2).

### 2.3. Facades

The enclosures visually limited by lateral facades, composed by sets of buildings, present the same four basic possibilities: the symmetry, the domain of the background, the right domain and the left domain. Also, the contrast of light intensifies as we approach the vanishing point of the background (images 3,7,11,15 in Figure 2).

The facades of the NP of the consolidated peripheries of Valencia, can be analyzed quite easily, given the homogeneity in the production of residential and endowment buildings, in a period of about 60 years, ranging from the 50s of the last century to our days and that correspond to the period of city production in its areas of consolidated peripheries.

In the central part of the facades or shaft, we can find two different cases: the one of double facades, normally flown on the street, with interposition of terraces and the simple dated ones, formed by walls perforated by windows (images 17,18 in Figure 2).

In the first years of the analyzed period, those of the first type proliferated, influenced by a second generation of buildings of the Modern Movement and more specifically, by the direct influence of architects like Luis Gutierrez Soto, not only for its Madrid production, but also for its own production in Valencia, such as the Tower of Valencia, which overlooks the Old River Turia Channel from the chamfer of the Gran Vía Marqués del Turia (Figure 3), or the Bacharach building, on Cirilo Amorós street (Figure 4).

In the 70s and especially in the 80s of the last century, a new generation of facades based on the simple wall perforated by windows was created, looking for an assimilation with the ar-



Figure 3. Luis Gutierrez Soto, Torre de Valencia building.



Figure 4. *Luis Gutierrez Soto, Bacharach Building.*

chitecture of the Italian “Tendenza” represented by Aldo Rossi and Gorgio Grassi . (The latter projected some representative buildings in Valencia, such as the University Library) (Figure 5).

It is not strange that in a period in which the public spaces of the city were transformed into places of transit of noisy and polluting vehicles, the architects responded with facades that are closed to the streets.

Currently, there is a return to the consideration of public spaces as spaces of social relationship, and this is causing architects to recover, to a large extent, double façade systems with terraces, also incorporating solar filtering systems, taking as a reference aspects derived from the residential urban architecture of José Antonio Coderch (Figure 6).

#### *2.4. Relations between facades and soils*

The relationship of the facades of buildings with public spaces, in the areas we have called of consolidated peripheries, can be summarized in 4 cases: Contact-cadence of hollow and solid, continuous visual contact, contact with penetration by porticado and contact denied (Images 19,20,21,22. Figure 2). Using this classification, we can understand a large part of the forms of use of public and private spaces that make up more or less permeable perimeters in NPs.

#### *2.5. Vegetation*

The vegetation is a substantial component of the configuration of the NP landscapes. You have to analyze them according to parameters of shape, color and aroma. It is important to understand the pruning systems, how else could we understand the formal adaptation of the pines to the heritage complexity of the squares in Rome? (Figure 7, 8). We need to select, depending on the effect or situation that we find, between the tree plantations, the shrubs, the climbing plants and the carpet plants. It is necessary that we consider the vegetation as formed by living beings, composed of roots, trunks and branches. Also, we can use supports so that the vege-



Figure 5. Giorgio Grassi, *Universitat de Valencia Library*.



Figure 6. José Antonio Coderch. *Johanes Sebastian Bach street building*. Barcelona.



Figure 7. *Largo de Torre Argentina*, Rome.



Figure 8. Roma, *Via dei Fori Imperiali*. In the first place, *Church of Santa María di Loreto*.

tation occupies them and can produce controlled shadows, wind protection screens, pergolas and coverings that help to configure a microclimate, not only in its literal sense, but also the evocative and emotional one (Figure 9).

### 3. Indicators for the evaluation of NPs

We propose a method of qualitative analysis of NPs, that consists of the definition of a set of 12 indicators. Each indicator, applied to an NP, can be positive (1) or negative (0).

The 12 indicators are the following:

- O. – Degree of spatial opening (positive 1 / negative 0).
- S. – Clarity (perception / internalization) (1/0).
- G. – Adaptation of vegetation (2/1/0).
- C. – Complexity. Articulation between NP set, intermediate scales and detail (1/0).

- F. – Completion. Degree of landscape finish. Stability in time (1/0).
- B. – Pre-existings and its incorporation to the NP landscape. Evocation capacity (1/0).
- T. – Integration of vehicular traffic, articulations and interferences. Security (1/0).
- A. – Adjustment of the project to real social use, participation and degree of inclusion. (2/1/0).
- I. – Intensity of use and spatial balance (1/0).
- U. – Installations and urban furniture. Spatial adaptation (1/0).
- CA. – Care, maintenance and degree of appropriation of space by its users (1/0).
- E. – Energy sustainability (1/0).

Only two of the indicators, G and A, are assigned a greater weight (very positive, 2), given their importance in NPs.

#### 4. Conclusions

From the analysis of the NP of the consolidated periphery of Valencia we can already draw some provisional conclusions that we will have to submit to more rigorous adjustment processes that are the following:

O. – The visuals, in general, enjoy controlled openings on the internal road of the macro-blocks. In many cases, the NP enclosures incorporate traffic distribution channels and create security and protection problems in the affected NPs, which normally have not been resolved by the projects.



Figure 9. Ricardo Bofill. Valencia. Old River Turia Channel. A good example of harmony between skies, floors, facades and vegetation.

S. – We have analyzed the different ways of articulating and hierarchizing the spaces that make up an NP to check if the characteristics of its skies, floors, facades and vegetation have been considered to achieve spatial clarity of the whole and the conclusion is that in very few cases, coherent project responses are perceived.

G. – Vegetation in NPs should generally fulfill their role as solar and light filter, CO<sub>2</sub> collector and natural environment recreator. All this should lead to an adaptation of the vegetation to the uniqueness of each NP, by its size and shape, by its orientation and by the movement of the shadows of the surrounding building. In general, there is a lack of strategic vision of the projects, to place shade trees that filter the sun and cool the environment in the hot months, as well as the deciduous trees so that the sun penetrates in the cold months. The combination of parterres with cover plants and the incorporation of shrub plants as space-defining hedges or masses of color and aromas, is not achieved, because the projects follow pseudo-classicist guidelines without considerations of scale and relationship with users.

C. – Despite an apparent simplicity in the configuration of the NP, the urban fabric usually formed with the system of blocks and compact construction, allows proposing “framings”, at least in three scales: The set, the intermediate or of routes and main areas of stay and domestic ones for shelter of exchange of small groups.

E. – In general, the consolidated peripheries of Valencia (as well as many of the Spanish cities) that house the NPs, are the result of an urban growth process that began in the 50s of the last century, initially by some polygons of housing of public initiative and in a second phase, through the partial planning derived from the General Urban Plan of the year 1966, sanctioned by the General Urban Plan of 1988, currently in force. In the first years of this process, the minimum infrastructures of residential habitat services were basically built, which did not include NP projects. Beginning in the 1980s, a third stage began in which the implementation of basic provisions and which includes the urbanization of NPs is already being addressed. Finally, in the first and second decade of the 2000s, an important part of those that were still to be built were urbanized.

Therefore, we can say that, although with deficiencies of landscape, use and materiality, the NP system of Valencia in its consolidated periphery, is built in its entirety, in an urban context in which the residential habitat and endowments are also, largely completed. This means that we have found a subject of research and project largely built, in which the unfinished areas have a punctual character.

B. – We are not talking about historical fabrics built in past times, but urban manufactured with 70 years old, at most, which is not an obstacle so that in the consolidated peripheries, we can find evocative pre-existents of other times. either because a large part of the neighborhoods have started from old urban centers that the city has incorporated, or because of the existence of unused industrial enclaves with possibilities of recovery.

T. – In the relations of the NP with the vehicular traffic it is necessary to distinguish two aspects.

The first of them, to see how the consolidated peripheries in Valencia are characterized by their tissues formed by macro-blocks that hierarchize the vehicular traffic, taking the distribution routes to the perimeter of the macro-blocks and reserving the ways of distribution for the interior of the same. They are advantages of having operated with “impure” fabrics of *Ensanche*, in which the internal streets of the macro-blocks do not have a continuous linear development but are interrupted.

The second is the generous width of the internal roads of the macro-blocks and their section in which priority is usually given to the permanent parking of vehicles on the surface, understood as a service to the neighbors. This makes very little space for pedestrian traffic and creates serious environmental problems.

A. – The adjustment of the project to real social use, participation and the degree of inclusion, is an indicator to which, together with the adaptation of vegetation G, we have given greater importance than the rest, and this is because it indicates the degree of fulfillment of the objectives in the project of a park, in the terms that best define the success of the action.

An NP is a neighborhood and participatory product. The elaboration of the program and the approval of the project should be as democratic as possible, intervening neighborhood associations, nearby educational centers, as well as companies and services located in the neighborhood, together with local authorities, it is necessary that they be heard in the project process. The NP must be inclusive, giving room to all citizens, regardless of their physical or mental disabilities.

In the case of NPs in the consolidated peripheries of Valencia, all new NP shares or improvements in existing ones are trying to comply with these requirements for functional adjustment and inclusion. However, we have to confirm that these processes must necessarily have an integral nature, so that the improvements are made taking into account all the aspects to which we are referring. A bad example of these interventions is precisely when a NP has deficiencies of internal management, inadequate vegetation, inappropriate soils ... and also of inclusion, but attempts to solve the problem of the lack of inclusion, without taking into account holistic, all the problems detected. In all certainty, we will be taking measures in the wrong way.

I.- There are two keys to achieving an adjusted intensity of use, in relation to the spatial equilibrium of NPs. The first is the development of a program appropriate to the characteristics of the place and the aspirations of the neighborhood. The second is the rational management of such uses in the available space.

In our work on the NPs of the consolidated peripheries of Valencia, we have detected that the NPs are used by the residents in an intensive way, which is not strange, in the case of areas that have very high housing densities and building comparisons.

The behavior of users throughout the day in the NP, also reveals very marked patterns: In the first and the last hours of the day, NPs are used by dog walkers, mid-morning by the elderly, to those who join, in the middle of the afternoon, the children and the people in their care, as a result of school dismissals.

It has also been observed imbalances of use between nearby parks, a very important aspect to take measures for the provision of new NPs or to establish measures of specialization of uses. Examples of this we have in the district of “Camins al Grau”, with a high number of NP, in the vicinity of the Avenida de Baleares, there has been a sports specialization of some of these NP, that is very interesting for the urban integration of adolescent groups in the neighborhood. The same could be said of the use of NPs for dog walkers, now, with good judgment, dog socialization areas are established, socialization that extends, as is logical to the people who accompany them.

For all the above, this indicator of intensity of use of the NP, affects both the way in which a certain NP is used, as well as the rebalances and the potential for using the NP, from a “neighborhood” point of view.

U. – We must draw attention to the facilities of exercises and games and street furniture, because they are a substantial component of the NP, which serve the entertainment and physical-psychic maintenance of the different user profiles that use them.

We have systematically observed aberrant designs of NP, which I will describe: It is a space of regular form and with an approximate area of one hectare, whose order is radiocentric, by means of roads that divide the whole into sectors. The sectors form “perimeter walls” by hedges and metal fences of low height, with trees, shrubs and carpets inside. The center of the whole

composition is occupied by facilities for children's games and exercises for the elderly, supplied by a multinational company.

I wanted to describe this situation, because we found it systematically in our NP inventory in Valencia and related the games and exercise facilities with the absence of a neighborhood and design strategy of NPs in the city of Valencia, which is very likely to be generalizable.

The waste of space and resources that this situation implies, in which only a very small part of the available NP soil is used, since the arrangement of the closed parterres prevents its use. The occupation of a single central space by facilities whose rational use is impossible, the use of vegetation in an equivocally ornamental manner, which does not take into account the comfort and energy sustainability aspects of the vegetation, are indicative of the need to establish new requirements and evaluation systems for the allocation of public resources for the improvement of the PB system in the areas of consolidated peripheries of Valencia.

CA. – The NP, like any of the components of the public spaces of the city, are and must be alive. Its construction must employ robust materials, which have a good behavior, both against the action of atmospheric agents and the treatment they receive from users, not always careful. The municipal administration is in charge of its daily and continuous maintenance, as well as the updating of its components to adapt them to the changing needs of the neighboring users.

In our work on the NP of the consolidated peripheries of Valencia, we have detected 3 categories of problems that make the adequate maintenance of these spaces impossible:

1. The fragility of the materials used in the construction of NP, leads to its premature deterioration and makes its maintenance economically very costly.
2. The lack of daily attention to aspects such as cleaning, watering or pruning plant crops.
3. Systematic vandalization of NP components.

The first two categories of problems that we have stated, are derived in the first case of errors of project or realization of the works of urbanization of NPs and in the second, of lack of attention of municipal services, although it could also be indicative of a certain level of contempt towards NPs, on the part of their potential users, that would bring us closer to the problems that derive from the third category.

The systematic vandalization of NP components, which when produced can have two origins. The first comes from the mismatch between the determinations of NP projects and the actual use of space by neighboring users, a circumstance that must be resolved within technical-cultural instances that are the responsibility of the solutions derived from good architecture. The second comes from problems of social uprooting, by socio-economic, ethnic or formative-cultural exclusion and that must be resolved in other instances that encourage inclusion and equality and get neighbors to feel part of society and take ownership of adequate of the public spaces of their neighborhoods, and within them, of their NPs.

E. – Energy sustainability is one of the key factors of NP projects.

In the design of NPs in the consolidated peripheries of Valencia, we have noted that the comfort and energy sustainability conditions of these areas have not been taken into account. (Monclus J., Diez C., 2018).

It is necessary to review the adequacy of the NPs to basic environmental issues, studying the shadows cast from buildings and vegetation, at least at the solstices and equinoxes, as well as the sky vision indexes (SFV) and the solar radiation absorbed. All this, with a view to environmentally harmonize the trees, the living areas, games and exercises, as well as the appropriate materials for paving the floors.

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