

## MORPHOLOGY, URBAN DESIGN AND CITY Intervention Strategies in public space

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**ABSTRACT.** Public spaces system includes parks, squares, rides, streets and boulevards, among other components. Small squares or neighborhood squares are a special category because of their scale and the activities that can be carried on in them. They are important for linkage between the different availability of public spaces. In our cities are some vacant land that could be improve for new uses incorporating shape, color, texture, and scale attributes among other resources. These spaces can become icons of an area or neighborhood and contribute to refurbish the image of the city. At MORPHOLOGY II, Subject of Architecture the design of "urban vacant land" is undertaken, which refers to the scale of small squares, in an exercise that will add the concept of system, land and environment. We emphasize the morphologic design, as well as the linkage between public space and its elements, the interior and the exterior, architecture and the city. This paper develops the topic from concept way and through the result of some assignment with students.

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### INTRODUCTION

ONU (United Nations Organization) says that one of two citizens from the 7 millions of habitants in the world lives in the city, and it is expected that in 35 years from now this proportion will increase to two of three. "The balance between rural population and urban population has irretrievably changed towards the preponderance of cities". According Clarin Journal and in the same way, and through some data from Population Founding of the United Nations (2008) more than 50% of the world population live in cities, around 3.500 million of people. If we take into account these numbers and relate them to the reality of urban spaces of cities, we can see that the built volume is increasing against of free spaces and natural environment that remain on the peripheral edges of the cities of our region.

Vacant land, with no buildings are limited goods in current cities. For this reason, it necessary to consider its qualification and incorporate them to the urban life of the city, focused on balancing the built and the natural, the filled and the empty, generating recreation offers for the citizens, under the premise of "Think about the city as a system of interrelated places and not only a set of functions that have to be efficiently organized". (Omar PARIS, 2001)

The proposal considered vacant land and their possible uses for giving them a role inside the

free spaces net and incorporate them to the public use and the green spaces system of the city.

### LITERATURE REVIEW

#### *Vacant land in the urban plot*

For the present work we take into account small pieces of territory that emerge in urban areas as non resolved fragments of the city.

They can belong to the city Council, province or private properties that were granted to the community. Some fragments are product of the regular grid rupture, with rotated implantations respect the city organization. On the other side, there are many spaces with different shapes and sizes in the reencounters between the grid and the lacustrine system - on which the city is settled - which generate by the sinuous lagoons and meanders.

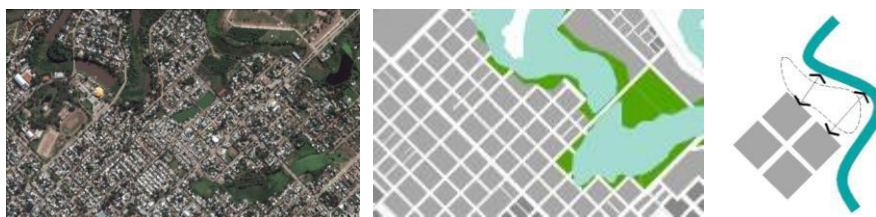
So, those spaces are inherited from the operations in the urban form of the city, the grid and the natural landscape. Also, they are scattered in the urban grid and they are functionally disconnected. Its potential lays on the fact that can requalified for urban renewal.

Functionally, they can be incorporated neighborhood environment whit compatible recreation activities. In some cases whit small sizes, they just work for to stand out the urban landscape



Graphic source: own elaboration.

Figure 1: Situation 1. Residual spaces are generated in the encounter point of two urban plot with different orientation. Southeast are of the city.



Graphic source: own elaboration.

Figure 2: Situation 2. Residual spaces are generated in the encounter point between the urban plot and the natural spaces. South-centre area of the city.

### **Public spaces system, free and green**

The public space is strategic in urban conformation, because they are in quantity and quality tools for the cohesion of the plot, area linking, and recovering of engagement sectors. It should not be the vacant land of the plot, “... it must be considered the organizer of urbanism, no matter what is the scale of the urban project. It is the public space which can organize a territory that can have diverse uses and functions, and the one that has more capacity to create places. It must be a connection and differentiation space...” (BORJA, 2000).

According to FALCON (2007) the structure of the city is defined from the distribution and dimension of buildings, the built up

environment, plots, open space and the greenfield, among others. Thus, the group of available open spaces and greenfield in an urban area can be conceived as a system that plays an important function of urbanized territory structuring (FOLCH, 2004). They are projected for their nature, their use and urban affectation to satisfy community needs, and they give identity to the city.

They can be typified from different variables, considering their scale, dimensions, the role they play in the city and their relations, their implication and their role inside the system itself. They become significant when the citizens feel identified. NORBERG SCHULZ (1980) also points out that “only when the space turns into a significant places system is something alive for us”



Source: Own elaboration for General Belgrano locality (Formosa, 2010).

Figure 3: Scheme for Public Green Spaces System, which includes existing spaces, potential spaces, green trails, and a relation with natural areas.

The proposed exercise, in which the concept of place and environment is integrated, the public space and its components, public space system and city, are the small (mini)squares, public open spaces, with small dimensions, whose design has to do with “identified with the idiosyncrasy and characteristics of the surrounded community, when the spaces attend their needs and preferences, and when facilitates its integration and its coexistence” (Mini Plazas, 2008)

### Shape and public spaces

Morphology and the urban public space are related from the moment in which the first design over the territory is specified, and since any fellow can perceive it through all the coordinated senses. The perception of the urban space is conditioned for the involved elements and their physical-morphologic attributes that the situation spectrum inside the urban space presents. In this way is captured, analyzed and understood for users.

*The analysis of these attributes is made from two components according to Velasquez de González and Meléndez Urdaneta (2003): the scale and quality of the urban space. Regarding the scale to the urban space within the city. The space quality about to the formal and spatial components.*

Shape is determined for the geometric relations through their dimensions: boundaries and edges, involved (in accordance with verticals), proportions between full and empties, modulation, texture, rhythm, transparency, and direction, among others. Spatial characteristics are established from the formal variables, color, proportions, density and for its spatial readability of the structure, with ranked elements, own identity, that facilitate the orientation and the appropriation through the users.

Kevin Lynch explorations about urban shape and its perception, relate the social values and the physical shape of cities from the definition of elements and their interrelations, which also count with attributes that can make it coherent from identity, structure and significance.

To the extent that the morphology in a public space can be legible, has identity and practical and emotional significance, can be rebuilt, memorized, retained and related to through collective experiences of the users.

### Small urban squares

From the analyzed concepts, we can define Urban Yard as the public space which is part of the significant public spaces system of the city. It cooperates in the definition of the city image “stitching up” that system. It has specific

uses related to its closer environment and for its neighborhood-residential scale, acts as the first linkage between the private and public scope.

As to uses and identity is related to the appropriation of people, as the proposed design satisfies the user needs, and it can be incorporated to the daily life of the area, neighborhood or sector of the city. It will work as a encounter place, and as a community activities producer, but taking into account the specificities: if they develop educative, religious, administrative, commercial, cultural, residential activities or combinations of them, we can give them different characteristics. The proposed places can also be flexible, to allow the incorporation of temporary activities, or the adequacy of the permanent ones.

The space has to be designed in such way the stay in it become pleasant. The correct location of a bench, a lighting device, or a catlap can determine or facilitate the way of utilization and appropriation of the space.

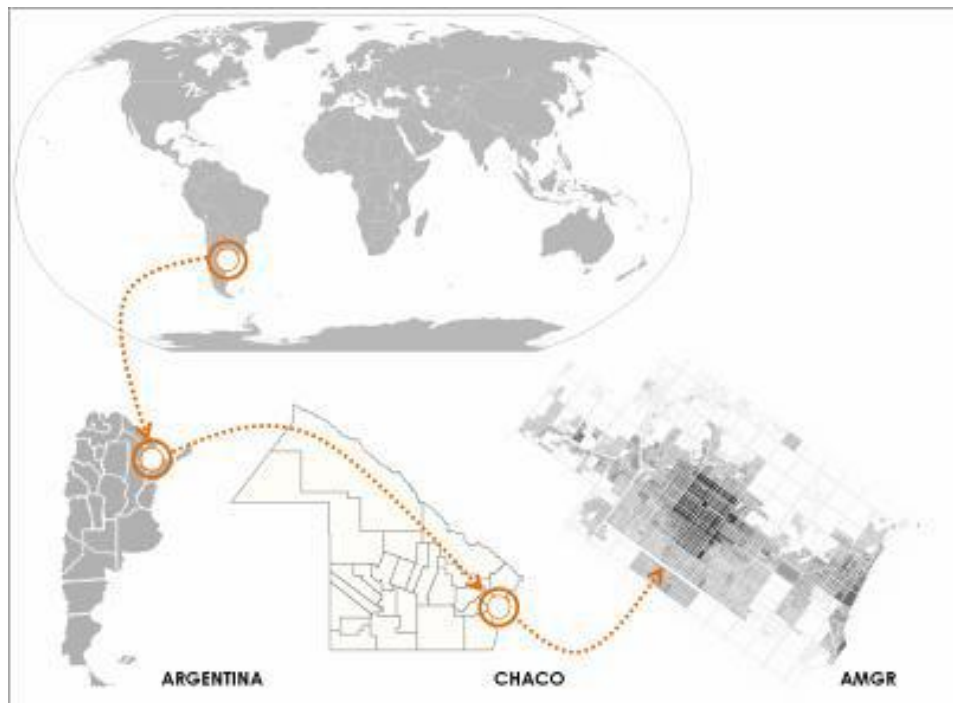
The use of the space changes during the day, the week and the different seasons of the year.

This means the need to use noble materials, durable, easy maintenance, it also means the fact to consider adverse conditions of the region climate with the incorporation of the green to mitigate them and as an alternative, so different spontaneous activities can be developed.

## METHODOLOGY, RESULTS AND DISCUSSIONS

### *Experimental assignment*

The presented experience elapses at Architecture College of the Northeast National University. Resistencia, Capital of Chaco Province (Argentina), which is settled on the fluvial system of Negro River. This river flows over a plain with a small slope, with pronounced meanders which over the time they release the principal path and form lagoons with a great environmental and landscaping richness. MORPHOLOGY II Subject of Architecture Career, approaches the urban design of the city. The first experimental assignment, Urban Yard Complexity.



Source: Mahave and Roibón, 2015.

Figure 3: Geographic Location of Argentina, Chaco Province and Resistencia city inside the Metropolitan Area of Resistencia (AMGR)

### **Working in a real location**

It is essential to know the location where the experience will be done, the situation of the environment and the context, and the need of the potential users, which afterwards will shape the architectonic program.

Thus, a survey is made, from the physical point of view (everything that is measurable, like climate, orientations, environment, profiles, visuals, dimensions, location, vegetation, buildings) and from a sensitive point of view where some perceptive mapping according to each person is made.

Each year a real location of the city is chosen, so it can be visited as many times as needed.

Once we have the survey data, the next stages are built.

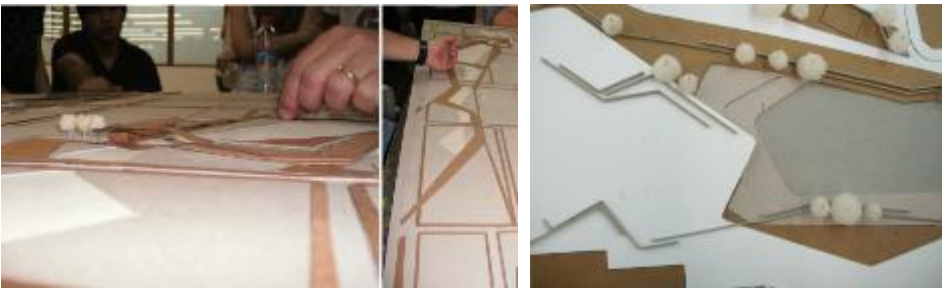
### **Proposals for Urban Design**

The materialization of the design proposals of the students at this design scale, corresponds to a verification moment of the learned formation knowledge. In order to appreciate the concepts expressed in this paper, and to deep in the concept and significance of Urban Yard, some of the results are shown in images.



Source: Own files.

Figure 4: Images of the workshop and the fieldwork.



Source: Own files.

Figure 5: Images of the design process.



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Figure 6: Images of the product in the models and pedestrian perspective.



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Figure 7: Images of the product in models. Source: Own Files



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Figure 8: Images of the product in models. Source: Own Files



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Figure 9: Images of the product in models. Source: Own Files

## CONCLUSION

The requalification of residual spaces in the urban plot as an intervention strategy of the public space is presented, facing the hypothesis of producing a “cascade effect” in its environment to improve it. The strategy not only covers the management scope of the city, but it proposes the urban design as an engine, being the morphology and its attributes the most important tools.

From the academic scope, to include these concepts in academic development of the students from an appropriate scale at the level on which the topic is developed, is the first contact they have with the to the balance development of cities, valuing the public space

and design of exterior space design, and its implications with urban design and the city. On the other hand, we try to incorporate on our future professionals the commitment justifying it as urban renewal element, environmental quality and social inclusion.

Taking into account the accomplished analysis of the developed work for the city, it is important to mention that the viewed problem s the first approaching to the exterior space design from a morphology scope as a general frame, where we have to take into account all other elements of the architectonic object. Because it is small, it doesn't mean it is less complex.

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