

# Urban Perception: A Study on how Communities' Necessities regarding the City's Form and Function have changed throughout Time and how this affects Urban Relationships

Luiza-Cecilia Spiridon\*, Lidia Păcurar

Faculty of Architecture and Urbanism of Timișoara  
Oradea, str. Piteștilor nr. 33, 410258 jud. Bihor, Romania; luizspiridon@yahoo.com

## Abstract

The aim of this paper is to study the evolution of the concept of community and the way it relates to the urban landscape throughout time in order to identify possible urbanistic responses to the contemporary social context.

Since communities manifest themselves as social phenomena whereas spaces are intrinsic physical manifestations, correlation between these two concepts can only take place in those stages of the social evolution where the settlement, and more precisely the city, is seen as a necessary physical support, indispensable to the formation, development and administration of the community – communal identity is built through memory and belonging to a specific place and environment.

Recent studies have shown that the concept of community has become much more volatile in nowadays society; rather than physical human aggregations, communities are seen as social networks where identity can be achieved through participatory acts. The importance of physical space manifestations therefore diminishes and consequently, the need arises for contemporary cities to adapt into more active and dynamic supports in order to stay relevant in the new context. Urbanism must follow new guidelines that allow and encourage communal participation.

It is important to note, however, that, while participatory urbanism may appeal to the collective aspect of a community, urban perception is an individual experience. As social networks tend to shift towards a virtual experience, cities should enhance positive physical stimuli through sensorial urbanism in order to become the chosen place of both personal and collective manifestation.

Keywords: Urban perception; Social network; Participatory urbanism; Sensorial urbanism

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## 1. Introduction

*"In order to see a city, it is not enough to keep your eyes open. First you have to release yourself of everything that obstructs you from seeing it – all the inherited images and preconceived ideas"* – Italo Calvino, *Invisible Cities* [1].

With the increasing growth of the urban population and city sale, urban perception has become a recurring theme in architectural studies. However, although the points of view are quite varied on how the perceiving phenomenon occurs within the context of a city, most studies tend to concentrate more on the individual's experience. The city, however, although built on an architectural skeleton, it is first and foremost complied by humans; therefore, the collective and more acutely - the community, are by extension the true determinants of the urban stimuli through the influence they have manifested throughout time on the form, function and overall image of the urban environment.

## 2. The fight between stability and mobility in defining the necessary physical support for community development

During the XXth century, modern architecture - the International Style in particular - manages to have a great impact on the opinion regarding local culture, its architectural manifestation and historic development. In present time, a new perspective begins to take shape, by analysing the relationship between stability and mobility: in contrast to mobility, well appreciated by the contemporary society, theoreticians like Koichi Nagashima [2] consider stability to be the conditioning factor of the progress within human civilisation by relating to the idea of place. To exemplify, comparing the positions of the farmer and the hunter, one might say that the cultivator is the one bringing a continuous contribution to the process of creation and to the evolution of the civilisation.

By the above logic, we may assert that the first relevant moment in the history of the civilisation is the settling of the nomadic people in a certain area, to ensure food through agriculture. These small settlements began to grow with time, evolving into cities which have discovered, beside the necessity of material certainty, the importance of development and progress, but also of information creation and control.

At the same time, interaction – mobility - determines the quality of said information: an independent settlement aiming to develop by itself and rely only on its own capacities, on the long term, actually ends up by becoming stagnant and atrophic. This is where the role of the hunter - the nomads - interferes. They stray around the sedentary civilizations, which they "rob" when needed, but without creating or being able to create new (superior) civilizations. The part of the hunter and the nomad thus had become to consume, and not to create; their role's importance in the evolution of civilization, however, does not diminish since the nomads have represented that external energy mandatory in stimulating the blend between the different cultures they have met. They were intermediates between these different civilisations and functioned as catalysers for their progress.

### 3. *Urbs* and *civitas* and the danger of thinking the city in terms of models regarding the individual and the community

From the original settlements, fast-forwarding in time, we encounter another key moment in the chronology of human-city interaction: the Industrial Revolution. An interesting phenomenon occurred at the time, that nowadays' psychologist could catalogue as an early mass-manifested *escapism* symptom - as a response to the urban mutations brought upon by the industrialization, a sudden increase in utopian city models was to be observed. The proposed urban solutions were quite varied but, according to Françoise Choay [3], two ideological directions have had a decisive role in the architectural and urbanistic solutions that were to come –the progressive and the culturalist.

The progressive model of the utopian city starts from the generic individual's poor situation during the Industrial Revolution - derived from matters such as population growth, expanding cities, infrastructure transformations, etc. However, despite the stipulations meant to release everyday life from the faults and constraints of the great industrial city, the progressive model's various manifestations are presented as restrictive and repressive; constraint occurs through the stiffness of a predetermined spatial framework. With every urban aspect being heavily regularized and geometrized, there is no place for individual expression.

On the other hand, the historical context onto which the culturalist supporters base their model is the disappearance of the urban organic unity under the pressure of the industrialization. The starting point is no longer the individual, but the state of the community and the city. Inside them, rather than an interchangeable unit as within the progressive model, the individual is regarded as an irreplaceable element of the community due to his specificity and originality. Related to tradition and developed as a craft, art is seen as a mean of asserting culture and overcoming the industrial-induced urban deformities through collective measures such as public art, made for and by the people. Thus, instead of progress, the ideological keystone to this model is culture – material needs fall to a secondary place in favour of spiritual aspirations, therefore anticipating a less rigorously determined urban planning [3].

The downfall of these ideologies came from treating the cities of the future in terms of models, as reproducible objects, and not as developing and constantly changing processes; hence, by being ripped of any kind of concrete temporality, the model-city became utopia. Whether it was the constraining and repressing nature of their organizational structure or their lack of relation to contemporary socio-economic realities, instead of improving the quality of urban life, these models have actually accentuated what Françoise Choay calls "the dissociation between *urbs* and *civitas*" [4].

### 4. Overgrown cities and crowding: The necessity to expand the notion of community

The dissociation continued with the Modern ideology regarding both architecture and urbanism rid itself of any civic relation as "form should follow function" and, as Nan Ellin points out in "*Fear and City Building*", it quickly turned to form following finance [5]. Constantly increasing in scale (thus challenging the human ability to perceive and understand them and consequently leading to psychological unrest and anxiety [6]) and seemingly devoid of civic spirit, cities appear to have turned into places of crowding, anonymity and fear.

As a result, several reactions have risen in response to the contemporary fearful urban atmosphere; one of them, "*escapism*", manifests itself through "forms of retreat from the larger community or flights into fantasy worlds" [7]. Within the physical domain, escapism is one of the reasons for the rise in popularity of gated communities and theme parks, as people seek refuge from the everyday stress and anxiety into such heterotopic places. Furthermore, due to technological advancements in the last decades, escapism has acquired a virtual dimension as well. Consequently,

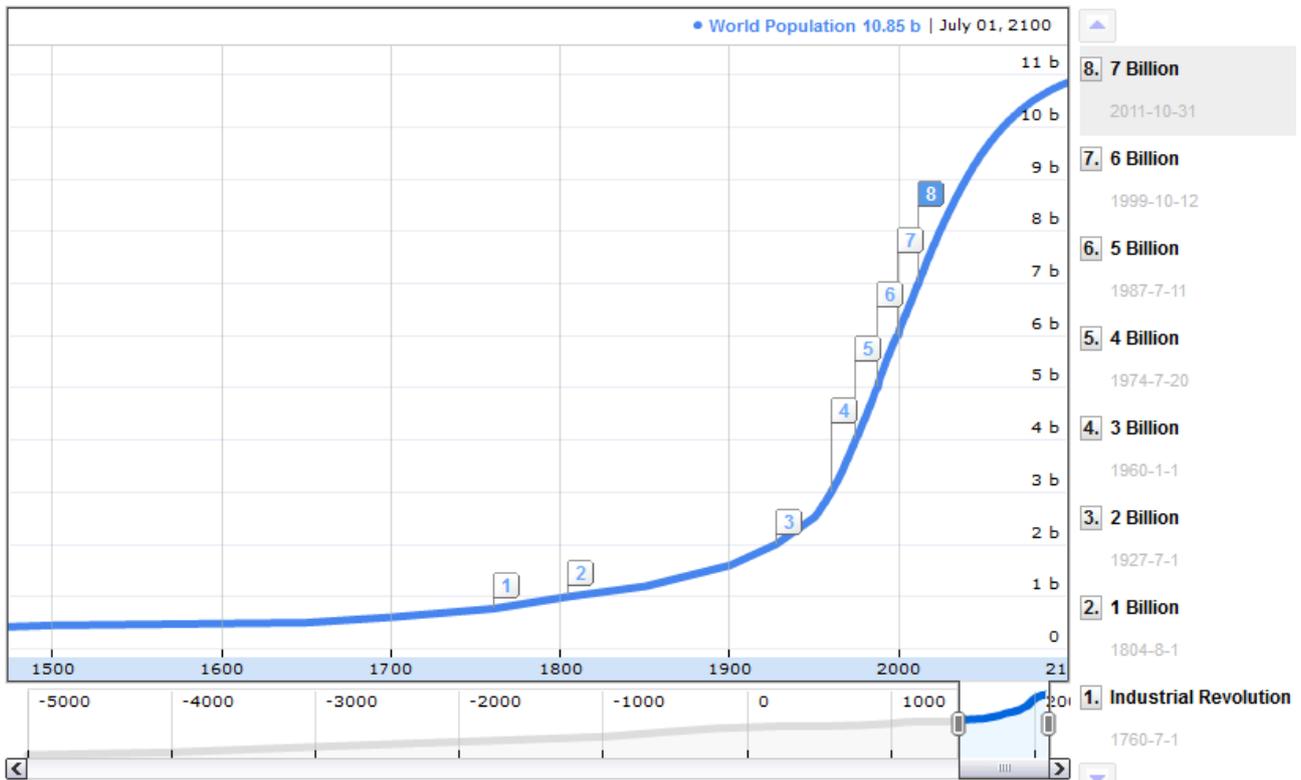


Figure 1. Population growth in history and predictions for the future using data from the US Census Bureau and the United Nations Population Division. It can be noted that the slope begins to accentuate with the Industrial Revolution, witnesses a true boom in the second half of the XX<sup>th</sup> century and commences to slow its ascent as of the present time. The highlighted temporal interval has been chosen to overlap as much as possible the maximum time period that could be included in Google Ngram Viewer in order to correlate the data between the figures. Image source: worldmeters.info [9]



Figure 2. Occurrence of the word "community" in a corpus of books, as analysed by Google Ngram Viewer. It can be noted that, similarly to the demographic graph's case, the slope begins to accentuate in the time of the Industrial Revolution (mid XVIIIth century) only to become even steeper in the XXth century. Although the presented search results apply to the British English literature, highly similar graphs were observed for all languages available in the program. In order to counter the possibility of inconclusive data since far fewer books were being published in the past, a low smoothing factor was used (5 on a scale from 0 to 50), resulting in more spikes and plateaus in the first analysed centuries and more accurate comparison results. Image source: books.google.com/ngrams [10]

social relationships have started to shift towards this new dimension, fact that raises concerns about the accentuation of human alienation in the real world.

In addition, following the Industrial Revolution, there has been a demographic explosion (as seen in Figure 1). This has led to a nearly exponential growth in city scale and urban population (as far as, in 2007, the urbanites have exceeded 50% of the entire world population [8]).

It is natural to assume that, since the dissociation between the above-mentioned *urbs* and *civitas* has started with the industrialization, it has only been accentuated further till the present era. Interestingly enough, it seems that the bigger the schism grows, the more people's need for community grows. Following the occurrence of the word "community" in literature (Figure 2), an ascending curve highly similar to the demographic one can be observed. For both, the starting point of the main slope is the Industrial Revolution – correlation between the two becomes therefore reasonable.

Perhaps the problem lies not with the disappearance of communities but the fact that we have searched for them in the wrong place. Communities are social phenomena whereas spaces are intrinsic physical manifestations; assuming beforehand that they are inherently bound, we run the risk of setting boundaries far too restrictive –for example neighborhood limits- on the population to be studied and therefore obtaining erroneous answers as a result. *"If one looks for the existence of communities only within the neighborhood boundaries, one will find only communities that exist within the neighborhood"* [11].

Considering that out of 7.2 billion people alive at this point on the entire planet [9] 3.1 billion are active Internet users [12], the expression of social connections through virtual networks does not seem as an escapism symptom anymore but rather a functional necessity of our daily lives. According to Barry Wellman, this is especially true in the urban environment: *"networks enable effective use to be made of the city's size and diversity by facilitating the connection between urban individuals, communities, groups and organizations which enhances their coordinated specialized activities"* [11]. In fact, far from being derogatory to the idea of community and true sociality, the virtual social behavior is actually just another expression of the true character of communities - that of being social networks.

According to Wellman, there are two manners of analyzing communities [13]. The traditional approach ties communities to the spatial dimension; more precisely, communities are equaled to neighborhoods. This approach is an extension of the idealized image of the pastoral village to our era – neighborhoods should be tightly bounded, densely knit groups of broadly based ties.

The second approach uses social network analysis and, as a result, sees communities as loosely bounded, sparsely knit networks of specialized ties. This last feature turns nowadays' city into a *"network of networks"* [11] as urban dwellers often become members of multiple communities. Furthermore, through technological advancement especially in virtual communication, interaction is at the same time multiplied and delocalized [4]. The loose bounds allow members to be dispersed on a vast space like a metropolis while still maintaining intense relations of kinship, friendship, aid, assistance and so on.

However, from the individual's point of view, if we take into account that the Dunbar number suggests people have a limited capacity of maintaining close ties of kinship (an average of 150 social ties) [14], the physical spatial proximity of the urban environment may seem quite bare of social relationships. Thus, the scene is set for the anxious feeling of anonymity.

Since the lack of social relationships in the spatial proximity does not also mean the lack of actual people, anonymity makes an interesting antithetic pair with crowding. It was shown that the perception of crowding is based on psychological factors rather than spatial ones [15]. Studying humans in controlled environments in order to observe the crowding effect is, in practice, an impossible task. However, an analogy can be made with the study of rats placed in seemingly utopic environments. The ethologist John B. Calhoun has designed his *"rat paradise"* in such a manner that the only limited resource was space; this has led to a perceived crowding (only *"perceived"* since the habitat could have sustained more than double the population at its peak), which in turn has caused what Calhoun called *"the behavioral sink"* – the rats have started to behave in erratic and dysfunctional ways, altering their natural social and survival behaviors. In four phases (*strive, exploit, equilibrium*- during which the population peak was achieved - and *decline*), the rat population has reached from prosperity to complete annihilation (Figure 3).

Nevertheless, the study has shown that the more creative and innovative rats have fared well throughout the entire experiment, regardless of the state of the whole society. Calhoun himself was positive that the creative nature of humans would prevent our downfall in a similar manner. However, if we look back at the predictions for future population growth (Figure 1), it can be noted that we seem to have followed the pattern and are approaching the equilibrium phase (other studies are even more grim). Furthermore, historical events like the depopulation of Easter Island show that overly abundant habitats followed by the lack of any whatever vital resource – not just space – may cause a behavioral sink [16].

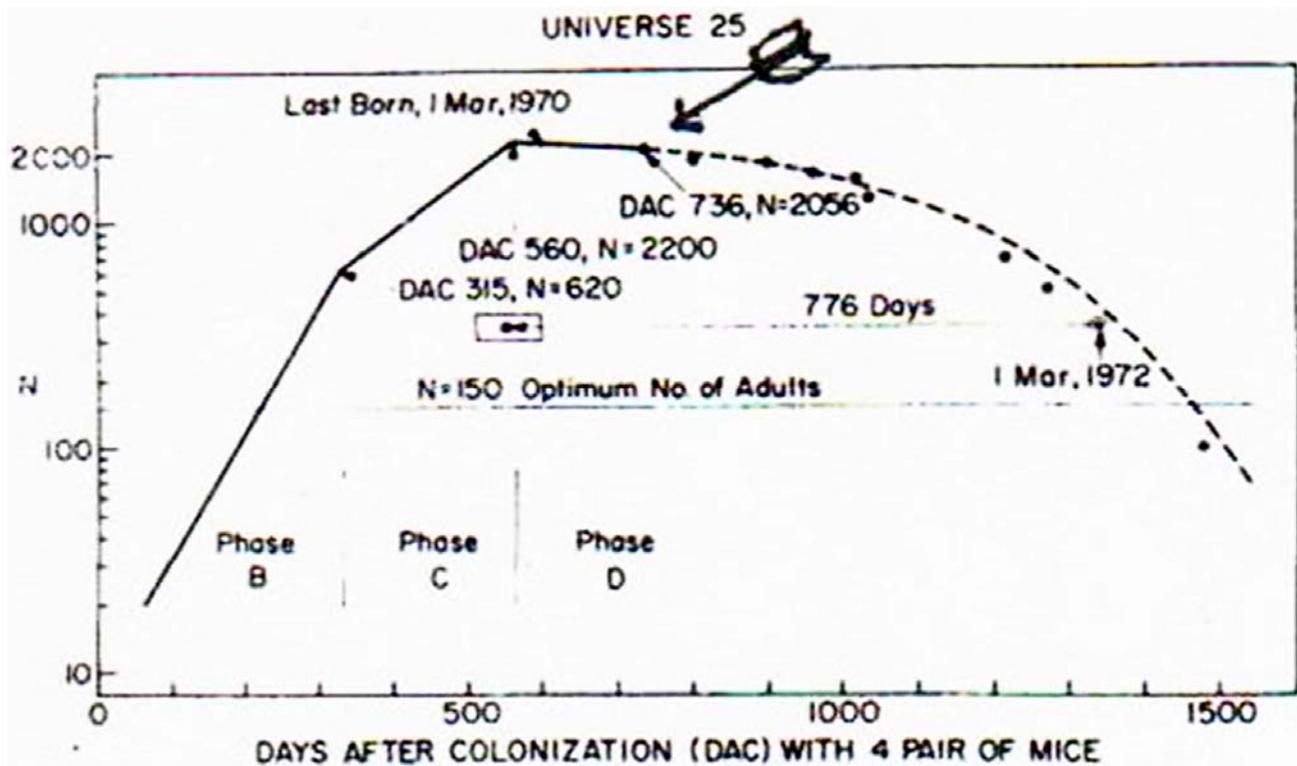


Figure 3. Graphic for the evolution of the rat population – from Calhoun's study

It appears that the prevention of humanity's downfall lies in motivating people into exploring and manifesting their creativity and involvement. As current times show a critical moment of demographic changes, economic restructuring, competition upon available resources, technological diffusion and political twists, "the long crisis", as Evans et al. [17] call it, which contribute to the creation of necessary circumstances to activate the public awareness, the residents of cities have to become more and more interested in the possibilities and motivated to act to assure their health, happiness and economic welfare.

### 5. The effects of perception and motivation on urban relationships

In the Larousse dictionary on psychology, in the definition of "motivation" it is mentioned that the behavior is strongly influenced by internal neuroendocrine modifications and by external excitants that act upon the brain [18]. Perception, the process of organizing and using information that is received through the senses [18], therefore, plays a major role in motivating the individual.

Given the scale of many contemporary cities and even some architectural objects, perception of the whole environment is impaired. There is a wide variety of attitudes regarding urban perception amongst theorists.

Without a clear urban legibility, the feeling of disorientation may appear [6] and therefore accentuate the urban fear. Nevertheless, as Norberg-Schultz argues, perception of the environment is not a continuous action and Kevin Lynch further states that true perception of cities happens in temporal patterns, through motion [6]. Still, although mobility through spaces reduces drastically the perceived scale, theorists like Françoise Choay believe a smaller, human scale is needed – an "ethological scale" [4]- that could afterwards contribute to the sense of the whole. A possibility of achieving the human scale would therefore be the entrainment of all senses available [19].

Unfortunately, present tendencies in both architecture and urbanism focus mostly or completely on the visual sense. As certain mappings of urbanites' behavior show, this leads to dissociation from the urban environment at an individual level as well (for example, the "Sensing the City" project done by Alexandra Damalan has shown that people only interact with the city in a tactile manner if compulsory [20]).

Visual dominance in the urban context begins to be a loss for the value of the space as *genius loci* is comprised of both tangible and intangible elements [21]. It is these intangible elements that give true specificity, charm, value and even identity (for example, some places can be recognized through their soundscapes and odors [19]). By enhancing the positive stimuli the intangible

can offer through urban interventions based on a sensorial approach, instead of a place of physical alienation, the cityscape could even have a therapeutic effect similar to that of *snoezelen* rooms – controlled multisensory environments with soothing effects – at a larger scale.

It is important to note, however, that each person has a certain optimal perceptual rate [22]. Both under and over-stimulation may cause discomfort and it is therefore important for the individual to be able to manipulate his surrounding urban environment, at least at his small, human scale; he should be able to intervene in defining spaces, be it in a visual or sensorial manner.

## 6. The importance of perception in shaping the urban environment and society: The motivation through implication

Creating spaces offers people a fundament, their dwellings and cities becoming biographies. In addition, people's ability to identify with the material world is a fundamental element in constructing the social dimension of space, concept which we can come across in the philosophy of Martin Heidegger [22] according to whom, to overcome the original state of alienation, individuals seek to define themselves also through the socio-spatial context.

Being able to identify with a certain place is directly influenced by the level of representation of the dweller in the urban discourse, but engaging in collective processes fails when the individual is not recognized as part of the community. Since common spaces play an essential role in transforming common interests into a commonly accepted identity, the feeling of belonging to a community seems vital and would further increase the level of implication into local problems. Both public spaces and local channels of communication become means of representation for the community, which confirm the individuality of the citizens and enhances the interaction and the transmission on collective knowledge [24].

Despite what we have stated above, it may be argued that, in the social network context, the physical space as a medium for social manifestations has become obsolete. Nevertheless, looking back at Nigoshima's analysis [2], from the civilization point of view, hunters and nomads are the "media" itself. This short insight in the history of the civilizations provides a clear mirror of the current situation, where mobility, media and the hunt for ideas might seem over-appreciated compared to stability and to the activities intimately linked to a certain place, (from contemplation or conversation, to any kind of individual or collective activities that manage to establish a certain level of interaction between

people and space) which could lead to self-fulfilling and thereby to authentic creations, including with respect to public space.

The relationship between settled civilisations, based on agriculture, and the nomad mobile civilisations reflect the ratio between, on one side, collecting and propagating the information at global level, and, on the other side, creating and generating information in a specific place (including visual or even sensorial information defining public space). The collection of information alone, neglecting its generative process, does not assure progress. As we have mentioned, today however, the interchange of information can be made outside the traditional definition of mobility. Telecommunications, written press, the Internet - the technologic revolution has made information available wherever needed.

Increasing the availability of these informative images or virtual realities enhances people's desire to experience the actual content of the information, to participate in those activities bond to a specific space, a place with specific characteristics.

Taking into account the current situation of big cities today, which begin to be defined more and more by processes like migration, with great impact on how communities are born and then on how they develop, the necessity of reimagining these concepts emerges and moreover, becomes vital.

In the context in which the ever expanding dimensions of the cities and their actual complexity are placing the success of a centralized form of government at the border of impossibility, citizens are forced to involve in improving their urban environment, which defines them and which they, in turn, learn to define. This communitarian reaction comes in response to the shortfalls of urban planning, subjected to the above mentioned context, and thus manages to provide pertinent solutions to the problems at the community scale, by using creative methods of resource exploitation. However, due to administrative and legislative considerations, community initiatives are often hampered or even impossible in the absence of connections and collaborations with other parties having interest for urban development, such as non-governmental associations, local councils, academia or business sectors and entrepreneurship.

The adjustment of the cities to a form that is able to provide flexibility, durability, participation and anticipation, as well as plenty other needs of the individual on the one hand, and of the communities on the other, requires expanding the horizon of the urban interventions and urban value so that it will no longer be used only as a „medical“ tool which seeks to correct the urban pathologies, but also as an object of „preventive

medicine", a system designed to enhance both physical and mental health of the cities and their inhabitants.

This recast of the city is possible by identifying the urban dweller as a developer, producer of urban space, shifting the decisional density of the planning system from the top-down to the bottom-up, involving as many entities able to capitalize the urban planning and the decision-making processes as possible. In carrying out participatory processes, much of the success lies precisely in the ability of association between these entities (organizations or groups with similar interests, councils, etc.) in a manner that they can assure a viable and sustainable logistics platform, a network of well-established support points, which, again acts according to the principles of the social network, defined not by memory, but by activities: participation and collaboration.

## 7. Conclusions

It seems that one important guideline that utopian cities have left us is not to stifle the possibilities of future development through a framework too rigid or too far from the most pressing necessities of the people.

At the moment, the people, neither as individual, nor as communities are properly implicated in matters of urban development, with the individual being the most neglected by current actions regarding urban participation and involvement. We believe that a holistic process of *perception through participation* is necessary, combining the two and thus providing a hybrid system which, through the means of community and social networks, could enhance the dimension of the human-to-space relationships, involving the individual at different at different social and urban scales.

By addressing current necessities and problems in a way that is at the same time deductive (by figuring out the context of future urban and architectural development) and inductive (by thinking about the possible improvements architecture could bring to the people, their needs, their aspirations and environment), a methodology could be established as a forerunner for the future.

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