

Factors Influencing the Perception of Urban Space

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Abstract

All over the world, the phenomenon of urbanization has always faced problems of preserving the essence and identity of cities. The various means of elaboration and urban action are often called into question for their inability to conserve and develop coherent urban forms.

Since the seventies of the last century, the legibility of an urban landscape has always been an objective in the urbanization process. The clarity of an urban landscape, as mentioned by K. Lynch in his book 'The image of the city' in 1969, is the ease of identifying the elements of the city and structuring them into a coherent scheme; it is about the perception of the urban space. Therefore, the perceived image of urban space is the pre-existing base of the gaze, which appeals to multiple gains such as aesthetics, beauty and other cultural principles and values that depend on who is watching. A better knowledge of the mechanisms of human visual perception has an impact on the conception of the image, which depends on several factors. What are these different factors of perception of the urban space? How do they influence the ability to perceive objects in a living environment? Our Paper traces the chronology of the work of perception of an urban space. By shedding light on the different factors influencing this perception.

Keyword: Perception, urban space, urban design.

1. Introduction

Since the beginning of the 1960s, K. Lynch has relied on surveys of perception of metropolitan cities in the United States by the inhabitants. He described the components of these cities

according to their limits, their landmarks ... etc., inducing a reorganization according to a perspective mechanism.

The perceptual process is the set of tools, means and factors that allow individuals to construct images and mental representations of a space. However, the characterization of an urban space is linked to the perception of this space. Indeed, the elements of representations of a space are different, even the visual image, the value, the symbols, the smells .. etc. According to B. Mérenne Schoumaker (2002, p.83) *"Every human step is based on representations, that is to say images of reality. This one can never be reached directly and its seizure is always partial. It depends both on the perceived object and on the one who perceives it, on what it is, on its ideology, on its environment, namely on its values "*.

2. Definition of perception:

"Perception is a psychological operation, it implies that we receive a message, which we interpret through the brain that structures and organizes it" P. Pinon 1991

To perceive is also, *"to choose in the infinity of possible combinations, that which gives us the most useful, if not the most exact image of reality according to affectivity, aggression, fear, desire"* Le petit Larousse illustré.

The word perception therefore means either the sensory capacity or the process of assembly and processing of sensory and sensitive information.

The perception of the visual messages depends on the visual acuity of the subject, that is to say his ability to perceive objects according to the ratio between the size of the object and the distance between the eye and the screen.

3. The mechanisms of perception of urban space:

"Urban space is not perceived in an arbitrary way by citizens, there is a certain mechanism to see space as an image. The reading of the various spaces depends on the activities, the concerns of each

one (...), the city-dwellers have clear images of the neighborhoods situated between their residence and the urban periphery, because it is the direction that they take to go to the campaign or in peripheral shopping centers. The rest of the urban fabric, having no "use", has a vague character because it is not frequented "A. S Bailly, 1975

The space is above all, the relation that is between a subject and an object, the behavior of the individual in this space is represented as an image. From the perception of objects in the context of the environment, to the "symbolic" perception of a neighborhood, a city or an urban ensemble, various modalities of perception determine and influence these values.

Perception plays the role of support. The behavior consists in reaching the most appreciated regions of this support, because before seeing its final behavior attached to the decisions of the man, one must also see the deep reasons of these decisions.

Perception is a process that moves from the simplified model of the reality, perceived through motivations and constraints, then evaluated according to various factors. It serves as a catalyst or a blockage to behavior. Each element directly or indirectly affects the rest of the system. In this closed system, the behavior in turn, can transform the lived reality and modify the information that the individual will receive.

To better develop a space you have to know the image that people have of this space. This knowledge will guide the action. Thus, a better knowledge of the mechanisms of human visual perception has an impact on the design of the image which depends on several individual and collective factors.

4. Factors influencing the perception of urban space:

The urban space materializes both a physical reality and a sensitive reality perceptible on a human scale. It is of course understood by the majority of people as the result of a single individual sensory perception (smell, sight, and hearing) of a geographical area delimited by the field of vision. According to this definition, urban space does not exist without observers,

and there are as many urban spaces in the same point of view as there are observers, because each of them is endowed with physiological characteristics of its own, marked by a distinct emotional sensitivity and culture.

"If the landscape is a complex phenomenon, it is also because it involves the perception and the gaze of several observers: without these looks we can not speak of landscape. This perception depends not only on its physical components, but also on the values, the intellectual baggage and the sociocultural condition of the observer". Scott, Alister 2002

Therefore, the perceived image of urban space is the pre-existing base of the gaze, which involves personal notions such as aesthetics, beauty and other cultural values.

"However, the perception of an urban space is influenced by a multitude of individual factors, but also by collective values, and different individual and collective factors thus influence the direct perception of the urban space. These factors act in a more or less conscious way on the individual in the same way that this individual carries certain criteria in order to evaluate the qualities of an urban space." Rivard, 2008.

| Facteurs clés | Auteurs* |
|--------------------------|---|
| Mémoire | Marcus, 1978; Ohta, 2001; |
| Le bagage individuel | Brabyn, 1996*; Hitchmough et Bonugli, 1997*; Ohta, 2001 |
| Impression | Bullen et al., 1998 et 1999*; Moore-Colyer, 1999*; Ohta, 2001 |
| Imagination/ Association | Ohta, 2001 |
| Jugement esthétique | Ohta, 2001 |
| Attraction de la nature | Hodgson et Thayer, 1980*; Ohta, 2001 |
| Évaluation | Ohta, 2001 |
| Origine biologique | Appleton; 1990* |
| Associations culturelles | Hull et Revell, 1995*; Gold, 1980* |
| Familiarité | Kaur, 2004; Krause, 2001 |
| Âge | Bernaldez <i>et al.</i> , 1995* |

(*références tirées de la revue de littérature de Scott, 2002)

Figure 2.3 Facteurs clés qui affectent la perception du paysage selon Ohta, 2001 et Scott, 2002

Source : Erick Rivard, ‘‘ Approfondir l’analyse objective du territoire par une lecture subjective du paysage. Le cas de la Cote de Beupré ‘‘ Master of Science in Architecture, University of Laval, 2008.

4.1 Internal factors influencing the perception of an urban space:

4.1.1 Individual factors:

Urban spaces are of great value to the public. Indeed, quality of life and sense of belonging are often dependent on urban space. The perception of these urban spaces is different from one individual to another, because it is based on the culture and experience of each. Ohta (2001) finds that there are individual factors that influence the perception of urban space. These factors are the memory attached to places and personal baggage. Through these two major influences, the author distinguishes other filters: the imagination (or the association), the impression, the aesthetic judgment, the sense and the attraction of the nature, which all have a role to play in urban space evaluation.

1.Memory:

Some research on the relationship between man and urban space highlights the importance of memory on landscape cognition, Ohta and one of them.

According to Ohta (2001) the apprehension of the urban space updates the observer with concrete individual memories, but also more general memories that come from the media. These memories are based on past personal experiences and the general knowledge of observers. The research results Ohta precisely demonstrate the importance of sense to build memory: the observers can recall specific smells, sounds and special tactile sensations associated with photography.

2. Individual luggage:

Individual baggage plays an important role in the perspective process. *"It will first be noted that the individual, or rather the group, is not virgin. It has a history, born of the accumulation of previous experiences and perceptions, of learning in a broad sense, according to an expression often used"* - Roger Brunet 1974.

Individual luggage, according to Ohta, plays an important role in the interpretation and appreciation of urban space. This baggage may be formed during the person's previous contact with his environment, education, customs, personal values, and other individual characteristics and personal experiences.

3. Feeling:

According to Ohta, feeling is mainly composed of: sensation, sensory modality, and time / season, this is the first impression that the individual "feels" in his first contact with a new or a usual place, or his "feeling" when he uses other sensory modality than vision, such as a touch or sound experience, and of course the unique feeling that catches each individual when the day changes or even the season

4. Imagination / association:

"By focusing on the complicity of memory and imagination as falling under this second temporal consciousness that is accessible beyond oblivion, Ricoeur raises the question of the breakdown in which it is established in relationship with the consciousness of the present. This break is none other than that which underlies the relationship between imagination and perception".Délia (2017)

The imagination offers us, for its part, another possibility, that of making present what is absent, of integrating into a form of direct intuition that which is now given only indirectly, via the memory or the expectation of a reunion. Any set of realities which can not, for different reasons, be perceived directly, can be imagined, which keeps them in the circuit of an experiment.

5. Aesthetic judgment:

The aesthetic judgment is made in several levels: the components of the space, the colors and the photographs. The individual judges the aesthetically perceived space according to the presence and arrangement of the particular elements in that space, also judges the composition

of the colors in part or as a whole. According to Ohta, a photograph seen even looking at a single space, people sometimes interpret it as a picture and sometimes as a real scene, with different differences between these two points of view. When people are aware of the limits imposed by the photographic framework, their evaluation of a space is likely to be influenced by the gap between the actual scene and the photographic representation of it.

6. Attractiveness of nature:

According to the result of the study done by Ohta, it was clear from the interviews that nature has great charms for most participants. They have often expressed the opinion that, "we, humans cannot compare with nature". Although there are subtle differences in the expression of this point of view by participants, sometimes they have, expressed their opinions on the problems of the destruction of nature, and their desire to escape their daily lives and return to nature, comparing it to urban environments full of artificial things.

7. Evaluation:

The evaluation of a space, generally represented by I like / I do not like, or Good / Bad, are generic terms for the affirmative or negative evaluation of a space. The evaluation also includes various points of view that have been introduced as criteria of "love / dislike" and "good / bad", but which focus specifically on the composition and context of each space, this composition includes contrasts between colors and other elements of the landscape that draws people's attention when they are evaluated.

8. Biological origin:

Long before a child can explore his environment with his hands and feet, he is busy exploring it with his eyes. What's going on in the baby's mind as he looks, blinks, looks that way and that? Does he only feel a chaotic patchwork of color and brightness or does he perceive and differentiate distinctive forms? The reason has always fascinated philosophers and scientists because it's related to the nature and origin of knowledge.

" Is man's ability to perceive the form of objects inborn or must it be learned? Experiments indicate that it is innate but that maturation and learning plays important roles in its developmen'' Robert L.Fantz

9. Familiarity:

" Moreover, the perception of space is discontinuous, which is also a matter of information: some more familiar points are strongly enlightened ... " Roger BRUNET, 1975

Memory is therefore used when it comes to familiarity, which makes the difference between the perceptions of a familiar space with another.

10. Age:

The relationship between age and perception has not received much attention, although the current literature in this area now seems to be accelerating. This is probably due to the greater complexity of the perceptual process, to the methodological problems involved.

Comalli en (1967) has divided the perception, which can be affected by age, into different categories; namely, the speed of recognition, the perception of space and the perception of time, all these categories are influenced by the age factor.

4.1.2 Collective factors:

" The perception of urban space also varies according to the basis of the group belonging to the individual. That is to say that according to the orientations set by the group in terms of development for example, their perception will be to go in the same direction. " Ohta; 2001.

Based on Kevin Lynch's study, the visual appearance of a city is not necessarily perceived in the same way by all who live, approach or cross it. Their mental image may be shaped by different feelings or practical needs: need to identify, aesthetic imperatives, desire to belong to a community, etc. The question lynch asked is: is there precisely, between the different images that man has of his city, a common background of elements and relationships that the planner can use to model or remodel a "Urban character" more satisfying?

These factors show that an architectural or urbanistic project is not designed for one person, but for a group of people.

4.2 External factors influencing the perception of urban space:

The quality of the relationship between the subject (the man) and the object (environment) depends directly on the perception of the latest. But concerning our perception of this environment, it is defined by several factors. These factors have been identified by several authors including Goodman (1968), and can be summarized as follows: Comfort, safety, aesthetics, variety, sense of place and social interaction.

4.2.1 Comfort in the urban space:

"Physiological comfort is a basic human need. The temperature of the air, its movement and its humidity, are the main factors affecting the comfort of the man " D.Canter, P.Stringer 1975

"This comfort should be the main interest in the design of outdoor spaces and should be a fundamental criterion, if the space is designed as a point of attraction for the population.

Unfortunately, it is the discomfort of our contemporary cities that is the subject of a joint complaint. " Goodman 1968

4.2.2 Security:

" Safety is a human need as well as physiological comfort. The lack of territorial definition, the lack of lighting, the lack of surveillance and the anonymity of space can lead to security problems. " Newman 1972

Today many boulevards, streets, sidewalks ... have been developed in the city, for the comfort and safety of the user. However, the security of the public space is above all, the power to move without fear and without constraints, or it is easy to find and orient. To see and to be seen, to hear and to be heard are essential points constituting this sought-after security.

4.2.3 Aesthetics in the urban space:

Aesthetics in general means something beautiful, functional and balanced overall.

4.2.4 Variety and urban space:

It plays an important role in humans for their balance. Variety has an impact on the human organism, its interaction with the environment, and to better understand the phenomenon, four varieties have been identified by psychologists: complexity, novelty, surprise and ambiguity.

4.2.5 The meaning of the place:

The meaning of place, according to Relph is a notion related to character and personality. Some places provide psychological satisfaction. They possess "the spirit of the place", "the genius of the place" or the "sense of place". The spirit of the place is another aspect, another dimension of identity that links together the different components of the place, the physical setting, the activity and the meaning.

5. Conclusion:

In terms of this study, we have concluded that urban space is not a clear and simple thing to define or study. Especially if we already know that few researchers have been interested in this question which remains little invested in the field of research.

As result of this little research we hope to define in a general way the urban space and the different modalities of its perception. Thus its image as defined by Lynch, and that this image is perceived differently by people according to different internal and external factors.

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