

Semiotics of the City's Pedestrian Space

Abstract

This article presents the study of the semiotic approach to the organization of both visible and invisible signs, by which the pedestrian is daily confronted in different environments of the city. Article starts with retrospective of the scientific studies of city's semiotic dimension beginning from Kevin Lynch and up to such contemporaries as Umberto Eco, Alexendros Lagopoulos and others. The article helps to consider the denotational and the connotational functions of urban semiotics. This text highlights the difference between the semiotic perception of the city by pedestrian and a person that uses some type of vehicle. Analysis of the change in treating the city's semiotic domain in preindustrial, industrial and postindustrial periods helps to capture the negative aspects of this process. This provides us with possibility to detect the challenges and to define the preconditions for creation of the comfortable and rich pedestrian environment of the city.

Keywords: urban semiotics, pedestrian space, image of the city

Introduction

There is no single notion of what can be called the space of the city. Different theorists consider this space from the viewpoint of its historical, architectural, mental, sociocultural and other domains. Sometimes the border between these approaches is blurred. In each case city and its space can be studied as the collection of different signs, which in certain form translate to citizens and tourists specific messages about the social, political, economical and cultural essence of the city.

David Frisby states, that the attempts to decode the constellations of different signs and symbols of the city can be found in European literature at least since the 12th century¹. The understanding of the city as a text requires the existence of both: language, in which this text is written, and reader, who can understand it².

The study of meaning-making is scientifically called semiotics. Semiotics in its basics is a philosophical approach that seeks to interpret messages in terms of the signs. This includes the study of signs and sign processes (semiosis), indication, designation, likeness, analogy, metaphor, symbolism, signification, and communication. A sign can be a word, sound, or visual image. Of course, architecture and urban planning are very visual domains, but nevertheless the environment of the city is also sensed with other sensoriums, which can perceive the non-visible signs either. Urban semiotics deals not only with the built environment of the city, but also with place-name studies, landscape, social codes, as well as the influence of this factors on such phenomena as touristic attractiveness of the city or the patriotism of its inhabitants.

Ferdinand de Saussure divided the sign into two components: the signifier, which is the sound, image, or word, and the signified, which is the concept or meaning the signifier represents. Umberto Eco, in his turn, underlines the denotational and the connotational type of the signified. Denotation is a translation of a sign to its literal meaning, whereas connotation translates

a sign to meanings associated with it. The skyscraper in the skyline of the city can be interpreted as just the tower with offices (denotational meaning) or as the evidence of the power of local economy (connotational meaning). Urban semiotics, in this case, is the study of meaning in urban form as generated by signs, symbols, their denotations and connotations.

Urban semiotics is grounded on the works of architectural theorists and urban planners, as well as on the studies, conducted by the scientists and thinkers from other disciplines. The architectural theorists are for example represented by Robert Venturi, Charles Jencks, Kevin Lynch and others. Important ideas were also brought to the urban and architectural semiotics by such universal thinkers as Umberto Eco and Roland Barthes.

Considering more deeply the works of these and other theorists, we can define which semiotic approaches are dealing with denotational function of the signs in city's pedestrian space and which are dealing with the connotational one. After this it will be possible to consider the challenges that the city of today is issuing to us in our aim to create the comfortable semiotic environment.

Basic studies on denotational function of urban signs

One of well known works, related to the semiotics of pedestrian urban space, is the book "The image of the city" by Kevin Lynch. By questioning the distinguishability and visibility of smal-

* Doctor habilitated Svitlana Linda, associate professor at department of «Architectural Design», Institute of Architecture, Lviv Polytechnic National University

** Anton Kolomyeytsev, Ph.D., Univ.Ass. at department of «Architectural Design», Institute of Architecture, Lviv Polytechnic National University, e-mail: antonkolo@gmail.com

ler and larger elements of the city, author developed the theory of total urban form. Lynch was the first theorist, who paid attention to the cognitive perception of urban environment and to the role, that different urban signs play in life of the citizens.

Imageability, one of the most important terms, introduced by Lynch, is the quality of a physical object, which gives an observer a strong, vivid image of it. He concluded that a highly imageable city would be well formed, would contain very distinct parts, and would be instantly recognizable to the common inhabitant. So, imageability of the object allows the observer to get the strong image of it and environment, in which the object exists. This quality can be provided by form, color, order etc.

One of Lynch's innovations was the concept of place legibility, which is essentially the ease by which people understand the layout of a place or in other words "read its text". By introducing this idea, Lynch was able to isolate distinct features of a city and see what specifically is making it so vibrant, and attractive to people. After five years of studying how observers take the information of the city, Lynch reported that users understood their surroundings in consistent and predictable ways, forming mental maps with five elements:

- paths, the streets, sidewalks, trails, and other channels in which people travel;
- edges, perceived boundaries such as walls, buildings, and shorelines;
- districts, relatively large sections of the city distinguished by some identity or character;
- nodes, focal points, intersections or loci;
- landmarks, readily identifiable objects which serve as external reference points.

The imageability and the legibility of different elements of the city are achieved by the use of architectural and planning solutions in the process of organizing the image of the city.

Lynchian book has had important and durable influence in the fields of urban planning, environmental psychology and behavioral geography. While environmental psychology is an interdisciplinary field focused on the interplay between individuals and their surroundings, behavioral geography focuses on the cognitive processes underlying spatial reasoning. The cognitive processes include environmental perception and cognition, wayfinding, the construction of cognitive maps, place attachment, the development of attitudes about space and place. And this is the true calling of Lynchian theory: to make places visible and memorable in physical sense and to simplify the wayfinding.

Basic studies on connotational function of urban signs

Besides the denotational function of urban signs and its possible usage as the instrument to enhance the wayfinding and orientation of the citizens, there is also their connotational function, studied by other theorists. The connotational signified includes the social, cultural, economical, political and other readings of the signifier.

Great amount of these connotations can be studied using the instruments of social semiotics, which considers social connotations, including meanings related to ideology and power structures, in addition to denotative meanings of the signs.

Theorists who take a social semiotic approach to urban semiotics (A. Lagopoulos, M. Gottdiener, M. Krampen, R. Ledrut, U. Eco and others) define their discipline in opposition to the methods of behavioral geography, beginning with the work of Kevin Lynch in *The Image of the City*, which they criticize for being limited by its exclusive focus on the denotative level of communication (recognition of spatial elements, such as paths, as conceptual objects), ignoring the connotative meanings associated with urban forms. Instead, they argue that urban structures often become recognizable because they have symbolic meaning beyond their functional meanings. The social semiotic approach to urban semiotics also grew out of a critique of architectural semiotics, which was perceived to be overly attached to linguistic models of semiosis and thus unable to adequately consider the social connotations of signs³.

According to socio-semiotics political power for instance congeals in a range of sign systems, from monuments to street grids, advertising, film and literary representations, etc⁴. The image of the city, in this case, is produced also by the historical memory (both personal and collective), by means of which different places are connected to the personal biography of the citizens.

Semiotics of today's city's pedestrian space and its challenges

If we consider the historical transformation in perception of the city (in its denotative and connotative meanings), we can see the dramatic changes, connected to the process of socio-economic modernization.

One of the most important aspects of this transformation was the spreading of automobile. In the book "Learning from Las Vegas" Robert Venturi and Denise Scott Brown studied the representation of contemporary American city of the early 1970's.

By turning their attention primarily to the theory of the decorated shed presented in the second part of the book, many critics overlooked the fact that "Learning from Las Vegas" was first and foremost a study on the perception of the contemporary city. A new automobile-oriented urban form had evolved in the post-World War II years and has increasingly dominated the cities of the American West⁵. For Venturi and Scott Brown, traditional visual techniques were no longer adequate for analysis and representation of these new urban forms. It was no longer possible to be the classical flaneur in American cities of the 60-ties and 70-ties. Charles Baudelaire called flaneur "the person who walks the

city to experience it". For Venturi and Scott Brown modern flaneur was only the person in the car.

What is even worse, after the spreading of automobile not only the pedestrians but also the automobilists lost the understanding of the whole. Modern megalopolises are commonly a chain of roughly adjacent metropolitan areas. Interlinked ground transportation corridors, such as rail and highway, often aid in development of this huge areas. Using commuter passageways to travel throughout the megalopolis is informally called megaloping. As result, we should not only think about the image of the single city, but instead concentrate ourselves on the whole city-regions. This topic was perfectly elaborated in collection of the essays named "The Image and the Region – making Mega-City Regions Visible!" that was edited by Alain Thiestein and Agnes Förster. The image of the region can symbolically unite historically discrete cities in one holistic entity.

Newly evolving urban forms at the beginning of the 21st century, such as in Dubai or – perhaps more to the point – in the tropical megalopolises around the globe, raise the question of what might be the adequate means of the representation of today's city. Rem Koolhaas's research has suggested that visual representation may no longer be meaningful or possible in these instances because the vast expansion of these urban conglomerations exceeds the human capability to perceive and to cognize. Thus it seems the spatial logic of the contemporary city still awaits the theorization attempted by Venturi and Scott Brown for an earlier urban form and the means to adequately represent it yet have to be found⁶.

On the other hand, there is a clear tendency in different countries around the globe to return to the pedestrian-oriented city. This tendency is partly the result of the spreading of information technologies. Thanks to them the movement of people from place to place has in some sense become pointless. In addition, people who spend a lot of time in the virtual space of information networks want to return the comfortable milieu of the city in order to be there at least during the time of rest. Walking, jogging and biking more and more compensate the time of sedentary activity. There are not only the ecological and health reasons for such a tendency. New globalized cities are also searching for the means to represent the multiple identities and culture of their citizens, to attract the tourists and to create their city-brands, which is impossible in overautomobilized city. That is, pedestrian space has to provide not only the comfortable perception of processes that take place around the subject, but also the understanding of political, social and cultural essence of these processes. Throughout the history western cities were constantly losing their capability to deliver to the subject and especially to pedestrian the important connotational meanings about city's culture, politics, economics etc. This loss was first of all the outcome of the processes of rationalization in the urban milieu, that resulted in the loss of symbolical and representational value of the main urban spaces of the city.

On the Greek agora one could, for example, clearly see and understand the different components of the city as the reflection of the corresponding social processes. The citizen could, for example, observe the acropolis, which was situated on the sacred mountain and corresponded to the cosmology of the

Greeks. The planning of Greek agora respected this representational view axes. In the medieval city the church and the city hall were placed in the center of the main square, underlining the importance of religion and political autonomy of the citizens. The location of these buildings was not always rational in terms of the real functioning of medieval cities, but it was very symbolical and meaningful.

In contrast to these historical examples, industrial city even in its most representational parts was rather structured only in accordance with the efficiency of its functioning. The representational character of the city was lost for a long period of time. For the famous thinker Walter Benjamin the modern city represented nothing but the whole series of shocks, chaotic impulses and boosts, that the person experienced in the crowd and because of the crowd. Benjamin's flaneur is intoxicated and bored at the same time. German sociologist Georg Simmel in his book "The Metropolis and Mental Life" said that this boredom and intoxication results in the obvious indifference and satiation⁷. According to these thinkers modern city and especially the metropolis has always been something artificial and unhuman⁸.

During the postindustrial period there was a further decline concerning the semiotic characteristics of the city. This process was well explained by Joseph Rykwert in his book "The Seduction of Place: The History and Future of the city". Author is worried about the lowering role of architects in the development of modern cities. The city is instead more and more driven by the rational and economical interests of developers. Their goal is to maximize the profits from every development and at any cost. According to Joseph Rykwert, on the beginning of the 21st century globalization became the most important power in the city. In fact we can speak about the manhattanization of every metropolis on earth⁹. The architectural outcomes of this process are the skyscrapers with the slums in the background. But what is even more important in the context of this article, is the loss of the city's image. As Rykwert states, architects and designers are not any longer working with the image of the city. Instead of that they are only dealing with style and appearance of individual commercial buildings¹⁰.

Preconditions for creation of the semiotically qualitative pedestrian environment of the city

The representational functions of the city and its architecture are commonly regarded as passi-

ve ones. From this point of view semiotical dimension of the city can only be the instrument to indicate the phenomena that exist independently. Indeed passive role of city's semiotic dimension concerning the social, cultural, political, economical and religious context is commonly manifested in the notions of city's image as only the index, symbol or representative. City's image can at the same time be also seen not as something passive and secondary, but as the powerful agent of creation and transformation of the context. By introducing the connotational meanings about social and cultural issues, semiotic domain of the city is at the same time legitimizing them. The semiotics of the early renaissance city was in fact one of the major powers for developing the unique and reach renaissance culture. The dominant position of symbolical buildings in the renaissance city and their articulation brought the new spirit to other human activities of this age. Describing spatially the features of own culture, people have fixed their achievements and transferred them to the next generations.

As every communication medium, urban semiotics can perform the critical and the popularizational role. Many famous modernist projects as for example The Ville Radieuse by Le Corbusier was inspired by the technocratic world view and propagated the culture based on the belief in technology and positive social changes brought by it. At the same time the whole series of architects in 1970-ies tried by means of their architecture and urban planning to force the people to think about the negative phenomena that are more and more contaminating contemporary culture. Both popularizational and critical roles of urban semiotics can play important role in today's cities.

The representative function of today's public space should also be not underestimated. Every modern metropolis of today is the conglomeration of different cultures. The cultural pluralism, which emerged on the basis of immigration processes and by virtue of information technologies demands the new articulation from architects and urbanists. With the means of architectural and urban semiotics these different cultures can be represented for everybody. Contemporary city should be the glue for different identities, capable to do the unity out of diversity. The same effect in much more simpler appearance we can see in the model of classical medieval city. In many central European cities the skyline was the sum of different church towers, each of which represented some particular confession of faith or in the early modern architecture, when there were so called national styles representing different ethnic communities of the city. Even if today we have new possibilities for communication and new information technologies, the environment of the city still could be the powerful instrument for translating the most legitimate, constitutive and significant public messages. The space of the city after the years of decay should again become the most important public communication medium.

The semiotic characteristics of city's environment can also be important part of city branding. Interest to the topic of brand management is especially urgent in the context of international economic, scientific and production activities.

Summary

As our review shows, it's important to actively use denotative and connotative functions of semiotic signs inside the city's

environment. The basis for the denotative ones can be in this case provided by the prescriptions of Kevin Lynch.

The ideas of Lynch should be complimented with understanding of what such new realities as the city-region actually are, and how they can also be made visually comfortable and understandable.

The most important task in the context of semiotical development of the environment of contemporary city is to return the focus from automobile to pedestrian. Only the pedestrian-oriented settlements can return their former semiotic qualities, which have been totally degraded during the 20th century.

Bringing the accent from automobile to pedestrian will result in the return of attention to the public value of city's representational functions. After the years of developers domination, the image of the city can be public again.

There are very good preconditions and potentials for using the whole range of connotative meanings of urban signs. In fact, the semiotic domain of the city can not only be the mean of communication, but it can also improve the city's economic, sociocultural and political structures, especially because of its important critical and popularizational roles.

Furthermore, the proper use of semiotic characteristics of pedestrian environment can make it more meaningful and comfortable and also straighten the position of the city on regional, national and international scale. The concrete recipes and instruments for that should be found through both the research and the praxis.

ENDNOTES:

¹ D. Frisby, *The metropolis as text. Otto Wagner and Vienna's "Second Renaissance"* / The Hieroglyphics of Space. Reading and Experiencing the Modern Metropolis / Ed. by Neil Leach, Routledge, London, 2002, p. 15.

² S. Turoma, *Reconsidering Yuri Lotman's Semiotics of Urban Space*, *Novoe Literaturnoe Obozrenie*, No. 98, 2009, <http://magazines.russ.ru/nlo/2009/98/tu8.html> (date of use: 28.07.2014).

³ M. Gottdienier, A. Lagopoulos, *The City and the Sign: An Introduction to Urban Semiotics*, Columbia University Press, New York, 1986, p. 5.

⁴ G. Stahl, *Urban Signs/Signs of the Urban: Of Scenes and Streetscapes*, *Journal of Current Cultural Research*, Norrköping, 2009, p. 256. <http://www.cultureunbound.ep.liu.se/v1/a16/cu09v1a16.pdf> (date of use: 28.07.2014)

⁵ M. Sierli, *In Sewuence: Cinematic Perception in Learning from Las Vegas*, Hunch 12 Bureaucracy, nai10 publishers, Rotterdam, 2009, p. 77.

⁶ M. Sierli, *In Sewuence: Cinematic Perception in Learning from Las Vegas*, Hunch 12 Bureaucracy, nai10 publishers, Rotterdam, 2009, p. 77.

⁷ G. Gilloch, *Myth and Metropolis. Walter Benjamin and the City*, Polity Press, Cambridge, 1996, p. 144-146.

⁸ S. Turoma, *Reconsidering Yuri Lotman's Semiotics of Urban Space*, *Novoe Literaturnoe Obozrenie*, No. 98, 2009, <http://magazines.russ.ru/nlo/2009/98/tu8.html> (date of use: 28.07.2014).

⁹ J. Rykwert, *The Seduction of Place: The History and Future of Cities*, Oxford University Press, London, 2004, p. 189.

¹⁰ J. Rykwert, *The Seduction of Place: The History and Future of Cities*, Oxford University Press, London, 2004, p. 228.

BIBLIOGRAPHY:

- [1] Frisby D., *The metropolis as text. Otto Wagner and Vienna's "Second Renaissance"* / The Hieroglyphics of Space. Reading and Experiencing the Modern Metropolis / Ed. by Neil Leach, Routledge, London, 2002.
- [2] Gilloch G., *Myth and Metropolis. Walter Benjamin and the City*, Polity Press, Cambridge, 1996.
- [3] Gottdienier, M., Lagopoulos A., *The City and the Sign: An Introduction to Urban Semiotics*, Columbia University Press, New York, 1986.
- [4] Kapizyn V., *Semiotics of the city: search for the concept of the interplay*, Seminar of the Scientific committee of the Russian society of sociologists "Sociology of the city's and the region's development", Moscow, 2013.
- [5] Lynch K., *The Image of the City*, MIT Press, Cambridge, 1960
- [6] Rykwert J., *The Seduction of Place: The History and Future of Cities*, Oxford University Press, London, 2004.
- [7] Stahl G., *Urban Signs/Signs of the Urban: Of Scenes and Streetscapes*, Journal of Current Cultural Research, Norrköping, 2009, <http://www.cultureunbound.ep.liu.se/v1/a16/cu09v1a16.pdf> (date of use: 28.07.2014).
- [8] Stierli M., *In Sewuence: Cinematic Perception in Learning from Las Vegas*, Hunch 12 Bureaucracy, nai10 publishers, Rotterdam, 2009.
- [9] Thierstein A., Förster A., *The Image and the Region – Making Mega-City Regions Visible!*, Lars Müller Publishers, Baden, 2008.
- [10] Turoma S., *Reconsidering Yuri Lotman's Semiotics of Urban Space*, Novoe Literaturnoe Obozrenie, No. 98, 2009, <http://magazines.russ.ru/nlo/2009/98/tu8.html> (date of use: 28.07.2014).
- [11] Vasilkovskyy M., *Sociology of architecture*, Russian avant-garde, Moscow, 2010.