



MAPPING URBAN PERCEPTION WITH RESPECT TO SOCIO-SPATIAL ANALYSIS

By

Noreen Mostafa Mohamed Mahmoud

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
in
ARCHITECTURAL ENGINEERING

**FACULTY OF ENGINEERING, CAIRO UNIVERSITY
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Summary:

This research sets up by illustrating the complexity and dual reality of the everyday environmental settings. The daily urban scene is getting more dynamic, spontaneous and more psychologically complicated. Everyday infinite social situations occur in the public realm between collocated people whether it's verbal or non-verbal, functional or emotional affecting the overall urban image/scenery. The research aims at interpreting the complex effects of the generated social non-verbal communications on the quality and creation of a given spatial layout. The human existence and spontaneous performances in the street when being attended to by others (consciously or subconsciously) may have direct and indirect degrees of influence on one's inner mental states, arising higher nervous activities eventually altering the human spatial behavior. Such behavior changes the geographic environment, which in turn acts back on behavior in a reciprocal interchanging loop. The produced social situations should be considered; merging theories of social psychology and geography in further urban interventions to attain unique spatial configurations exclusive to these social transactions. Eventually the integration of both social and spatial structures is what defines the overall urban quality.

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The researcher

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Abstract

This research sets up by illustrating the complexity and dual reality of the everyday environmental settings. The daily urban scene is getting more dynamic, spontaneous and more psychologically complicated. Everyday infinite social situations occur in the public realm between collocated people whether it's verbal or non-verbal, functional or emotional affecting the overall urban image/scenery. The research aims at interpreting the complex effects of the generated social non-verbal communications on the quality and creation of a given spatial layout.

The human existence and spontaneous performances in the street when being attended to by others (consciously or subconsciously) may have direct and indirect degrees of influence on one's inner mental states, arising higher nervous activities eventually altering the human spatial behavior. Such behavior changes the geographic environment, which in turn acts back on behavior in a reciprocal interchanging loop.

The produced social situations should be considered; merging theories of social psychology and geography in further urban interventions to attain unique spatial configurations exclusive to these social transactions. Eventually the integration of both social and spatial structures is what defines the overall urban quality.

Keywords: Complexity, Dual reality, Everyday Environmental Settings, Social situations, Non-verbal communications, Collocated, Human performances, Social consciousness, Belongingness, Place attachment, Quality, Spatial layout, Transactions

INTRODUCTION

*Human societies are spatial phenomena; they constitute territories on the earth's surface, and within and between these constitutions material resources move, people transact with each other and information is transmitted. Thus, we recognize the existence of a society by its realization in space. However a society does more than merely exist in space; it is shaped by a specific spatial structure and it does so in two senses. First, it arranges people and collocate them in space with a greater or lesser degree of aggregation and separation, creating movement patterns that may be dense or sparse within or between different groupings. Second, it arranges space itself by means of buildings, edges, paths, zones, and so on, giving the physical setting of that society a definite pattern. In both senses a society develops a definite and differential spatial structure.*¹

Spatial structure is one of the most salient means by which we identify the cultural differences between societies; differences in the ways in which their members live out and reproduce their social existence. In everyday environmental settings, the experience of spatial configurations is an intrinsic and unconscious dimension of the way we experience society itself. We perceive space, and anticipate a lifestyle.²

*“The environment can be seen as a series of relationships between things and things, things and people, and people and people. These relationships are orderly, that is, they have pattern and a structure—the environment is not a random assemblage of things and people any more than a culture is a random assemblage of behaviors or beliefs. Both are guided by schemata that act as templates, as it were, organizing both people's lives and the settings for their lives. In the case of the environment, the relationships are primarily, although not exclusively, spatial objects and people are related through various degrees of separation in and by space.”*³

Interests have been arising among environmental psychologists to study the ways in which the environment influences behavior. Through human-environment transactions, individuals change the environment and their behavior and experiences are altered by the environment as well in an interchanging loop.

¹ Hillier, B., & Hanson, J. (1989). *The Social Logic of Space* (Reprint ed., p. 15). Cambridge University Press.

² Ibid.

³ Rapoport, A. (1982). *The Meaning of the Built Environment: A Nonverbal Communication Approach* (reprint., p. 253). University of Arizona Press.

Behavior and experience can be best understood within an interactional framework reflected in Kurt Lewin's famous equation $B=f(P, E)$; where B is behavior, P is the person and E is the environment.¹ Here the environment (E) is not the physical environment but the *perceived* environment. Moreover, the person and the environment are *interdependent* – the environment is considered a function of the person ($E=f(P)$) and the person is considered a function of the environment ($P=f(E)$). A complex and dynamic field of reciprocal interaction is then created resulting in a human spatial behavior. For Lewin, the study of the individual must include their perception of the wider physical, social, political and economic world within which that person inhabits.²

A person enters an environment with a background context of political, economic, and historical factors. The person's plans upon entering the environment (if any!) reflect social and cultural norms, as well as the person's own past experiences. The person subconsciously transacts with his environment altering his, feelings, and overall behavior. These transactions often have vital (whether immediate or delayed) outcomes both for the person and the environment. The optimum goal of environmental psychologists is to recognize these transactions and to improve outcomes for both persons and environments.³

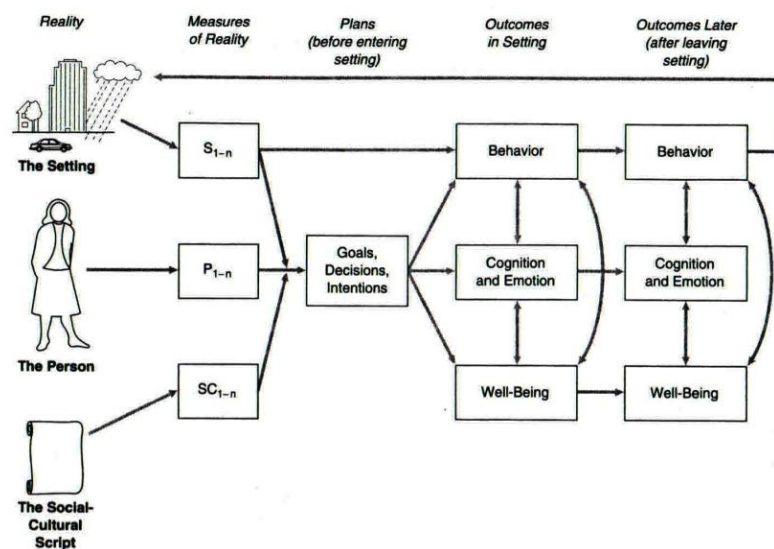


Figure 1: Outcomes of Environmental Psychology.⁴

¹ Lewin, K. (1967). *Field Theory in Social Science*. (D. Cartwright, Ed.) (p. 346 pages). Social Science Paperbacks.

² Rodgers, B. (2010). *Life Space Mapping: Developing a visual method for investigating the outcomes of counselling and psychotherapy from the client's frame of reference*.

³ Gifford, R. (1996). *Environmental psychology: principles and practices* (2nd edition.). Allyn and Bacon.

⁴ Ibid.

More urban adjectives/descriptions are being introduced describing our everyday environmental settings. The daily urban scene is getting more dynamic, spontaneous and more psychologically complicated. Seamus Heaney describes landscape as both *“humanized and humanizing”*. The landscape or, more generally, the place, is thus seen as itself having a human character, while it also makes human those who live within it, he writes.¹ Our urban realm is granted with the inclusion of live human performances who act according to their functional and emotional/psychological needs responding to physical and social environmental stimulations.

“What attracts people most, it would appear, is other people.”²

Throughout their spatial flow they perceive (consciously or subconsciously) and transact with one another producing infinite social situations through forms of verbal or non-verbal communications which are then interpreted to intrapersonal and interpersonal spatial behaviors. The outcome of such environmental behaviors affect us in a direct and indirect way and affects how we function as human beings, functioning's that reflects back on our environment from a global level (public realm) to a more private level (workplace, home). We are not aware of the latent power we have over each other, neither do we recognize the qualitative effect we impinge on the everyday urban quality.

“People and human activity are the greatest object of attention and interest. Even the modest form of contact of merely seeing and hearing or being near to others is apparently more rewarding and more in demand than the majority of other attractions offered in the public spaces of cities and residential areas”³

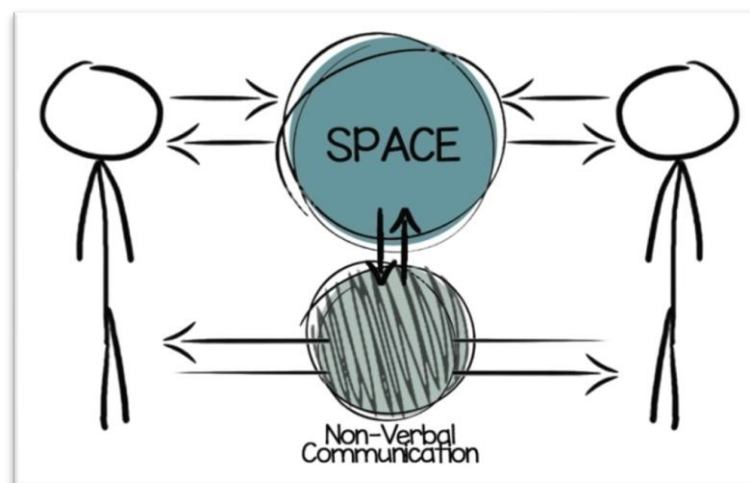


Figure 2: Spatial Structure vs. Social Structure; Illustrating the Reciprocal Relationship between Space Organization and Product of Social Situations.

¹ Malpas, J. (2009). Place and Human Being. *Environmental and Architectural Phenomenology*.

² Whyte, W. (2001). *The Social Life of Small Urban Spaces* (p. 125). Project for Public Spaces Inc.

³ Gehl, J. (2011). *Life Between Buildings: Using Public Space* (Sixth Edit., p. 216). Island Press.

1. Research Problem

The absence of any general models relating spatial structure to social formations has its roots in the fundamental way in which the problem is conceptualized (which in turn has its roots in the ways in which social theorists have conceptualized society), namely as a relation between a material realm of physical space, without social content in itself, and an abstract realm of social relations and institutions, without a spatial dimension. Society can only have lawful relations to space if society already possesses its own intrinsic spatial dimension; and likewise space can only be lawfully related to society if it can carry those social dimensions in its very form.¹

It has become clear that a lack of understanding of the precise nature of the relation between spatial organization and social life is the chief obstacle to better design. The key to such an understanding is in the disciplines that are concerned with the effect of social life on spatial organization – how spatial organization is in some sense a product of social structure.

“Cities are for transaction: economic and social transaction. People come to cities to trade. It is why we have cities – they are intensifications of opportunities to trade. The public realm of the city – its network of streets and spaces – is where much of this trade occurs: a “transaction machine” which, like any machine, is more or less efficient depending on how it is engineered.”²

Most of the urban designer’s and environmental psychologist’s recent studies have been focusing on the perception and transaction of man with the physical features of his environment with less concern on the human-human transactions (social features) that takes place in the everyday environmental settings. The studies held about the social features concern studying them as environmental stressors; such as crowding, personal space, territoriality and privacy rather than environmental stimulations. The issue of social inclusion has been arising among urban planners recently in new urban settlements, whereas everyday space can be spontaneous, vital, and inclusive; all too often it is neglected by its inhabitants, ignored by city planners and disregarded by critics.

Lately, marketing and advertising campaigns have been aware of the production of non-verbal communications in the Egyptian streets. Several television ads have been reflecting the local life style and shedding light on the sense of belonging and social attachment. In such commercials the essence of the street arises from these strong human situations and interactions that is promoting a unique urban quality.

¹ Hillier, B., & Hanson, J. (1989).Op.cit.

² Stonor, T. (2014). FROM CITIES OF MOVEMENT TO PLACES OF TRANSACTION. Retrieved from <https://timstonor.wordpress.com/2014/06/04/from-cities-of-movement-to-places-of-transaction/#more-3606>