



## The Sensory Experience and Perception of Urban Spaces

*Kalyani Wankhede\* and Amit Wahurwagh\*\**

*\*Department of Architecture and Planning, Visvesvaraya National Institute of Technology, Nagpur, India*

*\*\*Department of Architecture and Planning, Visvesvaraya National Institute of Technology, Nagpur, India*

*(Corresponding author: Kalyani Wankhede)*

*(Received 06 January, 2017 Accepted 29 January, 2017)*

*(Published by Research Trend, Website: [www.researchtrend.net](http://www.researchtrend.net))*

**ABSTRACT:** The urban spaces play an important role in shaping social life and the identity of the inhabiting community. A human perceives these urban spaces as a result of a sensory experience of that particular space. The growth and the acceptance of any urban space can be seen as how well that space is used by people. The quality of space is based on different parameters (like sensory and physical, natural and manmade, etc.) which improve the experience of space and lead toward satisfaction of users. In the present scenario, besides positive spatial elements there is a vast range of negative spatial elements like garbage dump yards, heavy traffic, visual clutter etc., which affect the sensory experience of the space. So there is a need to address these spatial elements in the planning and design of urban space including its multidimensional and sensory experiences. The paper will explore the urban design factors based on different perceptions as each sense plays the different role in place making. This study aimed to manifest the senses, its determinants and its importance in urban space.

**Keywords:** Sensory experience, urban spaces, senses, place making

### I. INTRODUCTION

The urban life has various spatial and temporal activities and, they provide the platform for human interactions. The human perception about the place develops on the basis of various tangible and intangible attributes related to various interactions. The perception of space is described by Truax as competence or tacit knowledge of the structural relationship between a sensory environment and activity within that environment (Truax 2001). The senses have vital role in perceiving the space and, they help in experiencing the place and the city. The sensory experience is the multisensory understanding of the environment. These senses include five senses as visual, touch, sound, smell, and taste.

Acting as vital part of perception, these senses affect the person's experience. For example, 'visual cues' in the area help in creating the image of space, 'sound and touch clues' help in providing identity and territory to space, 'taste' helps in getting the meaning of space and, 'smell' helps to recollect memories about the place. The ambiance of urban spaces are created and experienced as a product of different, sometimes unique, blends of sights, sounds, smells, textures, tastes and thermal conditions (Thibaud, 2011), resonating with our

individual and collective memory. So the sensory experience is an important part of place making, which helps in strengthening the connection between people and the place and, shape public realm.

City life, comprising the everyday rhythms, humdrum of activities, events, routines, and other un/expected urban encounters, comes with the range of 'multi-sensory bombardment' (Butler, 2006) emanating from both human and nonhuman sources. Historic cities have multifaceted urban spaces along with layered fabric which has its unique identity. The urban spaces in such cities have a lot of sensory potentials which is an important part of community life. These sensory potential have tangible attributes like manmade and natural features of urban spaces; as well as intangible attributes such as culture, festival, art, and so on. The sensory experience of urban spaces depends on tangible and intangible attributes along with three aspects as activities, physical form and the meaning of space. The urban spaces like a traditional market, neighborhoods, public spaces, religious spaces, historic monuments etc., are some of the spaces, which are rich with above-mentioned attributes and aspects. These attributes and aspects help in shaping the urban space identity and sense of place.

The sensory experience of urban spaces can be studied in terms of positive and negative characteristic features. The quality of public space gets affected by these features. The positive features include the senses which enhance place identity, comfort and sense of place. The negative features include the problems like pollution (noise, smell etc), placelessness and lack of association or belongingness.

For example, soundscape can be explored in term of noise problems but it can also be studied in term of unique sound experiences in historic precincts. In the case of smell scape, it can be explored in term of hazardous chemical and foul smell but unique and pleasant smell at flower garden and temples also exists. Thus, enhancing the quality of urban spaces, on the basis of these positive and negative features of the sensory experience, success in the design of urban space greatly depend.

The work presented in this paper is the analysis of published literature and, a summary of methodologies used in the study of the sensory experience and the perception of urban spaces. The analysis and a summary of methodologies are presented in the following sections.

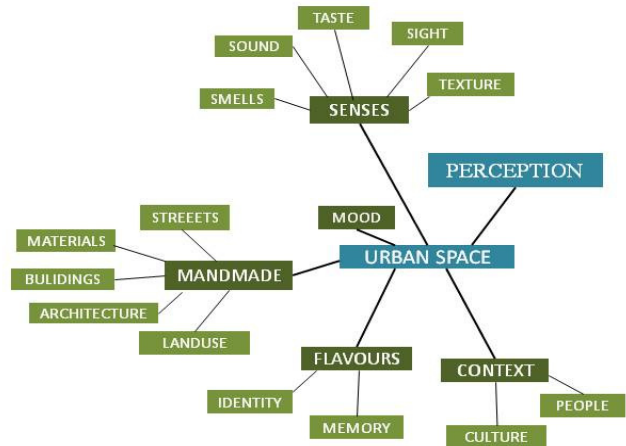
**II. SENSORY EXPERIENCES**

A person senses the urban space, perceive them and navigate through the cities. The urban space is perceived on the basis of various senses, context and memories. The perception involves the gathering, organizing and making sense of information about the urban space. Rodaway observes that sensory perception has two different meanings across different disciplines (Rodaway, 1994), (1) perception as the detection of information through the senses and, (2) perception as mental insight made up of sensory information combined with memories and expectations. The sensory experience of urban space is based on commons from each sense. So, every sense can be significant in transforming the experiential qualities of architecture and design of urban spaces.

**III. UNDERSTANDING URBAN SENSESCAPE**

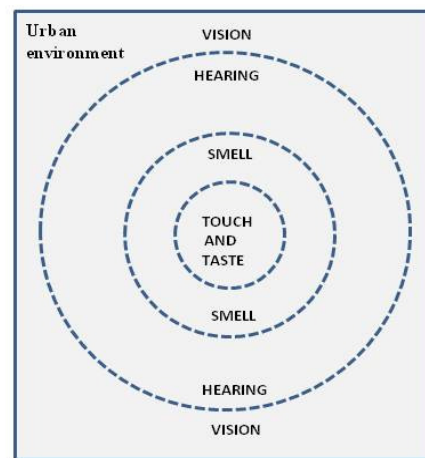
**Range proximity of senses in an urban space:** For sensory interaction to happen, we must perceive - that is, be stimulated by sight, sound, smell, taste or touch that offer clues about the world around us. These sensory experiences are studied with the help of five senses as visual system, auditory system, taste smell system and touch system. These systems have different ranges for exploring the urban space. Touch, smell, and taste provide information on the ‘near-space’ range, whereas visual and auditory systems can receive information over a greater range as ‘far-space’.

The complex sensory experience of urban space can be well understood if we follow systems approach. Figure 1 is an effort to attempt and identify components and subsystems of urban spaces, while understanding its sensory experience. The sensory experience of the urban environment, as mentioned earlier, involves five senses such as vision, hearing, smell, touch, and taste, have different ranges. Some of them, such as; vision and hearing can be classified as distant far, whereas; smell, touch and taste are the close proximity of an individual while sensing urban space (refer figure 2).



**Fig. 1.** Systems approach to the sensory experience and urban space.

Source: Stephen, *Perceptual experience and its role in architectural design*, EAEA conference 13.



**Fig. 2.** Range proximity of senses in an urban space  
Source: VHenshaw, 2011, *The role of smell in urban design*, University of Salford, UK.

**Elements and properties of the urban landscape:**

The urban spaces in broader context often termed as urban landscape. The study of senses in urban landscape can be seen in term of viewscape, soundscape, touchscape, smellscape and tastescape. The elements and properties of the urban landscape through lenses of sensory experience can be summarized as follows:

- **Viewscape:** It focuses on the elements like district, edge, pathway, nodes, landmark, form, color, volume, size, order, diversity, imageability and legibility, etc.
- **Touchscape:** It includes elements in term of dryness, coldness, roughness, and hardness, etc.
- **Soundscape:** It focuses on the properties of sound like keynote sounds, sound signals, sound mark, reverberation time, sonic dimensions, etc.
- **Smellscape:** It focuses on the classification of smell in term of aromatic, fragrant, alliaceous, ambrosial, hircinous, repulsive, nauseous and so on.
- **Tastescape:** It includes elements in term of sweetness, sourness, saltiness, bitterness of food etc.

The sensory experience of urban space is studied by various researchers on the basis of its uniqueness, belongingness of user, and sense of place which is strongly dependant on its identity, structure, meaning, territory and culture of that particular urban space. The user decides the good and bad degree of sensory experience with the help of predominant visual sense, omnidirectional hearing sense, feels of the surrounding by smell, taste and touch sense and, memories of that particular urban space.

**IV. STRATEGIES TO UNDERSTAND URBAN SENSESCAPE**

Few strategies and tactic used by various researchers are summarized in this section which will allow us to study the relation between senses and urban spaces.

Walking the city is a method that seems to be favored by most scholars who write about the city and, how city life is experienced. Barthes (1982), for instance, contends that in order to know the city, one has to engage in 'an activity of an ethnographic kind'. In Barthes' view, however, he seems to privilege the sense of sight over the other sensory modalities. In recent years scholars worked on sensory methodologies of walking the city in term of various senses as soundwalks (Butler, 2006), smellwalks (Low, 2009), or

walks that survey the different webs of sensory impressions (Degen and Rose, 2012), among others.

The sensory experience of urban spaces depends on three aspects as activities, physical form and the meaning of particular space. The historic urban spaces have multilayered, unique life such as, markets, specific cuisine, style of building and so associated manifestations. But the sensescape in contemporary spaces is under threat of homogenization because of globalization and standardization of spaces. Thus, the urban spaces in historic and contemporary cities are often significantly different in term of sensory experiences.

**V. DISCUSSION AND CONCLUSION**

Understanding urban spaces through lenses of sensory experience is an emerging field of urban design. In contrast to contemporary cities and urban spaces, many qualities and values can be seen in the urban sensescapes; when historic cities and urban spaces are referred. There is a need to research how these qualities and values of historic cities and urban spaces can be preserved and continued, to address homogenization of contemporary urban spaces. Study of such spaces, rich in sensory experiences, may help address this issue. The contribution of this research paper is a summary of strategies and tactics use in research of urban sensescape by various researchers and scholars. The paper also raised the importance of sensory experience in the design of urban spaces, by giving an insight of its elements and properties.

**REFERENCES**

- [1]. Kelvin E.Y. Low, 2015, The sensuous city: Sensory methodologies in urban ethnographic research, *Ethnography* volume 16, issue 3, pp. 295-312.
- [2]. Madalina Diaconu, Eva Heuberger, , Lukas Marcel Vosicky, 2011, Senses and the City: An interdisciplinary approach to urban sensescapes, Austria: Forschung und Wissenschaft.
- [3]. Kelum Palipane, 2011, Towards Sensory Production of Urban Space: Developing Conceptual Framework of Inquiry based on Socio-sensory Perception, Amsterdam, 7-9 July 2011.
- [4]. Barbara Erwine, 2014, Multidimensional Space: Intersection of Architecture and Engineering in Realm of Senses, Beyond Architecture: Intersections & Connections, Manoa, February 12-15.
- [5]. Neil Bruce, Victoria Henshaw, 2015, Analysing olfactory and auditory sensescapes in English cities: Sensory expectation and urban environmental perception, ambiances, Social Ecology.

- [6]. Edgerton, Edward and Romice, Ombretta and Thwaites, Kevin, 2014, Bridging the Boundaries: Human Experience in the Natural and Built Environment and Implications for Research, Policy and Practice, *Advances in People-Environment Studies*, Hogrefe.
- [7]. Truax, (2001). *Acoustic Communication*, 2nd ed., Ablex Publishing.
- [8]. Thibaud, Jean-Paul, (2011). The Sensory Fabric of Urban Ambiances, *Senses and Society*, 6(2).
- [9]. Butler T, 2006, A walk of art: The potential of the sound walk as practice in cultural geography. *Social & Cultural Geography* 7(6): 889–90.
- [10]. Rodaway, Paul, (1994). *Sensuous Geographies*. London: Routledge.
- [11]. Low Key, (2009). *Scents and Scent-sibilities: Smell and Everyday Life Experiences*, Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
- [12]. Monica Montserrat Degen, Gillian Rose, (2012). The Sensory Experiencing of Urban Design: *The Role of Walking and Perceptual Memory*, *urban studies*, Vol. 49, Issue 15.
- [13]. Barthes, (1982, *Empire of Signs*, translated by Richard Howard, New York, Hill and Wang.