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**Politecnico
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ScuDo

Scuola di Dottorato ~ Doctoral School

WHAT YOU ARE, TAKES YOU FAR

Doctoral Dissertation
Doctoral Program in in Architecture. History and Project (33th Cycle)

Human body's movement: a lens to read space

Enquiry on a reading tool to rethink the design of urban space

By

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Politecnico di Torino
2021

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I hereby declare that, the contents and organisation of this dissertation constitute my own original work and does not compromise in any way the rights of third parties, including those relating to the security of personal data.

Marta Mancini

2021

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Abstract

In an era of fast-paced urbanisation processes and spatial and economic technologisation, urban spaces are increasingly incapable of stimulating a creative engagement with the human body, causing the flattening of the embodied experience of architecture (Sennett, 1994). If these concerns were primarily rooted in the European urban context and linked to the repercussions of early industrialisation, of capitalistic, hygienic and Enlightenment thinking, nowadays they afflict spatial design globally. The design of urban public space is often at the service of immediate functionality, with little attention to the quality of the “space of the body” or the “space of bodily inter-action”. It struggles to connect with the human perceptual dimension and to enhance the lived experience of built up spaces.

Akin questions have been emerging in contemporary China. In a context of relentless urban population growth and urban expansion, in the past decade the Central Government has been seeking to provide higher-quality living standards and a more “human-centred” urbanisation.

The thesis addresses such macro-scale urban concern through the elaboration of a micro-scale tool. Being the “urban” a complex phenomenon of multiform dimensions (Amin & Thrift, 2017), the present work focuses on the implementation of a methodological approach to support designers to “read” space from a novel perspective.

The relationship between human body and space is intrinsic and mutual. As human beings, we act, we know, we inhabit space thanks to the encumbrance of our bodies (Merleau-Ponty, 1962). We come to apprehend the world and get to know what it feels like to occupy space by virtue of our own embodiment (Mallgrave, 2013). Furthermore, the body is means of action and interaction. It enables movement that, in turn, influences and shapes cognition (Merleau-Ponty, 1962;

Gibson, 1986). While moving, the body grasps fundamental spatial-relations that, even if not visible, contribute to apprehend depth and orient oneself in the world (Lakoff & Johnson, 1999), constituting the notion of space.

Considering human spatial experience as a result of sensorial perceptions channelled through bodily movement, the moving body becomes carrier of implicit spatial knowledge and, therefore, subject of investigation.

The present work is a design-driven research that aims to investigate the concealed relationship of interaction that perceptually entangles the body to urban public spaces where body-subjects are exposed to physical and social interactions. In this way, the spaces of the city become stage of engagement, of action, of bodily movement.

The dissertation overcomes the static, visual, formal, aesthetic understanding of architecture and embeds the moving body in spatial principles. The objective is to elaborate a methodology: a “reading tool” to conceive and look at architectural and urban space in a novel way, enabling the interpretation of implicit spatial dynamics. The original contribution of this work consists of, first, the construction of a theoretical frame, second, the implementation of a scoring system to record the progressive interaction of bodies and space throughout time.

The research objectives are pursued through the employment of mixed qualitative methods and an experimental inter-disciplinary approach that brings together the domains of architectural theory, educational science and dance/choreography. The re-working of the Lewinian experiential learning process (Kolb, 1984/2015) implies a mutual support among the research phases: the abstraction of conceptual principles from an ontological investigation and the literature review of existing visual representational methods inform the production of an original scoring system; the “concrete experience” and fieldwork enable experimentation through “exploratory laboratories” and the formulation of initial “reflective observations”.

The idea is to enrich the domain of architectural and urban theory and design with scoring tools and methods derived from the discipline of dance/choreography (Laban, 1966/2011; Thiel, 1961; Halprin, 1969). The elaborated scoring system does not aim to objectively represent and describe movement, but rather to investigate what the inter-action between the moving body and the designed built

space is and make spatial dynamics visible. Interpreting space from a “human” perspective potentially leads to new considerations that otherwise would remained implicit and unexplored.

It is in the condition of the encounter between cultural contexts, trans-scalar perspectives and disciplinary domains that this work investigates and elaborated a “reading tool” to rethink urban space.