

Marco Hemmerling*Paper:* **CITYSCOPE – The Concept of an Urban Kaleidoscope****Topic: Architecture,
Urban Installation****Author:****Prof. Marco
Hemmerling**Hochschule OWL,
University of Applied
Sciences, Department of
Architecture – Computer
Aided Design
Germanywww.hs-owl.de/fb1**References:**[1] Deleuze, G., Guattari,
F., A Thousand
Plateaus, University of
Minnesota Press, 1998[2] Giedion, S., Space,
Time & Architecture,
Harvard University Press,
1967[3] Merlau-Ponty, M.,
Phenomenology of
Perception, London,
1962**Contact:**marco.hemmerling@hs-
owl.de**Abstract:**

The paper discusses the relation of movement and space against the background of human perception. Next to a theoretical approach the experimental installation “Cityscope” tries to explore the phenomenon of spatial perception within an urban context. Methods of reflection, distortion and fragmentation alter the usual visual experience of the beholder and generate a reinforced perception of the spatial object and its surroundings. The effects of perception were tested in a digital mock-up first. “Cityscope” was designed using parametric Software in order to create relational connections within the bevelling surfaces. While changing the position of the sculpture in relation to the surrounding facades the triangulated shape transforms continuously. Next to the parametric 3D-Model for the generation of the shape, visualisation software was used to display the visual reflections in relation to the position of the beholder. The final shape of the installation was then generated from the point of view and movement of the beholder in relation to the specific context. Using CAD-CAM technology the digital model data was transmitted to the production process in order to ensure the congruency between the digital model and the final installation. The approach to focus within the design process on the relation of space and movement involves two major aspects: The visual perception of space and the interaction between object (space) and subject (beholder). The installation “Cityscope” was meant to reinforce the visual perception of an urban space. Next to the amplification of perception by distorting and fragmenting the usual vision, the level of interaction between beholder and space increased significantly.

*Images of the design process and the realized installation in Cologne.***Keywords:**

Perception; Generative Design; Parametric 3D-Modeling; CAD-CAM