


Event:
Date:
Place:

ENERGY in BUILDINGS 2019
Saturday September 28, 2019
Athens, Hellas



#	<p>Panagiotis Chatzitsakyris Architect AUTH SMArchS MIT PhD AUTH</p>	
Title:	Post-doctoral researcher AUTH, GR	
email:	panosarc@gmail.com	●
Presentation title:	<p>EventMode: A Computational Design Tool for Integrating Human Activity Data within Early-Stage Daylight Performance Evaluations</p>	
<p>Architectural designers are currently depending on a multitude of elaborate computational tools in order to explore, manipulate and visualize the geometric form and the subsequent daylight properties of their building projects. However, if architecture can be perceived as the manipulation of geometric form in direct relation to human activities and events that take place inside it, then it is evident that such design parameters are not sufficiently represented in the currently available modeling software. Would it be possible to introduce the human activity element in the aforementioned computational tools in a way that informs the design process and improves the daylight performance of the final building product?</p> <p>This research attempts to answer this question by introducing a new experimental design tool that enables the creation of parametric human activity envelopes within three-dimensional digital models. The novel approach is that this tool enables the parametric interaction of these components with the daylight levels of the actual building geometry and generates novel visual and data representations of how these lighting conditions affect the intended human activity clusters in the designed spaces. Instead of evaluating typical 2D daylight performance diagrams of empty spaces, the objective is to offer dynamic, animated, data-driven visualizations of how this daylight performance will affect the experience of the human users of each space. Moreover, instead of getting this feedback from a building physics consultant at a later stage in the design process (Schematic Design or even later), the proposed tool provides architects with the opportunity to acquire human activity-based daylight performance diagrams from the earlier stages of the design timeline (Conceptual Design or earlier). Therefore, they are allowed to adjust and optimize their design decisions accordingly in a more effective and efficient manner.</p>		
CV:	<p>Panagiotis Chatzitsakyris is an architect and a founding partner of the design practice .27 architects. He is focused on realizing projects that strike a balance between innovation, experimentation and practical efficiency in order to provide clients with architectural spaces that exceed their expectations. At the same time, he is always looking for ways to incorporate his ongoing research in the field of computational design into his design workflow.</p> <p>Panagiotis graduated from the School of Architecture of Aristotle University of Thessaloniki (2002) and went on to earn a Master of Science degree in computational design from MIT (2005). He received his Phd from AUTH (2015) where he has taught a design studio as an adjunct lecturer. He is currently conducting post-doctoral research at AUTH.</p>	