

# K. HONMA LAB.

Design × Engineering - Shaping the Spaces of the Future



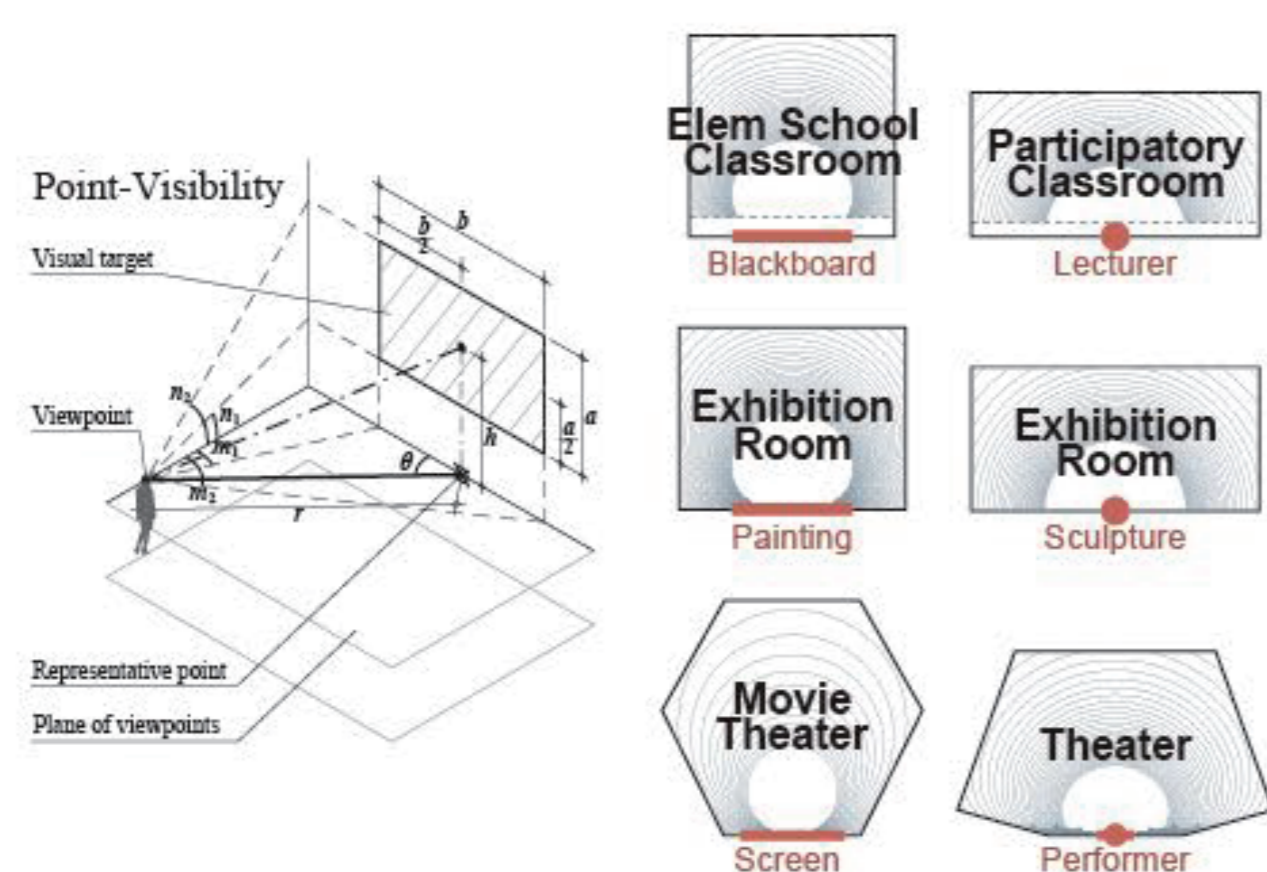
Department of Human and Social Systems  
Design-Led X Platform, Large-scale Experiment and Advanced-analysis Platform

Mathematical Engineering of Spatial Design  
Department of Architecture, Graduate School of Engineering

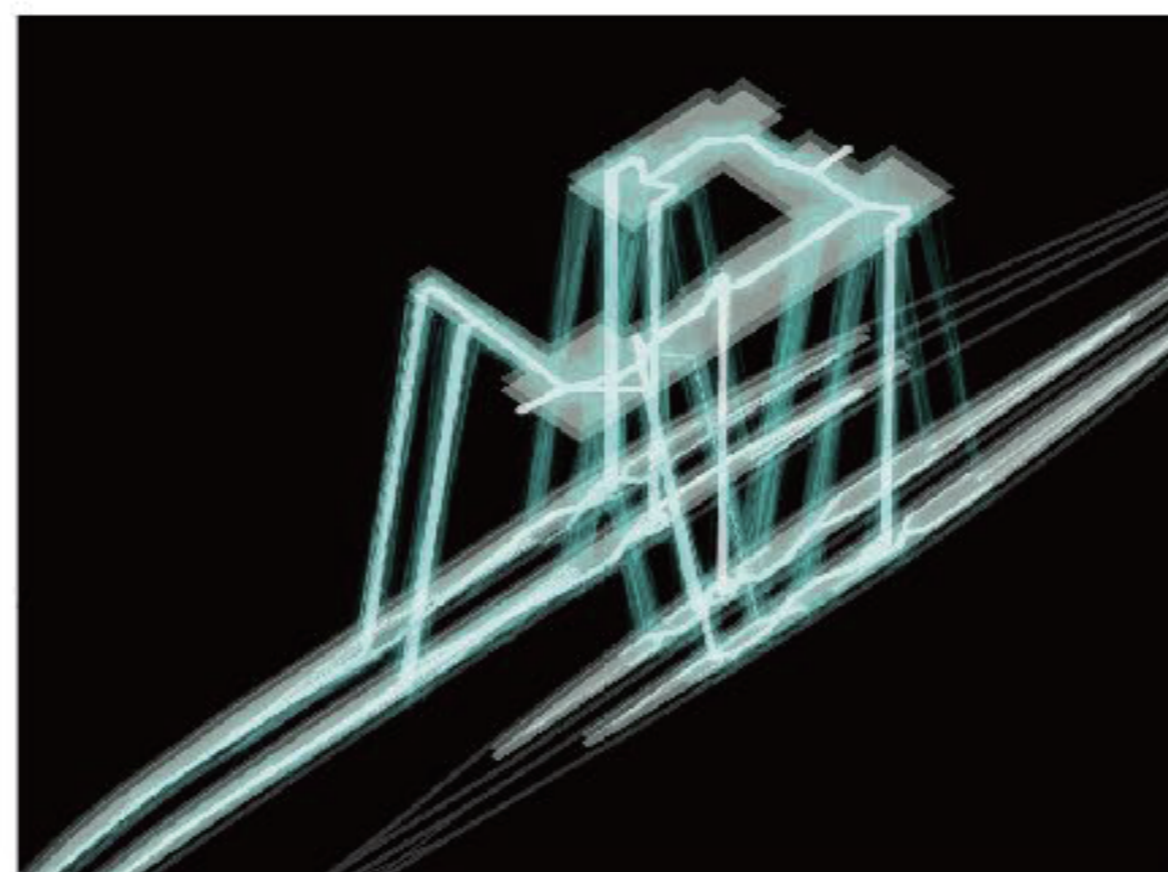
<http://hnm.iis.u-tokyo.ac.jp>

We aim at "fusion of design and engineering" in the fields of architectural and urban planning.  
Toward this future goal, we are conducting the following research in recent years:

- (1) Development of new spatial analysis methods for architectural and urban design
- (2) Innovative architectural and urban design driven by the developed spatial analysis methods
- (3) Architectural and urban analysis using geographic big-data
- (4) Spatial design and interaction control based on biometric data such as eye gaze and brainwaves
- (5) Activities of "Design-Led X"



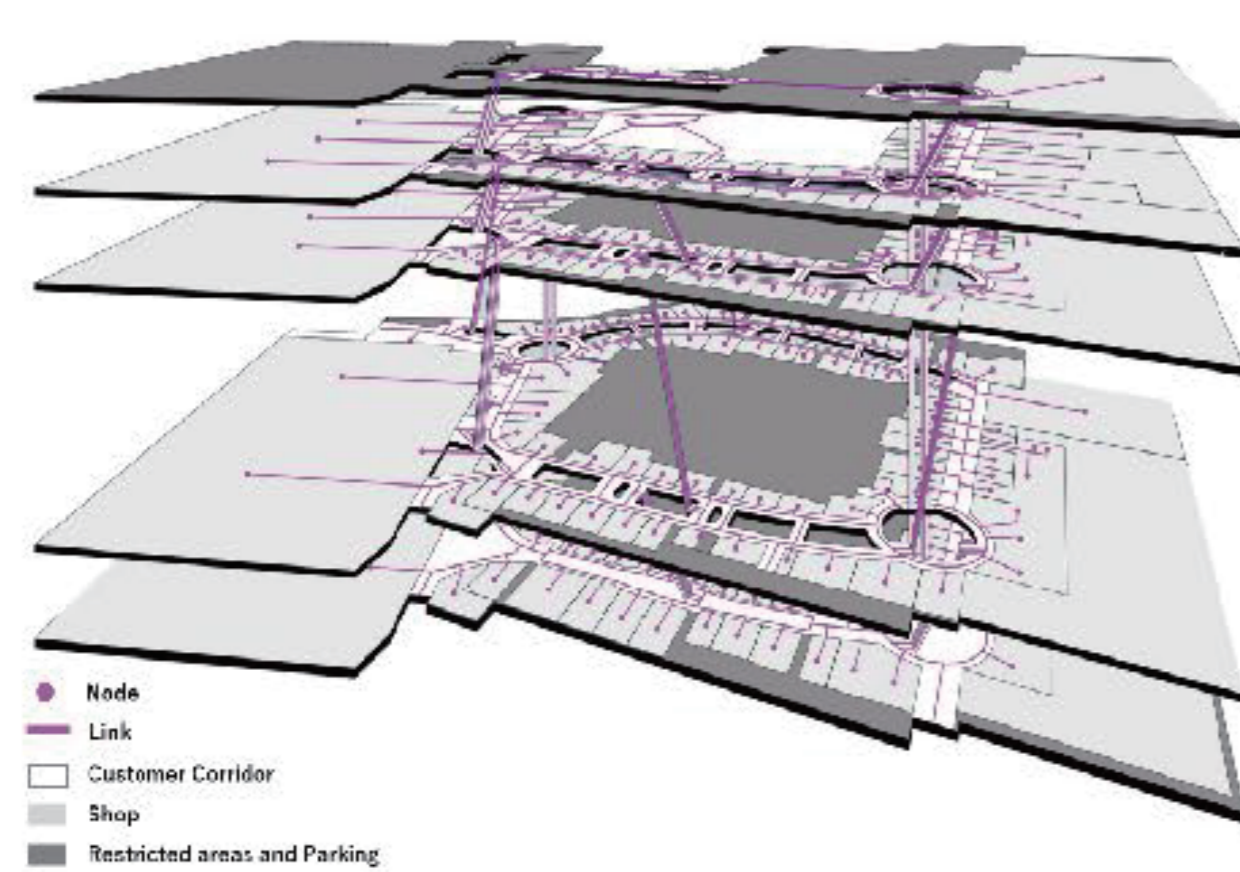
Room shape optimization



Planning based on network analysis



Architectural design



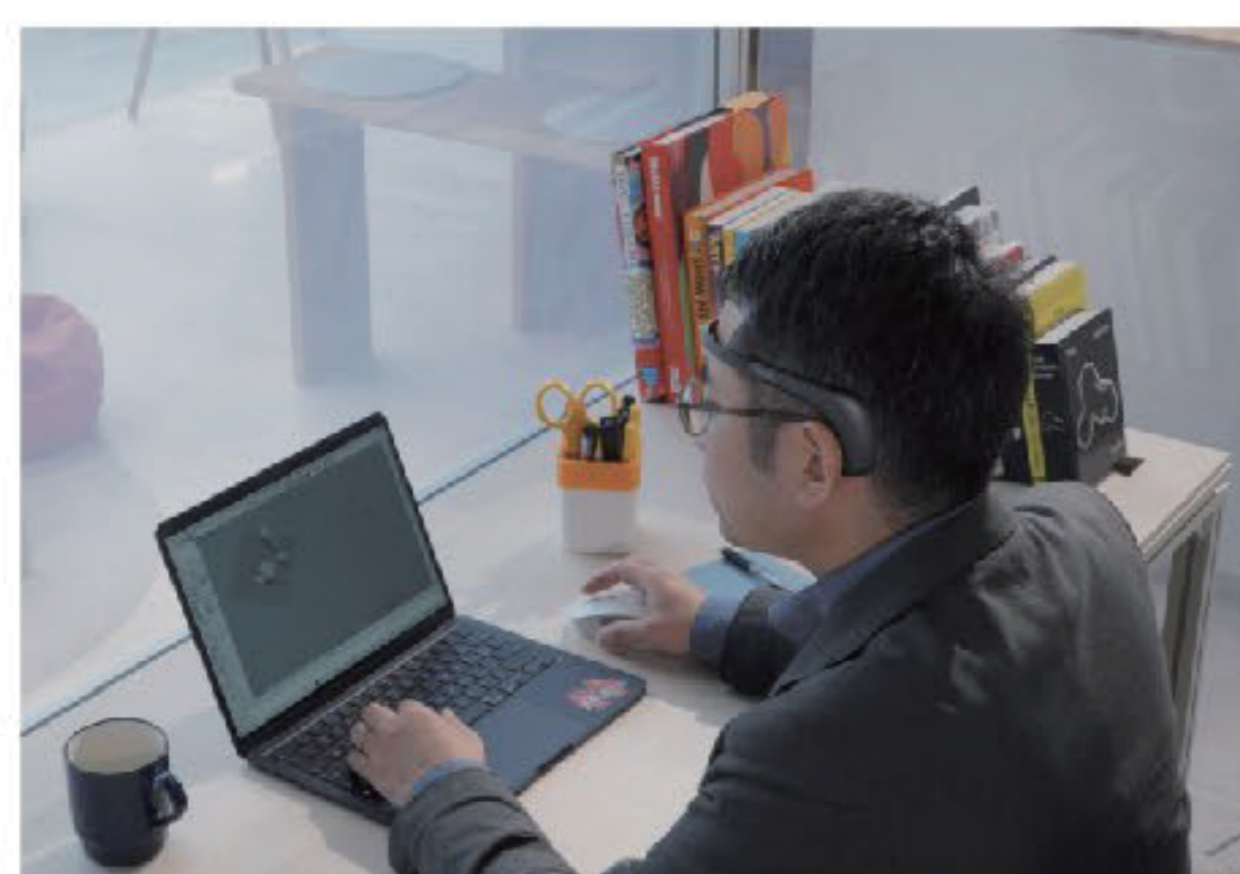
Data-Driven Commercial Planning



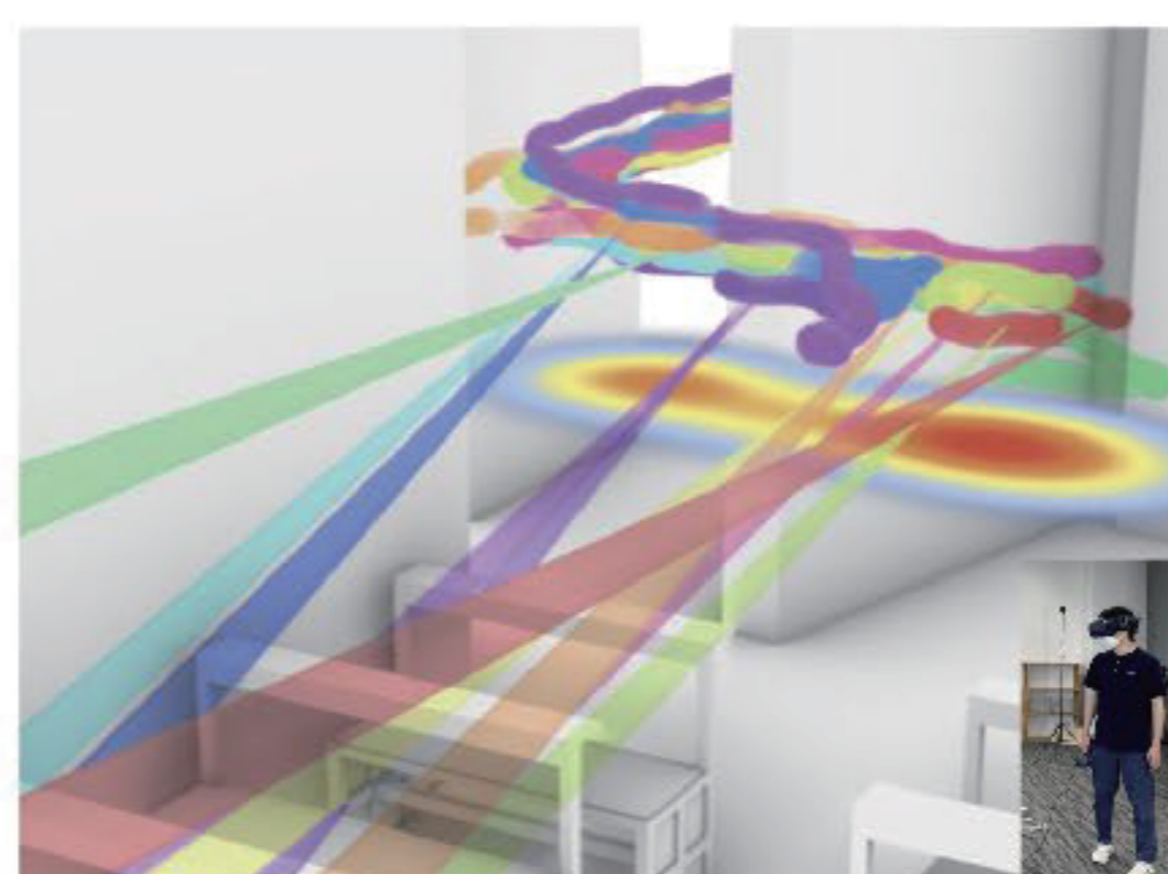
Urban analysis using big-data



Design of changeable space



Bio-Responsive Space



Quantification of spatial experience



Activities of "Design-Led X"