Parametric Places: 22@ Barcelona, Urban Design From the Bottom Up

In association with the UIxD Urban Interactions Lab
Course Number, Time and Location: ARCH 4/523, Spring 2014; T + TH, 4:00-5:50pm, LA 279
Instructor: Philip Speranza, speranza@uoregon.edu

“Drawings are primary instrument for the production of architecture. But a design process that remains limited to the relationship between drawings and real-space buildings is constrained to the actualization of conventions and commonly resists the integration of variation, local specificities or changes of conditions. This is where the diagrammatic process becomes advantageous in a culture characterized by change.” - Alejandro Zaera-Polo

The term ‘parametric places’ evokes the relationship between abstract systems and real-world context.

Working in the Barcelona 22@ district the research method taught in this media elective will develop urban system analysis tools using the block-by-block planning guidelines to support city planning from the bottom up. Students will use methods of parametric urban design and to allow the values of a place to emerge from the bottom up over time by workers, residents and tourists. Work will be shared with Director Salvador Rueda of the Agencia de Urbanismo Ecologia to support a Social Simulator. Urban analysis tools may also be used with agencies in Portland and Eugene.

Part I of the course will investigate work at the scale of Barcelona Eixample blocks testing unit/whole relationship at the scale of the block, neighborhood and district. Current block planning guidelines transform the industrial for an information activities district for workers and residents. Block minimums require 10% of the following uses without specifying their locations: open space, residential and institutional use. The resulting system adapts to existing conditions of protected art nouveau, Modernisme, built-fabric supporting an urbanism of agglomeration of fragmented spaces. How will existing and predicted real-life differences affect this abstract system including existing built-fabric, social behaviors, transportation networks, edge conditions, uses, and geospatial orientation as evolvable framework for participation? Case studies will include parametric urban design by Michael Weinstock, Patrick Schumacker and Zaha Hadid, Stan Allen and James Corner, Vicente Guillart and MVRDV. Live maps will also be created.

Part II of the course will allow students to develop an abstract bottom-up parametric system that is calibrated and applied to the real-world contextual conditions of the 22@ district and other locations including Portland and Eugene.

*Knowledge and software of Rhinoceros 5.0 and Grasshopper is required. Readings of theory, media exercises and urban design methods will be used in a lecture and workshop format. 2013 Ebook + lcaBCN http://www.lcabcn2013uo.wordpress.com