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

**Bottom-Up Urban Design Initiative, B.U.U.D.I.**

Course Number + Time: ARCH 4/524, Spring 2012; T + TH, 2:00-3:50pm

Instructor: Philip Speranza, speranza@uoregon.edu

*Instructor approval is required. Approval without completion of ARCH 4/523 is possible. Please email instructor.

“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. This course will explore the diagramming process elicited above by Alejandro Zaera-Polo between abstract diagrams and scaled drawings.

Working with and adding to Barcelona 22@ planning department guidelines, the research explored in this media elective course will develop urban system analysis tools using the block-by-block planning guidelines as a way to support city planning from the bottom up. The course will allow students to look closely at methods of parametric urban design and how they allow the values of a place to emerge from the bottom up over time by various inhabitants including workers, residents and tourists. Work will be shared with the Ajuntament de Barcelona 22@ planning office as a way to support cultural sustainability. Urban analysis tools may be used and tested with the Portland Metro planning organization.

The investigation will 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 blocks of 22a for 22@ objectives 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 7@ institutional use. The resulting abstract system adapts to existing conditions of protected art nouveau, Modernisme, built-fabric supporting an urbanism of agglomeration of smaller, fragmented lots and spaces for targeted small and medium sized information and design enterprises. How will existing and predicted real-life differences affect this abstract system including existing built-fabric, social behaviors, transportation networks, edge conditions, uses, and geographic orientation as framework for participation that is evolvable?

Case studies will include parametric urban design by Ana Pla Catala, Michael Weinstock, Patrick Schumacker and Zaha Hadid, Stan Allen + James Corner, Vicente Guillart, MVRDV and others. The case studies will give students an opportunity to develop techniques of parametric design at the scale of the city, testing limits, theory and context.

The second part 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 4.0/5.0 and Grasshopper is required. Readings of theory, media exercises and urban design methods will be used in a lecture and workshop format. 2012 ebook: http://parametricplaces12.wordpress.com/