CourseNo: ARCHA6834_001_2013_3

Meeting Location: AVERY HALL 600

Meeting Time: M 09:00A-11:00A

Instructor Information: Jose Isaias Sanchez

Advanced Digital Modeling for Urban Design (ADMUD)

Proposed for Fall 2013, 3pts

This seminar extends the 3d modeling and animation curriculum for urban design study at the GSAPP. It advances the Maya skills taught in Digital Modeling for Urban Design during the first semester of the MSAUD program. Thus, fundamental knowledge of Maya is a prerequisite for this course. Advanced DMUD will explore time-based modeling and generative geometry technologies applicable to urban modeling, analysis and representation that will prepare graduates with innovative ways to deploy data to inform the creative process relevant to contemporary design practices. There will be a focus on methodologies for exploring zoning and fabric related modeling.

The learning sequence consists of three parts.

Part I: Datascapes: Existing Urban Fabric

The initial lessons are geared to identify and understand the nature of data-sensitive digital mass modeling tools. This approach allows for a preliminary mapping of research data into a 3D domain with the intention to provoke design inquiry. Statistical data, volumetric models, vector and pixel drawings will be generated or imported into a 3D environment. This is instrumental to enabling the model-mapping into a "live" model that is inherently responsive to post-feeds of re-generated input. By generating a "reactive" model, design ideas inform a workflow for interactive or reflective design consideration (generative and descriptive modes of utility) for class discussion.

Part II: Dynamic Systems: Experimenting with new Fabrics

Environmental simulation software modules will be explored and assimilated into the active modeling data and consequently yield a model that is responsive to both, change of initial model data and design input. This dynamic simulation can be investigated in its initial "fluid" state or converted to a facet-based mesh with the ability to generate geometric models suitable for urban design research. In terms of representation, the purpose of these investigations allows students to connect the relationship between time-based modeling processes and physical space.

Part III: Presentation

The concluding part of the course packages the products of previous individual lessons into a presentation format for final review and comment. This is another opportunity for MSAUD students to utilize their Aftereffects skills gained from Reading New York Urbanism (prior summer term). Students without video compilation knowledge will be able to complete their final deliverables via a case-by-case individual instruction and assistance.