LANDSCAPE DIGITAL ANIMATION MODELING

LAAR 61720

Fridays 9-noon, SSA 101c

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Ruoyi Peng, *Mississippi River Durations* 2013

PROJECT DESCRIPTION

Landscape and urban design work with aggregates - the flow of materials, populations, and their dynamic distribution. The spatial structures and relationships we create are not simply formal, but respond to and reshape our habitual occupation

This course responds to the issue of dynamic distribution in landscape and urbanism through the lens of animation and cinematography. Digital techniques – utilizing adobe, autocad, and rhino software packages for 3D modeling and animation – will be explored for their potential as enabling more expressive and explanatory modes of representation. Through critique and conversation, precedent and course work, we will develop assessment criteria for design and representation methods that explore everything from typologies to alternate types of time (longue durée , catalytic moments, non-linear and cyclic structures).

Weekly lab exercises and lectures will provide the basis for investigation, research, and discussion. Working sessions will introduce software applications and physical tools to enable rigorous communication of ideas regarding construction, extraction and manipulation. This format aims to establish a fluency in the medium of representation, and communication as well as to introduce students to leading precedents in landscape architecture.

METHODOLOGY

The course meets weekly for three hours. The first half of each class consists of a discussion of the previous week's assignment, a brief lecture and a presentation of the next assignment. The second half is dedicated to working in the computer lab. Instructor will circulate to provide feedback and answer questions.

We will be using Google Docs and Vimeo for scheduling, information and project submissions. Please sign up for an account (free) and familiarize yourself with each.

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SOFTWARE

Adobe Photoshop + Illustrator + AfterEffects and McNeil Rhino + AutoDesk 3ds Max programs will used throughout the course. However, the course is not designed to provide comprehensive software training. The idea is to learn through practice and to become more skilled and familiar with the software as the semester progresses. Students are encouraged to start assignments, experiment, and consult the program help menus prior to approaching the instructor with questions.

SCHEDULE / COURSE PROJECTS (SUBJECT TO CHANGE)

Project 1	wks 1	Storyboards: Cinematic structures
Project 2	wks: 2-4	Tracing Trajectories: Adobe AE + Live/Found Video
Project 3a	wks: 5-6	Context & Construction- 3D building (Rhino to 3D Max)
Project 3b	wks:7-10	Cameras, Cuts, & Montage - Matching Shots, Alternate Spaces, & Durations in Rendered Animation- 3D Max to AE
Project 4	wks: 11-16	Final Project: Types & Temporalities (Student proposed work)

GRADING BREAKDOWN

Grading for the class will be determined according to the following criteria:

PARTICIPATION	10%
COURSE PROJECTS	90%

CLASS BY CLASS COURSE SCHEDULE (SUBJECT TO CHANGE)

wk 1 Jan 30st	COURSE INTRODUCTION + Intro to Cinematic Structures *Assignment Out: Storyboards* (Due Feb 6th – 1 week)
wk 2 Feb 6th	Assignment Review: *Storyboards* Design Discussion: the agencies/aggregates of environ (arch/landscp videos) Intro to After Effects: Video, Keys, Compositions, Annotation & Adobe integration *Assignment Out: Trace Trajectories* (Due Feb 27st – 3 weeks)
wk 3 Feb 13th (shortened class)	After Effects: Tracking + Advanced Masking Effects/Operations Desk Crits - storyboard, rough temp composition, thematic daigrams in AI
wk 4 Feb 20th	After Effects: Cameras/3D + Audio additions Desk Crits - 70% movie *Assignment Out: Context & Construction* (Due Feb 27st – 3 weeks)
wk 5 Feb 27th	Assignment Review: *Trace Trajectories* Movie Screening Tutorial: Building in 3d – Intro to Rhino (Basic massing, from tracing, CAD, or GIS) Progress Assignment Out: *Context & Construction* Hof Apartment, Facilities Room, or Seidlung Structure within base file (Progress File Due March 6th - 1 week)
wk 6 Mar 6th	Tutorial: Rhino to 3ds Max Workflow + Basic Cameras + Render Settings Progress Assignment Out: Aggregate Urban Massing, White Renders (Still #1: Due March 13th - 1 week)

wk 7 Mar 13th	Tutorial: 3D Max - Materials + Green-screens + Lights + Planes Troubleshooting Assignment Out: *Cameras, Cuts, & Montage* (Progress Still #2: Diagrammatic Colors, Codes)
wk 8 Mar 20st	Tutorial: 3D Max – Keyframing- Camera Movement, Axon Explosion Progress Assignment Out: 1 Camera Movement (Due Mar 27th – 1 wk) Progress Assignment Out: Aggregate/Axon unfolding (Due Apr 3rd - 2 wks)
wk 9 Mar 27th	Assignment Review: 1 Camera Movement Movies Mini Tutorial: 3D max to AE integration review, GooglePro + ArcScene integration Desk-Crits: Aggregate Unfolding Progress Assignment Out: Low-Res Storyboards (Due Mar 27th – 3 wks)
wk 10 Apr 3th	Assignment Review: Aggregate Unfolding (annotated animations) Tutorial: Bringing it all together – Pacing, Editing, Tracking, Collage Assignment Out: FINAL PROJECT – Types & Temporalities (Due Week 17th date TBD – 6 weeks) Pitch w/ Quick Storyboards Screening: Final Project Inspiration Excerts and Shorts
wk 11 Apr 10th	SPRING BREAK NO CLASS – Continue Final Project Work
wk 12 Apr 17th (to be rescheduled)	Assignment Review: Final Project Concept Proposals: Pitch to Class In Class Tutorials: 1) Video + 3d via Matchmover / Bojou
wk 13 Apr 24th	In Class Progress Screening / In Class Work Time / Desk Crits / TBD
wk 14 May 1st	In Class Progress Screening / In Class Work Time / Desk Crits / TBD
wk 15 May 8th	Start Rendering
wk 16 May 15th	Studio Final Reviews – NO CLASS
wk 17 May xth	FINAL Exhibition

GRADING CRITERIA:
WORK WILL BE GRADED BASED ON THE FOLLOWING:

Completeness: Instructions carried out in detail

Technical Skills and Attention to Detail: Assignments executed with the appropriate method and knowledge of technique? Student shows proficiency in the various media skills?

Accuracy and Presentation: Assignments completed with precision and presented professionally?

Effort and Concept: Student iterates through multiple drafts and shows evidence of experimentation and improvement during the assignments? Concepts are clearly articulated and well developed. On a broader scale, student shows consistent effort and improvement over the course of the semester.

Incompletes: There will be no Incomplete given for a course except for a documented medical excuse at the discretion of the instructor. You are required to attend all classes and be present in the classroom during the allocated times.

Attendance and timely submission of assignments: More than two unexcused absences in a course will result in a failing grade (two absences is equal to over 13% of total class time). Due to the nature of reviews, late assignments will not be reviewed for a grade. Each student must turn in what is completed or receive a failing grade for the particular assignment.

!!! WE START ON TIME, PLEASE BE IN CLASS AND READY TO DISCUSS AT 9am !!!
Students who are not in class and ready to participate at 9:05 will be marked late. Three lates will equal an unexcused absence.

GRADING STANDARDS
CONFORMS TO CCNY 2008-2010 GRAD BULLETIN:

Grade	Explanation (refers to class performance)	Quality Points
A+	Rare, near perfect achievement	4.00
A	Exceptional	4.00
A-	Excellent	3.70
B+	High caliber	3.30
B	Satisfactory	3.00
B-	Below average	2.70
C+	Not satisfactory	2.30
C	Poor	2.00
F	Course failure	0.00

EDUCATIONAL GOALS

Designing with Duration and Choreography: Landscape and urban design are a spatial and temporal media and this course encourages students to think about movement through space and scale as choreography and critically engage time and change in their design work as well as their representation. This will be accomplished through cinematic and animation projects as well as being exposed to important theoretical positions and films which have shaped our way of thinking and experiencing space, place and landscape.

Visual Communication and Landscape Architecture in the 21st Century: Our profession is and has been rapidly adopting 3d Rendering, video, and infographic animation as major representation tools. This course will prepare students to think about and share their ideas in new ways.

VISUAL COMMUNICATION:

The landscape architecture program has revised its curriculum in digital representation to include GIS, 3-D modeling and animation. The use of these tools has become a standard for exploration, analysis and presentation of design ideas. Students are instructed in the use of the tools of representation as part of the design process. Graphic design has been added to the first year curriculum to provide students with additional skills in visual communication that are necessary to convey complex urban landscape systems. Skills associated with study in this realm include:

i. Graphic design, drawing and modeling skills for the investigation and production of clear and

compelling research and analysis
ii. Skill in developing design ideas into clear and compelling physical propositions through fluent use of hand and digital representation techniques in both two and three dimensions
iii. Competency in an array of raster and vector graphic software to produce design and construction documents
iv. Graphic communication skills to convey complex design ideas in multiple formats: drawings, sketches, models, PowerPoint presentations, boards, books and video/animation.

CRITICAL THINKING:

Landscape architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. Students are instructed in the use and development of visual and written tools to critically assess normative and emerging criteria for success within urban landscape system design and planning. A solid grounding in the history of landscape architecture provides the foundation for developing critical thought processes about contemporary design. Students are encouraged to develop a personal ethic and set of values that can guide their future decision-making in professional landscape design practice or policy-making. Skills and abilities associated with study in this realm include:

i. Fundamental communication skills: effective tactics for reading, writing, listening, and speaking
ii. Research skills: effective tactics for questioning processes, assumptions, normative conditions, and assertions as part of a process of investigation and the ability to apply the knowledge gained in the process of determining form and assessing potential impact on urban ecological systems
iii. Investigative documentary skills: development of effective tools for collection and communication of quantitative and qualitative data (such as note-taking, sketches, spreadsheets, diagrams and infographics) that can be used to provoke a deep investigative process
iv. Understanding of the effective use of precedents: to examine and comprehend fundamental principles that can then be used to guide decision making in the process of landscape design and planning.
v. Understanding of historical traditions and global culture: the sensibility to parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.
vi. Understanding of cultural diversity: the sensibility to the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of landscape architects and planners.
vii. Understanding of the implications of contemporary and historic values embedded in the American landscape (for example, city versus nature, wilderness, rights of prior appropriation) and how these have shaped the evolution of land practices in America

POSITIONING LANDSCAPE ARCH. IN THE 21ST C.:

As new programs emerge from institutions of higher education that seek to combine multi-disciplinary skills in the arts and sciences to meet the challenges of climate change and global urbanism, the role of the landscape architect in public space design will require nuance to distinguish its position. Students are encouraged to use their critical capacity and knowledge of urban ecological systems to define the role of the landscape architect and the place of landscape design in practice for the next century. Abilities associated with study in this realm include:

i. Understanding the potential implications of carbon cycling and urban processes necessary to research and develop design/planning strategies to support the adaptation of urban centers to the manifold ramifications of climate change

ii. Understanding of the dramatic changes occurring and anticipated to occur in global cities over the next fifty years and to be able to articulate ongoing and potential new roles for landscape architects in those scenarios

iii. Understanding of the importance of both leadership and collaboration to advocate for more ecologically viable cities. This includes actions to support both environmentally sustainable practices and social justice.

USEFUL REFERENCES

TOOLS AND METHODS

Trish Meyer and Chris Meyer, Creating Motion Graphics with After Effects, Fifth Edition
Ervin & Hasbrouck. Landscape Modeling. New York: McGraw Hill, 2001

IDEAS ABOUT LANDSCAPE, PERCEPTION, AND FILM

Johnathan Crary. *Suspensions of Perception.* Cambridge: MIT Press, 2001.
Jakob von Uexkuell. *Foray into the World of Animals and Humans.* Minnesota: U Minnesota Press 1997.
Giles Deleuze. *Cinema I: The Movement-Image* and *Cinema II: The Time-Image* London: Continuum, 2005 (translation).
Mark Lamster (ed). *Architecture and Film.* New York: Princeton Architectural Press, 2000.
Christophe Girot. "Vision in Motion: Representing Landscape in Time" *The Landscape Urbanism Reader.* Charles Waldheim, ed. New York: Princeton Architectural Press, 2006.

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