

Catalog Code:

Course Title: Virtual Installation

Department: FVNMA 3021-001 (502)

Term/Year: Spring 2011

Course Credits: 3

Location & Time: 112 South Michigan, MC 519, Tuesday 9AM – 4PM

Prerequisites: Intro to Experimental 3D (FVNM 2015-001) or equivalent

Instructor: Claudia Hart

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Office Location: Left Rear, FVNMA Office, Fifth Floor, 112 S. Michigan Ave

Syllabus Version: 01/14/12

CLASS WEBSITE:

www.experimental3d.com

Course Description

Using Maya, the 3D animation software, students will create site-specific installations using found objects, but all within the virtual realm. Students will learn techniques of cinematic special-effects to develop installations for real interior or exterior sites. The course strategy will be to combine and manipulate appropriated 3D models found on the Internet, to be digitally placed into scanned or digital video or photography of real sites found in Chicago or elsewhere, or physically constructed in a studio.

Technical focus will be on lighting and painting the 3D models in order to match light the photographs, permitting the virtual installations to be seamlessly integrated into their surroundings to simulate reality. In addition to Maya and Photoshop, Shake, a compositing software made specifically for 3D integration, will be used.

Class time will be spent viewing contemporary simulation artists works with virtual sites as well as the work of contemporary, analog installation artists, from public interventionists like Gordon Matta Clark, Krzysztof Wodiczko and more recently Graffiti Research Lab to appropriation artists such as Jeff Koons and the “scatter” artists Jason Rhoades and Jessica Stockholder.

Entry Requirements

It is required that students have taken an introductory Maya class, either *Intro To Experimental 3D* (FVNM 2015-001/2) or the equivalent.

Goals and Objectives

Every student will develop a final project integrating a virtual sculptural work, whether object or installation based, into an analog representation of a real world or studio built site. These works must be created as a 3d model or as special effects or natural simulation using Maya or some other 3D software such as Real Flow, integrated into a series of photographs or a video. Projects should work conceptually BOTH as a simulated, virtual sculptural work AND as a still or moving image. Final output will be 3 digital prints

produced on paper, or a Quick Time movie of at least seven minutes, which may be versions of the same sculpture but distinct as singular images or as a piece video art, whether that is meant for theatrical display, or as a physical installation in a gallery. The technical emphasis of this class, however, will be on the integration of 3D models into photo or video back-plate.

Before embarking on final projects students must complete a series of in class projects employing the same strategy but using the video produced as a group in the 13th floor studio in MacClean, shot during our second class. These projects are homeworks, designed to develop the basic skills needed to complete final projects. During the first half of the semester, students will be expected to finish and submit these homeworks.

Final projects should be scaled to the skill-set of individual students. In other words, students should not expect to develop projects that require advanced modeling skills unless they already have them before starting the class. Projects are therefore subject to the approval of the instructor.

The strategy of this class will be to use free, open-source 3D models that are available on Google Warehouse (<http://sketchup.google.com/3dwarehouse/>). The Warehouse is a site dedicated to distribution of high-resolution 3d models for free. All of the SAIC workstations are loaded with Sketchup Pro software, so that students now have access to all models on <http://sketchup.google.com/3dwarehouse/> no matter what format they are. One can upload them with Sketch Up Pro and then reformat them as .obj's importable into Maya. The approach of this class will be to create virtual "combines," meaning a digital version of Duchampian *bricollage*.

Content Resources and References

Interventionists and Site Specific Artists:

Robert Irwin: Seeing is Forgetting the Name of the Thing one Forgets
Robert Smithson
Gordon Matta Clark

New Art in the 60s and 70s: Redefining Reality, by Anne Rorimer, New York, Thames & Hudson, 2001; 304 pages

Out of the Box: The Reinvention of Art, 1965-1975, by Carter Ratcliff, New York, Allworth Press, 2000; 300 pages,

Robert Irwin's Amazing bio:
Lawrence Weschler. Seeing is forgetting the name of the thing one sees. University of California Press; 1982.

James Turrell
Interesting BBC interview with Turrell
http://www.bbc.co.uk/worldservice/arts/highlights/001102_turrell.shtml

Olafure Eliasson
<http://www.olafureliasson.net/index.html>

Bill Dolson
<http://www.eyebam.org/engage/engage.php?page=exhibitions&id=103>

Interventionists

Krzysztof Wodiczko
<http://www.art-for-a-change.com/Krzysztof/krzy.htm>
<http://www.pbs.org/art21/slideshow/?artist=159>
http://findarticles.com/p/articles/mi_m0425/is_4_62/ai_111655800
Graffiti Research Lab
<http://graffitiresearchlab.com/>
Eyebeam Show: Open City: Tools for Public Action
<http://www.eyebam.org/engage/engage.php?page=exhibitions&id=116>

Scatter Art

Cady Nolan

Karen Kilimnick

http://www.mcchicago.org/exhibitions/exh_detail.php?id=66

Jessica Stockholder

At the Renaissance Society, 1991

http://images.google.com/imgres?imgurl=http://www.renaissancesociety.org/site/files/media/1397/1991_stockholder_mapping_installationview6_n.jpg&imgrefurl=http://renaissancesociety.org/site/Exhibitions/Intro.67.0.0.0.html&h=284&w=365&sz=29&hl=en&start=2&um=1&tbnid=UclpZ3e2dVA7SM:&tbnh=94&tbnw=121&prev=/images%3Fq%3DJessica%2BStockholder%26svnum%3D10%26um%3D1%26hl%3Den%26client%3Dfirefox-a%26rls%3Dorg.mozilla:en-US:official%26hs%3D7L2%26sa%3DX

Check out Site of “Complicit,” University of Virginia Art Museum show of Contemporary American Art & Mass Culture” with its notable exhibition categories: Remix Media, Derivative Tales, UnNaturalism, Xtreme Combines, Ultra Artifice, Identity Ennui

http://images.google.com/imgres?imgurl=http://www.virginia.edu/artmuseum/complicit/artists/stockholder_j/images/untitled.jpg&imgrefurl=http://www.virginia.edu/artmuseum/complicit/artists/stockholder_j/index.html&h=432&w=333&sz=142&hl=en&start=1&um=1&tbnid=t0i6i7THxwp_DM:&tbnh=126&tbnw=97&prev=/images%3Fq%3DJessica%2BStockholder%26svnum%3D10%26um%3D1%26hl%3Den%26client%3Dfirefox-a%26rls%3Dorg.mozilla:en-US:official%26hs%3D7L2%26sa%3DX

Jason Rhoades

<http://www.davidzwrner.com/artists/5/>

Jack Bankowsky, “There’s a Party in My Sculpture,” Artforum, November 2007

<http://www.davidzwrner.com/pdf.htm?href=/resources%2F35131%2FJR%20Artforum%20Bankowsky%2007-11.pdf>

<http://images.google.com/imgres?imgurl=http://www.artbrain.org/gallery3/conceptimages/rhoades5.jpg&imgrefurl=http://www.artbrain.org/gallery3/rhoades.html&h=624&w=875&sz=114&hl=en&start=4&um=1&tbnid=H71YFW1vQWFqpM:&tbnh=104&tbnw=146&prev=/images%3Fq%3DJason%2Brhoades%26svnum%3D10%26um%3D1%26hl%3Den%26client%3Dfirefox-a%26rls%3Dorg.mozilla:en-US:official%26hs%3DMuh%26sa%3DN>

Daniel Baird, Brooklyn Rail, October, 2003, “Allegories of Debris,” very good review of Rhoades 2003 show, “Lego Mecca Ka’ba 1/3 Scale)” at David Zwirner, 2003

<http://images.google.com/imgres?imgurl=http://www.thebrooklynrail.org/arts/oct03/images/JasonRhoadesMeccatuna.jpg&imgrefurl=http://www.thebrooklynrail.org/arts/oct03/alliegories.html&h=276&w=360&sz=50&hl=en&start=10&um=1&tbnid=ilZIHdywWRRG7M:&tbnh=93&tbnw=121&prev=/images%3Fq%3DJason%2Brhoades%26svnum%3D10%26um%3D1%26hl%3Den%26client%3Dfirefox-a%26rls%3Dorg.mozilla:en->

[US:official%26hs%3DMuh%26sa%3DN](#)

Jerry Salz Obit

<http://www.guardian.co.uk/obituaries/story/0,,1842870,00.html>

Art in Public Spaces Photography

Thomas Struth

<http://www.haberarts.com/struth.htm>

<http://www.artnet.com/magazine/FEATURES/tuchman/tuchman7-8-03.asp>

http://www.metmuseum.org/special/Thomas_Struth/struth_more.htm#high

Artificial Reality Photography and Simulations

Gregory Crewdson

<http://www.time.com/time/magazine/article/0,9171,1592850,00.html>

<http://www.npr.org/templates/story/story.php?storyId=5157819>

http://artnews.com/issues/article.asp?art_id=643

<http://www.crewdsonstudio.com/>

Julian Faulhaber

http://adamsongallery.jimdo.com/julian_faulhaber_29198103.php

James Casebere

<http://jamescasebere.net/group5.html>

Thomas Demand

<http://www.thomasdemand.de/>

Met show: Truth and Illusion in Photography

http://www.metmuseum.org/special/reality_check/photography_more.asp

Real Fake Show

<http://real-fake.org/links.html>

This is a traveling exhibit that I organized with Professor Rachel Clarke, Cal State Sacramento, still on the road. The website essays and links provide the conceptual underpinning for this class

Technical Bibliography

Flaxman On Line Tutorials: Lyndas

<http://go.artic.edu/>

Academic Resources Quicklinks>Lynda.com software Training

Maya

Maya 2011 Creating Textures and Shaders

Maya 2011 Lighting and Rendering in mental ray
Maya 2011 Essential Training

Digital Tutors

Mental Ray 2009

Mental Ray Passes 2009

Texturing

PF Track

PF Track Introduction Pixel Farm

PF Track 203 Intermediate (2011)

WEEKLY SCHEDULE

Week 1

Syllabus.

Tour of Photo sculptors websites from James Casebere and Thomas Demand to Alex McCleod, Jen Cohen and Eelco Brand

Google Warehouse: how to upload free models

Demo: The Maya Interface and a platonic still life using a quick Mental Ray lighting set up

Demo: Speed tour through a layer pass compositing file, using Shake

Homework

1. Digital Tutors Mental Ray for Maya 2009, Chapters 1-4
2. Three Maya Platonic still lives, using
3. Bring a digital and vegetable thing, we are going to the lighting lab to shoot Digital Video installation to use as a back plate.

Week 2

We meet in the lighting studio on the 13th floor of the Michigan. Set up an installation using the elements that you've brought to class. Our TA, Haixu Zhao will light and shoot install and talk us through his decision making process.

This video will serve as the back plate for the first project. Once you get the hang of the process, fell free to shoot outdoor, architectural or any other kind of photo back plates on your own. In addition, 4 weeks into the semester, Haixu Zhao will lead another shoot in the studio on the 13th floor. Feel free to bring other objects or a set that you organize on your own time.

Understanding what kind of lighting works for photo integration, and how real lighting works is the only way to work with CGI!! This is why I discourage the use of captured light, meaning HDRI lighting, for your first projects. Expressive lighting is not NATURAL!!!! It is designed and manipulated by the cinematographer be she a digital or analog.

Homework

Using 3-4 objects found on Google Warehouse, create a still life or a Jason Rhodes inspired Combine, using Mental Ray lighting and rendering, a lighting similar to the one that Haixu Zhao produced in the lighting studio. Submit 3 shots in JPEG format, 1000 x 1500 pixels.

Week 3

Haixu Zhao will mount the .mov he took last week on our class website for you to access: by connecting to the link he will provide on the experimental3D.com website in the Virtual Installation section.

We will use this movie to create our first video integration class. We will do this using PF Track, a software that can track the surface of a video and use the collected data to match a 3D xyz camera that can be imported into Maya. This permits the rendering of a virtual movie that when match-lit, can be seamlessly integrated with the digital video material.

Class will begin with a critique of the Maya and Mental Ray still lives you made in the past weeks. We will critique your work both formally and content critically. We will begin every class with a critique, followed by technical demos in the morning and the early afternoon. The last hour of class will usually be a workshop.

Demo: PF Track Basics

How to use PF Track to match a 3D virtual camera

After having set up an interior architectural environment – meaning an environment that clearly requires parallax vision – we can easily use PF Track. Video of architectural spaces, both interior and exterior, are the most friendly to tracking software. As the goal of this class is to teach a complex process that requires a variety of software and skill sets, we are going for ease and simplicity in this example.

Tutorials will provided addressing both basic and advanced problems. Students are encouraged to design a project that that they can complete. Our goal is to make a movie, not to master in isolation one part of a very elaborate and complex process

Homework

PF Track Intro Tutorials

Track our studio production video

Import into Maya and Save the Maya Camera

Week 4

Using Mental Ray: How to render using Global Illumination and Final Gather

Homework

Lessons 1-6, *Intro to Mental Ray for Maya 2009*: rendering workflow for Global Illumination and Final Gather.

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Week 5

Cady Noland, Karen Kilimnik

Lighting your virtual-combine set-up using Mental Ray and render passes: Beauty Pass, Shadow Pass Beauty, Shadow Pass Ground, Reflection Pass, Specular Pass

Homework

Lighting your combine integrations using Mental Ray, Composite in Photoshop.

Tutorials:

Digital Tutors: Mental Ray Render Passes

Week 6

Morning: Workshopping the photo Integrations

Homework

Combine Integration Finesse. Lessons 16-19, *Intro to Mental Ray for Maya 2009*: rendering workflow for passes and contribution maps.

Week 7

Robert Irwin, James Turrell , Bill Dolson, Olafure Eliasson, Krzysztof Wodiczko

Smoke, fire and organic forms using Paint Effects and Dynamic effects

Glows, Volume Fog, Image file shading using still frames and moving images

Homework:

Lessons 7-11, *Intro to Mental Ray for Maya 2009*: rendering workflow for Caustics. Glass, Smoke, Plants, Fog into 3 photo back plates

Week 8

Integration Workshop

Homework

Proposals for final projects. Proposal should include sketches, photos of back plates and other visual referents.

Week 9

HDRI overview

Presentation of final project concepts

Homework

Lessons 7, 14 and 15, *Intro to Mental Ray for Maya 2009*: rendering workflow for HDRI lighting, Sun and Sky shader and using Sun and Sky Shaders with Portal utility to light interior with Natural Light

Week 10

HDRI Photoshop Demo

In class workshop on final projects

Homework

Final projects

Week 11

In class workshop on final projects with class demos made of problems proposed by particular student projects.

Homework.

Final projects

Week 12

In class workshop on final projects with class demos made of problems proposed by particular student projects.

Homework

Final projects: First version prints at small scale

Week 13

In class workshop on final projects with class demos made of problems proposed by particular student projects.

Homework

Final projects: second version prints at medium scale

Week 14

In class workshop on final projects with class demos made of problems proposed by particular student projects.

Homework

Complete 3 prints or video etc.

You also must also submit these 3 images as low resolution (800 dots at widest measurement) Jpegs to me via email. They should be labeled with your name and series number. Include your name and the title of the work in the email to me when you submit it. Your final prints will be shown in a class group-exhibition in a location TBA.

Week 15

Crit Week.

Week 16

Final presentations and critique of projects (cheers!).

Student Guidelines

1. Every student is responsible for backing up and storing their material onto their own storage medium. Students **MUST** make two back ups of their work. Students files may **NOT** be stored on the local hard drives of lab workstations. These drives are cleaned every week, and any data left there will be lost. Loss of data through corruption of storage media is **NOT** an acceptable excuse for handing in work late or receiving an incomplete. Storage medium often become corrupt - this is why students are required to have a second back up.

2. SAIC Attendance Policy which **WILL** be enforced:

No more than three absences are allowed in order to receive credit, and excessive tardiness is not tolerated. **ATTENDANCE POLICY** from SAIC Bulletin: Students are expected to attend all classes regularly and on time. Any necessary absences should be explained to the instructor.

Students who are ill should contact me or leave a message for me in the department office the day they are absent. For an extended absence due to illness, contact Health Services. For other extenuating circumstances students must contact the Academic Advising office.

Please note that the written notification does not excuse a student from classes. Students officially enrolled in a course credit only if they have responded adequately to the standards and requirements set.

Also note that if a student registers late for a class (during add/drop), I will count the missed classes as absences and the student is responsible for assignments given during those missed days. -From Page 123-4 of SAIC Bulletin:

<http://www.saic.edu/life/policies/index.html#bulletin>

3. Accommodations for Students with Disabilities:

If you have a disability and may need an accommodation, please contact SAIC's Disability and Learning Resource Center (DLRC) by calling 312-499-4278, or by e-mailing dlrc@saic.edu. You should contact DLRC as early in the semester as possible. Staff at the DLRC will review your disability documentation and work with you to determine appropriate accommodations. They will then provide you with a letter outlining approved accommodations, which must be presented to me before any accommodations will be implemented.