

# INTERACTIVE ARTS AND TECHNOLOGY

Spring 2013


# Sketch One – Discussion

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- Communication
- Scope
- Quality of movement

# Sketch Two

- Interactive Projection Mapping
- Task: Create a performance using projection mapping techniques
  - ▣ Theme: Space Harmony
  - ▣ Length of Performance: Around 2 minutes
  - ▣ Map video source onto more than two surfaces
  - ▣ Motion sensing: camera or sensors
  - ▣ Project environment: stage or outdoor

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- **Dancer requirements:**
    - Use of Laban effort
    - Use of Laban Scales
    - Choreographed 2 minute work
    - Use of time: Sudden/sustained

# Schedule

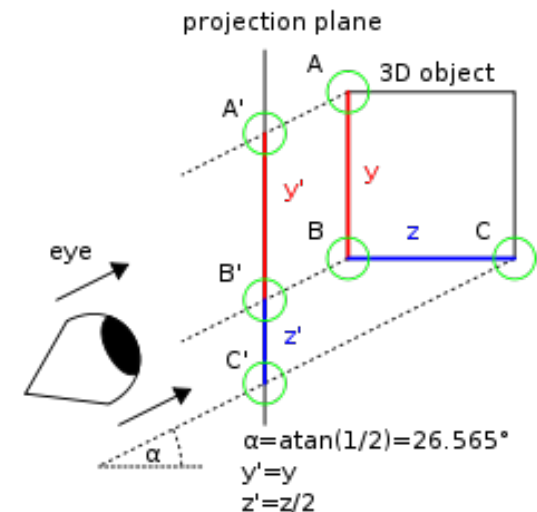
- Feb. 18 (M) Intro of Projection mapping
- Feb. 20 (W) Research Presentation, Projection Mapping Demo, Concept Brainstorming
- Feb. 25 (M) Workday
- Feb. 27 (W) Team meeting / Tech rehearsal
- Mar. 4 (M) Sketch Two presentation

# 3D Projection Mapping

- “is any method of mapping three-dimensional points to a two-dimensional plane.” – wikipedia
- Allows you to paint real world using a simple video projector
- Creates Augmented Reality

# Projection Methods

- Projection on a flat surface
  - ▣ Keystone, pre-distortion
- Projection on an arbitrary surface
  - ▣ Virtual replica of the real scene
  - ▣ Orthographic Projection
    - Lights and Shadows
    - 3D illusion



# Brief History

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- Computing Science
- Public Art
- VJing
- Urban Architecture
- Advertisement
- Fashion Show
- Performance



# Computing Science

- <http://web.media.mit.edu/~raskar/Shaderlamps/Taj/> by Ramesh Raskar
- [http://www.youtube.com/watch?v=XgrGjJUBF\\_I&feature=player\\_embedded](http://www.youtube.com/watch?v=XgrGjJUBF_I&feature=player_embedded) by Jonny Lee

# Early Public Art

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- Body Movies by Lozano-Hemmer
- Big Shadow
- Laser Tag by GRL

# Projection Mapping Art

- Envision <http://vimeo.com/10692284>
- Polygon playground  
<http://www.youtube.com/watch?v=7sSj1dcSuf0>
- [http://www.youtube.com/watch/?v=esJwu\\_asFCY](http://www.youtube.com/watch/?v=esJwu_asFCY)
- <http://youtu.be/OZfTKSmPxxA>

# Public Art

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- [http://www.youtube.com/watch?feature=player\\_embedded&v=jDHfa03XzaM#!](http://www.youtube.com/watch?feature=player_embedded&v=jDHfa03XzaM#!)

# VJing

- <http://www.youtube.com/watch?v=fxRUKXvtfhA&feature=related>
- <http://vimeo.com/10176661>

# Advertisement

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- <http://vimeo.com/12173812>
- Commercial application  
<http://vimeo.com/9752715>
- <http://vimeo.com/54309364>

# Fashion Show

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- [http://www.youtube.com/watch?v=Cu2NDebmDWA&feature=player\\_embedded](http://www.youtube.com/watch?v=Cu2NDebmDWA&feature=player_embedded)
- <http://vimeo.com/50637217>
- <http://vimeo.com/32241669>

# Misc.

- <http://www.youtube.com/watch?v=xrJCSJudmEg&feature=related>
- <http://vimeo.com/23757558>
- [http://www.youtube.com/watch?v=jozStN6GNN8&feature=player\\_embedded](http://www.youtube.com/watch?v=jozStN6GNN8&feature=player_embedded)
- **<http://vimeo.com/18460233>**



# 4D

- Adding another dimension to 3D projection mapping
- Lalph Lauren <http://www.youtube.com/watch?v=c3n8j2uWA8o>

# Interactive Projection Mapping

- <http://thecreatorsproject.com/blog/voice-controlled-interactive-projection-mapping>
- <http://vimeo.com/59839964>
- <http://vimeo.com/17872715>

# Interactive Theatre

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- <http://vimeo.com/35976606>
- <http://youtu.be/xK355QRPPpl>
- <http://vimeo.com/32464821>

# Mapping Software

- Module 8
- Madmapper
- Resolume Arena
- VPT (Video Projection Tools)
- lpmt
- So many others

# Box Mapping Examples

- <http://vimeo.com/8417328>
- [http://www.youtube.com/watch?v=EwrNMhCm5\\_Q&feature=related](http://www.youtube.com/watch?v=EwrNMhCm5_Q&feature=related)
- <http://vimeo.com/15015638>
- <http://www.antivj.com/clubtransmediale/index.htm>

# Assignment

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- Research on inspirational projects
- Concept development

# Event

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- Requirement for the class
- Perpetual Motion 2013
- March 1<sup>st</sup> (Friday) at 7pm
- March 2<sup>nd</sup> (Saturday) at 3pm and 7pm
- Buy your tickets online!