

Week 5. 3D Projection Mapping

September 27 (Tuesday)

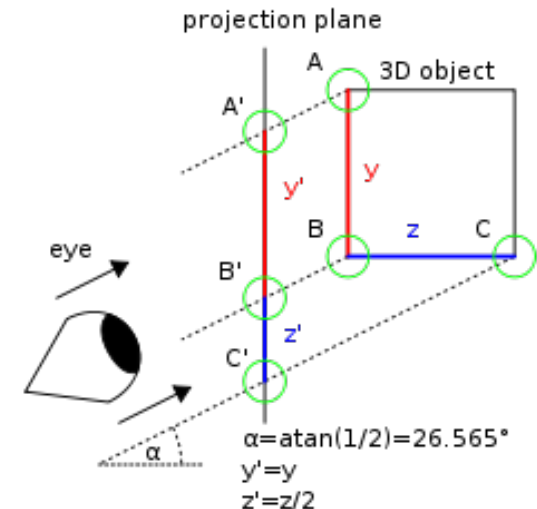


3D Projection Mapping

- “is any method of mapping three-dimensional points to a two-dimensional plane.” – wikipedia
- Process for creating tailor-made projection for specific objects or environments
- 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

- Computing Science
- Public Art
- VJing
- Urban Architecture
- Advertisement
- 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 by Jonny Lee

Early Public Art

- [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>

Public Art

➤ http://www.youtube.com/watch?feature=player_embedded&v=jDHfa03XzaM#!

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

Advertisement

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

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

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

Mapping Software

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

Inspirations

- <http://www.obscuradigital.com/work/>
- http://www.paintscaping.com/PaintScaping_-_Merging_real_and_virtual_worlds.html
- <http://www.facebook.com/3Dmapping>
- <http://videomapping.tumblr.com/>
- <http://www.urbanscreen.com/usc/category/projects>
- <http://festival-of-lights.de/>
- <http://www.easyweb.fr/en/english.html>

Studio Exercise

- Team exercise (2-3 people)
- Projection mapping creating a mood
- Use at least a couple of boxes (or found objects)
- Create a documentation video that shows the final result (30 seconds)
- Include sound effects to enhance a mood
- Post your video with descriptions on your blog.
- Due : 1pm on Thursday (September 29)

Box Mapping Examples

- <http://vimeo.com/8417328>
- <http://www.youtube.com/watch?v=Hvrvdnsbo5o&feature=related>
- http://www.youtube.com/watch?v=EwrNMhCm5_Q&feature=related
- http://wn.com/Audiovisual_Mapping_Projection
- <http://vimeo.com/15015638>
- <http://www.antivj.com/clubtransmediale/index.htm>

Schedule for Project 2

➤ Week 5

➤ Sep. 27 : VPT Tutorial I, VPT Exercise

➤ Sep. 29 : Concept Development, Site Survey

➤ Week 6

➤ Oct. 4 : VPT Tutorial II, Working session

➤ Oct. 6 : Working session

➤ Week 7

➤ Oct. 11 : Working session

➤ Oct. 13 : Project 2 Presentation

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➤ Week 8

➤ Oct. 18 : Project 2 Presentation (Possibly)