

Representing Earth

Thursdays 12:30pm – 3:00pm

Michael Naimark <michael@naimark.net>

Office Hours: Thursdays 11:00am – 12:30pm

This is an experimental course to make sense out of chaos. The basic format is biweekly presentations by faculty (and guests) alternating with student research presentations around the same general topic. We will also be maintaining a blog, and students will be expected to generate regular blog posts and comments.

On-time Participation 20%
Research Presentations (6) 60%
Blogging 20%

Week 1 Sep 10: Prologue - **A Thousand Zapruders**

- when everyone has cameras and connections
- teaser presentation
- student introductions
- class logistics

Week 2 Sep 17: **I. Billions and Billions of Photos**

- the qualitative impact of colossal image libraries
- from National Geographic keywords to Flickr folksonomies
- new forms of image search
- rethinking privacy

Week 3 Sep 24: Student research presentations

Week 4 Oct 1: **II. Just Like Being There**

- photo-realism and the psychophysics of perception
- elements of “realspace imaging”
- teleconferencing and the global economic meltdown
- the return of VR?

Week 5 Oct 8: Student research presentations

Week 6 Oct 15: **III. Moving Through Space**

- mediated navigation versus real-world navigation
- cool cinematography
- motion control and match-moving

--- DIY production

Week 7 Oct 22: Student research presentations

Week 8 Oct 29: **IV. Merging and Morphing**

- combining images to create new viewpoints
- cubism and other multiple perspectives
- panoramas and gigapixels
- rephotography

Week 9 Nov 5: Student research presentations

Week 10 Nov 12: **V. Rich 3D Modeling**

- making 3D computer models from 2D photos
- geometries and point clouds
- automation and handiwork
- who's in charge?

Week 11 Nov 19: Student research presentations

(Thanksgiving)

Week 12 Dec 3: **VI. Liveness**

- the role of streaming real-time images, video, and data in Earth models
- webcams and live video
- twittering, touching, tasting and other modalities
- virtual crowds

Week 13 Dec 10: Student research presentations

Week 14 Dec 17: Epilogue - **The One Earth Model**

- if there can be a single Earth model, will there be?
- cameras of the future
- nightmare scenarios
- citizen representation and the future