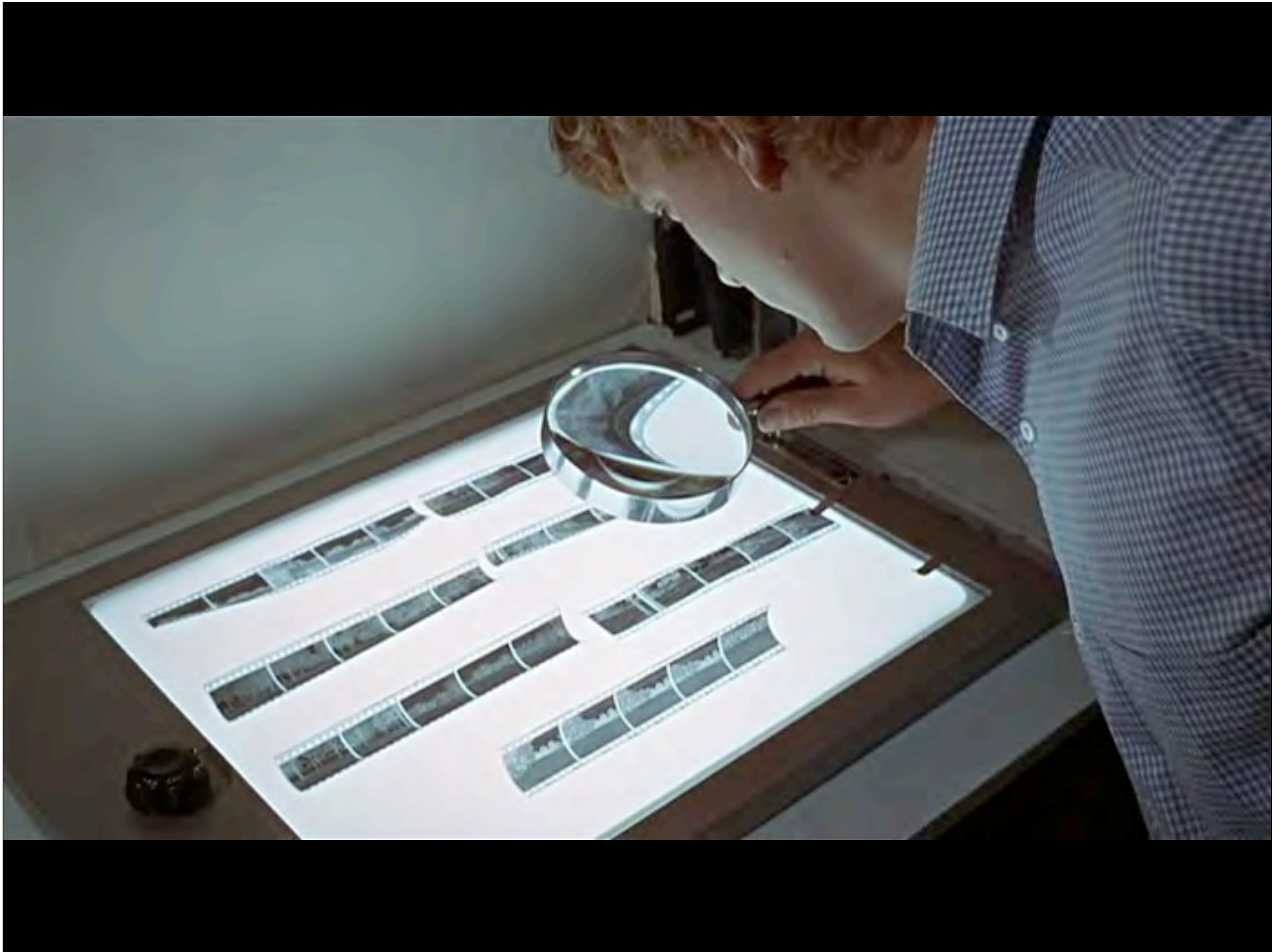


Gigapixel Panoramas and Narratives

Luiz Velho
IMPA



‘Esprit de Corps’

Blow Up

- Michelangelo Antonioni, 1966
- Images Tell a Story !
- An Eye for Detail ;-)
- Photography Aesthetics...
- ▶ DRAMA



Gigapixel Images

Gigapixel Project

- Graham Flint, 2001
- Film Camera (45 kg)
- 4 gigapixels (44000 × 22000)
- Portrait of America
 - 1,100 + photographs





Gigapixel Panoramas

Gigapan Project

- CMU / NASA Ames, 2006-7
- Robotic + Digital Camera (1.6 kg)
- 15 gigapixels (200000 x 60000 pixels)
- *gigapan.org* (15,000 images)
 - Worldwide Community

Back to the Story...

- *What is missing ?*
- Narratives
 - Snapshots / Games
- New Media
 - Web 2.0 / Mobile / Visorama
- Natural Interfaces
 - Multitouch / Multiresolution
- ▶ Research Topic

Panoramic Narratives

What can we exploit ?

- Raw Material (+ Traditional Process)
 - Omnidirectional Field of View
 - Wide Range of Scales
 - ★ Postpone Shooting Decisions to Editing
- Structure (+ New Media)
 - Spatial / Temporal Coherence
 - ★ Non-Linear Presentation / Interaction

N-PAN Project

- IMPA / ESDI Collaboration
- Goals:
 - Push the Limits of Technology
 - Explore Novel Media Formats
 - Develop New Authoring Systems
 - ✓ Have Fun!

Role Playing

- IMPA (Technology Support)
 - Luiz Velho
 - Bernardo / Rodolfo

- ESDI (Content Creation)
 - Silvia Steinberg
 - Adriana / Denise
 - Thiago / Juliano / Andre / Diego / Alice / Luisa

Season Planning

Duration (3 months)

- April / May / June

Premiere (1 week Seminar)

- July
- Weekly at ESDI
 - Tuesdays
- Biweekly at IMPA, room 349
 - Fridays (13:30 - 17:00)
- ▶ *plus a few twists :)*

Our Agenda

- Data Acquisition (Gigapixel Panoramas)
 - Select / Capture / Process
- Production (Audio-Visual Narratives)
 - Script / Edit
- Distribution (Web Repository)
 - Documentation / Database
- Presentation (Seminar)
 - Talks / Shows

On Location

- 3 Sites
 - Define Criteria
- Scouting (1-2 weeks)
 - Everybody
- Shooting
 - Groups of 2 people + Bernardo
- ▶ OBS:
 - Possibly 2 rounds (i.e., 1,2,3 / 1,2,3)

The Photo Gear

- Gigapan Imager
(Bernardo)
- Pipeline
 - Planning
 - Shooting
 - Stitching
 - Archiving



Production Deal

- Deliverables:
 - Production of Traditional Format Piece
 - Proposal of How to Create New Media

- ▶ Advantages:
 - Clear Standards
 - Prospective Investigation

Media Formats

- Slides - *podcast* (Photographer)
 - Framing / Composition / Sequence
- Video (Cinematographer)
 - Camera moves / Action / Intervention
- Game (Designer)
 - Gameplay / Interaction

OBS:

- Sound / Typography / Etc...

Authoring

- 6 Media Products
- Bid for Proposals
 - Individual or Group
- Execution Teams
 - Director
 - Technical Crew
- Supervision...

Tools

- for Panorama Authoring
 - Gigapan Stitcher / etc..
 - VISGRAF-Digitok Suite
- for Media Production
 - Photoshop / After Effects / Premiere / Etc..
- for Web / Interaction
 - HTML + scripts / plugins