Panoramas and Narratives

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IMPA

Panoramas

Panoramas

- 360 Panoramas

- 360 Videos

- Gigapixel Panoramas

Panoramic Tours

History

- MIT Movie Maps

- Apple QuickTime VR

- Microsoft Research

- Google Street View

MIT Movie Map

- Architecture Machine Group, 1978 (DARPA funding)

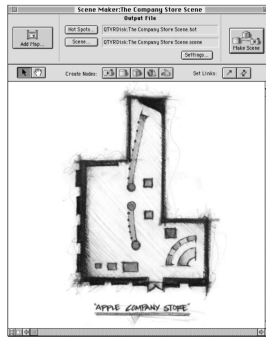Anamorphic Film Capture   Video Panorama Graph   Interactive Video Disc

QuickTime VR

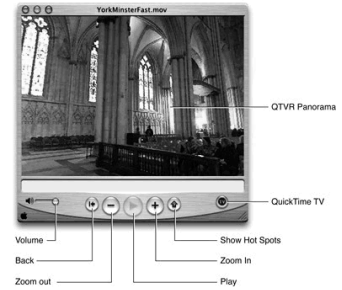- Apple, 1994

Cylindrical Panorama

QT VR Studio

QT VR Player

MSR Pano Tour

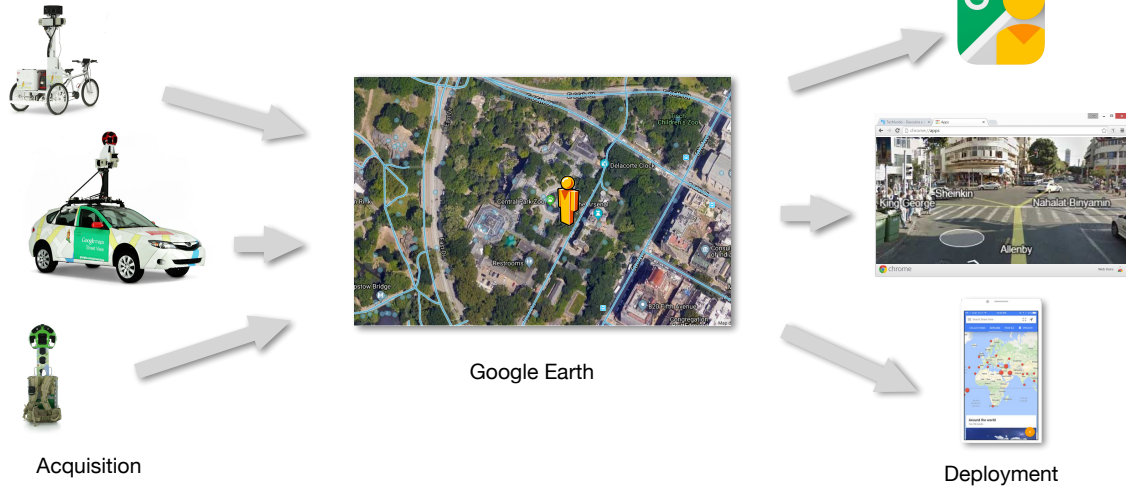- Video-Based Walkthroughs, 2003

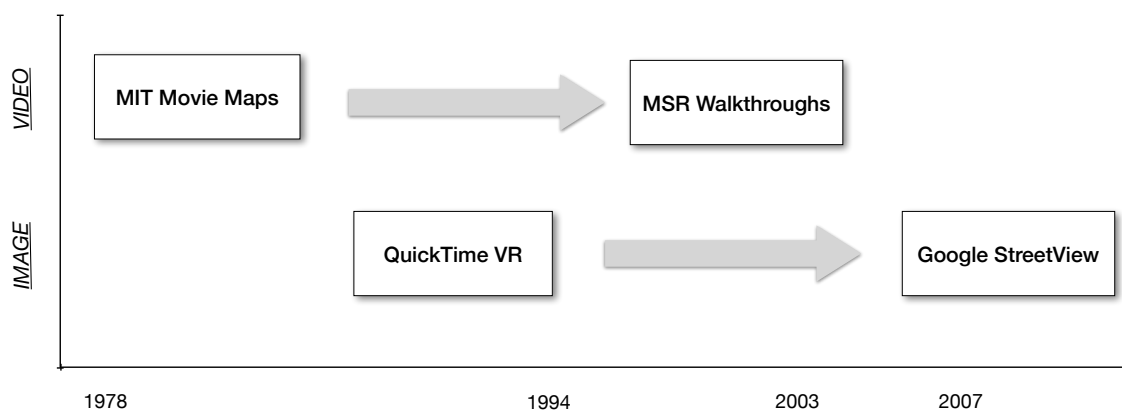360 Video Capture

Tour Plan

Experience

Street View

- Google, 2007

Acquisition

Google Earth

Deployment

Historical Perspective

- Evolution

VIDEO

MIT Movie Maps → MSR Walkthroughs

IMAGE

QuickTime VR → Google StreetView

1978   1994   2003   2007

Platforms

Systems

- 360 Headset

    Individual

- Visorama

- Wide Screen

    Group

- Liquid Galaxy

Image Formats

- Film
  - Capture
    - ‣ Video - 1.33:1 (3x4)
    - ‣ HDTV - 2:1 (16x9)
    - ‣ Cinema - 1.85:1 / 2.23:1
  - Display
    - ‣ TV
    - ‣ Panoramic

- Panorama
  - Capture (360)
  - Display (system dependent)

Projection Types

- Perspective

- Stereographic

- Moebius

- Mosaic

Perspective

FOV = 120

Stereographic

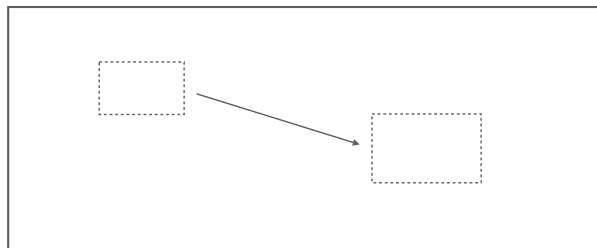FOV = 120

Moebius

FOV = 120

Mosaic

David Hockney

Animatic

Camera Motion in Images

- Ken Burns Effect

- Regular Images
  - Scan / Pan

- Gigapixel Panoramas
  - Zoom and Pan
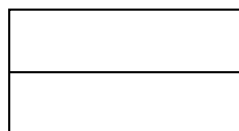 - ✳ Different Scales

Canvas

- Multiview Support
  - Screen Divided into Views

- Wide Screen - Narrative
  - Panoramic Context
  - Simultaneous Scenes

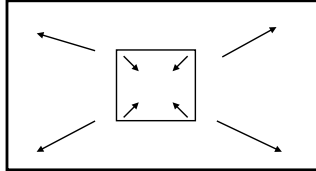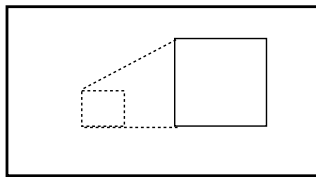# Visual Templates

- Full Screen

- Split Screen

Panorama

- Images
- Graphics
- Text

In-Frame Motion

- Zoom In / Out

- Magnification Lens

Narrative

Content Structure

- Meta Stories

- Finite State Machine
  - State / Transitions

- Dynamic Objects
  - Actors
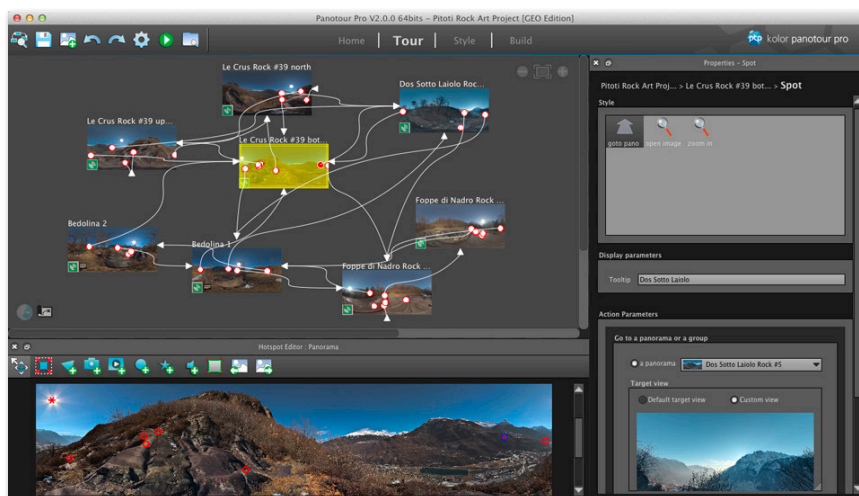 - Avatars
  - Agents

Interaction Structure

- Navigation (Paths)
  - Graphs
  - Decision

- Hyperlinks
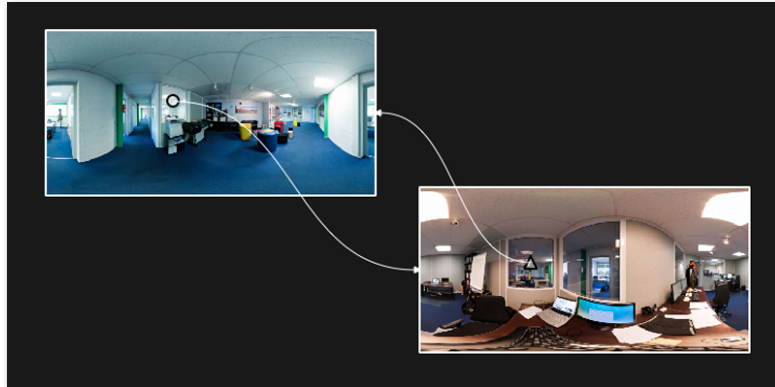 - Indication (active / visited)
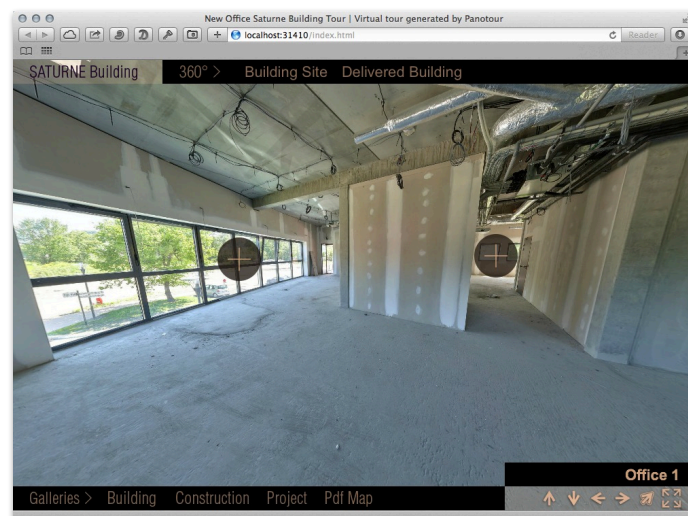
- Portals

Pano Tour

Authoring Tool

- Navigation Graph

Transitions

- Portals and Hyperlinks

Player

- Interface

Visgraf Tours

Lab Tour

A Tour to the Visgraf Lab

One of the most important aspects of the VISGRAF project infrastructure is the lab. The lab occupies a 400 m2 area in the IMPA building and it's physically divided in four distinct modules: Computer Graphics Environment and Multimedia and Video Area; Interactive Visualization Theater; and Computational Video Studio.

Graphics Workstations Area

The computer graphics environment has a great variety of equipments and occupies two diferents integrated areas: individual area with graphics workstations for students; and common area with general purpose equipment, such as scanners and others. (view)

Video and Multimedia Production Facility

The Multimedia and Video area was developed to integrate the computer graphics lab resources with the video resources, allowing multimedia producing in a fast and flexible way. (view)

Interactive Media Theatre and Playground

The Visualization Theatre has support for has support for immersive virtual reality environments, including panoramic viewing and stereoscopic projection. ... (view)

Studio for Computational Video and 3D Photography

The Studio for Computational Photography and Video was designed to allow various experiments involving controlled image acquisition. (view)
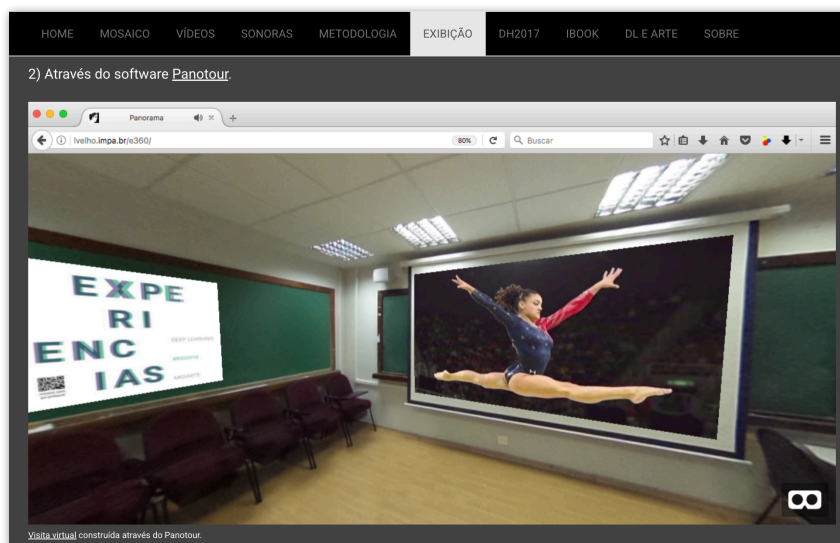
Videos - Playlist

Panoramic Virtual Tour

Virtual Tour (VR Mode)

Sidebar menu:
- News and Announcements
- Visgraf Database | (Videos)
- CG Seminar | (Presentations)
- Courses
- Summer School in Computer Graphics
- People
- Publications
- Projects | (Portals)
- Research Areas
- Themes
- Activities by Year
- Software
- A Tour to the Visgraf Lab
- Hall of Visitors
- Computer Graphics Gallery
- Conferences Organized by the Lab
- VISGRAF 21 years!
- 30 Years of VISGRAF
- (Local Access)
- IMPA Home Page | E-mail
- Twitter | Instagram | FB | YouTube

Visgraf Vision and Graphics Laboratory

Mathematics, Art, a bit of Technology ... and a lot of Passion!
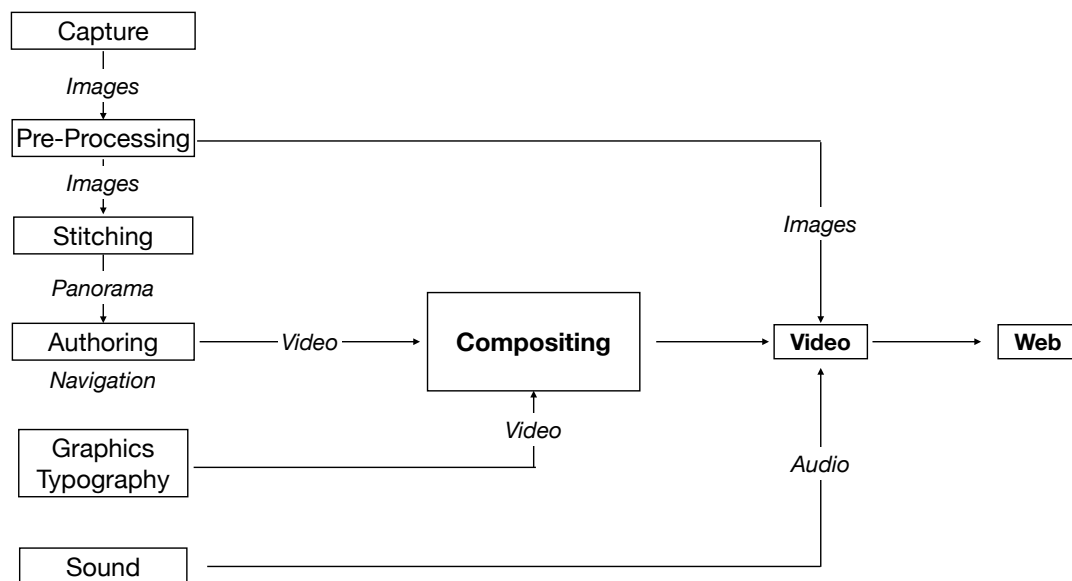
Olhar 3D

Indisciplinas

NPan

NPan Production Pipeline

N-PAN : Narratives with Gigapixel Panoramas

VISGRAF Laboratory (IMPA) - DIGITOK