

Virtual Environments, Visualisation, Novel Displays

Project Summaries

Paul Bourke
iVEC@UWA

Virtual room

Collaboration with Museum Victoria



Inside-out CAVE



Phar Lap





Adapted from Samuel Beckett's narrative 'The Lost Ones', UNMAKEABLELOVE is a virtual reality installation that focuses and makes interactively tangible a state of confrontation and interpolation between our selves and a society of computer generated people who are living in a severe state of physical and psychological entropy.

ALIVE exhibition, City Universty of Hong Kong

AVIE: Advanced Visualisation and Interaction Environment

Collaboration with iCinema, UNSW



AVIE: Place Hampi

Collaboration with Sarah Kenderdine and Jeffrey Shaw

Roundshot camera



Drum scanned 75mm film.



Left camera



Right camera



AVIE: Place Türkiye

Collaboration with Sarah Kenderdine and Jeffrey Shaw



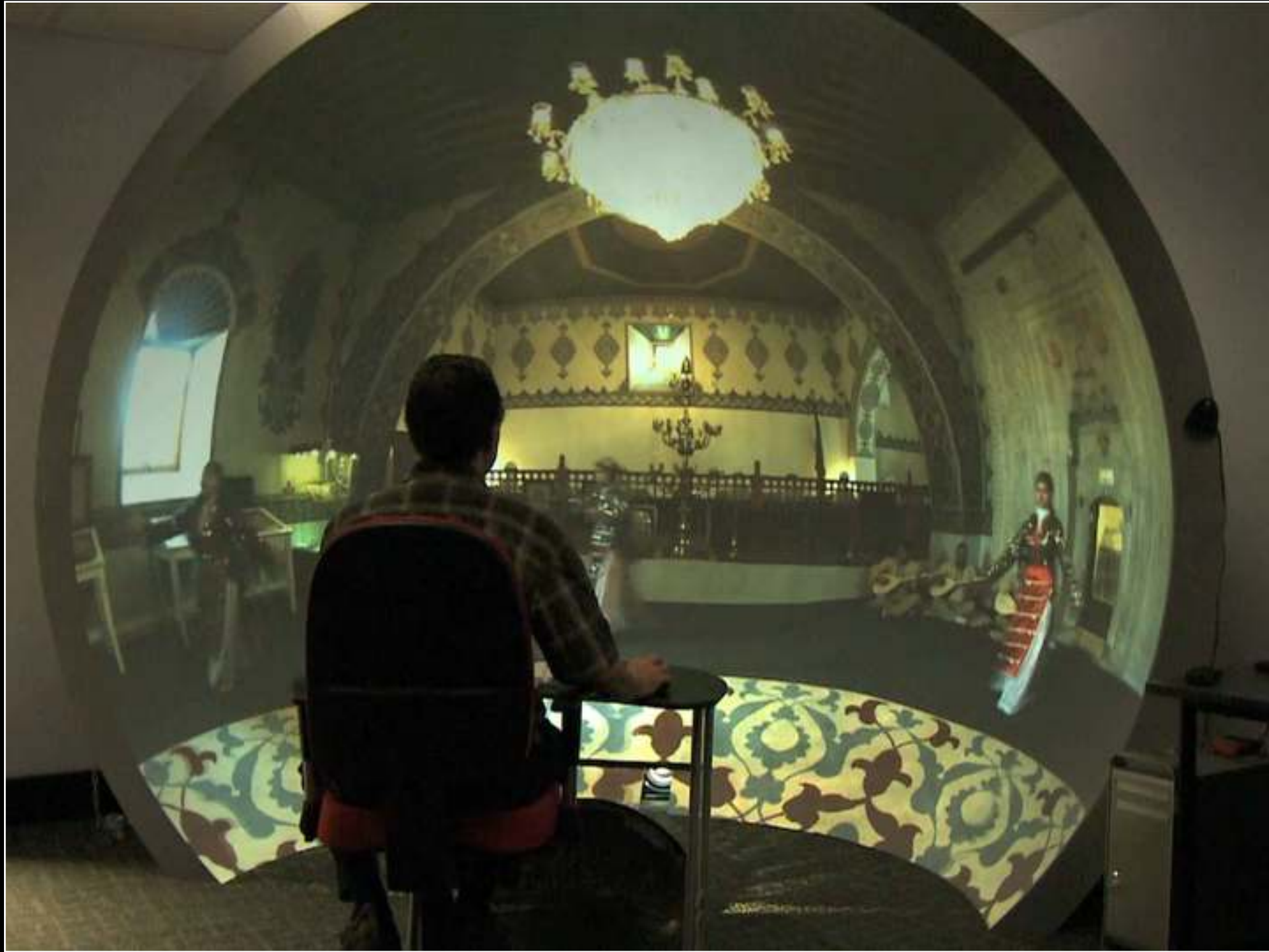
Left eye



Right eye

iDome: Place Türkiye

Collaboration with Sarah Kenderdine and Jeffrey Shaw



Hashibektashi Dancers



5400 x 2700 @ 16fps

iDome: Mawsons Huts

Collaboration with Peter Morse





40,000 x 20,000 pixels

Left eye image

40,000 by 20,000 pixels



Hurleys darkroom, Mawsons hut (Antarctica).



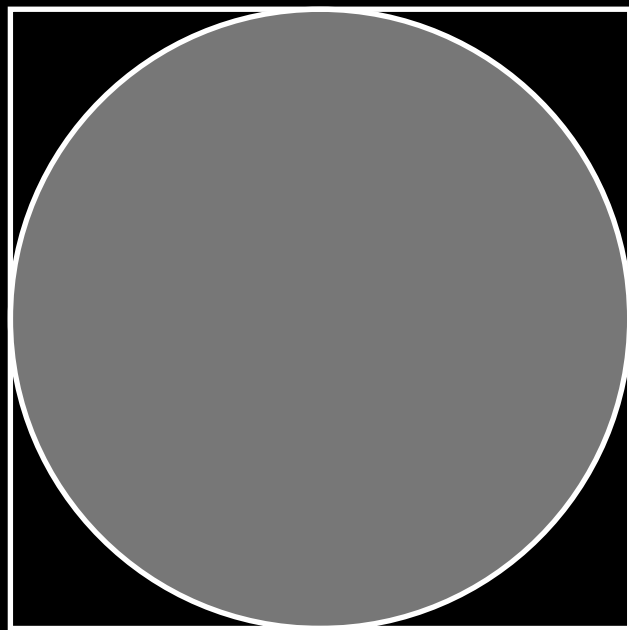


Planetarium:Virtual Heritage (Mawsons Huts)

Collaboration with Peter Morse



HD
1920x1080



8192x8192



8K x 8K planetarium production

iDome: Science Centre Wollongong

Collaboration with Wollongong Science Centre and ARC Centre of Excellence for Electromaterials Science (University of Wollongong)







5400 x 2700 pixel spherical projection

EON: Eye of Nagaur

Collaboration with Sarah Kenderdine and Jeffrey Shaw



Exploration of 16 nodes from the Fort/Temple complex

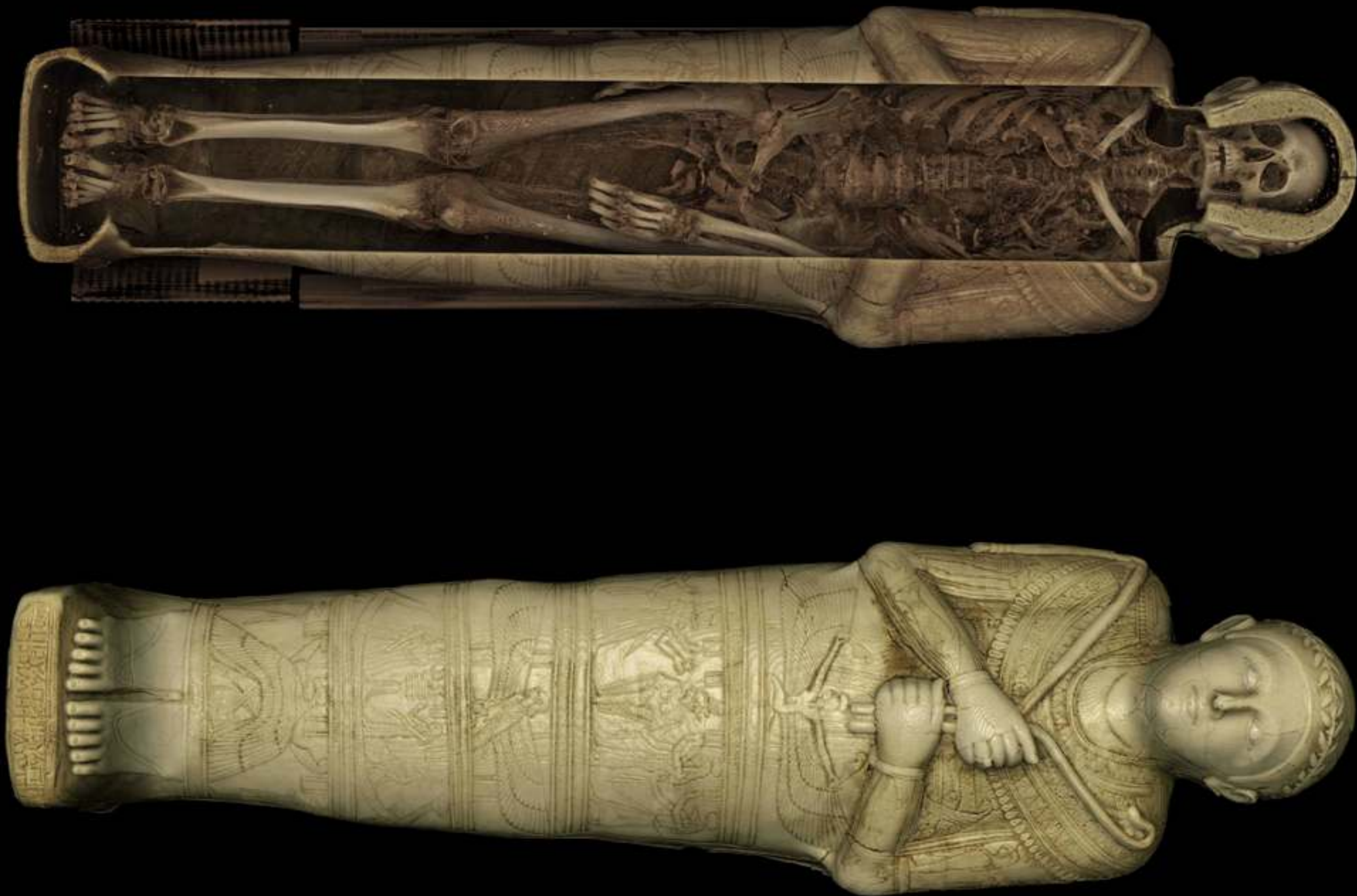
Pausiris Mummy

Collaboration with Peter Morse and MONA (Museum of New and Old Art)



Opened January 2011





LadyBug-3 camera

PtGrey Research Inc.





iCinema



Micoy



Spherical



Fisheye



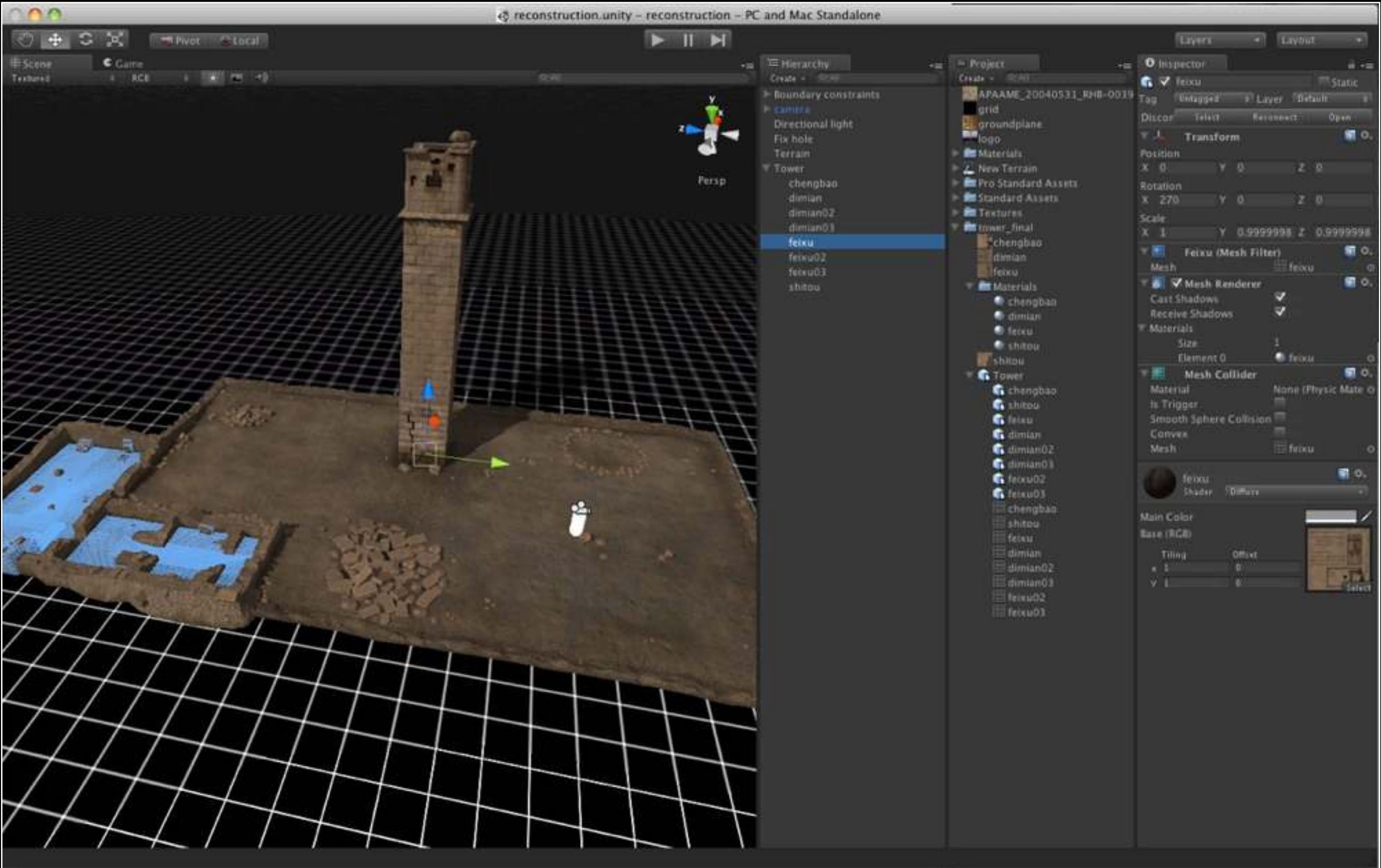
Cylindrical



Unity3D game engine

- Highly recommend Unity3D for implementing virtual environments.
- Mac and MSWindows development system.
- Supports stereoscopic, image warping (cylindrical/spherical) and multiple displays.
- Very stable and mature.
- Highly cross platform: Mac OS-X, MSWindows, IOS (iPad, iPhone, iPod), PS3, XBox360,Android.
- Modern physics and rendering engine.





Questions?