



What can we Gain from Transdisciplinary Visualization Courses?

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Can your university overcome interdepartmental obstacles to teach interdisciplinary or transdisciplinary Courses?

Visualisation and Archaeology

- Enhancing displays - images, walk-throughs
- Authentically illuminated environments
- Reconstructions of the site throughout its history



What is Heritage Visualisation?

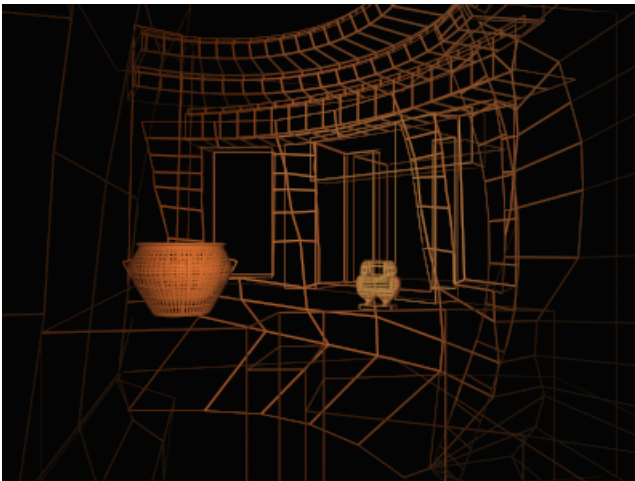
It's all about:

→ Accuracy

→ Detail

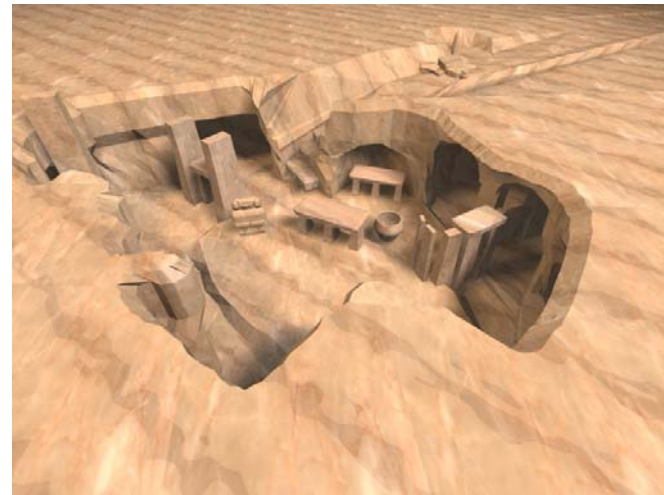
→ Authenticity

→ Very realistically multi-modal environments



No absolute truths

For sites which no longer exist - archaeologists must have confidence in the results



Realistic Lighting



Modern lighting



Animal tallow candlelight

Heritage sites offer significant challenges to CG

Media participation

- ❑ accurate flame and smoke

The need for realism

- ❑ laser scanning, psychophysics

Complexity of environments

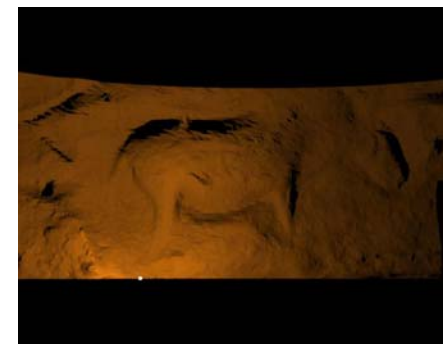
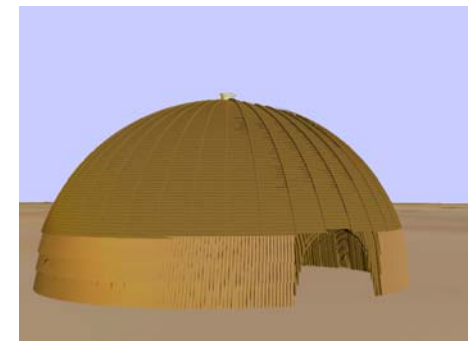
- ❑ parallel processing, visual perception

Multi-disciplinary nature

- ❑ archaeology, psychology, engineering, art history

Multi-sensory

- ❑ Sound, smell, temperature ...



Visualisation and Archaeology

Computer Science

- ❑ **Not happy that I taught Archaeologists**
- ❑ **Interesting projects for CS students**
 - **But - harshly marked (where's the code?)**

Archaeology

- ❑ **No room in the curriculum for more than an overview**
- ❑ **Students asked interesting questions**
- ❑ **No background to use what was learnt directly**

How will your teaching change in the new environment?

Warwick Digital Laboratory

- ❑ **£50 million inter-disciplinary initiative**
- ❑ **No “silo mentality”**



**“The first question I ask when someone applies to Pixar is:
Can you draw?”**

[Ed Catmull, President of Pixar, personal communication]

MSc in Computer Graphics and the Media Industry

- ❑ **Tempus EU project**
- ❑ **WDL, UK; Buckingham University, UK; Zaragoza, Spain; Comenius University, Slovakia; SSST, Bosnia; Sarajevo Academy of Performing Arts, Bosnia; and, Sarajevo Film Festival**

Computer Graphics and the Media Industry

Mixture of Technical and Creative

→ Core Modules

- ❑ Modelling and Animation I & II
- ❑ Directing and Storytelling
- ❑ Post Production (editing and compositing)
- ❑ Project Thesis and Showreel

→ Optional Modules

- ❑ Real Time Graphics and Game Development OR Advanced Graphics
- ❑ Graphic Design OR Drama and Acting

The Future

→ **Pilot course at SSST in Bosnia – 2008**

→ **Introduce at WDL – 2009**

The New Renaissance

→ **Technical AND creative students**

→ **Not hampered by departmental “politics”**

→ **MSc level courses**

□ **Support for different backgrounds**

→ **Undergrad level?**



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