

THE HISTORY
SIGGRAPH
 #2002#

Recreating the Past

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The need for realism

- Computer Graphics allow virtual environments to be “constructed” on a computer in a straightforward manner
- Computer reconstructions can be easily misleading
- Realism is *essential* if we to provide an insight into how these sites may have appeared



Museums and Heritage Sites

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



Different fuel types



Modern lighting



Tallow candle



Olive oil

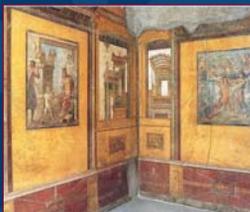
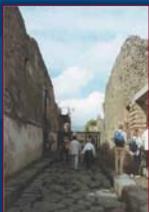


With salt

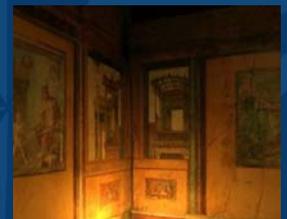


With water

House of Vettii, Pompeii



Recreating the past



Cap Blanc



Capturing the data at Cap Blanc



Realistic Lighting



Modern lighting



Animal tallow candle

Prehistoric "Movies"

Cedarberg, South Africa



Light and the paintings



November



March

Archaeology 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**
 - acoustic rendering

