Bass Connections 2016

Dig@IT: Virtual Reality in Archaeology

The Digital Landscape | Information, Soc. Cult.

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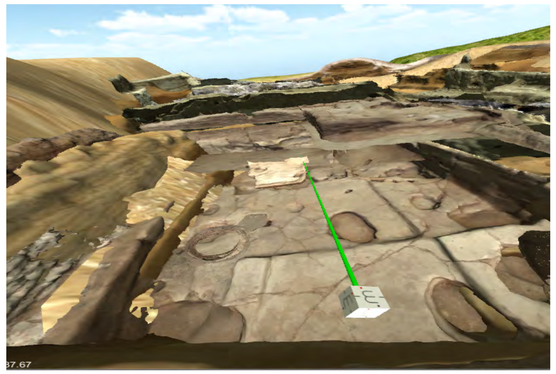
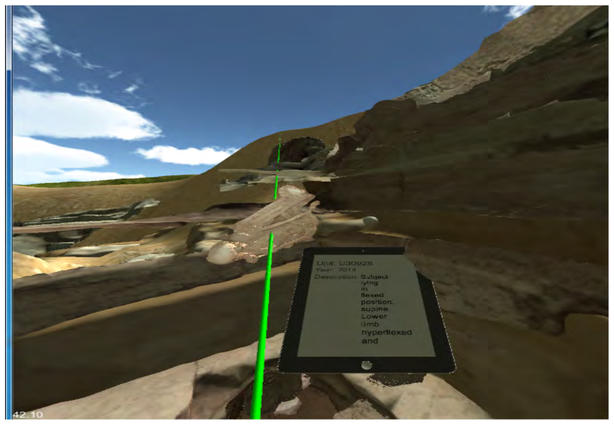
PROJECT SUMMARY: A virtual reality system to recreate the archaeological experience using data and 3D models from the neolithic site of Çatalhöyük, in Anatolia, Turkey.

PROJECT OBJECTIVES

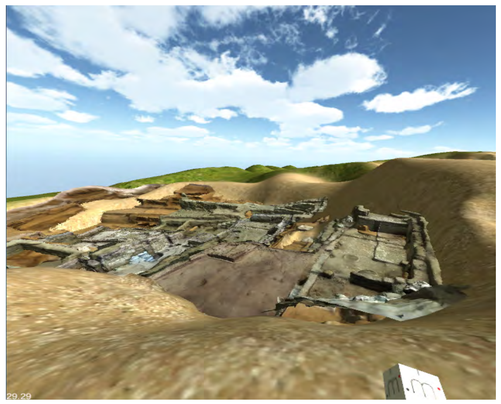
- Develop archaeological VR app containing models of real site.
- Allow manipulation of artifacts/"digging" within system.



EXPLORE YEARS OF EXCAVATION



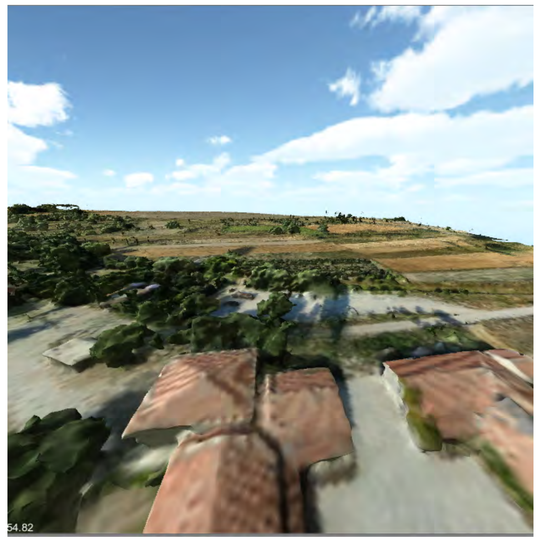
ARTIFACT MANIPULATION/DATA VIEW



VIEW OF SITE AND LANDSCAPE WITHIN APP

DESCRIPTION

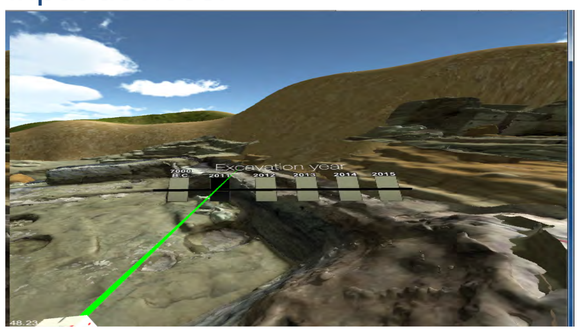
- Can view information from existing archaeological database contextually, in 3D space, for objects documented by field archaeologists.
- Allows for measurement, analysis of artifacts and land on-site.
- Built for Oculus and DiVE.
- For DiVE, companion apps built for Google Glass and iPad, which dynamically display information from Catalhoyuk site database relating to feature being examined.



SURROUNDING LANDSCAPE

WORKFLOW

- Digital Archaeologists capture 3D models of dig site and landscape through image-based modeling (photogrammetry), laser scanning, LIDAR, etc.
- 3D models of site, artifacts, are imported into Unity3D game engine, where:
- Interactions and display are built to allow analysis and discovery within the application.
- Application is built with Oculus Rift as head-mounted-display, and Razer Hydra tracked wands as input devices.



INTERPRET AND INTERACT WITH EXCAVATION

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