Bass Connections 2015
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.
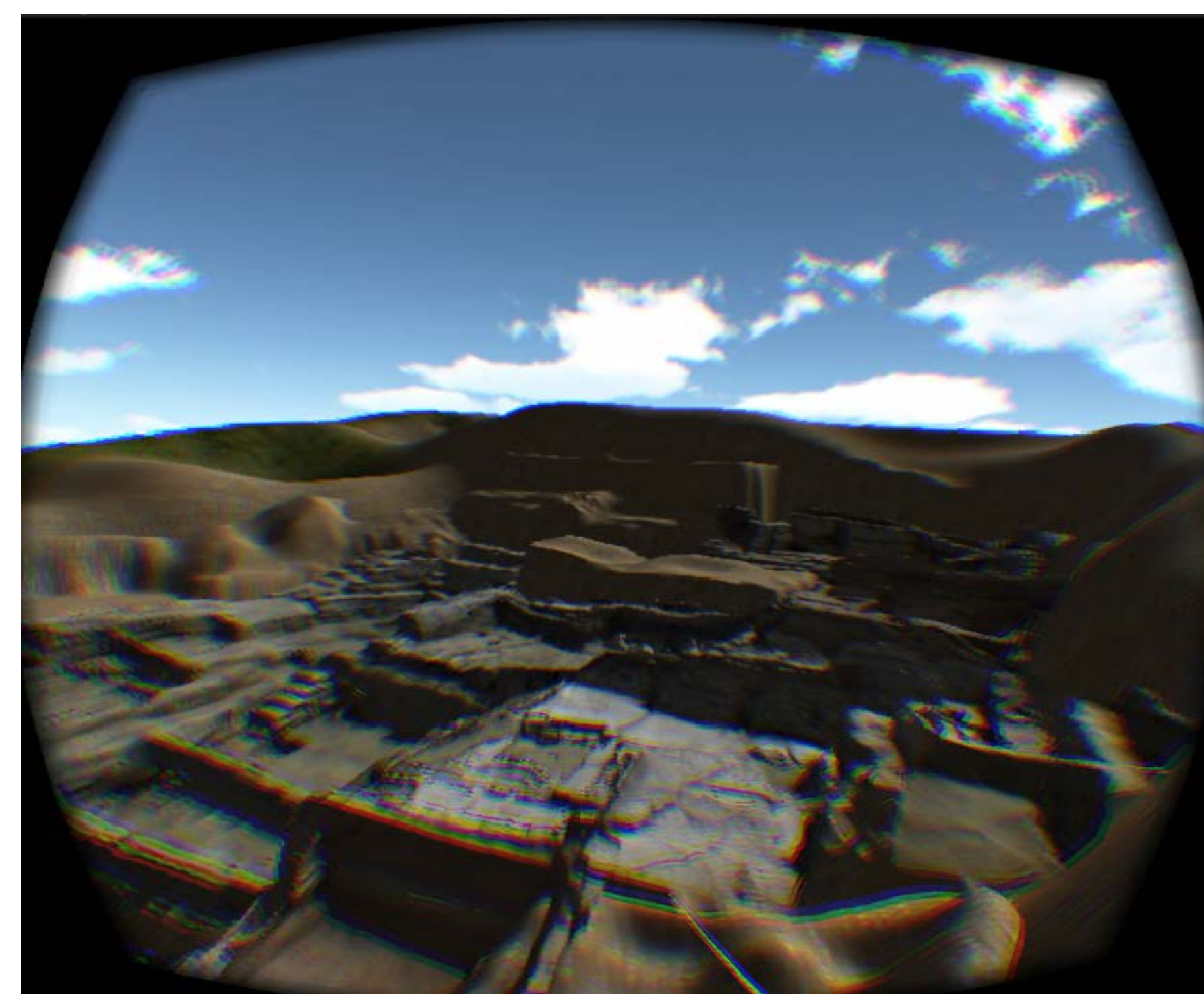
PROJECT OBJECTIVES

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

VIEW OF SITE WITHIN APP
IMMERSIVE DISPLAY AND 3D INPUT DEVICES

WORKFLOW

- Digital Archaeologists capture 3D models of dig site and landscape through image-based modeling (computer vision), 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.

CATALHOYUK DIG SITE

DESCRIPTION

- Can view information from existing archaeological database contextually, in 3D space, for objects documented by field archaeologists.
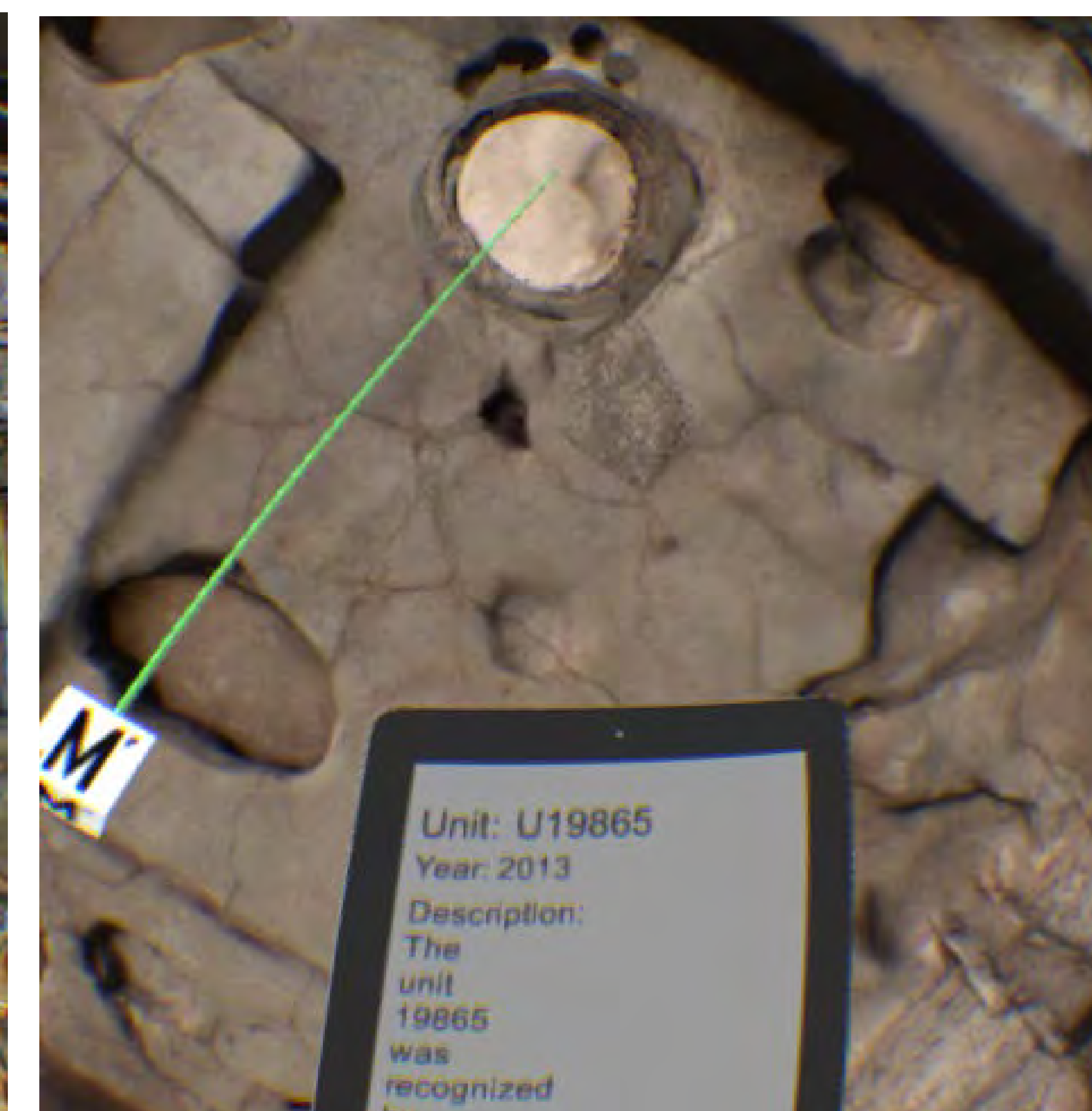- Allows for measurement, analysis of artifacts and land on-site.

FUTURE WORK

- Will be tested in user study to explore and discover improvements in performing archaeological tasks in 3D environments.
- Will be ported to other systems, such as the DiVE and desktop interfaces

ARTIFACT MANIPULATION

TIMELINE TOOL

DATA VIEW WITHIN APPLICATION