



Deb Mayers



Remembering Carrawburgh: Using VR to (Re)Create the Past

Website:
<http://debmayers.com>

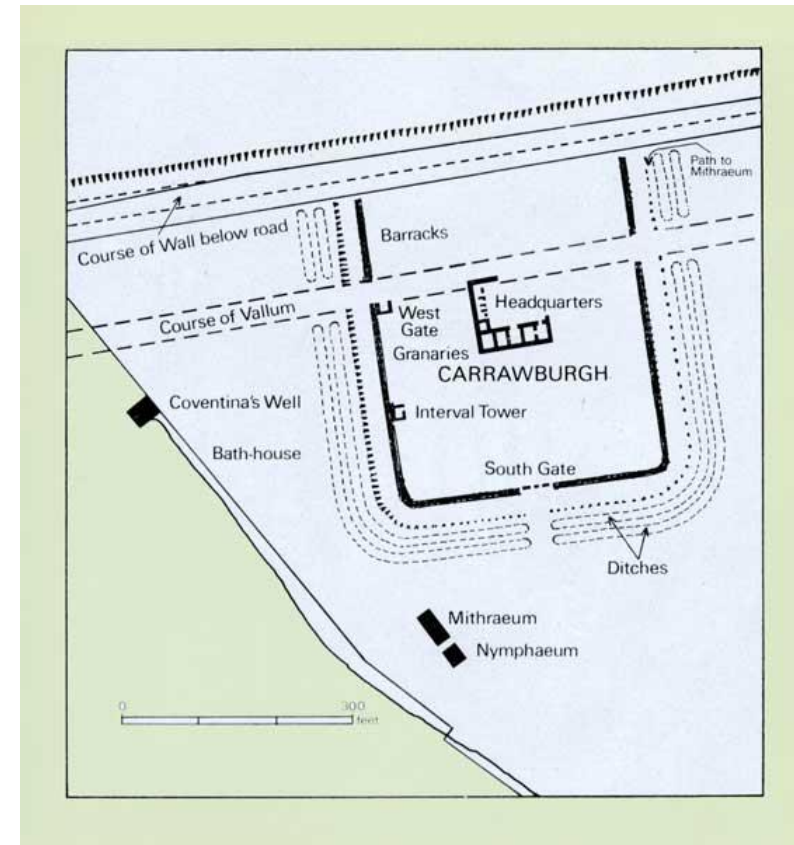
Photoscan:
<https://sketchfab.com/debmayers24>

Twitter:
[@debmayers24](https://twitter.com/debmayers24)

Github:
<https://github.com/dmayers340/unityMithraeum>

- **Introduction to Carrawburgh**
- **Displaying Artefacts**
- **How to re-contextualize objects**
- **Multisensory effects and VR**
 - Visual
 - Audio
 - Haptic
 - Scent
 - Taste
- **Do these multisensory effects help with learning about the ancient world?**
- **Should sensory feedback be placed in all experiences? Is this feasible?**

Agenda



History of Carrawburgh



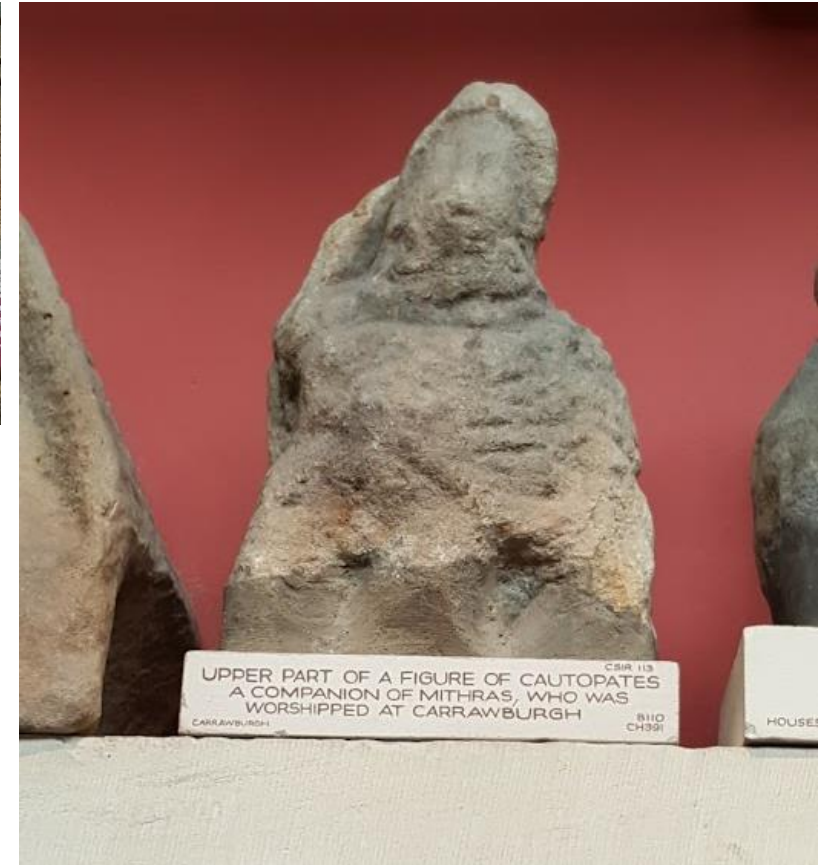
Carrawburgh Today



RELIEF OF THREE WATER NYMPHS HOLDING BEAKERS AND POURING WATER FROM PITCHERS IT MAY ORIGINALLY HAVE COME FROM THE SHRINE DEDICATED TO THE NYMPHS



The Cult of



UPPER PART OF A FIGURE OF CAUTOPATES
A COMPANION OF MITHRAS, WHO WAS
WORSHIPPED AT CARRAWBURGH



Carrowburgh Artefacts



Carrowburgh Artefacts-Coventina's Well



Carrawburgh Artefacts-Mithraeum



Uses of Digital Media in Museums



BUT!

- **Objects are multisensory**
- **Both current museum displays and digital display methods, have limitations on truly experiencing artifacts**

The Senses: Vision

- ~80% perception comes from sight
- Content must be congruent BUT...
- Content does not need to be realistic
- "Nothing is more deceiving than our eyesight, not only in the case of objects which distance prevents the eyesight from accurately examining, but also in the case of objects which the eye perceives close at hand" - Seneca, *Natural Questions* 1.3.9

The Senses: Sound

- Spatialize Audio! 3D space!
- Ambient noise
- Languages?



The Senses: Touch

- Haptics (vibration from an audio clip)
- Texture
- Volume
- Weight



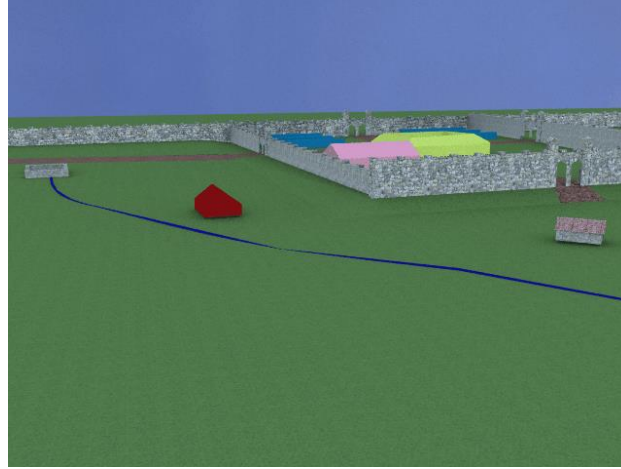
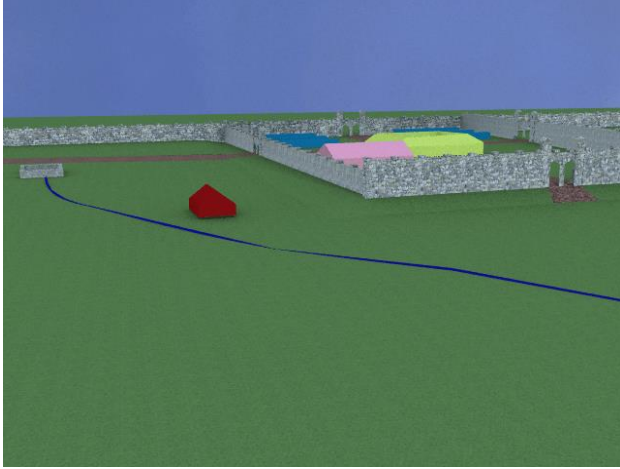


The Senses: Scent and Taste?

- Both of these senses have a long way to go before being adopted mainstream
- For learning, it may be beneficial to add a specific scent as scent is related to memory

Technology Used	What is it?
3DS Max and Blender	3D modeling software
GIMP	Photo editor for textures
Unity	Game Engine
VRTK	The holy grail-makes creating the VR experience very easy
Oculus Avatar	Used to create a more embodied experience—excellent for hands
Photoscan	Create photogrammetry models
Arduino	To connect a fan and spread scent
Three.js	A way to put a 3D model on the web and interact with it
WebGL	Web builder to display Unity experience online

Technologies Used



Carrawburgh in the Past?



Carrawburgh in the Past?



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Shameless plug- sign up for
my study:
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