DEEP TIME

VIRTUAL REALITY ARCHAEOLOGY VISUALISATION

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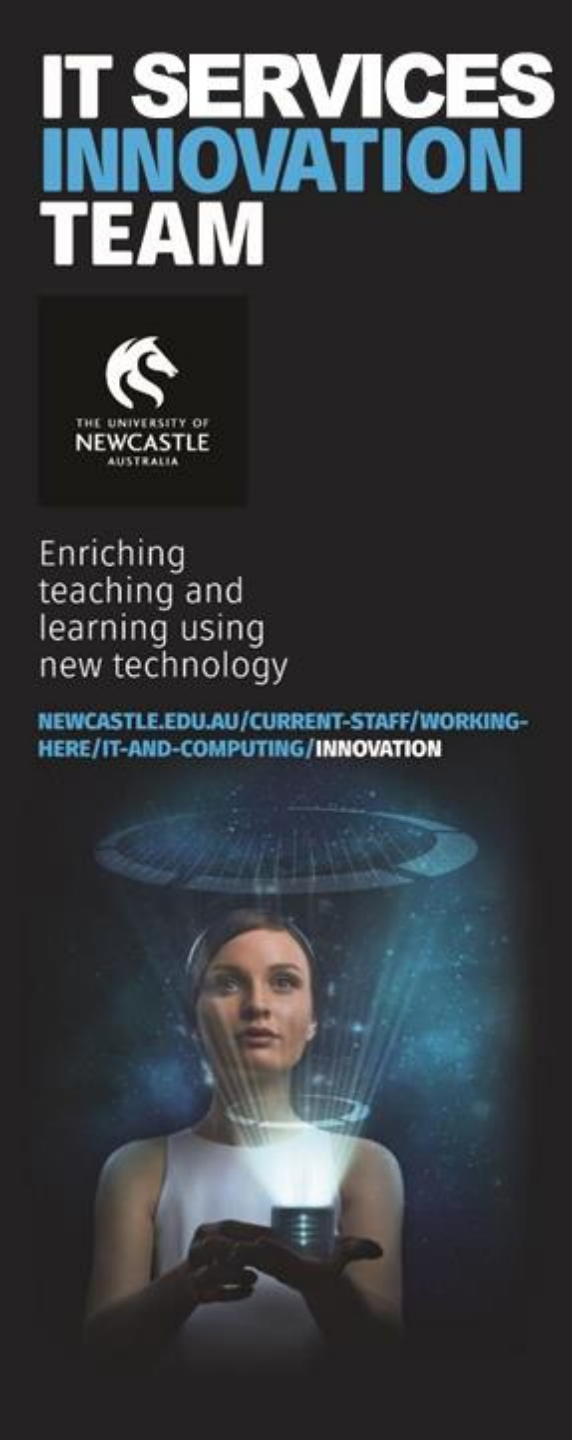
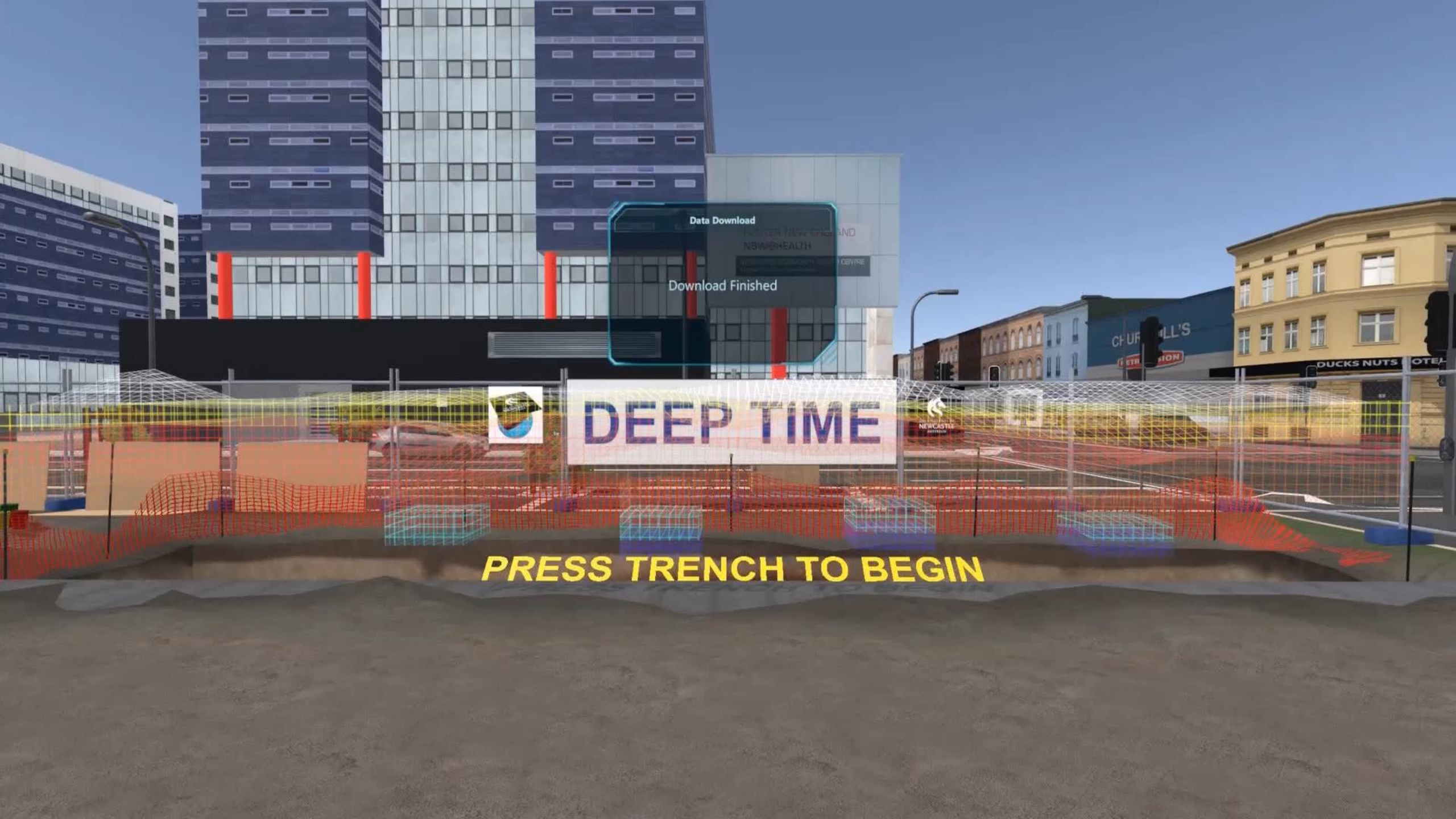


ABOUT THE TEAM

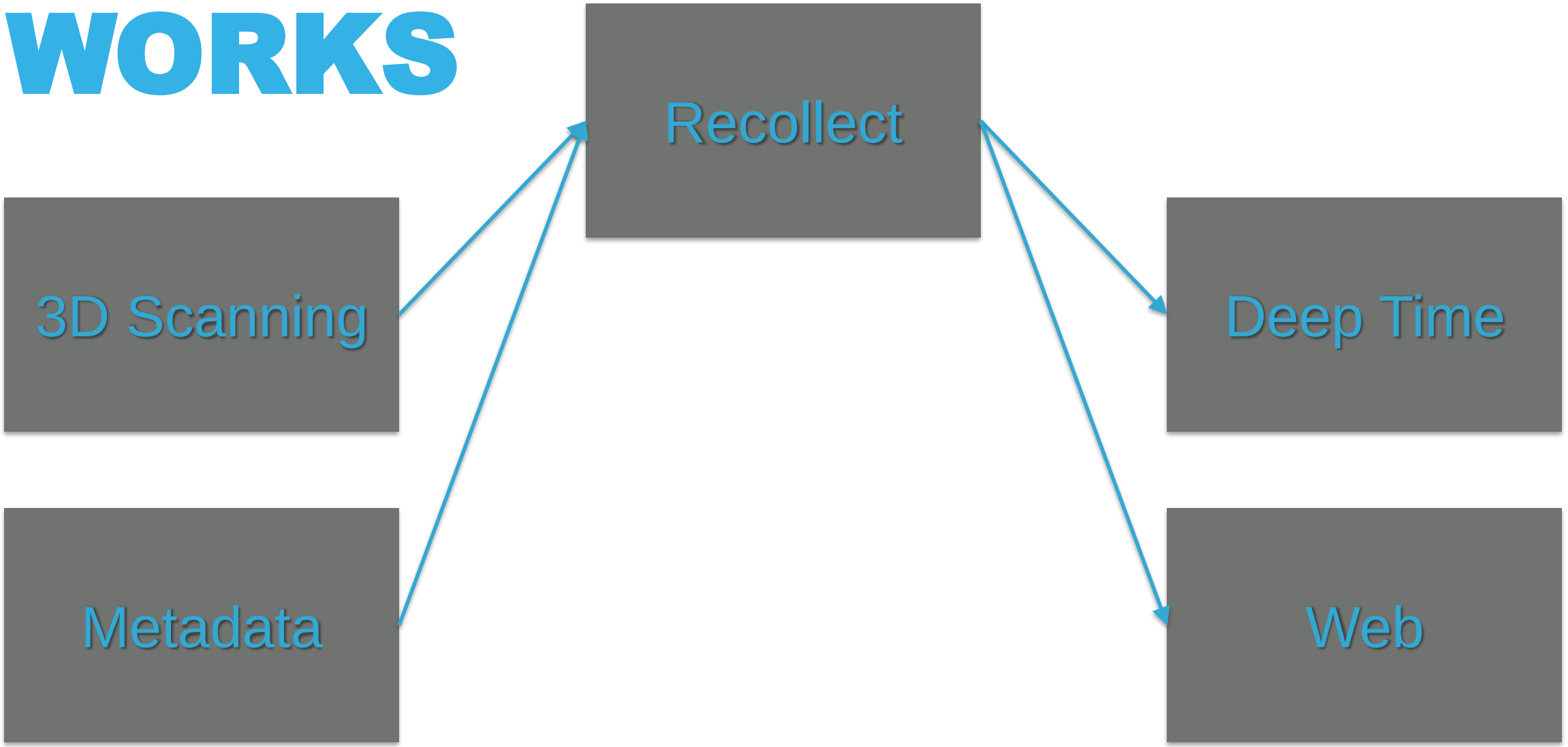
Enriching teaching and learning using new technology
Creating and responding to disruption
Founded in mid 2016
Dynamic, small team
28+ projects delivered
12 week, agile, MVP development

WHY DEEP TIME?

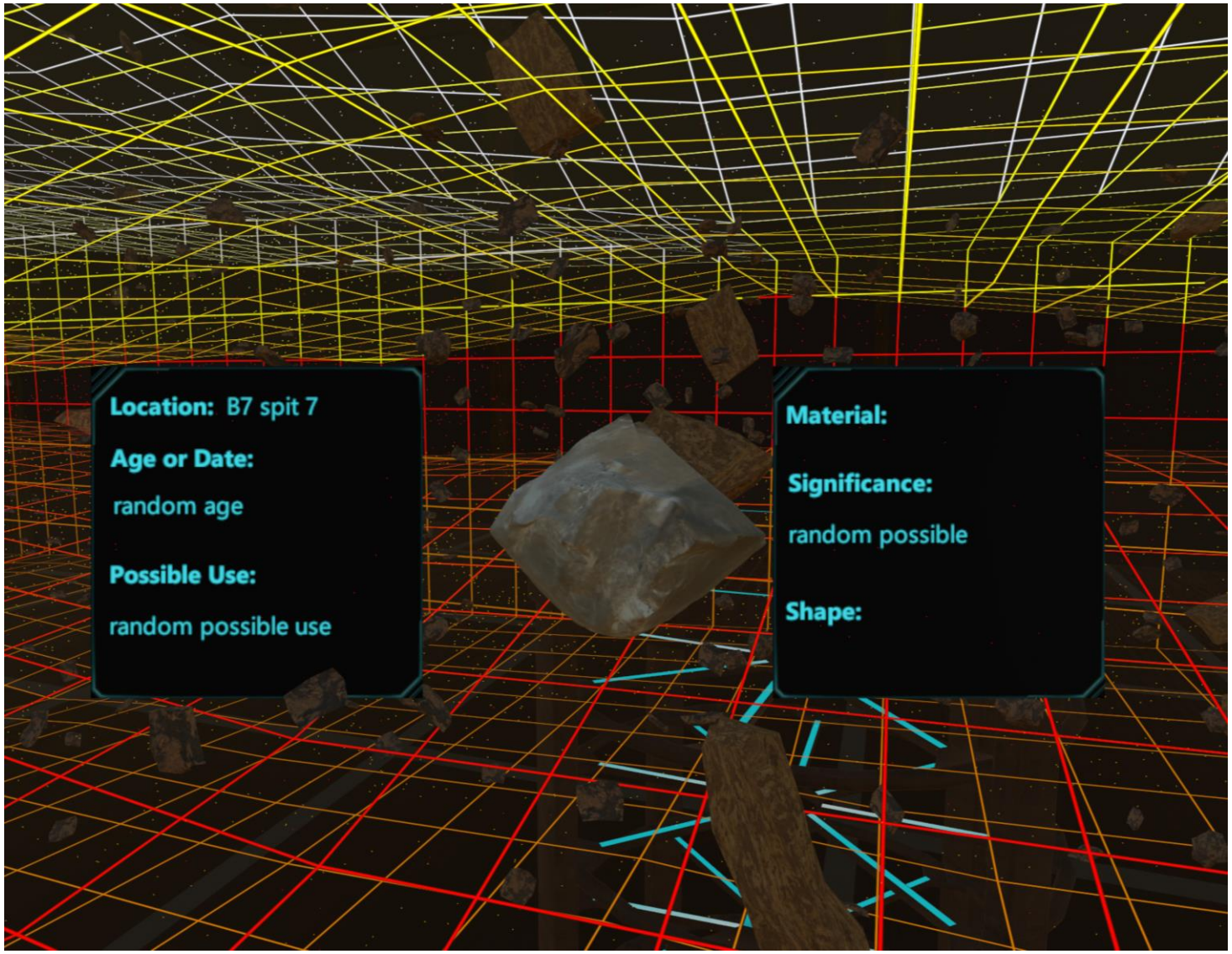
- Excavation destroys the context of the artefacts
- With VR technology we can recreate that context
- Makes it easier for researchers to understand how artefacts relate to each other
- Makes history more accessible to laypersons
- Used in Work Integrated Learning


Data Download
Download Finished
DEEP TIME
PRESS TRENCH TO BEGIN

HOW IT WORKS

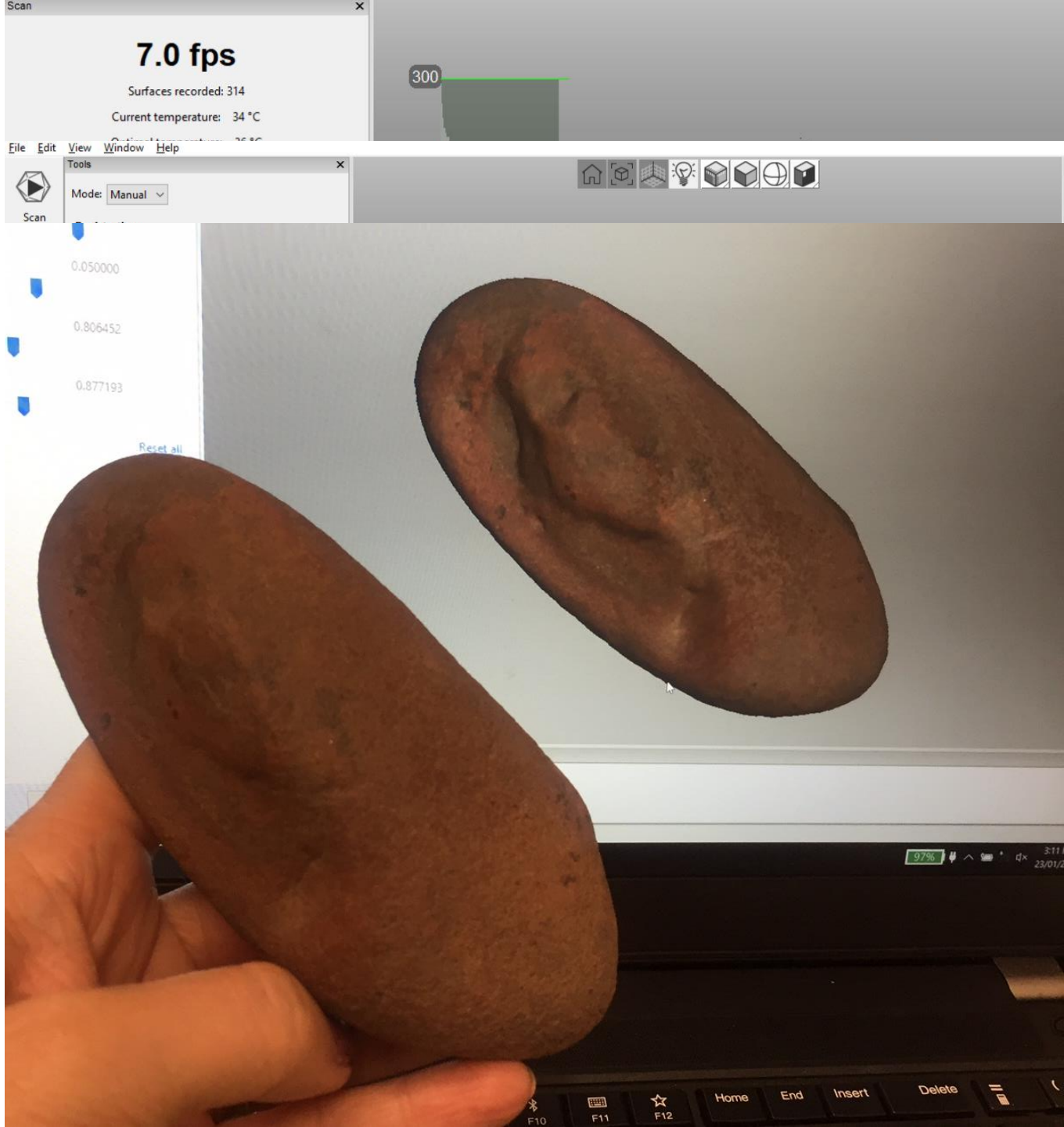


3D SCANNING


Location: B7 spit 7
Age or Date:
random age
Possible Use:
random possible use
Material:
Significance:
random possible
Shape:

3D SCANNING

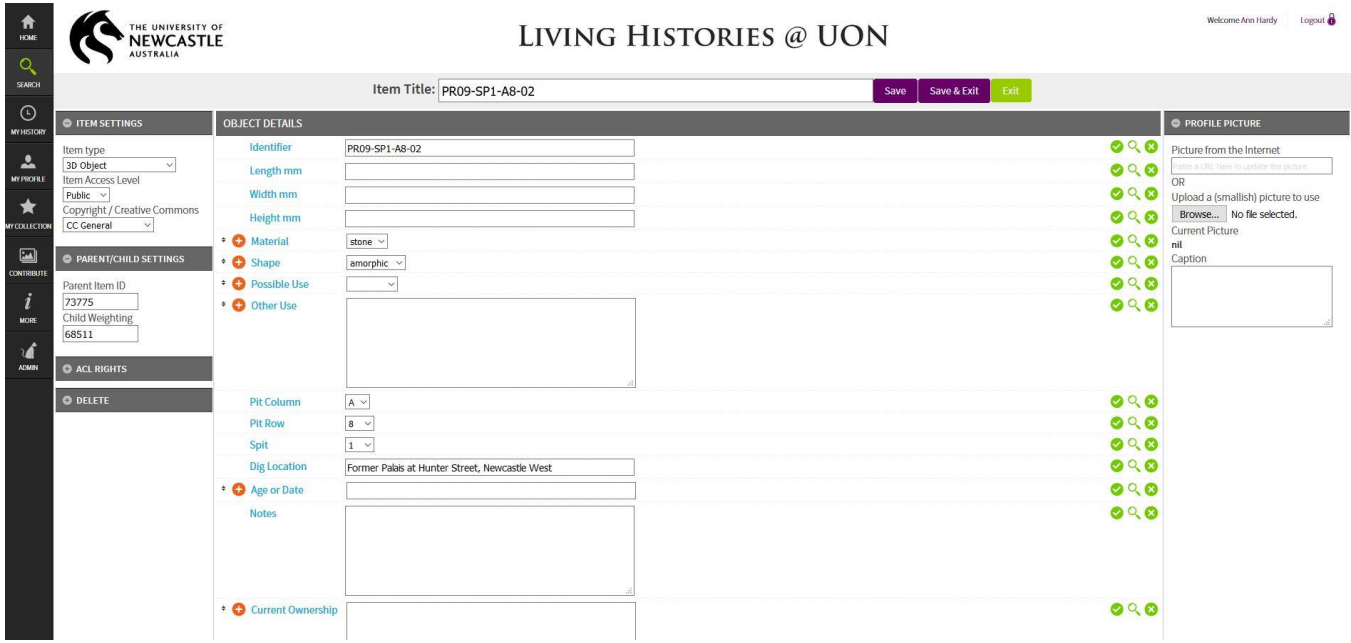
- Each artefact captured in high resolution
- Stored as 3D model + texture image

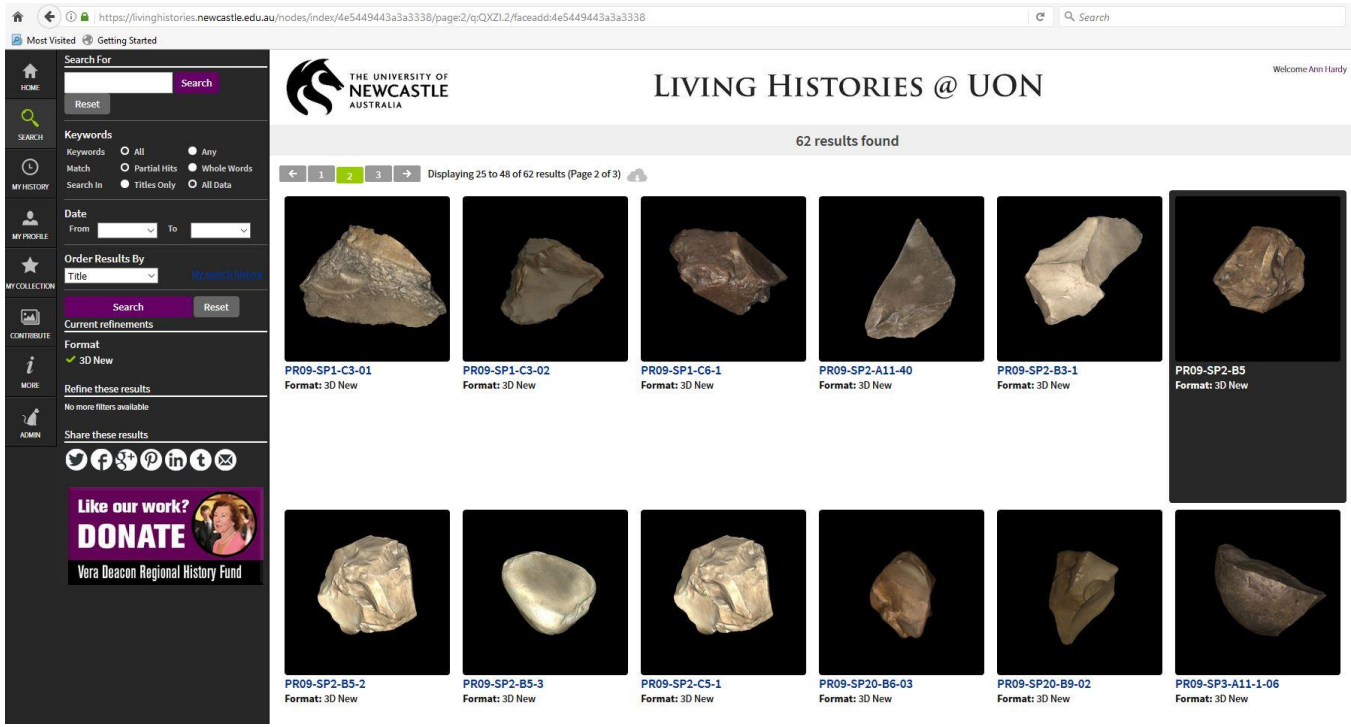


USING RECOLLECT

- Scanned objects can be uploaded along with relevant metadata
- 3D objects can then be viewed on the web

https://livinghistories.newcastle.edu.au/nodes/view/86569



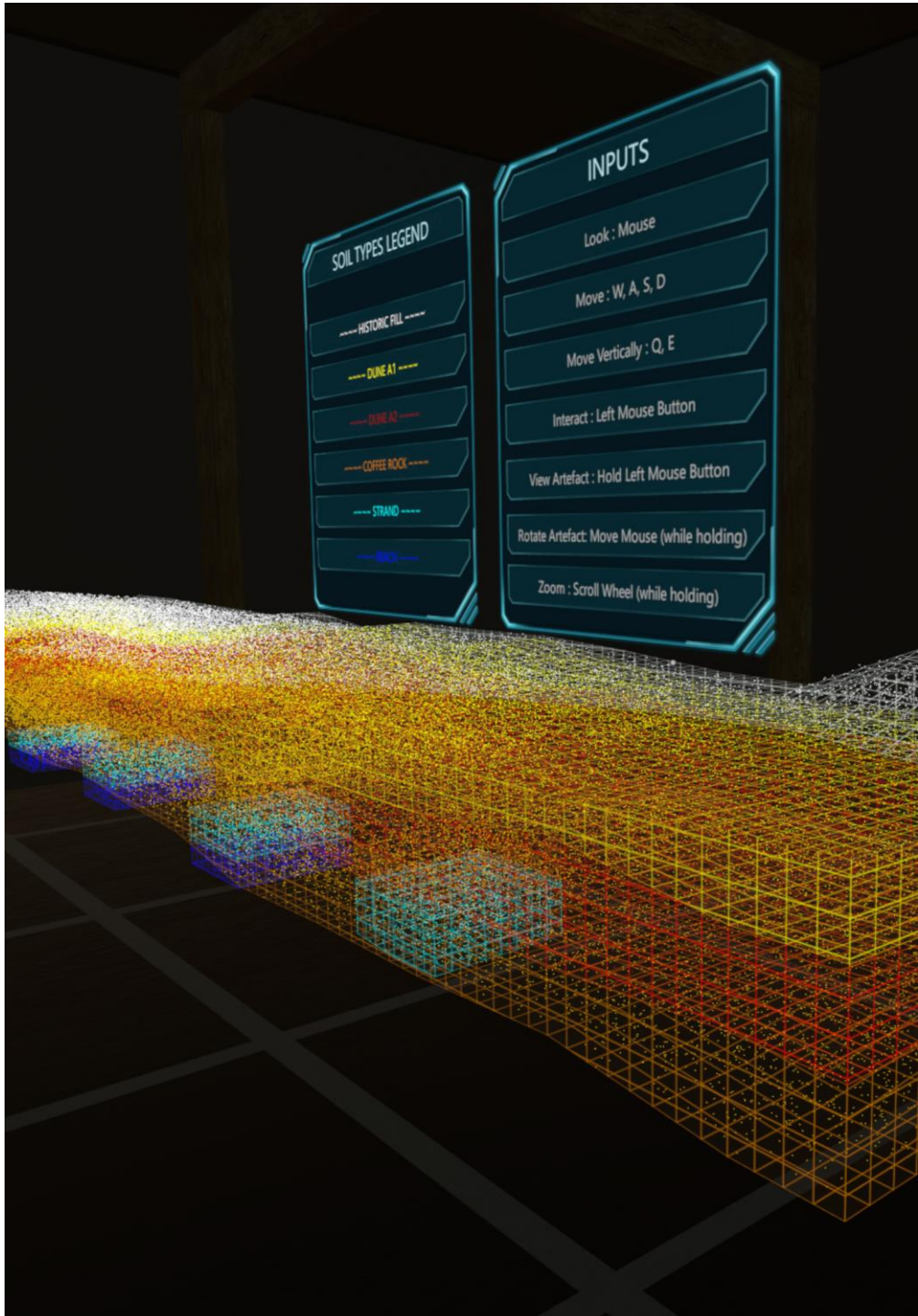


LOADING THE DATA

- The 3D VR application holds a local copy of scanned artefacts
- On start-up it checks for new artefacts from Recollect
- This keeps the application up to date with minimal download time

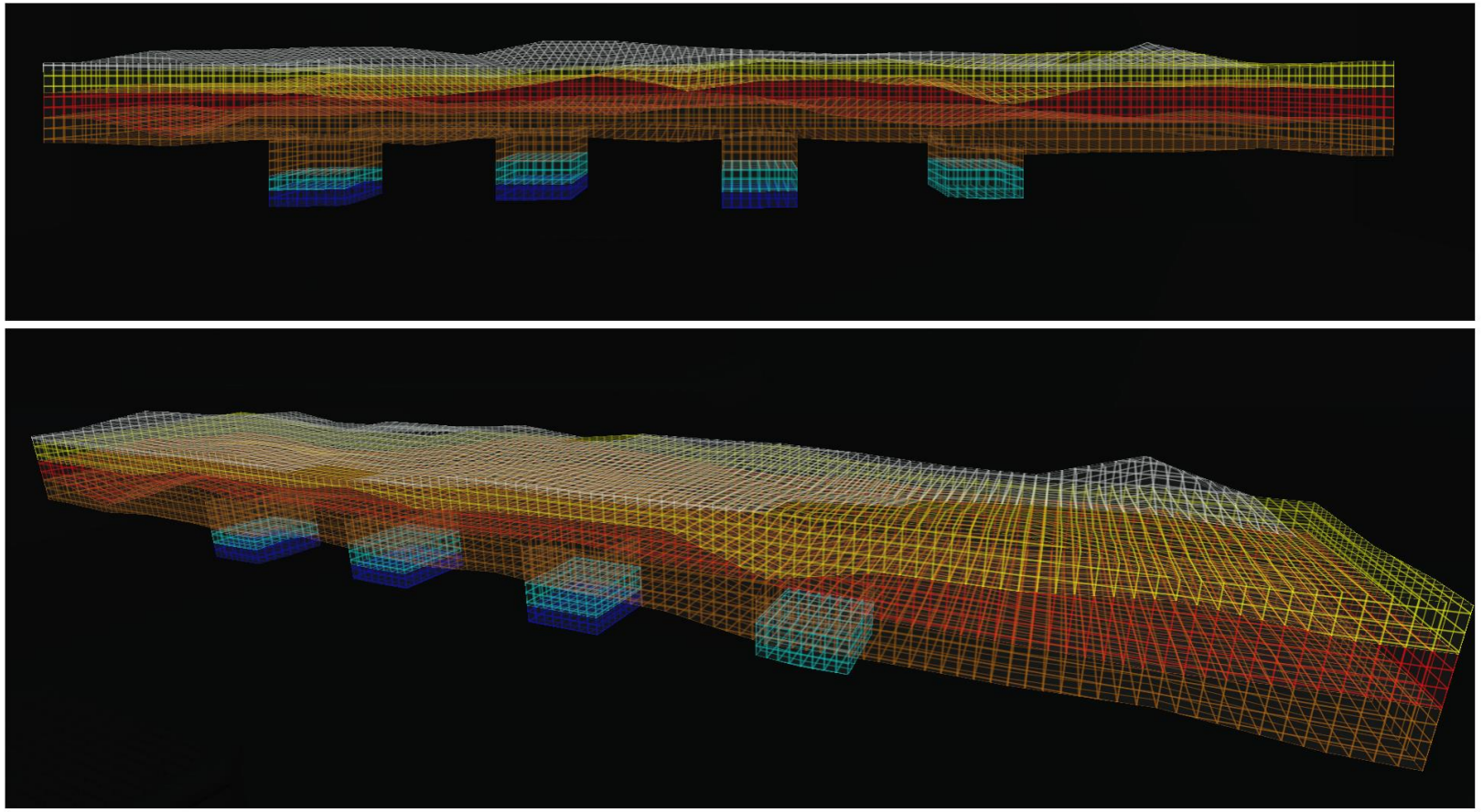
THE TRENCH

- The holographic trench is modelled by hand
- Based on archaeological report
- Accurate to the centimetre at key points
- Colour coded for different soil types / time periods



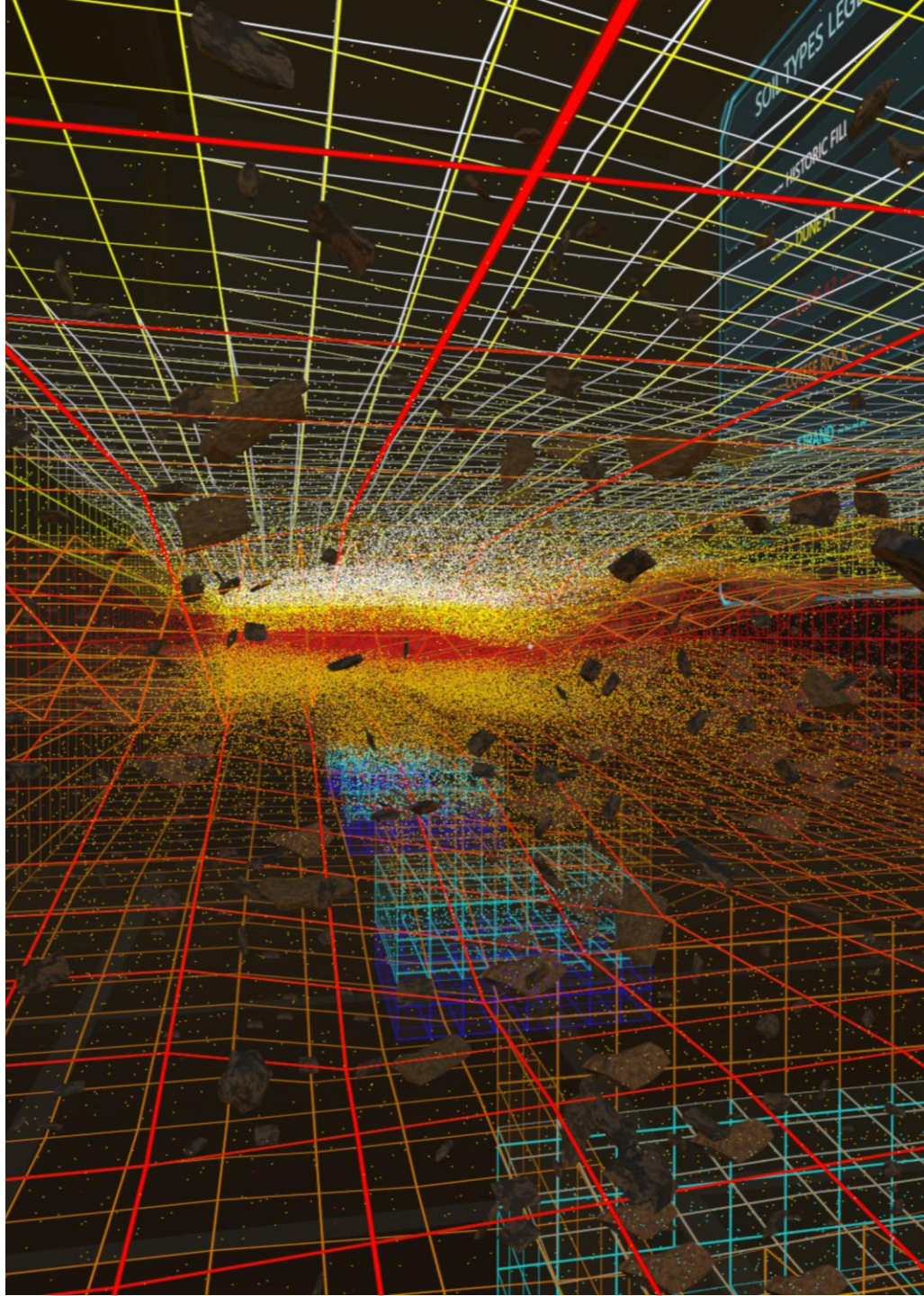
THE TRENCH

- Historical Fill
- Dune A1
- Dune A2
- Coffee Rock
- Strand
- Beach Deposit



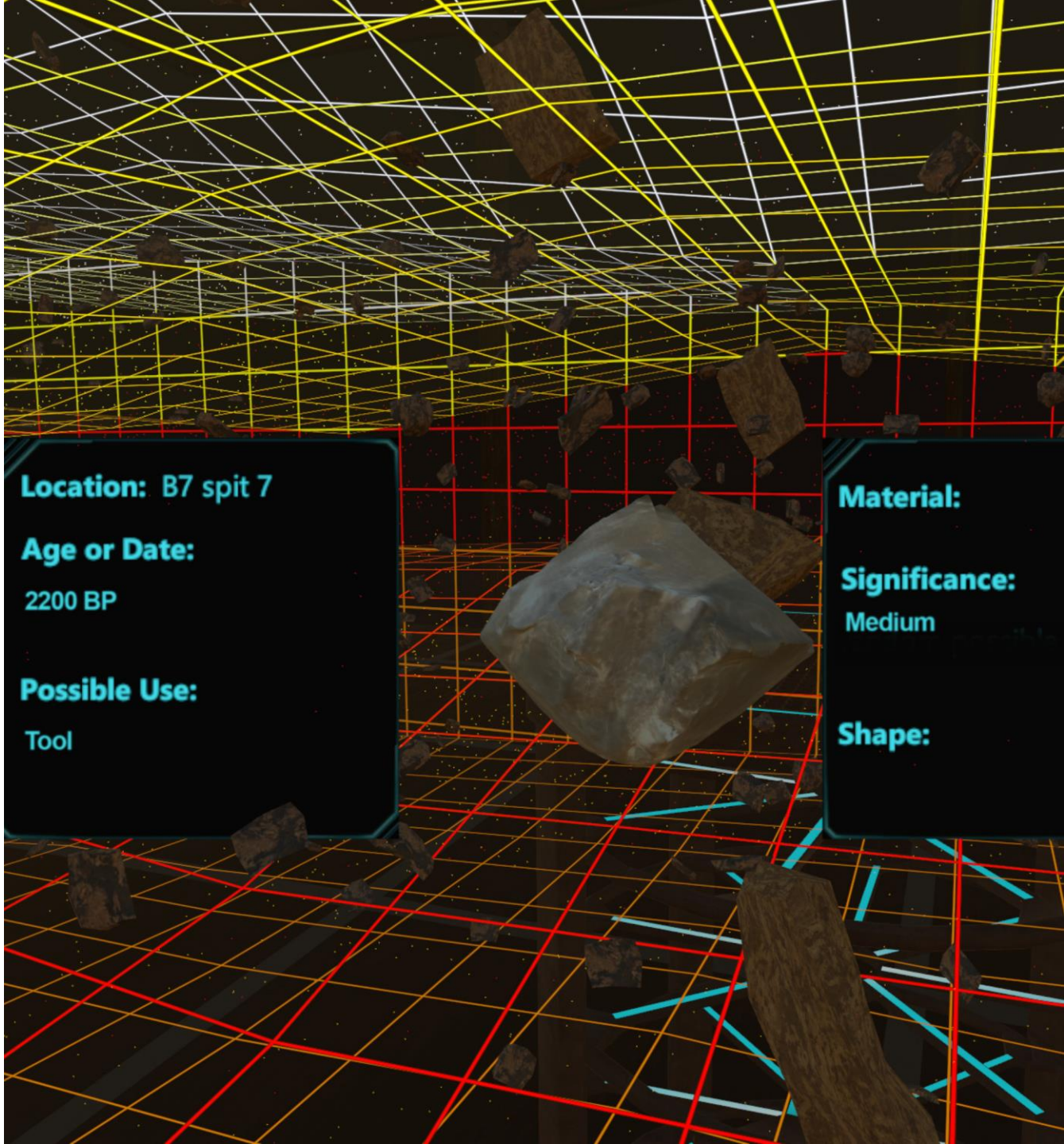
ARTEFACT DISTRIBUTION

- Artefacts are distributed in the trench based on their metadata
- Accurate to 10cm in height, 1x1 meter in x/y
- Allows you to see density and distribution of artefacts throughout the trench



EXAMINING ARTEFACTS

- Hold individual artefacts in VR
- As if you are holding the real thing
- Displays metadata
- Magnifying glass available



Q&A