Exploring the Bird Tower Cave in 3D
A Virtual CAVE Experience

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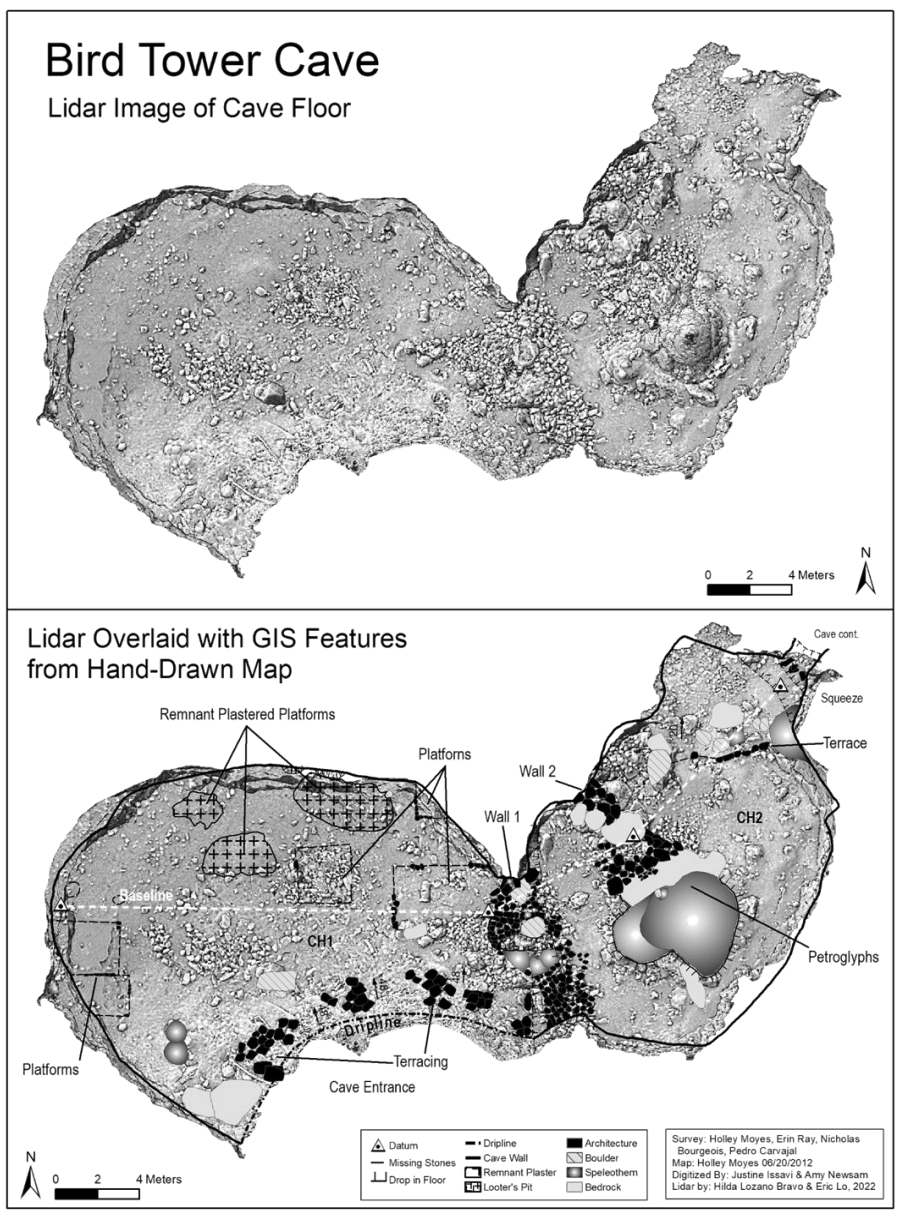
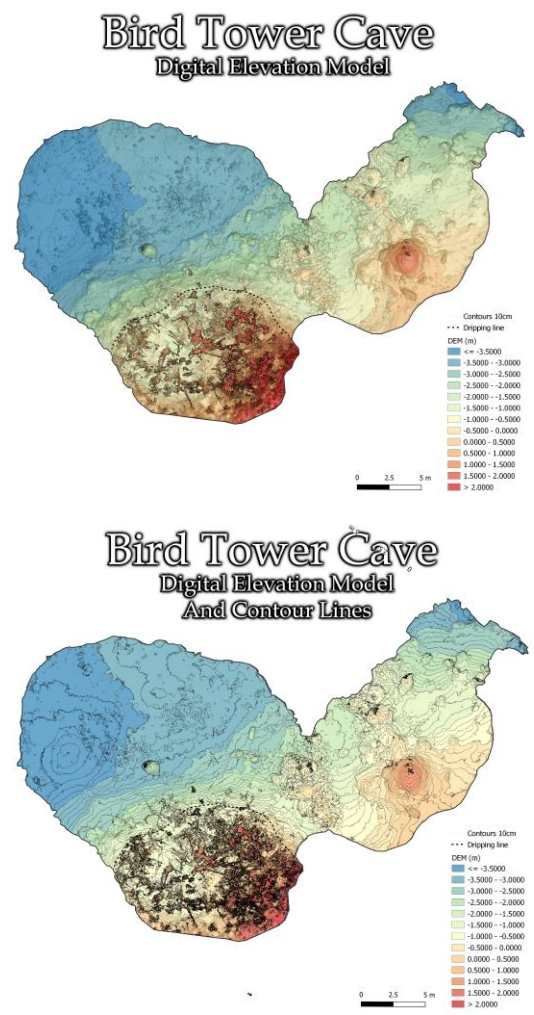
Methodology:

We used the Hovermap to collect high-resolution 3D data of the Bird Tower Cave. The data was then processed using specialized software like CloudCompare, Metashape and Blender to create a detailed 3D model of the cave. We then imported the 3D model into a videogame Engine, Unreal 5 Engine, to been able to play it in a CAVE system, where users can explore the cave in an immersive virtual environment. The CAVE system provides a realistic sense of scale and depth perception, allowing researchers to make new observations and gain new insights into the caves function and use.





Introduction:

Three-dimensional (3D) visualization is a powerful tool for the exploration and analysis of archaeological sites. In particular, CAVE (Cave Automatic Virtual Environment) systems provide an immersive and interactive environment for researchers to explore 3D models of archaeological sites. This poster presents our work on the 3D visualization of the Bird Tower Cave using the Hovermap Terrestrial Laser System and then presenting the 3D model in a CAVE system.

Conclusion:

The use of 3D visualization in exploratory digital archaeology has great potential for advancing our understanding of archaeological sites. The Hovermap and CAVE system used in this project provide a powerful toolset for the creation and exploration of 3D models of archaeological sites. Our work on the Bird Tower Cave demonstrates the potential for using 3D visualization to uncover new insights into the past and to share those insights with a wider audience.

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