

## Creating a digital rubbing from a 3D model of petroglyphs

By ROBERT MARK

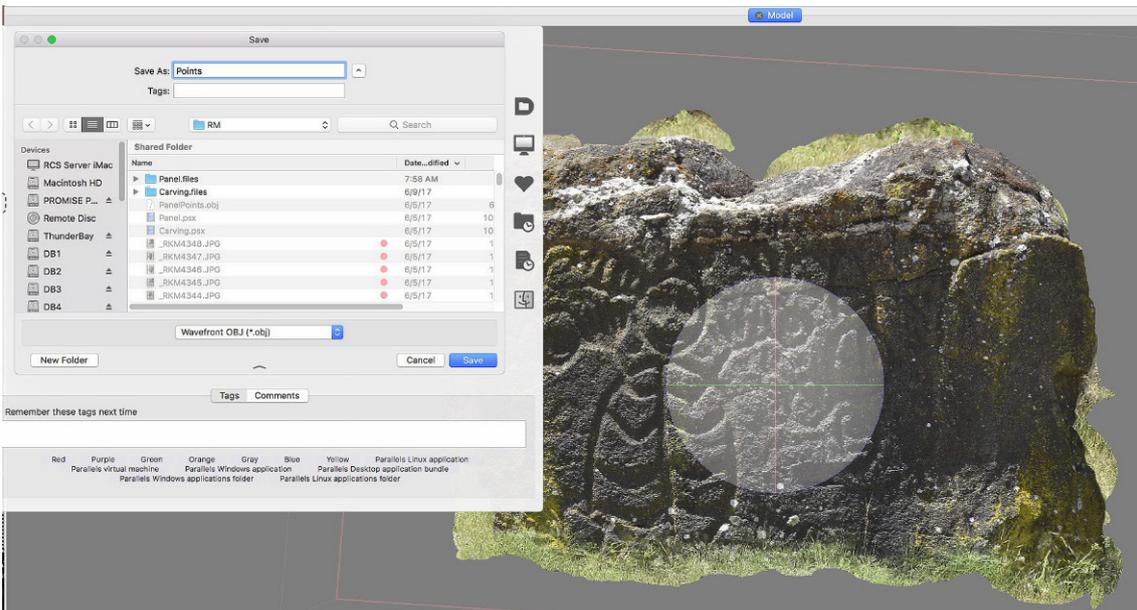
This technique is based upon the use of a dense point cloud from a Structure from Motion (SfM) program such as PhotoScan. The model must be of high-resolution, so as to capture the petroglyph surface texture. The point cloud is opened in CloudCompare (free software) and

a generalised surface is fitted to the points. A display of the points below the surface has the appearance of an inverted rubbing.

Dr Robert Mark  
 Rupestrian CyberServices  
 3644 N. Stone Crest Street  
 Flagstaff, AZ 86004-6811  
 U.S.A.  
 rmark@infomagic.net  
 RAR 34-0000

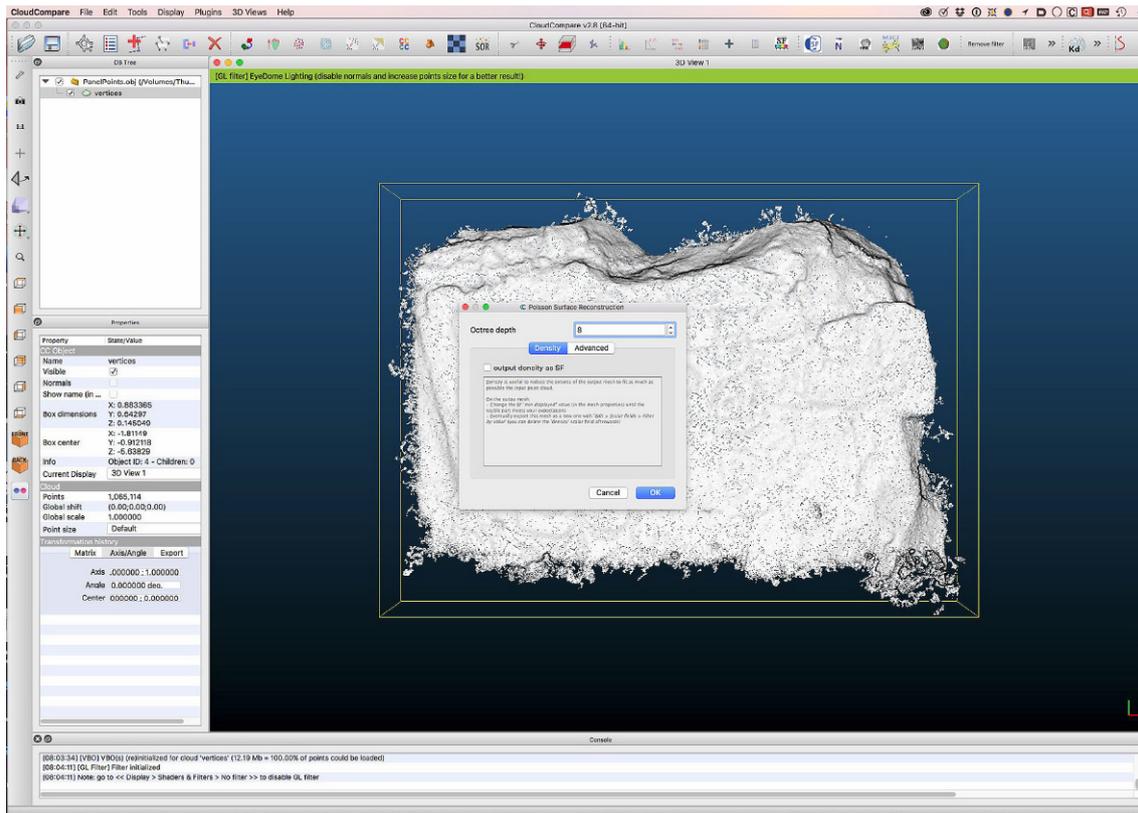


Example of a 'digital rubbing' of boulder at Reinhardt University, Georgia, USA.

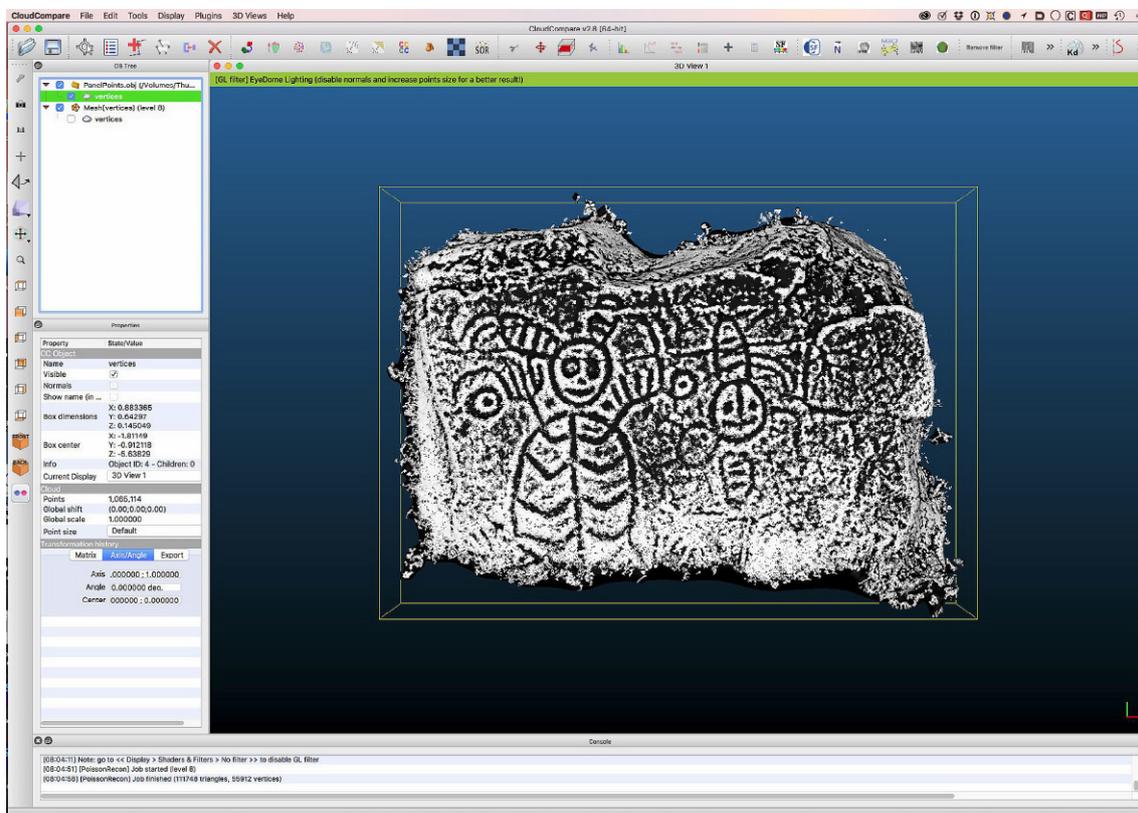


Step 1. Export a dense point cloud from the model (Columbia Hills State Park, Washington).





Step 4. Experiment with Octree Depth (usually 8).



Step 5. Save (Display: Render to File) or capture the image, the 'digital rubbing'.