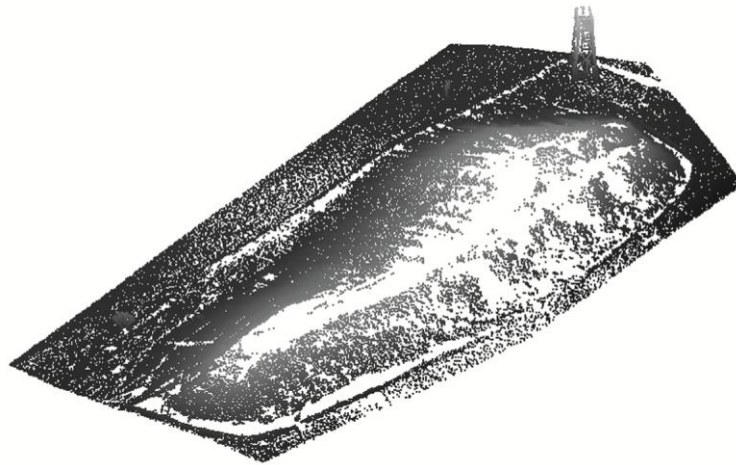


## Exercise 15-3

1. Start a new drawing.
2. Using the **POINTCLOUDATTACH** command, insert the file Hill\_Tower.rcs available on the companion website. Insert the file at the coordinates 0,0,0.
3. Display an isometric view of the drawing. Set the projection to parallel. Refer to the illustration below.



*(Model courtesy of Pittsburg State University School of Construction)*

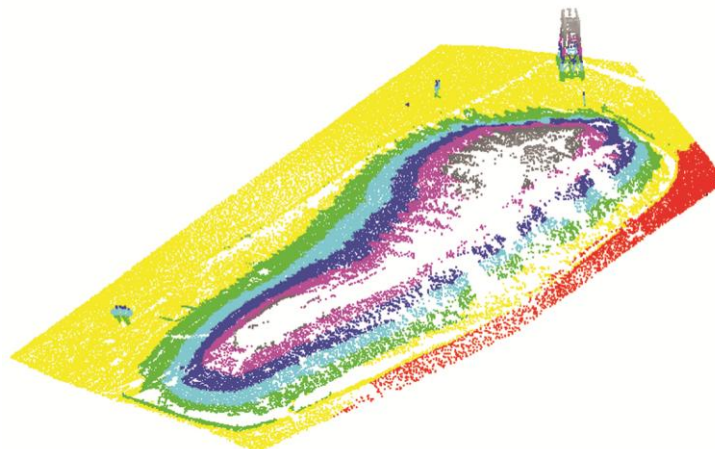
4. Save the drawing as EX15-3A.
5. Select the point cloud to display the **Point Cloud** contextual ribbon tab.
6. Using the **Point Size** slider in the **Display** panel, adjust the point size. Note that higher values increase the density of the point cloud. Set the point size to 2.
7. Using the **Transparency** slider in the **Visualization** panel, set the transparency to 35 and view the result. Reset the value to 0.
8. In the **Visualization** panel, select the **Elevation** option from the **Stylization** drop-down list.

9. Pick the **Color Mapping** button in the **Visualization** panel to open the **Point Cloud Color Map** dialog box. Notice that the color scheme is set to **Earth**. Adjust the number of colors to 15. Pick **OK** to close the **Point Cloud Color Map** dialog box. Refer to the illustration below.



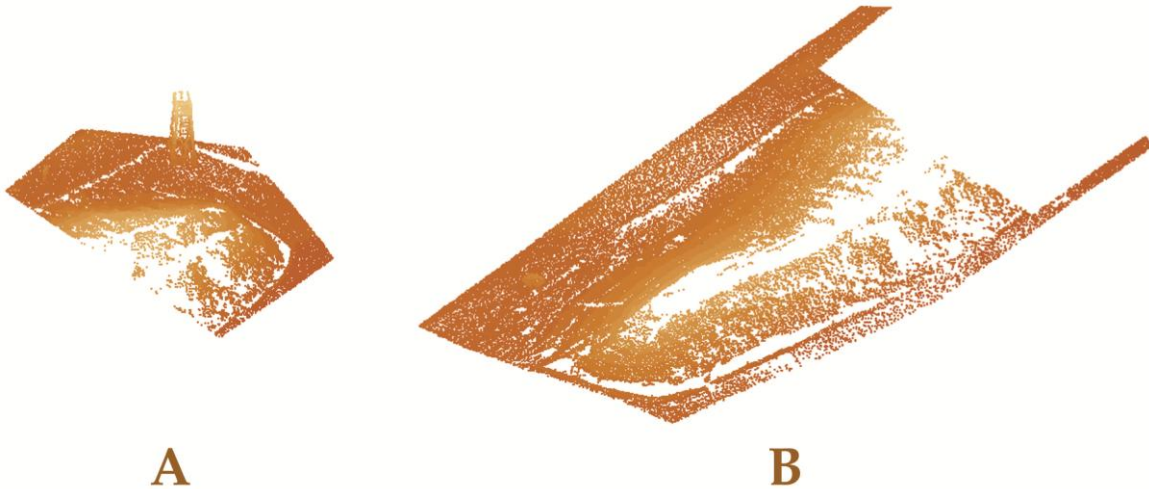
*(Model courtesy of Pittsburg State University School of Construction)*

10. Pick the **Color Mapping** button in the **Visualization** panel to open the **Point Cloud Color Map** dialog box. Change the color scheme to **Greens**. Adjust the number of colors as desired. Pick **OK** to close the **Point Cloud Color Map** dialog box and view the result.
11. Pick the **Color Mapping** button in the **Visualization** panel to open the **Point Cloud Color Map** dialog box. Change the color scheme to **Spectrum**. In the **Range of colored points** area, uncheck the **Apply to extents of point cloud** option. Change the **Interval height:** setting to 85.93, the **Maximum elevation:** setting to 110, and the **Minimum elevation:** setting to -405.56. Pick **OK** to close the **Point Cloud Color Map** dialog box and view the result. Refer to the illustration below.



*(Model courtesy of Pittsburg State University School of Construction)*

12. Using the **Stylization** drop-down list in the **Visualization** panel, select the **Scan Colors**, **Object Color**, and **Normal** options to change the color style. Change the setting back to **Elevation**.
13. Pick the **Color Mapping** button in the **Visualization** panel to open the **Point Cloud Color Map** dialog box. Change the color scheme to **Earth**. Check the **Apply to extents of point cloud** option. Pick **OK** to close the **Point Cloud Color Map** dialog box.
14. In the **Cropping** panel, select the **Polygonal** option from the **Crop** drop-down list. Pick several points forming a polygonal shape to crop the upper portion of the point cloud as shown in A. Pick the **Invert** button to invert the crop as shown in B. Continue to experiment with the point cloud cropping options. When finished, select the **Uncrop All** button to restore the original display.



*(Model courtesy of Pittsburg State University School of Construction)*

15. Save the drawing as EX15-3B.