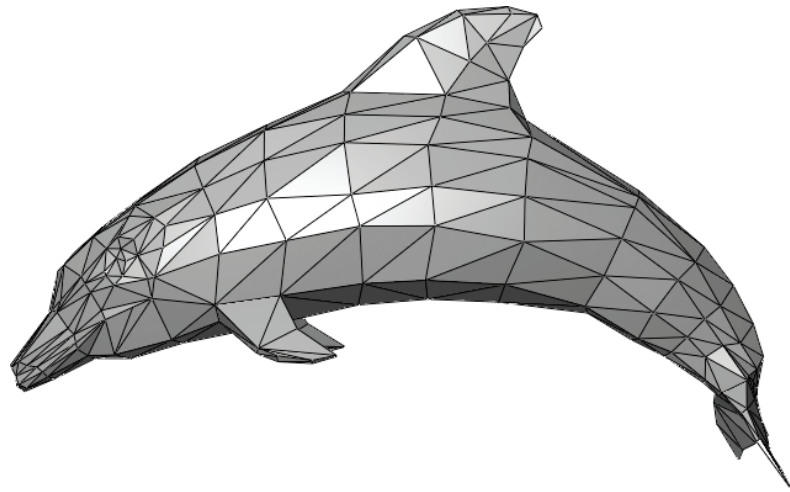


Non-photorealistic Stipple Rendering

Denise Rockwell, University of Maryland, Baltimore County

Stippling

Monochromatic dots are perceived as tone. The concentration of dots can be finely controlled to convey subtle details.



We would like to render stipple drawings digitally using 3D geometry as input.

Density Affected By:

- Color
- Texture
- Lighting
- Silhouettes

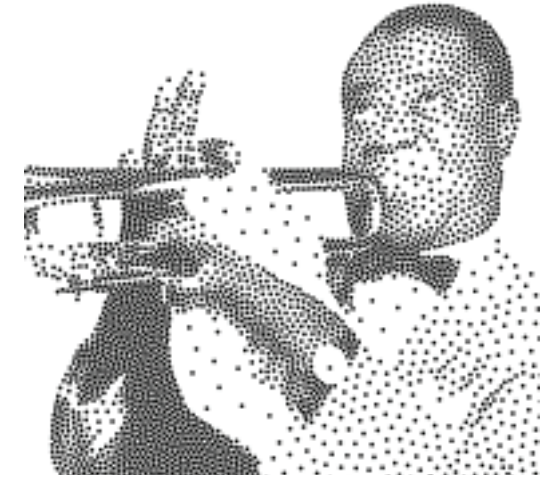
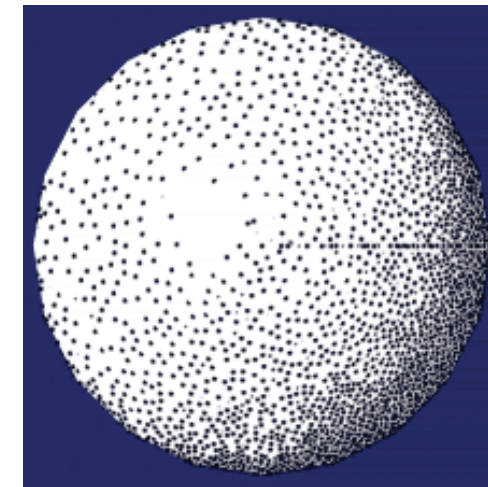


Bald Eagle by Xin Yan (used with permission)

Shaders can access this information to render stippling at interactive rates.

Previous Work

Existing stipple renders do not use 3D input and/or do not convey information that would be captured by a human artist.



Potential Problems

- Even yet organic spacing
- Temporal coherence
- "Shower door" effect
- Effect of neighboring areas