

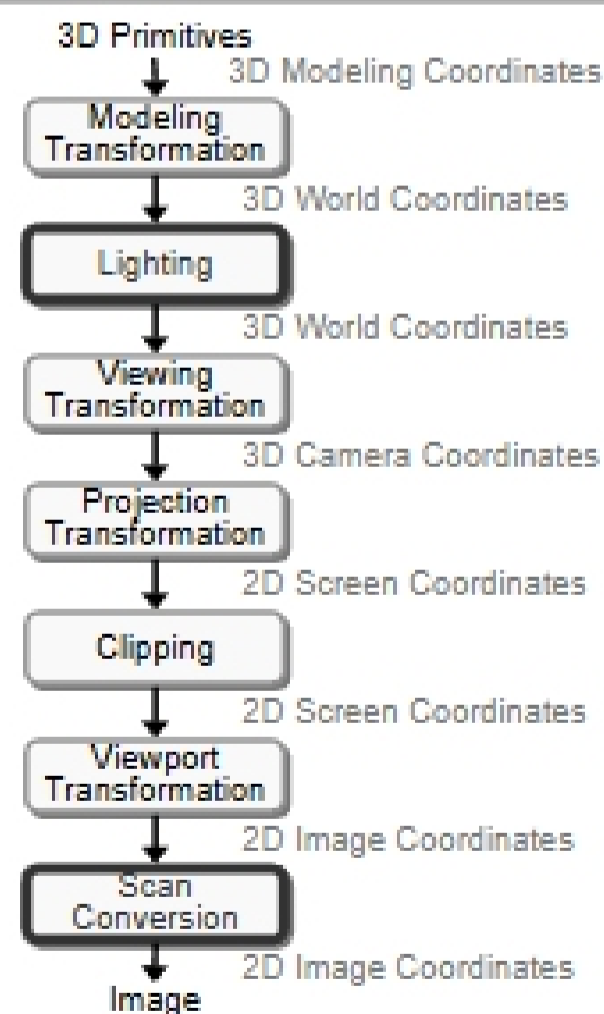


Texture Mapping

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3D Rendering Pipeline (for direct illumination)

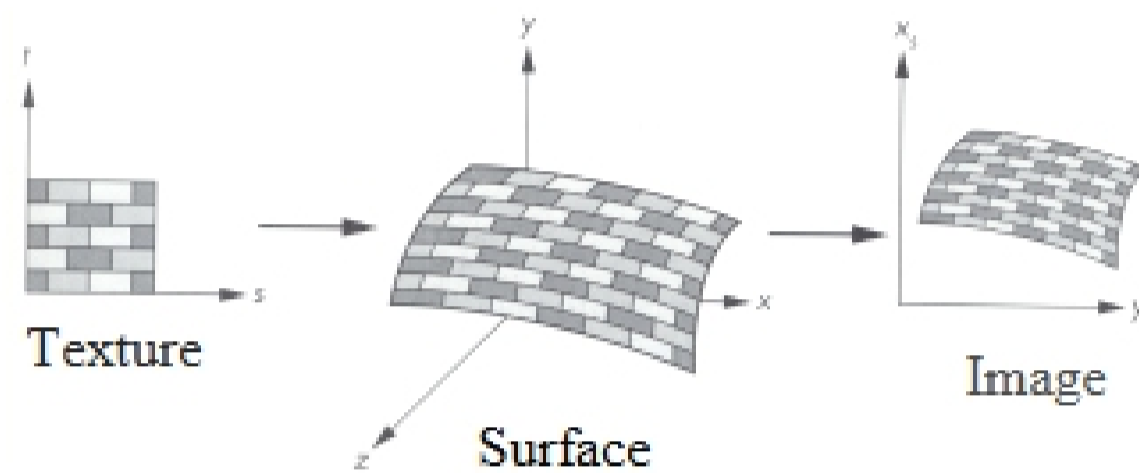


Texture mapping

Textures



- Describe color variation in interior of 3D polygon
 - When scan converting a polygon, vary pixel colors according to values fetched from a texture

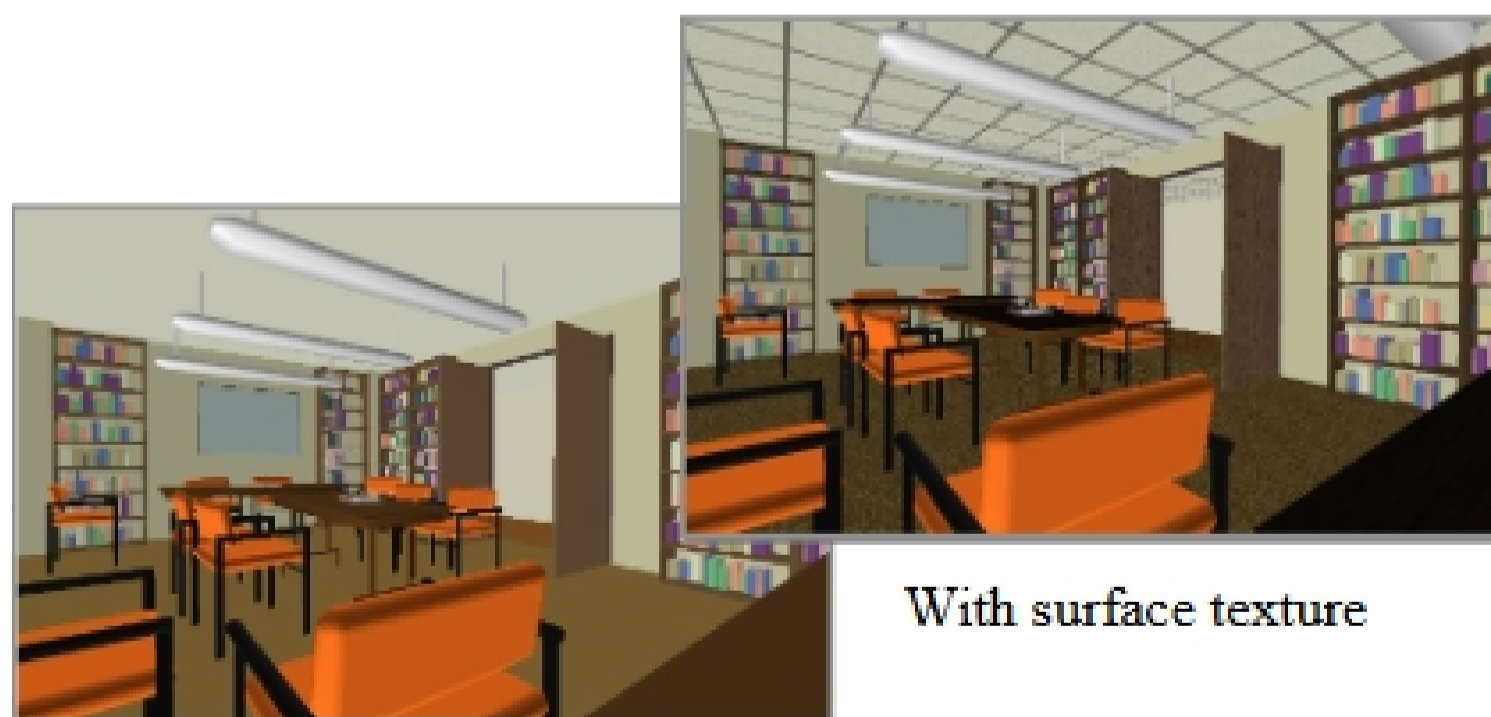


Angel Figure 9.3

Surface Textures



- Add visual detail to surfaces of 3D objects



Polygonal model

With surface texture

Overview



- Texture mapping methods
 - Mapping
 - Filtering
- Texture mapping applications
 - Modulation textures
 - Illumination mapping
 - Bump mapping
 - Environment mapping
 - Image-based rendering
 - Non-photorealistic rendering

Texture Mapping



- Steps:
 - Define texture
 - Specify mapping from texture to surface
 - Lookup texture values during scan conversion

