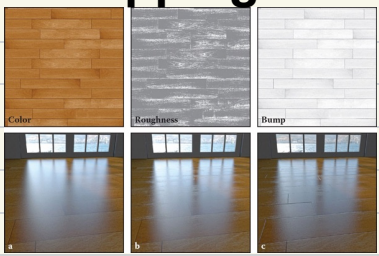
Chapter 11 - Texture Mapping

4. Applications



4.1. Controlling Shading Parameters

4.2. Normal Maps and Bump Maps

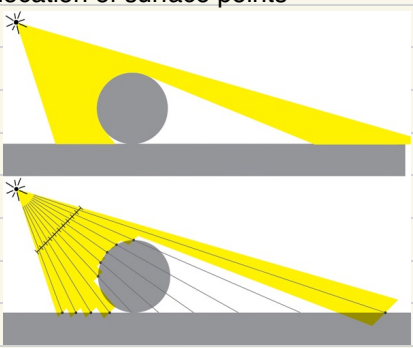
normal mapping - shading normal dependent on texture map

bump map - gives the local height of detailed surface above smooth one

4.3. Displacement Maps

height map, same as the bump, but changes location of surface points

4.4. Shadow Maps



depth map calculated in different rendering

z-buffer - updated during image rendering

d = d(map) - illuminated

d > d(map) - another surface closer to source

$\in$ - shadow bias (d - d(map) > $\in$)

4.5. Environment Maps

function defined over directions in 3D providing illumination information