



3D Texture Mapping

CAP 3027 Fall 2015

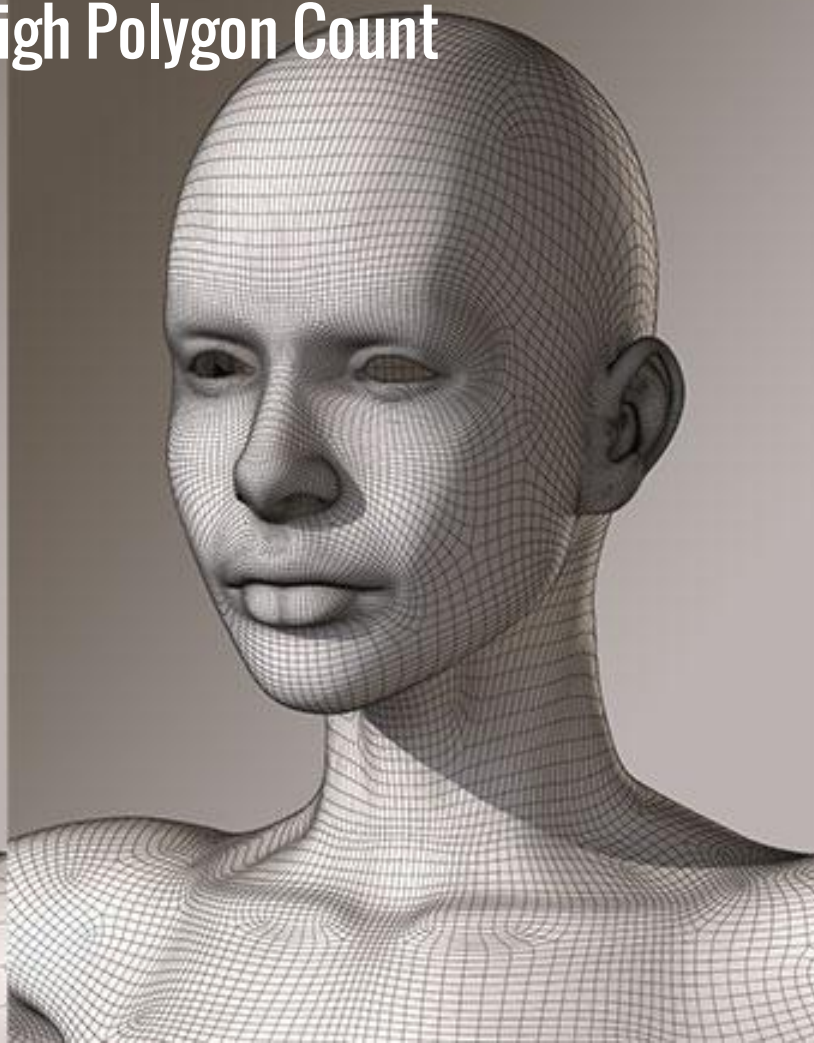
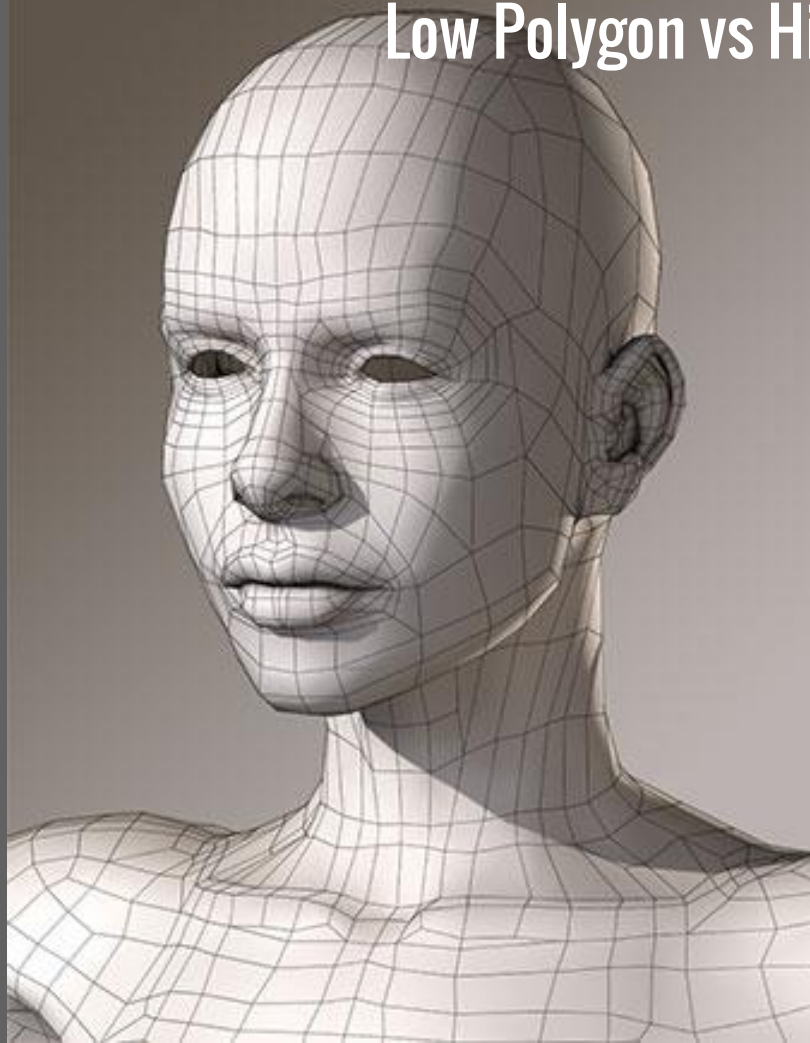
Nicola Frachsenen | Richard Li | Natalie Rumak | Xiaoxi Zheng

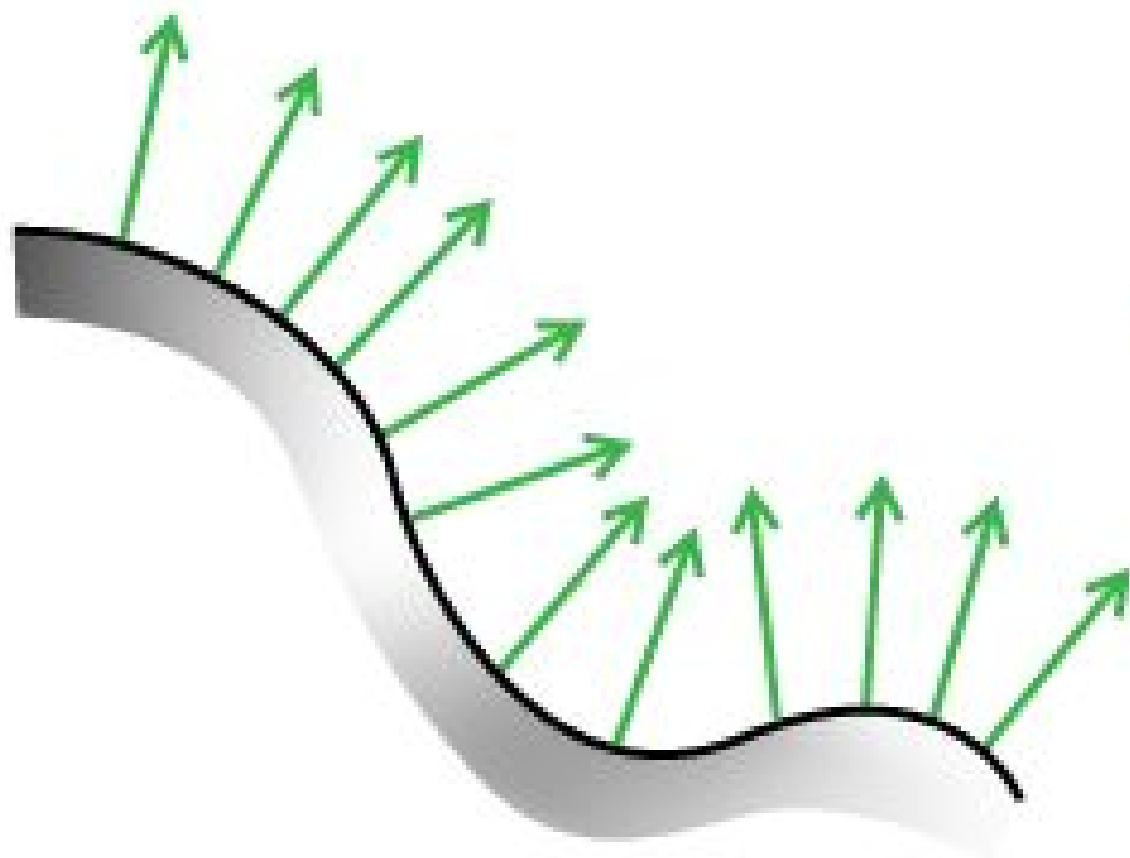
Introduction to 3D Texture Mapping



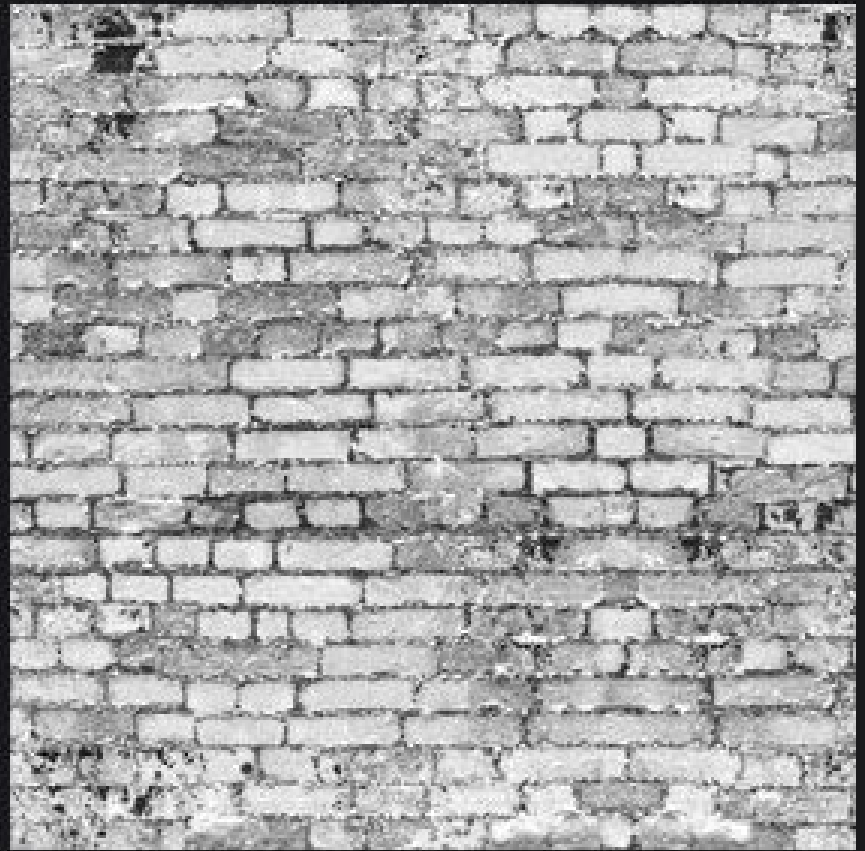
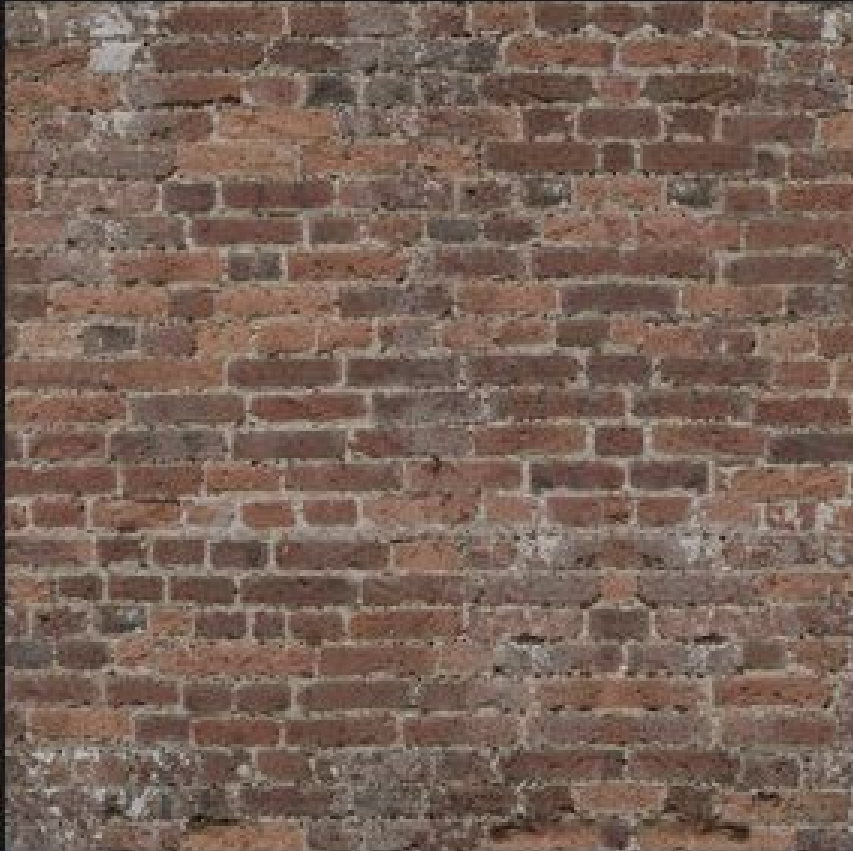
Bump maps create the illusion of raised detail.

Low Polygon vs High Polygon Count





Texture map **Bump Mapping** Bump Map



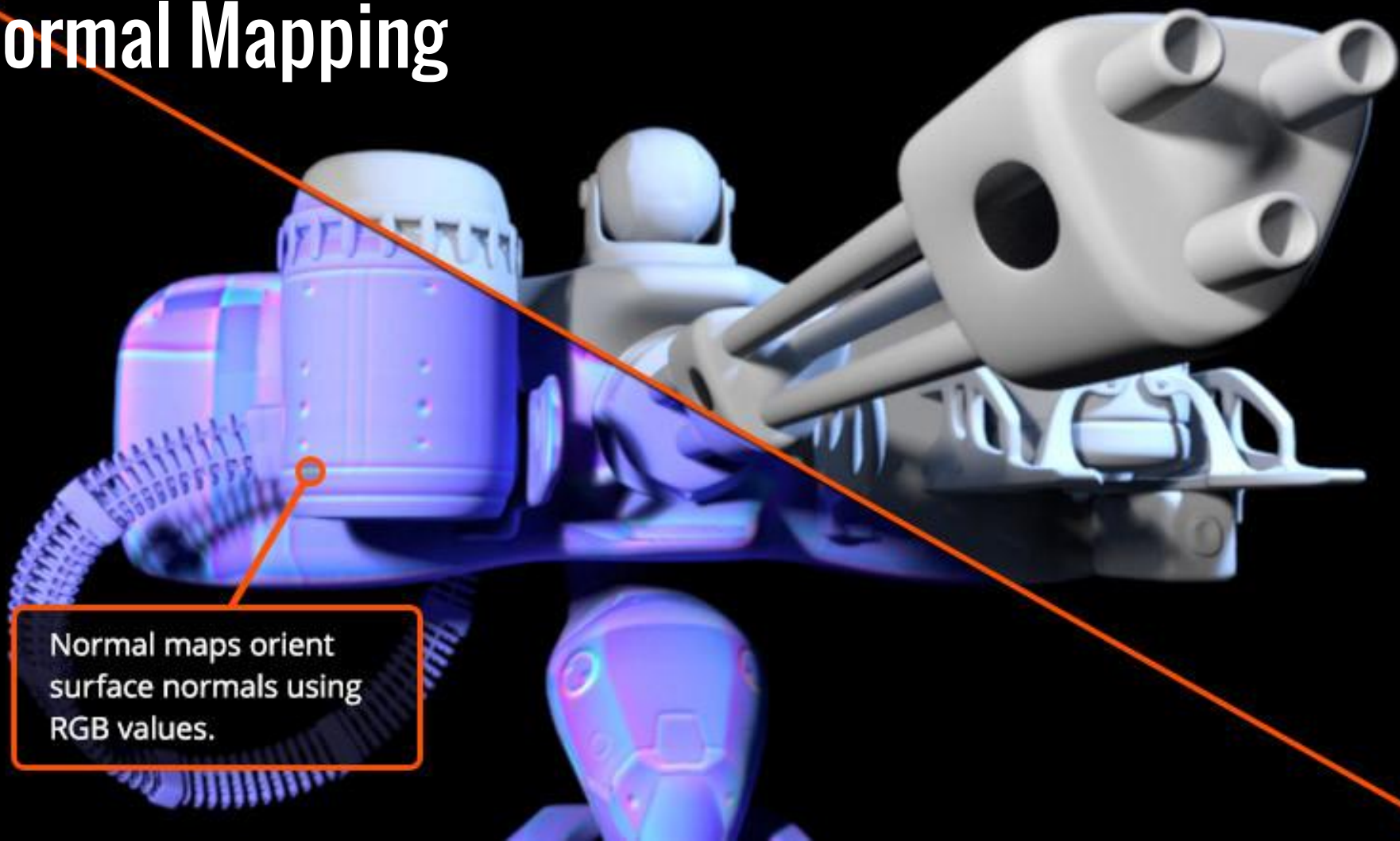
Without bump map



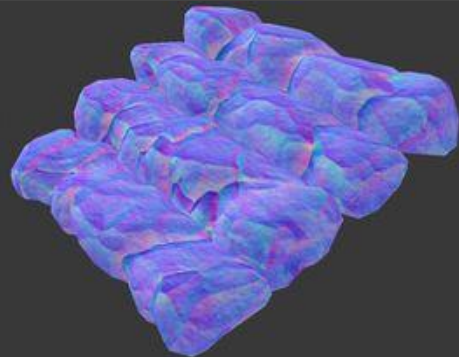
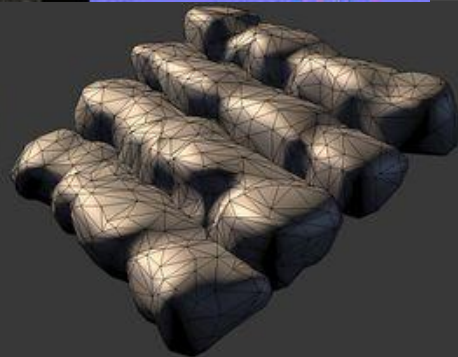
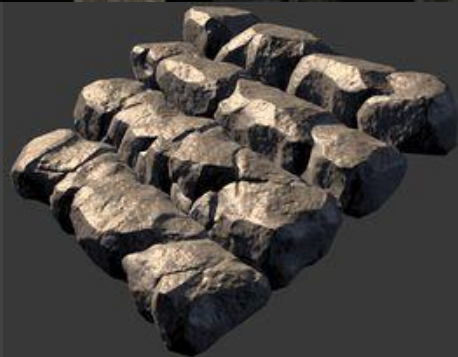
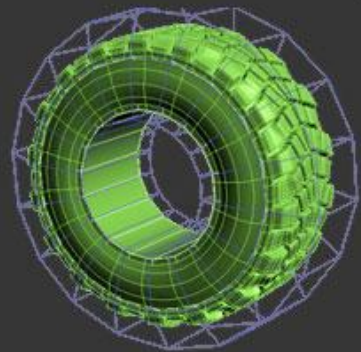
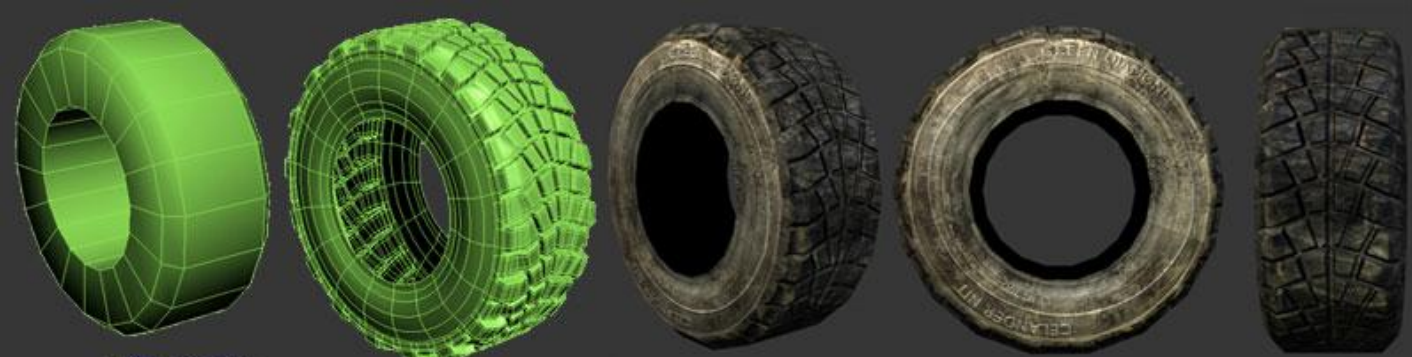
With bump map



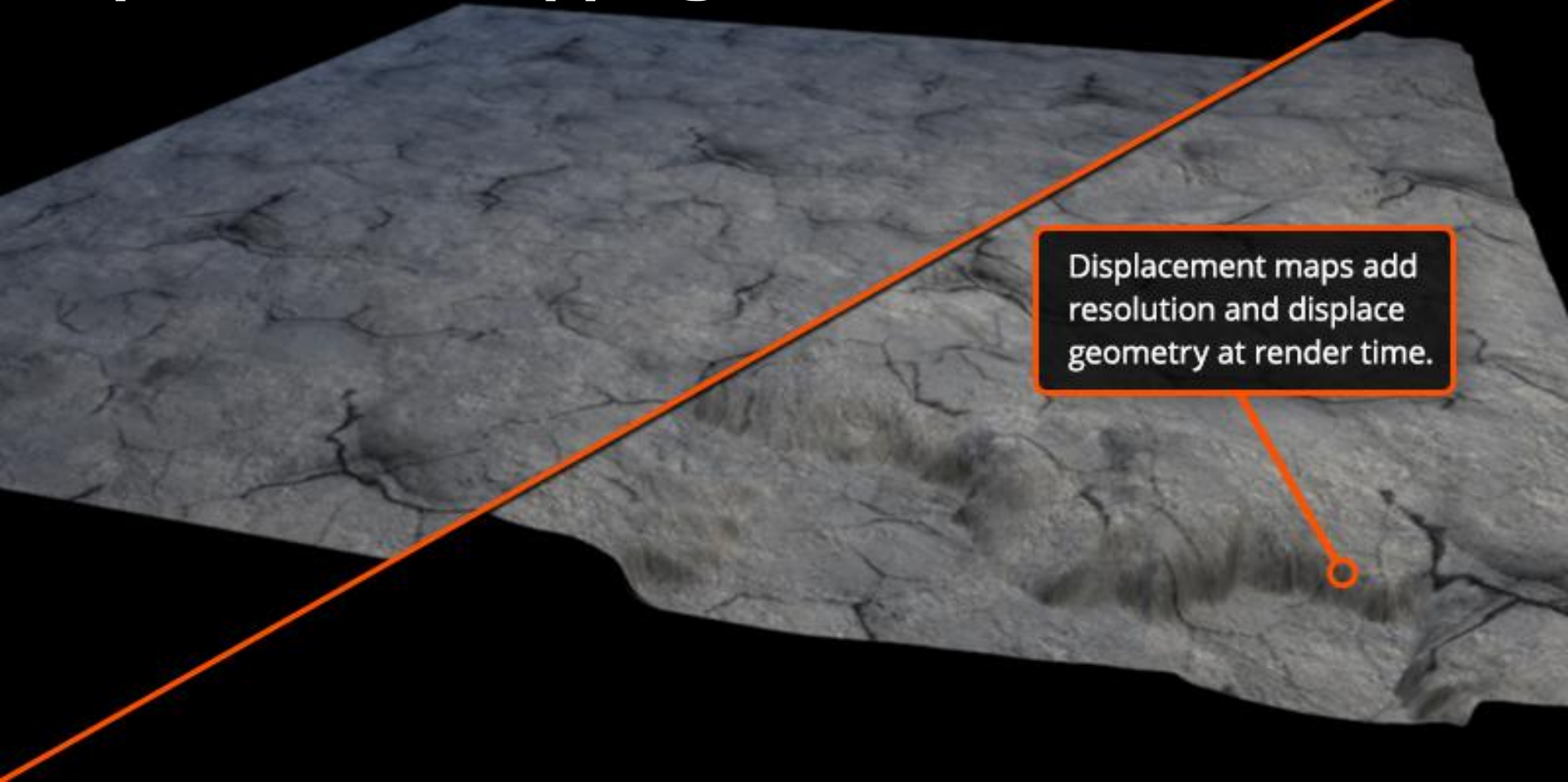
Normal Mapping



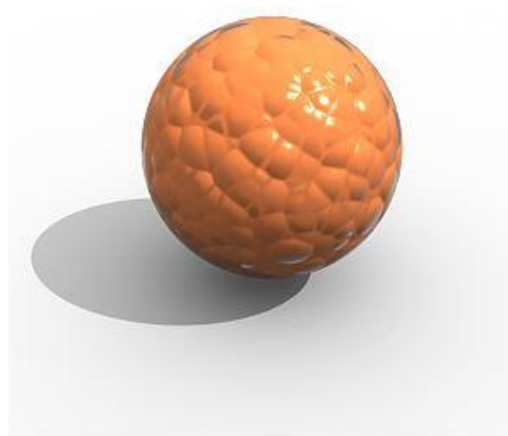
Normal maps orient surface normals using RGB values.



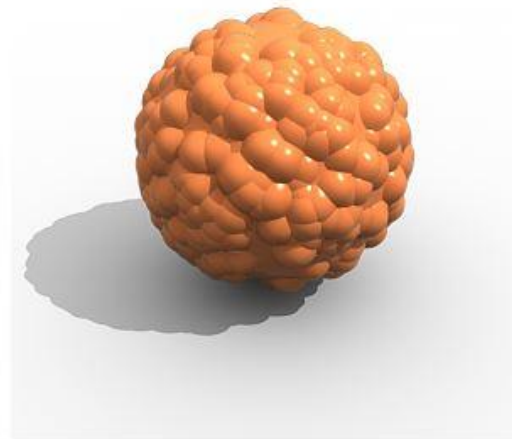
Displacement Mapping



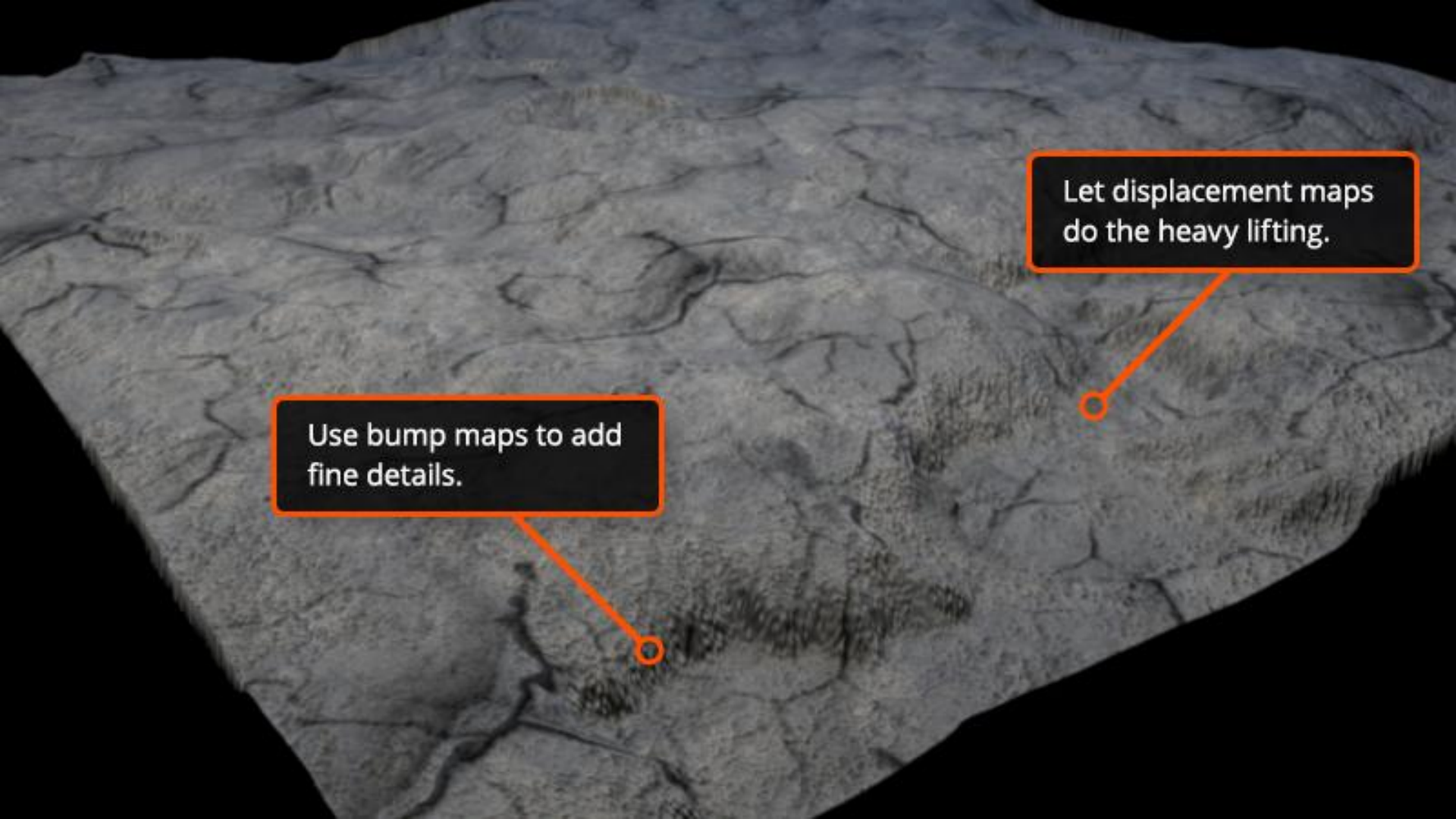
Displacement maps add resolution and displace geometry at render time.



Bump mapping



Displacement mapping



Use bump maps to add fine details.

Let displacement maps do the heavy lifting.

Relief Mapping

