

Introduction to Blender

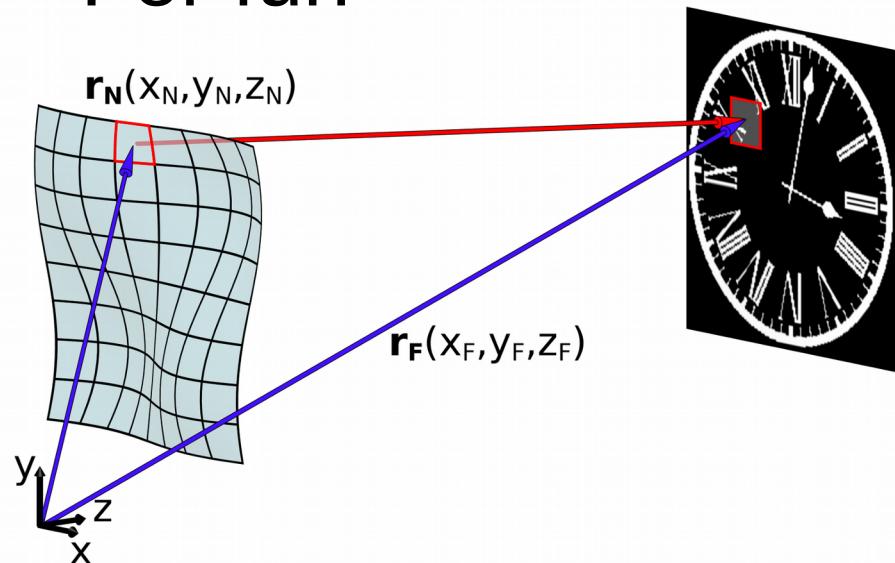
James Burch



Rico Cilliers https://media.blendernation.com/wp-content/uploads/2016/05/FinalEntry_LOW.jpg
accessed 2018/06/13

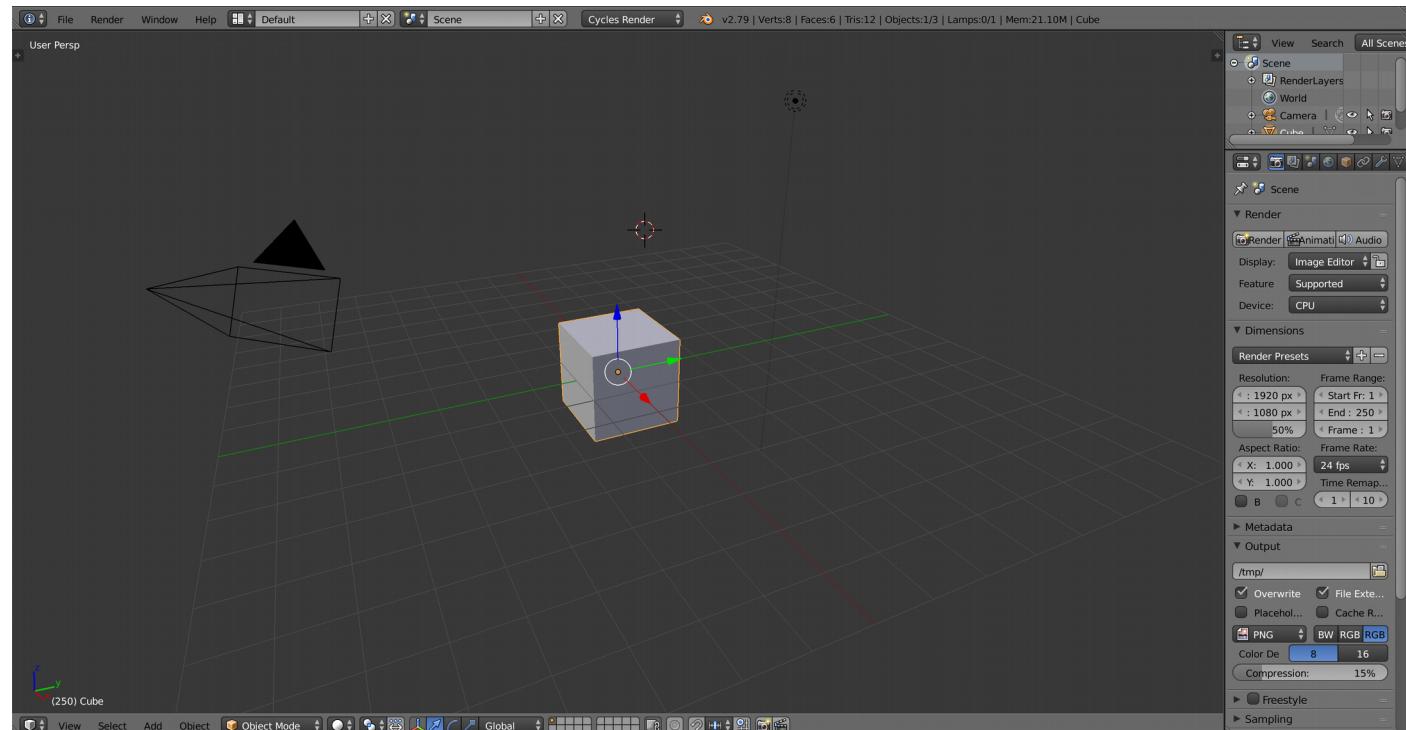
Why would you care?

- Scientific figures
- 3D modelling
(i.e. for 3D printing)
- Scientific animations
- For fun



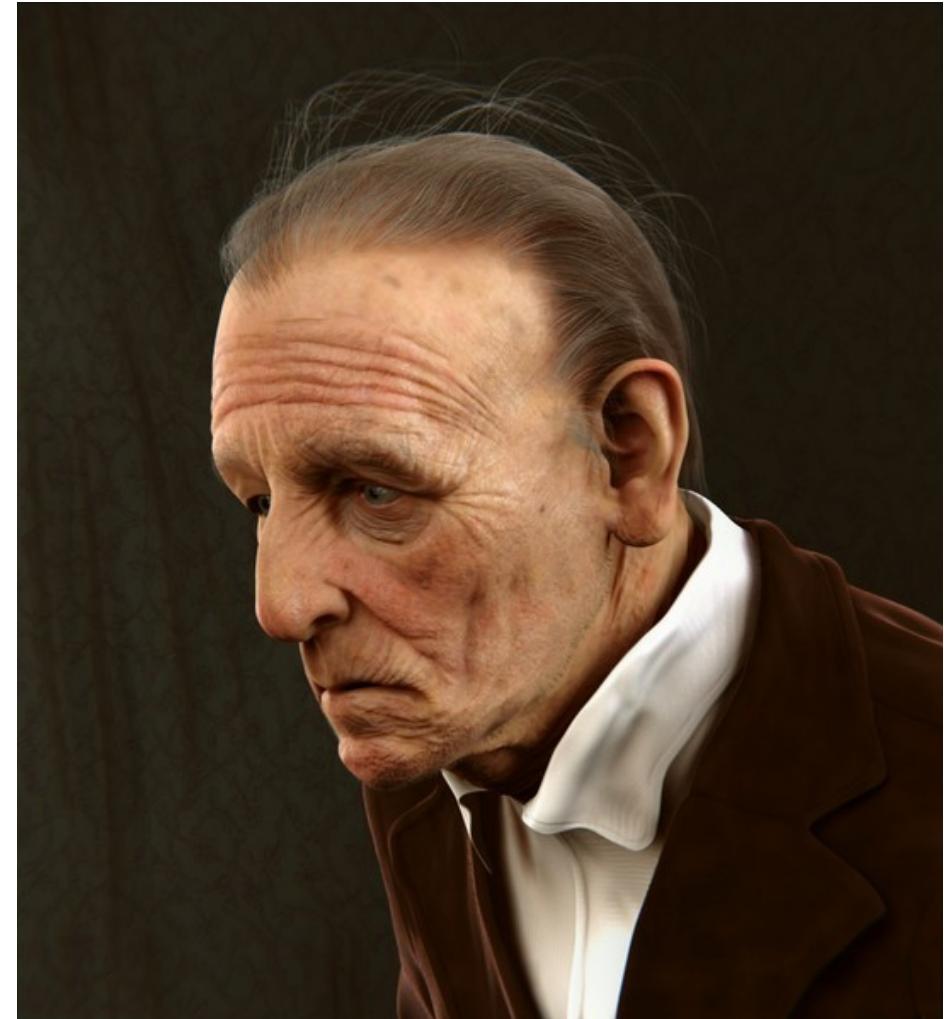
Blender components

- 3D modelling
- Renderer
- Compositor
- Movie editor



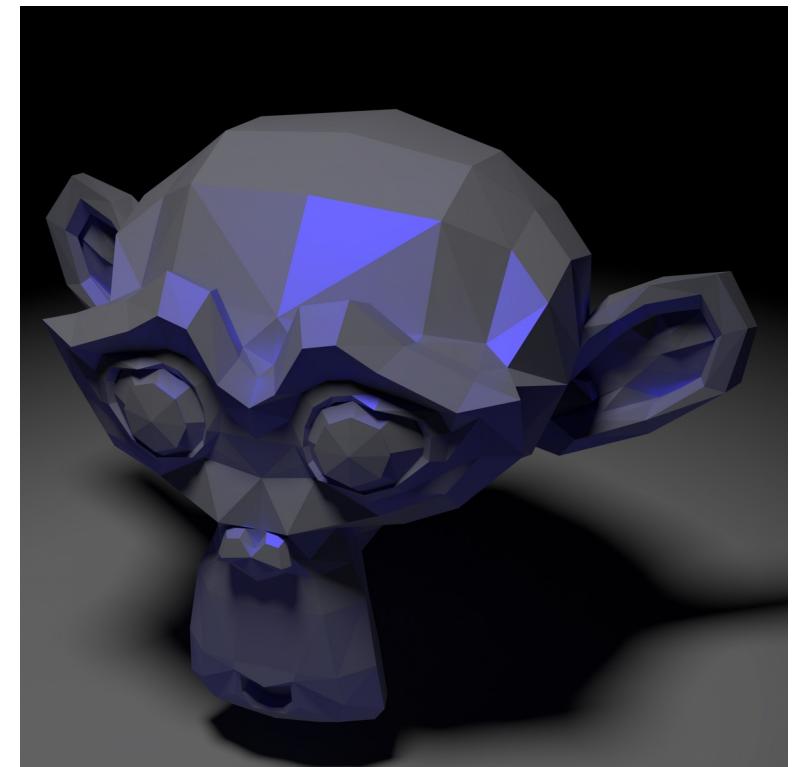
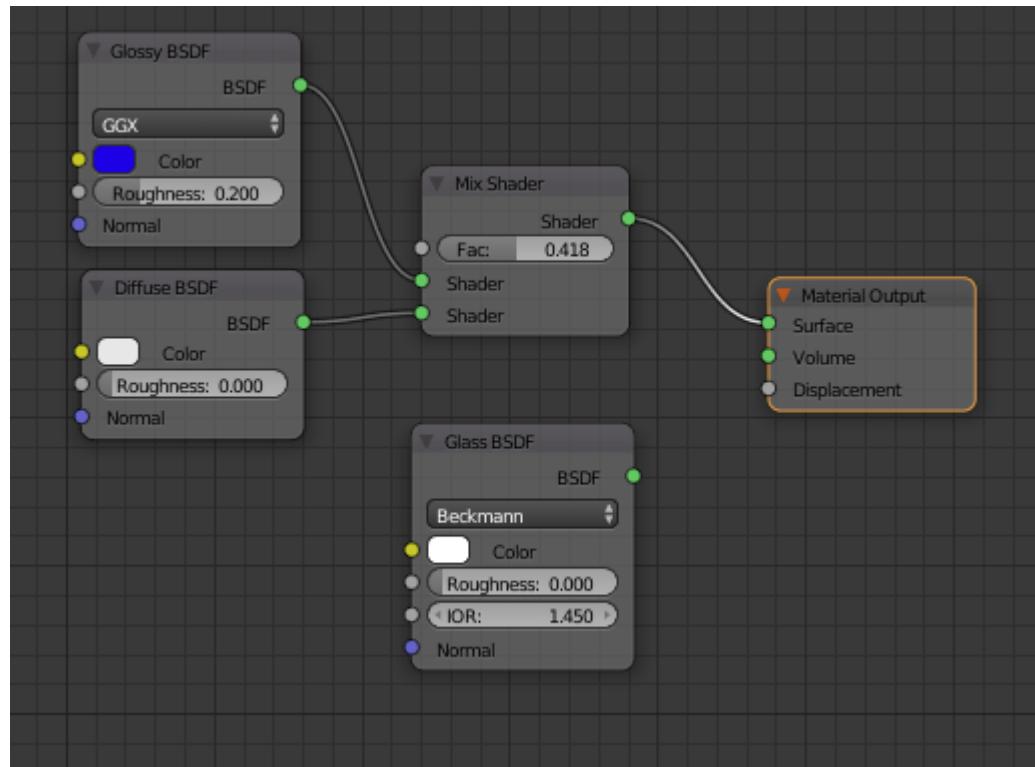
Modelling

- Interface
- Creating objects
- Manipulating objects
- Modifiers – Boolean
 - Subsurface



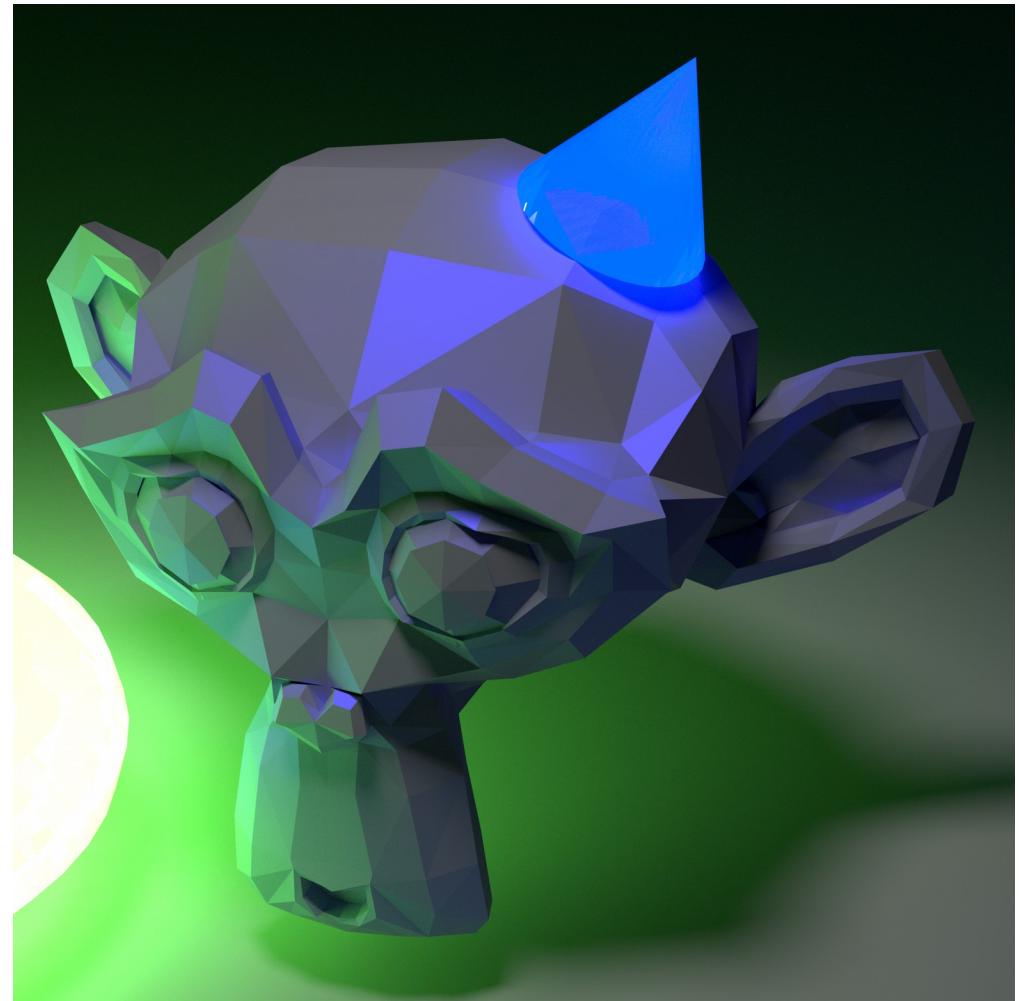
Materials

- Simple material editor
- Node editor (The connoisseurs choice)



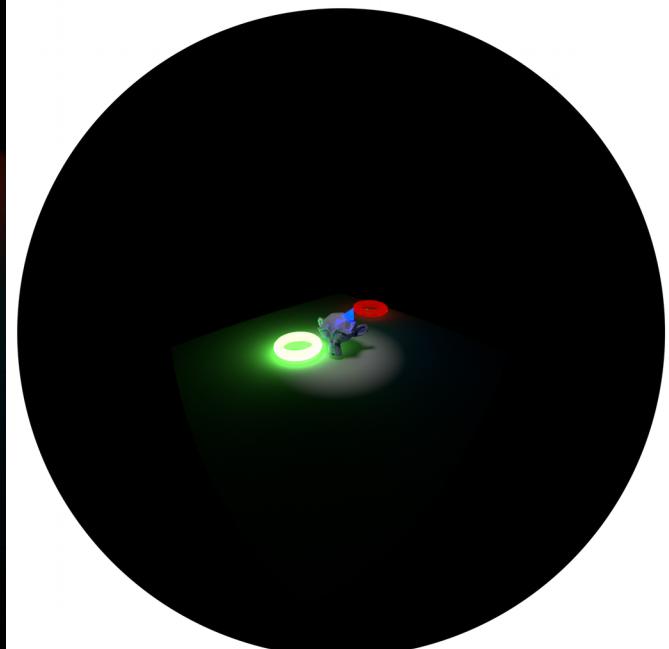
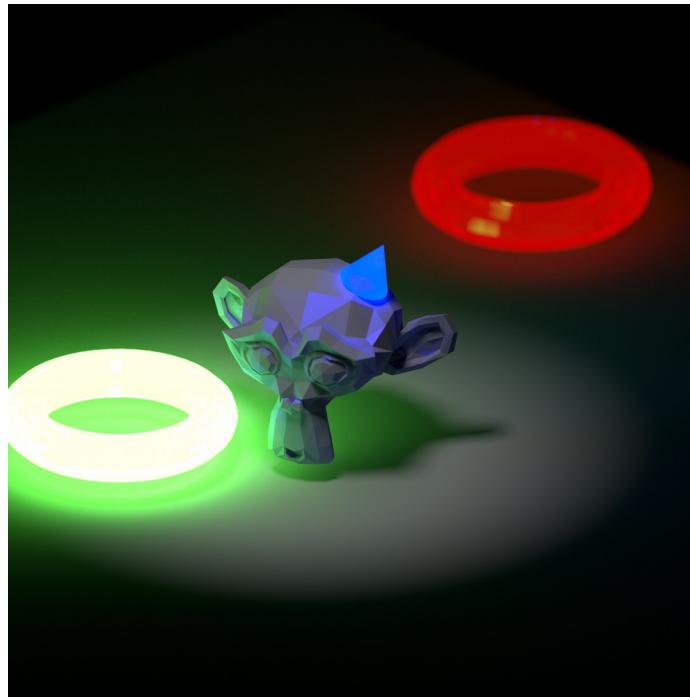
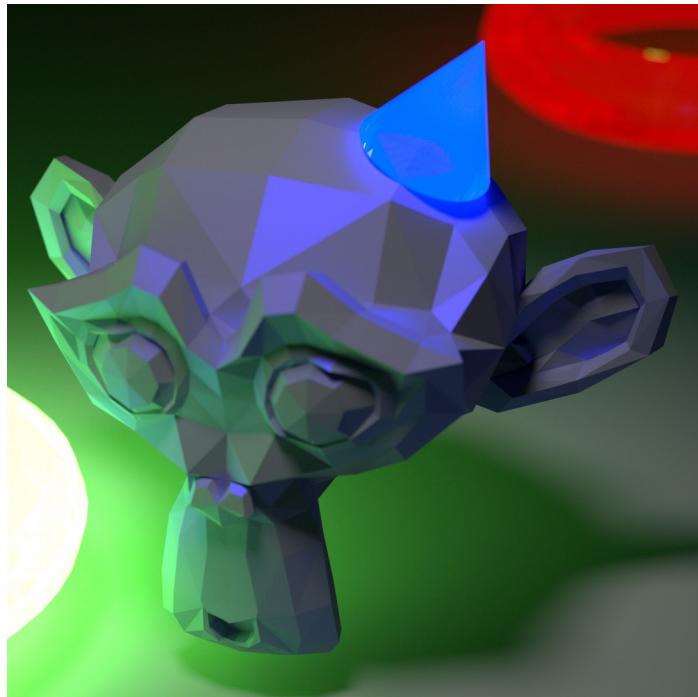
Lighting

- Types of light sources
- Source size
- The world



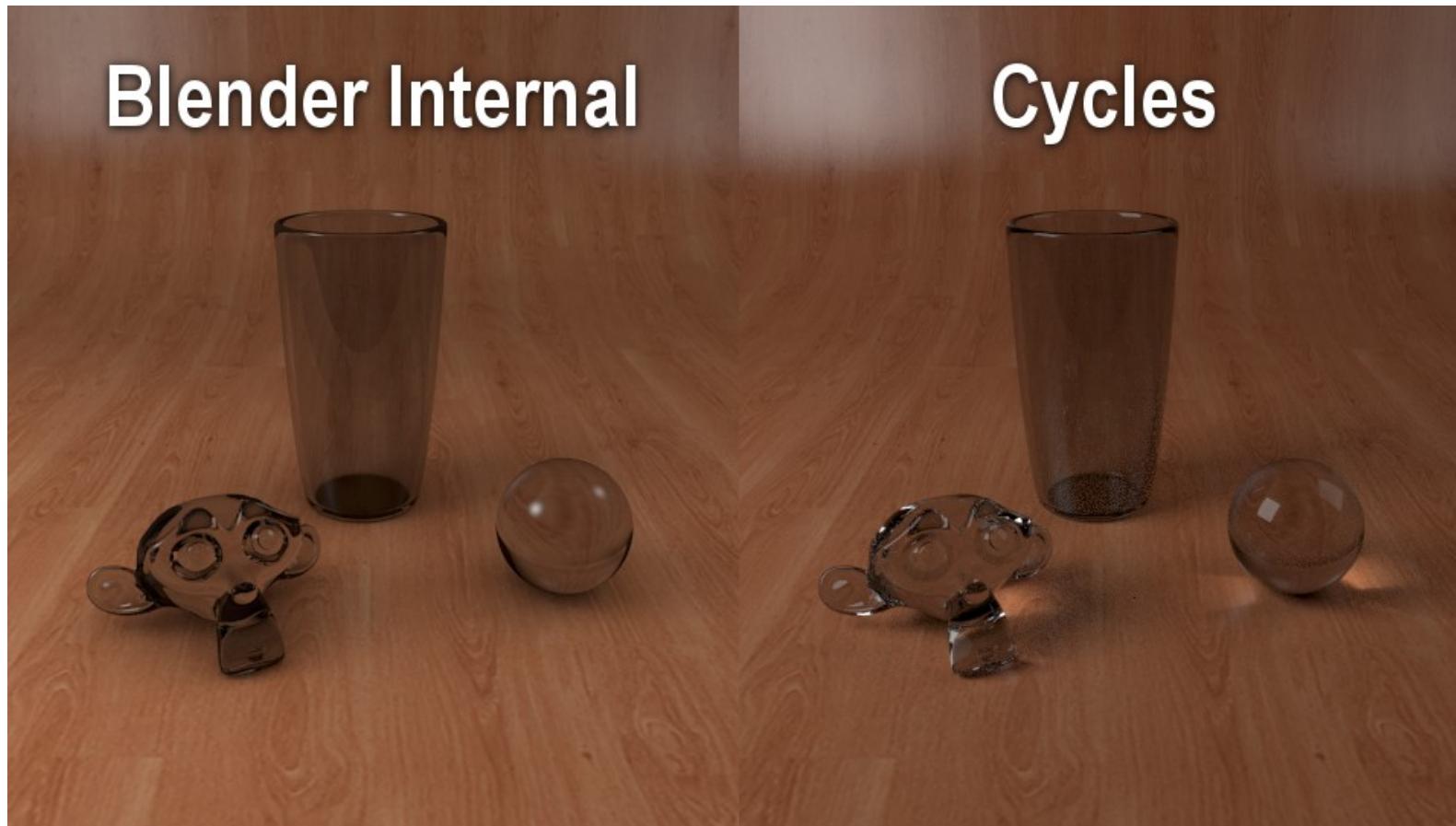
Camera

- Orthographic vs perspective vs panoramic
- Field of view
- Focal distance



Rendering

- Cycles vs Blender internal vs others



Performance

- GPU vs CPU
- Tile size
- Sampling
- Light paths
- Vertex numbers

Take-home tips and tricks

- Blender is amazing!
- Use the Cycles render engine not Blender internal
- Use a non-destructive workflow
- Everything has a shortcut