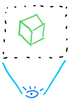
Framebuffers

- Framebuffer objects (FBOs)



⇒ save image to fbo.texture

⇓

set fbo to null (so, draw to Canvas)

⇓

set fbo.texture to the active texture for u_Sampler.

⇓

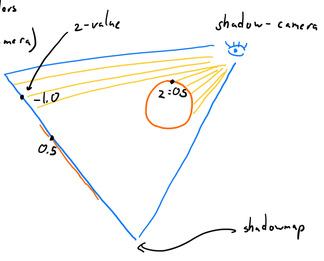
⇐ draw scene normally

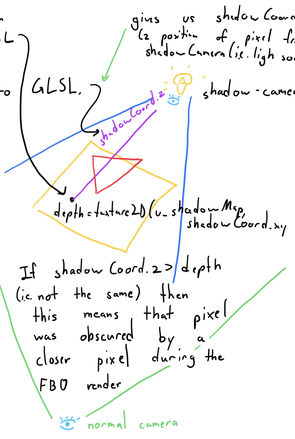


FBO's for shadow mapping

Animation tick() = {

- switch to shadowProgram shaders
- switch to FBO (use shadow-camera)
- Render scene
  - → same matrices used so we have distances from pixels to shadow-camera. (pass as uniform later)
  - → save fbo.texture (shadowmap holding depth as a color)
- switch to normal shaders
- swap FBO to "null"
- set shadowmap as an active texture in GLSL
- pass previous matrices (view, proj, model) to GLSL.
- Render scene



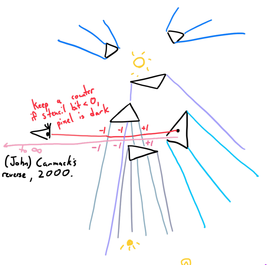


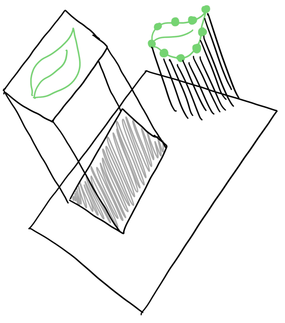
Shadow Mapping

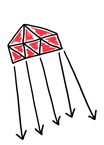
- allows transparent textures
- doesn't matter if there are many vertices
- easy to adjust for the user's computer power

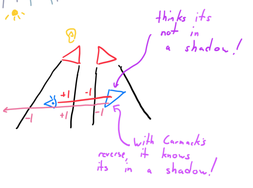
(stencil) shadow volumes

- slump!
- not scalable

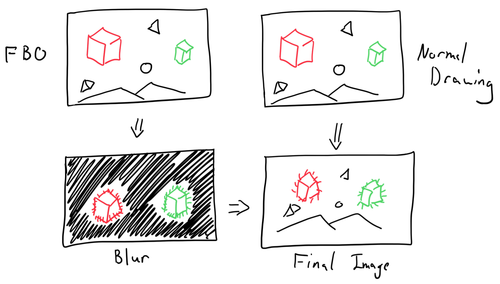




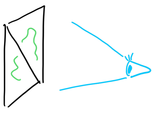




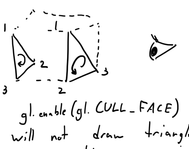
Bloom



Billboarding



Culling



gl.enable(gl.CULL_FACE) will not draw triangles whose vertices are in clockwise winding order!

Z