WebGL Workshop

Carl Bateman

Software Engineer

C#, C++, VB, MySQL, .NET, Linq, blah, blah, blah, blah

Desktop developer – no web

OpenGL

not shaders

JavaScript, PHP, CSS, HTML

Next workshop: Textures and models (probably)

Thursday, February 20th 2014

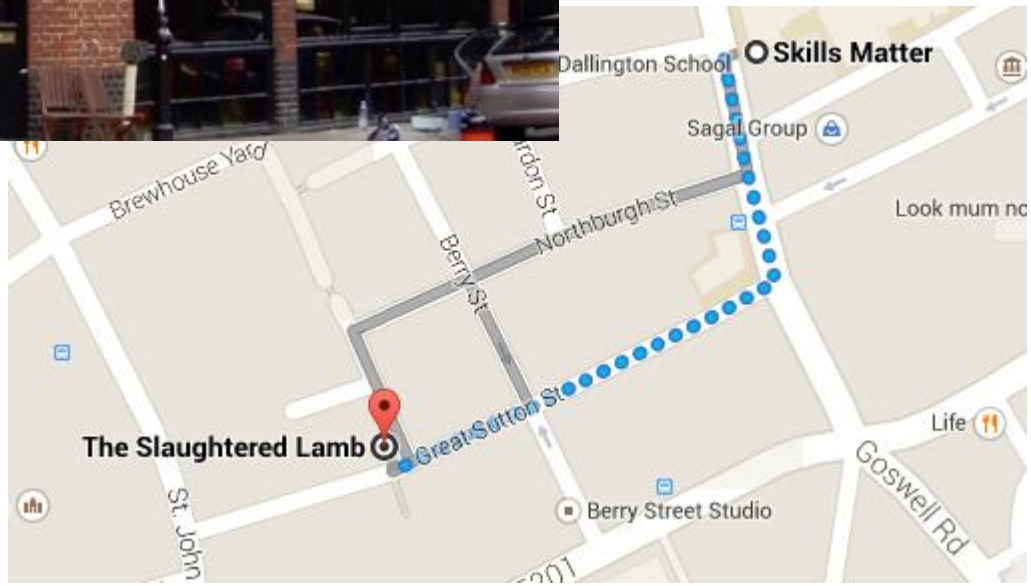
WebGL Workshop

Files and slides at

http://webglworkshop.com/workshops/03/

WebGL Workshop

After Workshop Drinkies @ The Slaughtered Lamb



Light and Shadows

Light Types

None

Ambient

Directional

Point

Spot

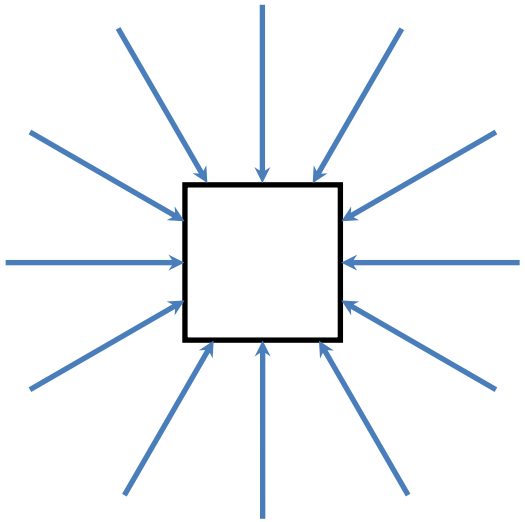
Area

Volumetric

Light and Shadows

Ambient

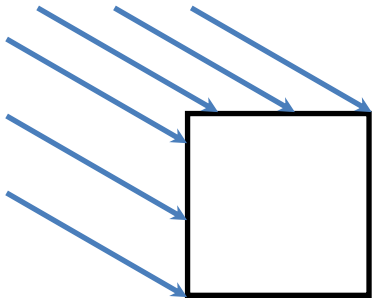
- Scattered
- Environmental
- Lights all parts of all objects equally / evenly



Light and Shadows

Directional

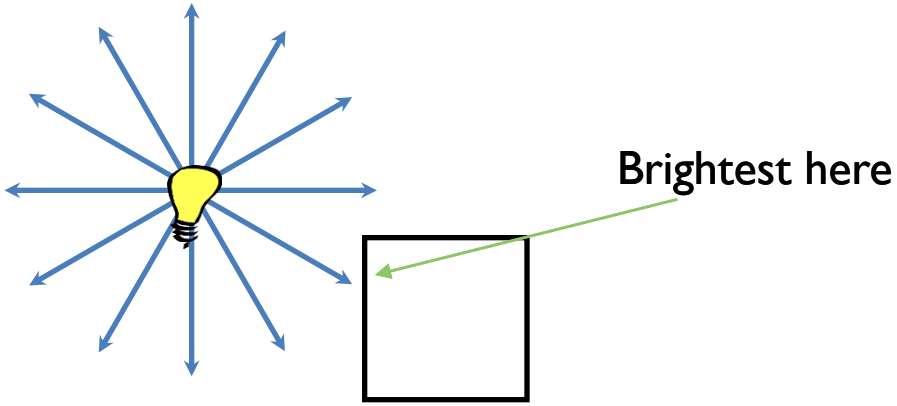
- Single direction
- ***No*** position
- e.g. the Sun
- Brightness depends on angle



Light and Shadows

Point

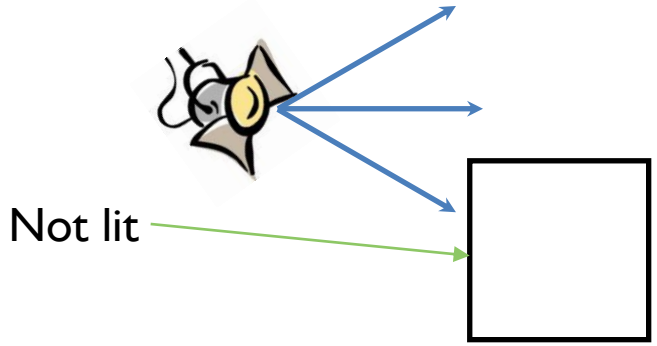
- Multi-directional
- Position
- e.g. bulb (not really)
- Brightness depends on angle
- Brightness depends on distance



Light and Shadows

Spotlight

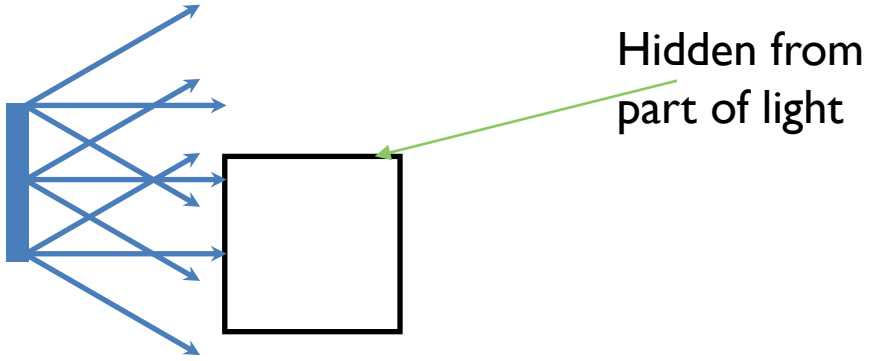
- Like a point light **BUT**
- Restricted
- Fall off



Light and Shadows

Area

- Like many point lights
- e.g. panel lighting



Light and Shadows

- **Volumetric**

Light and Shadows

Materials

Determine how light reflects

Diffuse

Specular

Emissive

Light and Shadows

Materials

Determine how light reflects

Diffuse

Specular

Emissive

WebGL Workshop

References:

WebGL Programming Guide

Mozilla Developer Centre

https://developer.mozilla.org/en-US/docs/Web/WebGL

Learning WebGL blog

http://learningwebgl.com/blog/