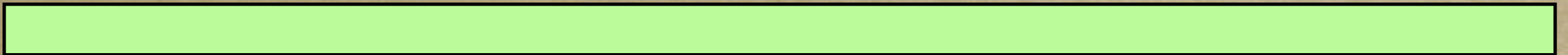
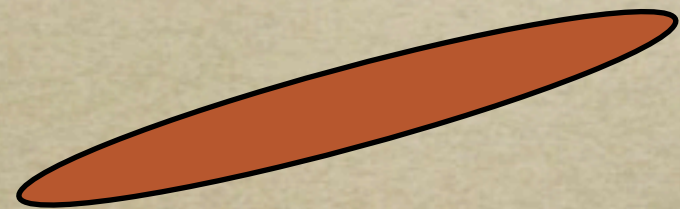


Just the beginning...

- *Aliasing artefacts*
- *No surface/surface illumination*
- *No caustics*
- ***Real shadows are soft***
- *Colour problems*
- *Very slow*

Shadows

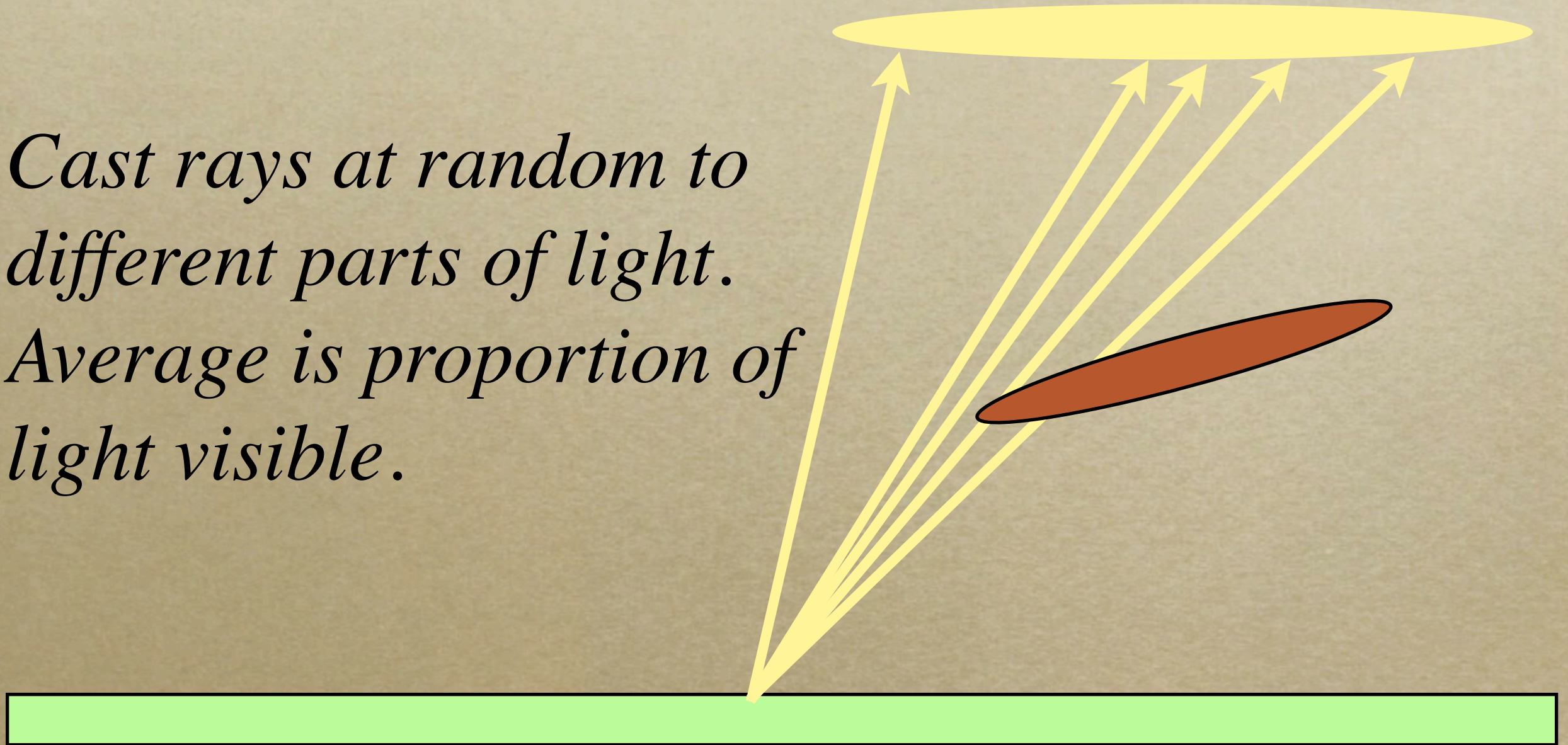
Light



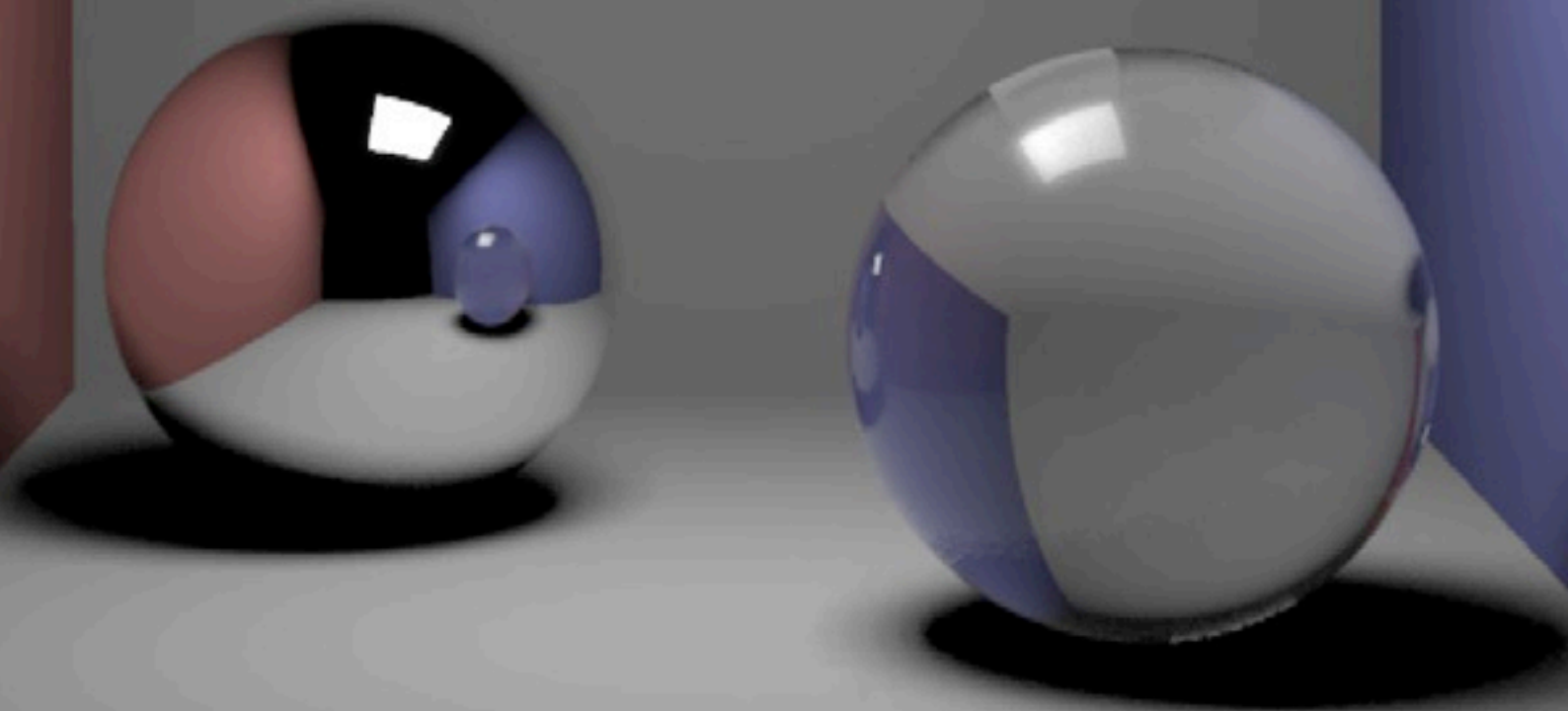
Stochastic Approach

Light

*Cast rays at random to
different parts of light.
Average is proportion of
light visible.*



Soft Shadows



by Henrik Wann Jensen

Soft Shadows



Soft Shadows



More distributed raytracing: motion blur

If an object is moving it has a different position as a function of time.

Add random increments to the time at which a ray is cast.

The average approximates the effect of the blur.

Motion blur







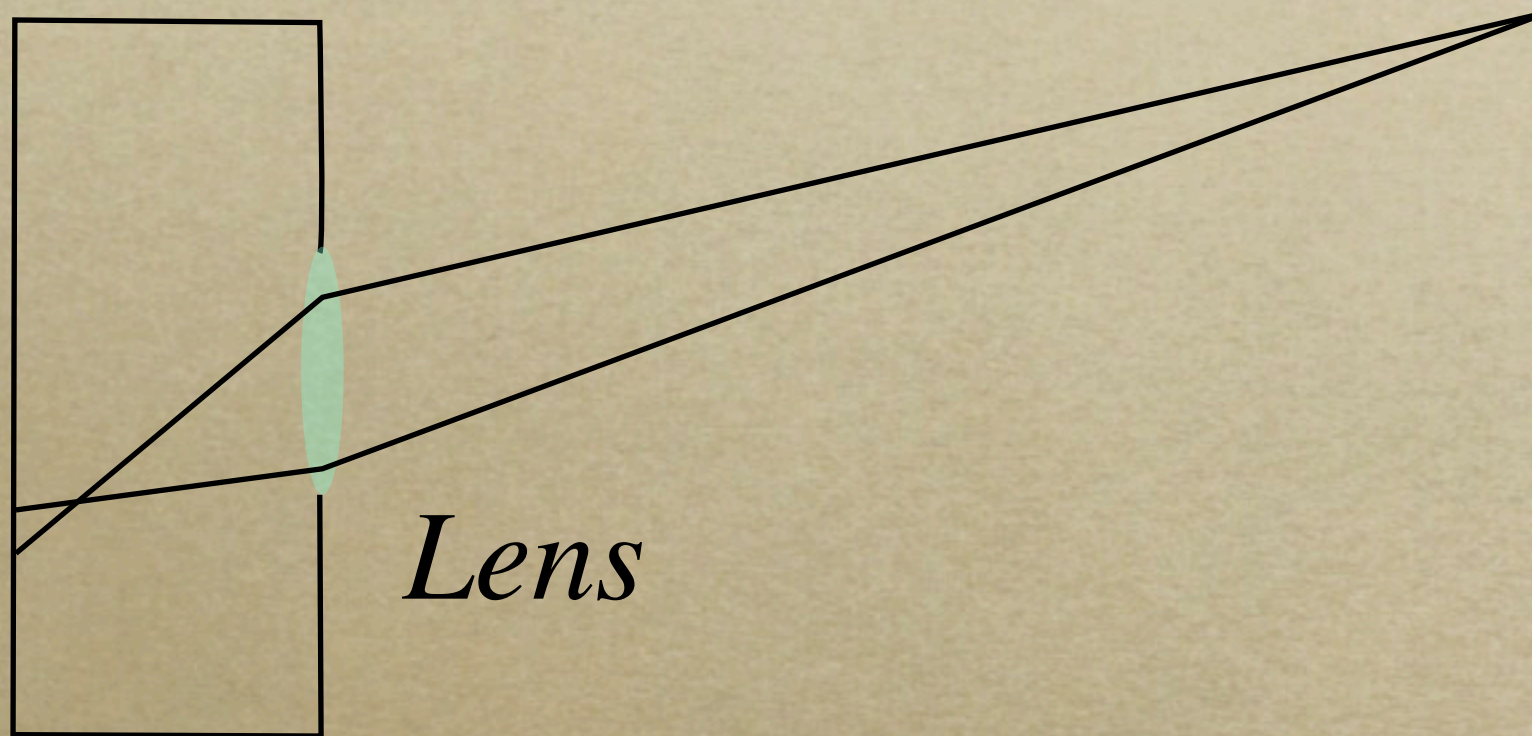
Motion blur



Motion blur



Depth of field



Cheap Approximation

*Ray from random point
within circle of confusion.*

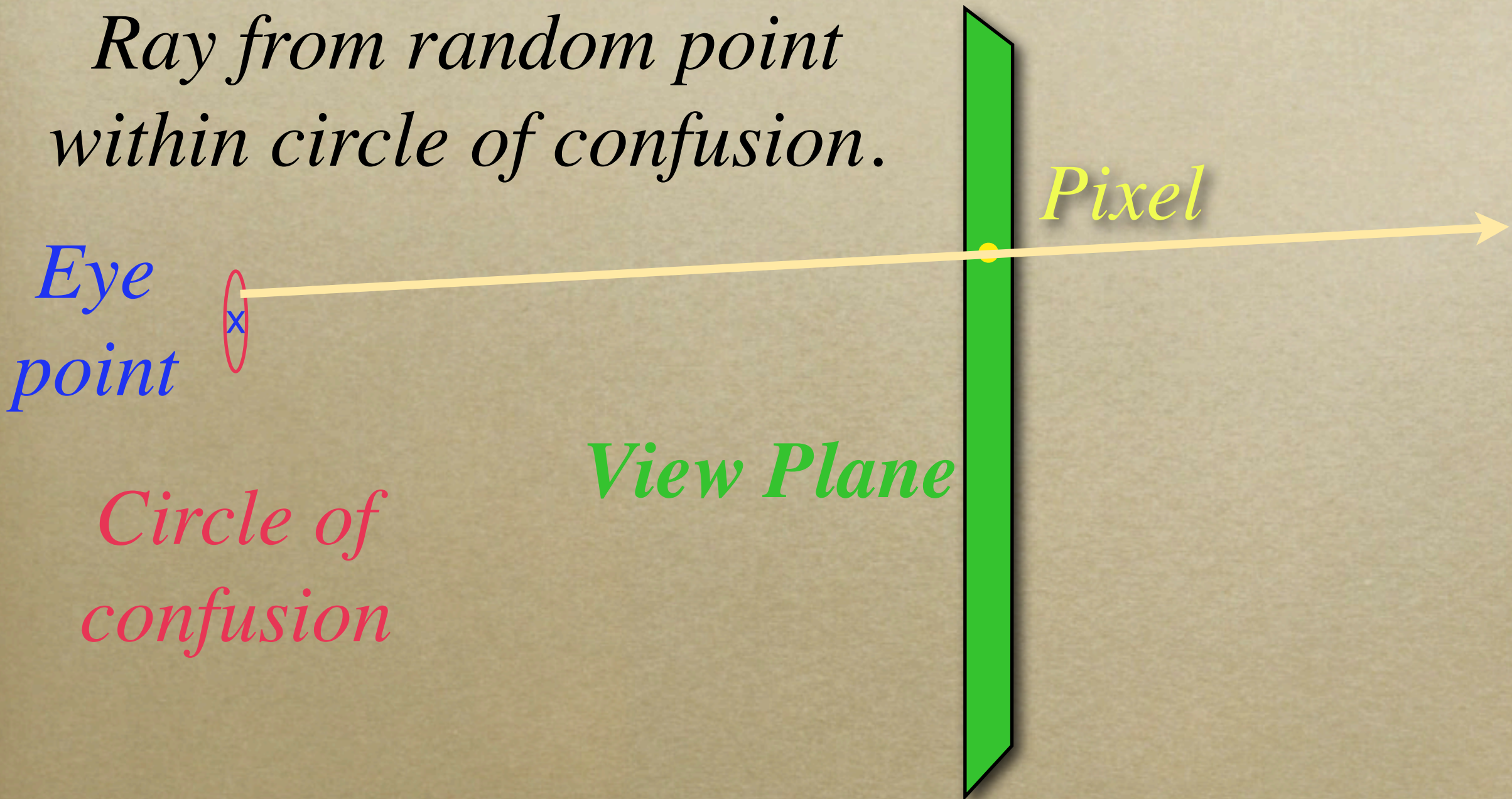
*Eye
point*



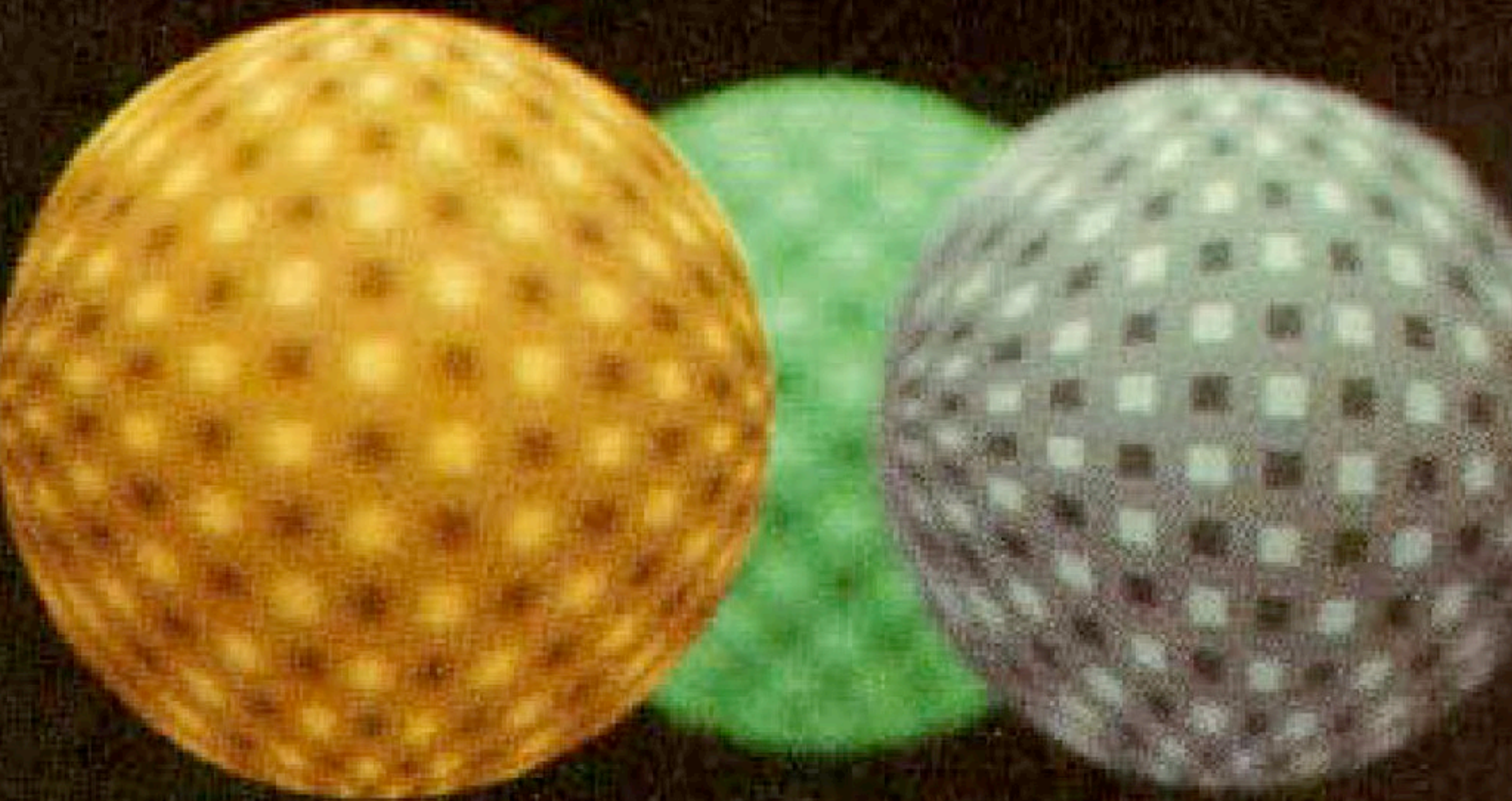
*Circle of
confusion*

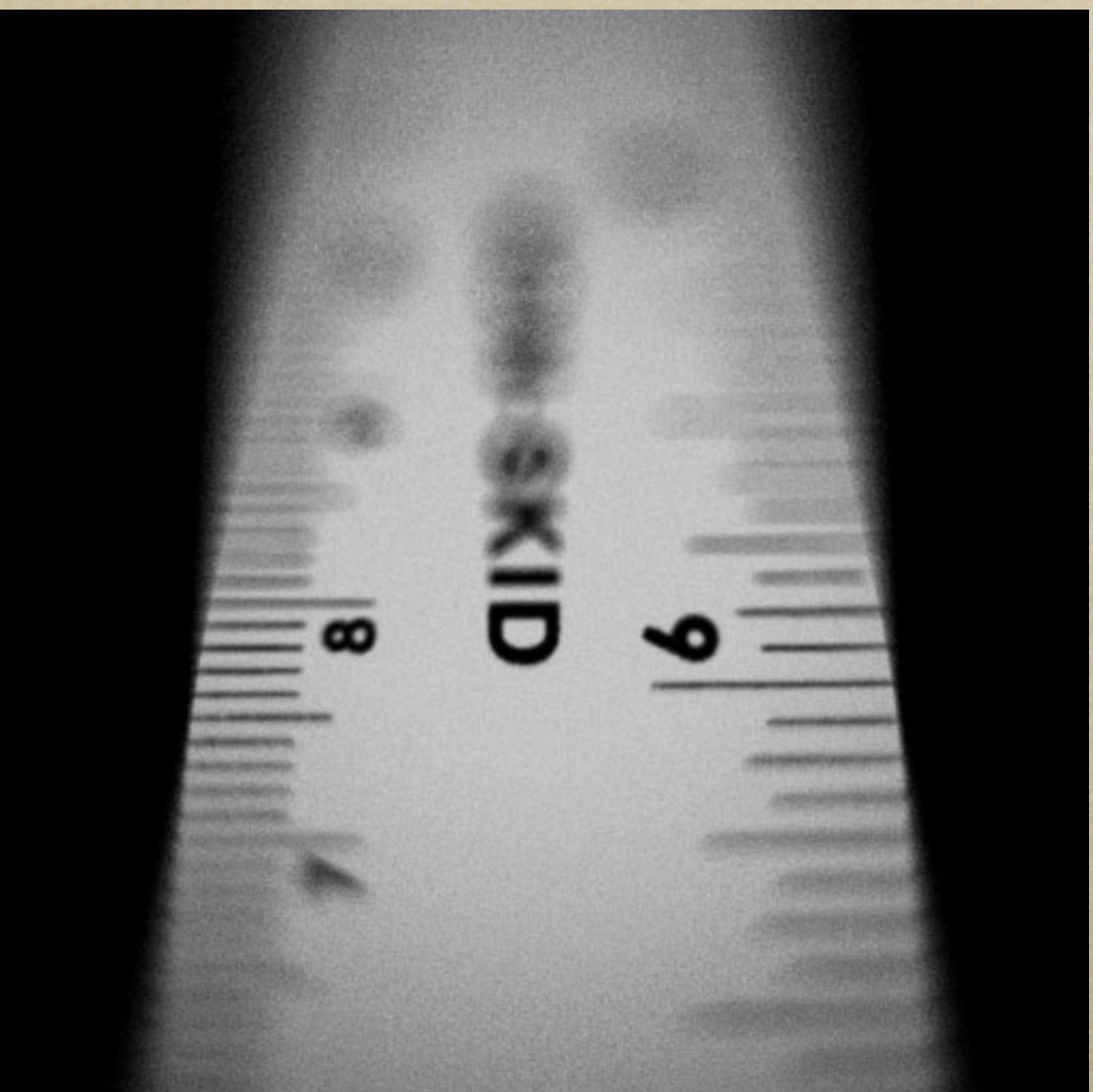
View Plane

Pixel



Depth of Field





Just the beginning...

- *Aliasing artefacts*
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- *Real shadows are soft*
- *Colour problems*
- *Very slow*

Are we ready for colour?

- *Is RGB enough to represent colours?*
- *What does the question on mixing paint tell us? (Any answers yet?)*
- *What colour is a blue coat in sodium light?*
- *What colour is a green coat in sodium light?*