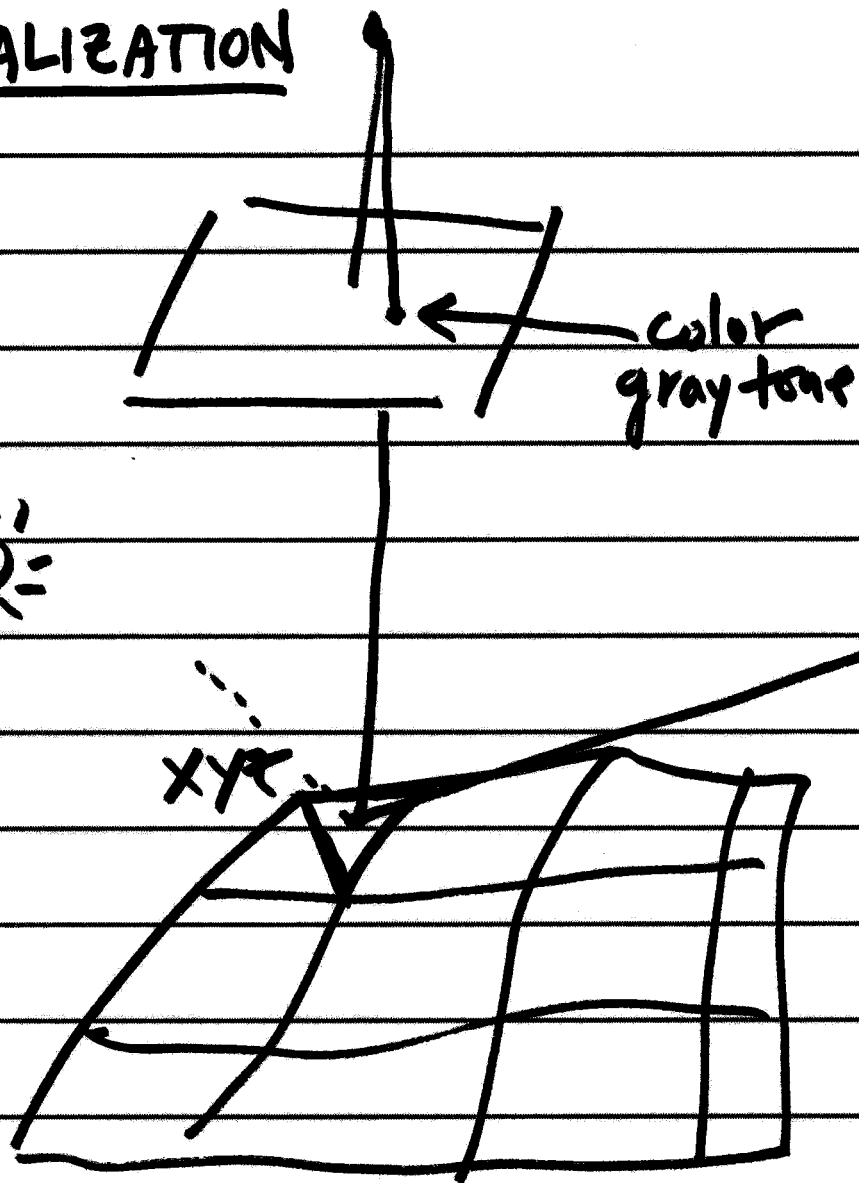
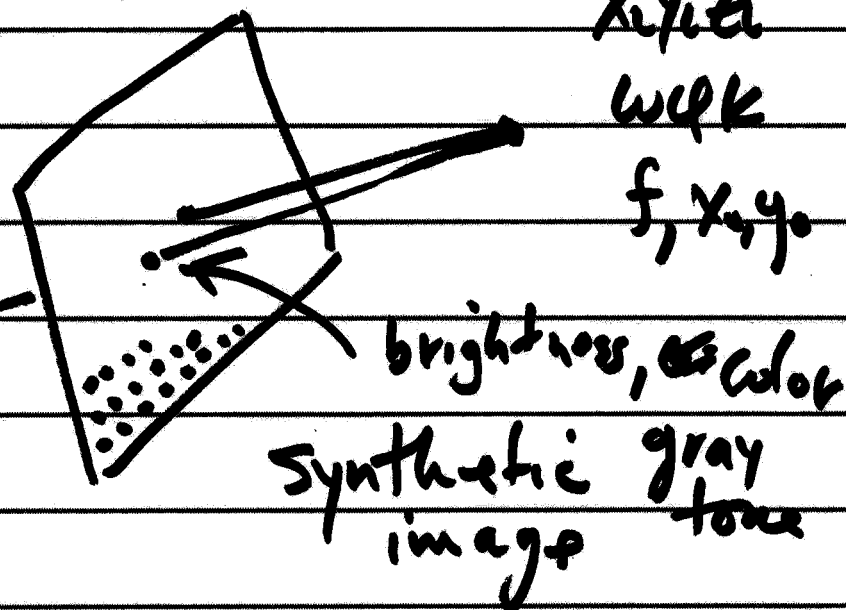


VISUALIZATION



DEM

- brightness 29-1
1. illumination model
 2. real aux. image
 3. specular reflection



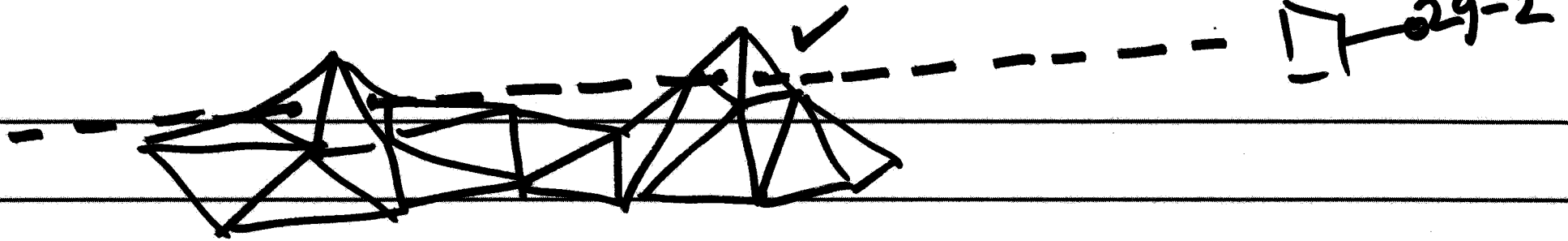
xyz

w, h, k

f, x, y, z

brightness, color

Synthetic gray tone image



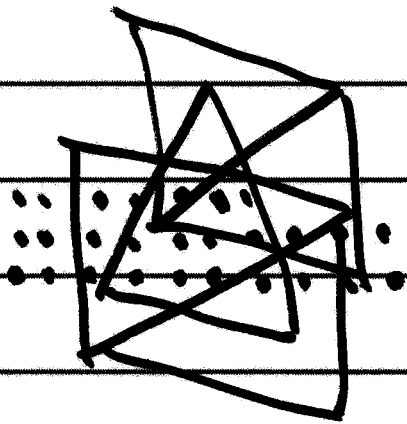
Techniques:

1. Ray Trace

examine multiple intersections,
choose closest

2. Z-buffer

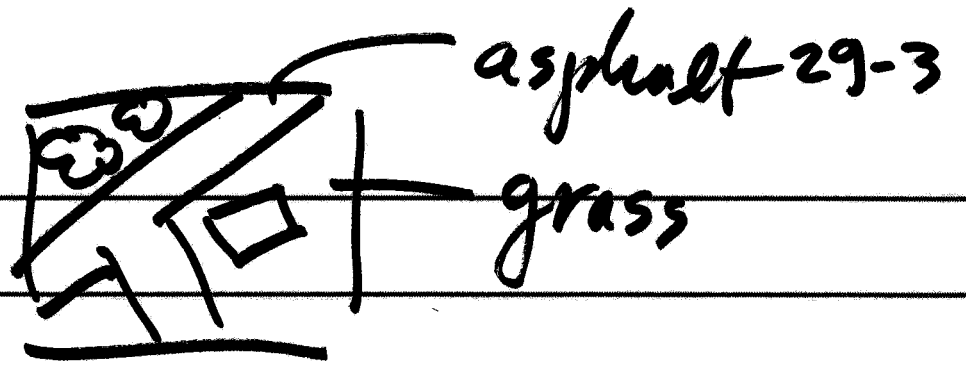
Project each obj. space Δ
into synthetic image @
every pixel z-buffer



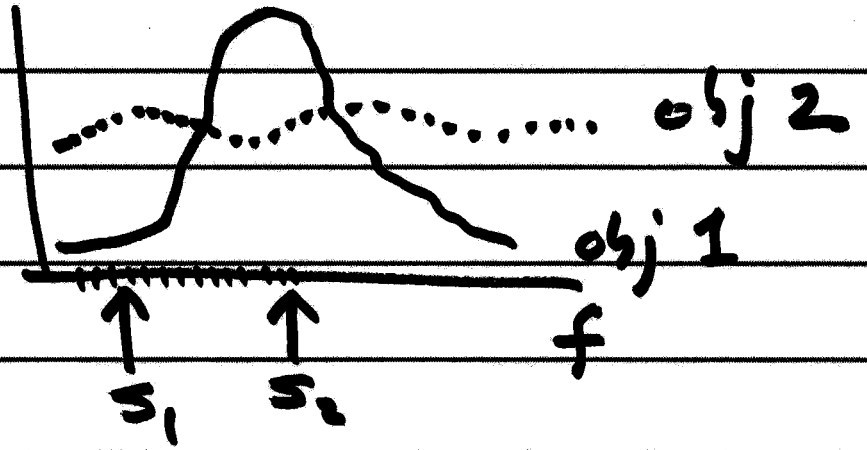
only replace intensity value if
 $z < \text{current } z$

data

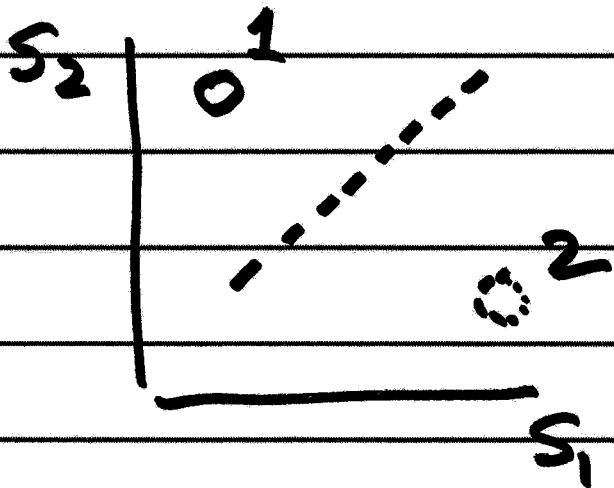
1. image space

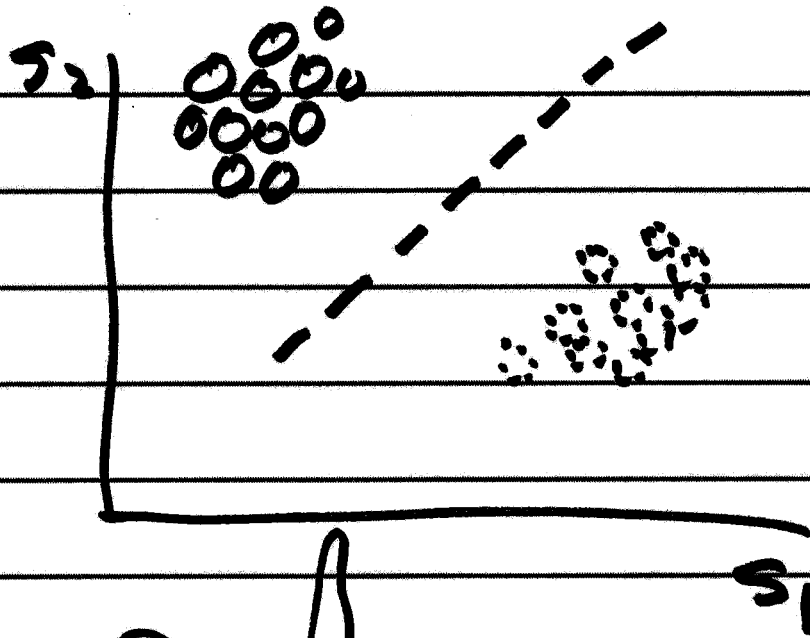


2. spectral space

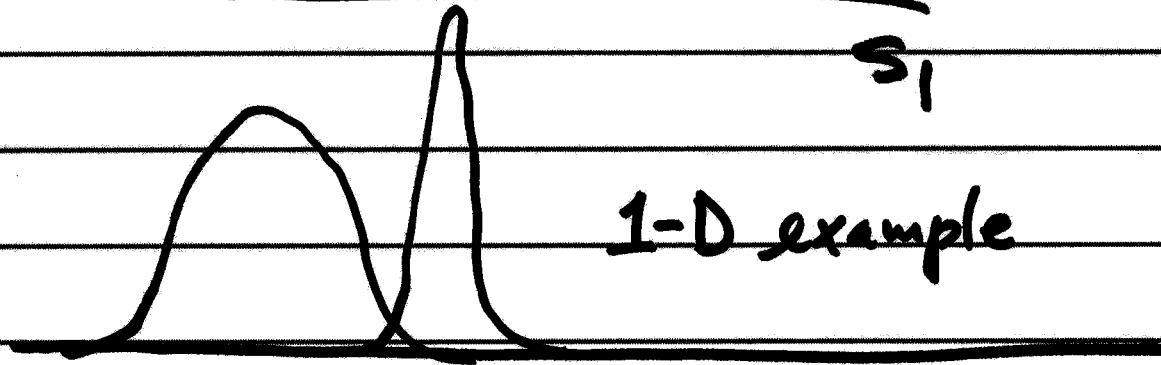


3. feature space





$p(w_1 | x)$ choose
 $p(w_2 | x)$ larger
 don't know
 $p(w_i | x)$



1-D example

$p(x | w_1)$
 $p(x | w_2)$



Which class
 w_1 or w_2 does
 x belong to?

$x \uparrow$
 ?

Maximum Likelihood Approach

$$f_{\mu}(x) = \frac{1}{\sqrt{2\pi}\sigma} e^{(-\frac{1}{2}(x-\mu)^2/\sigma^2)}$$

for class 1

for class 2

evaluate $f(x)$ with observed x

$p(x|w_1)$

$p(x|w_2)$