

# **CS 488 Project Demo**

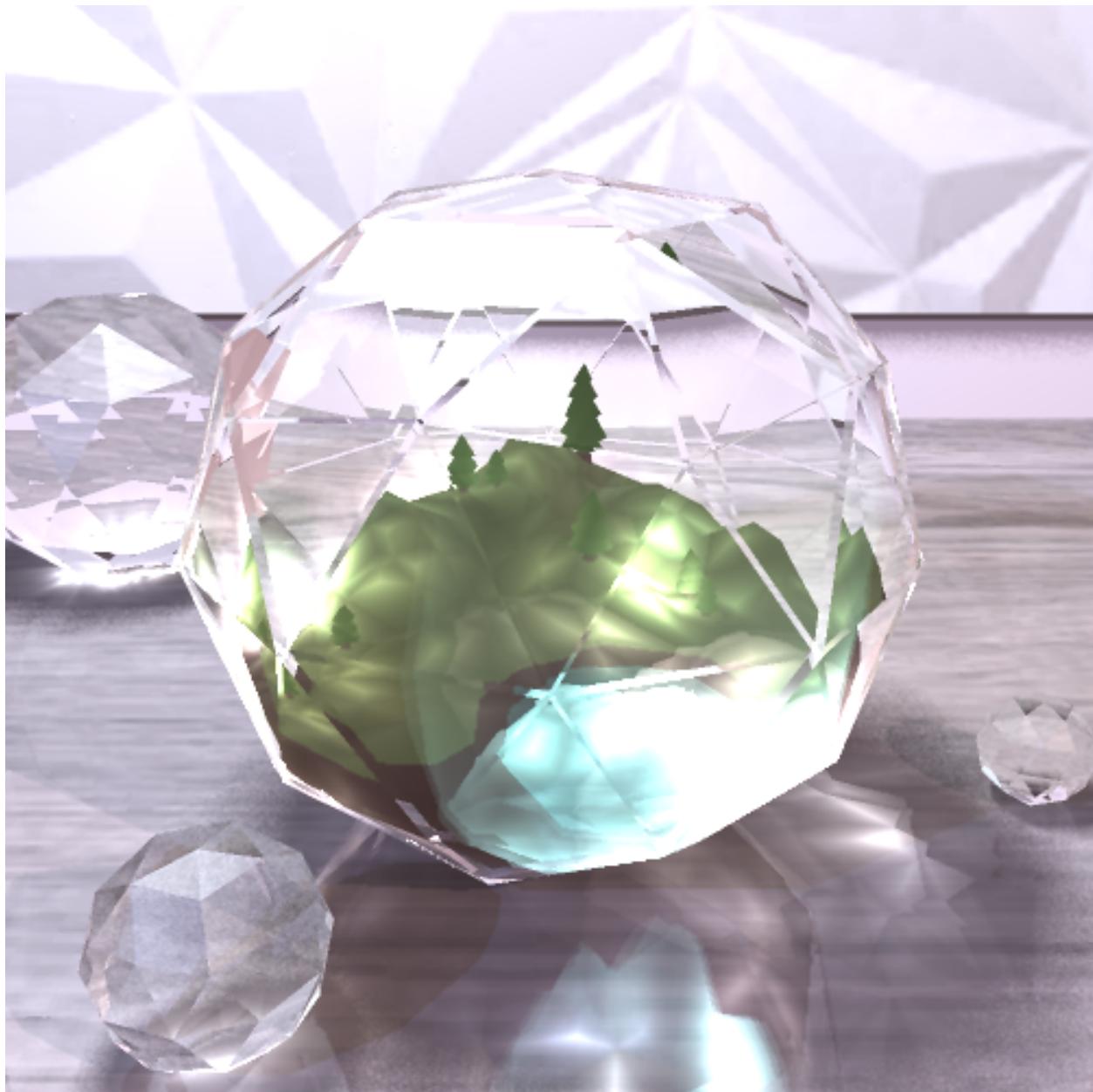
Jenny Lei

j37lei

20824513

December 6, 2022

Final scene



## Reflection (Objective 1)

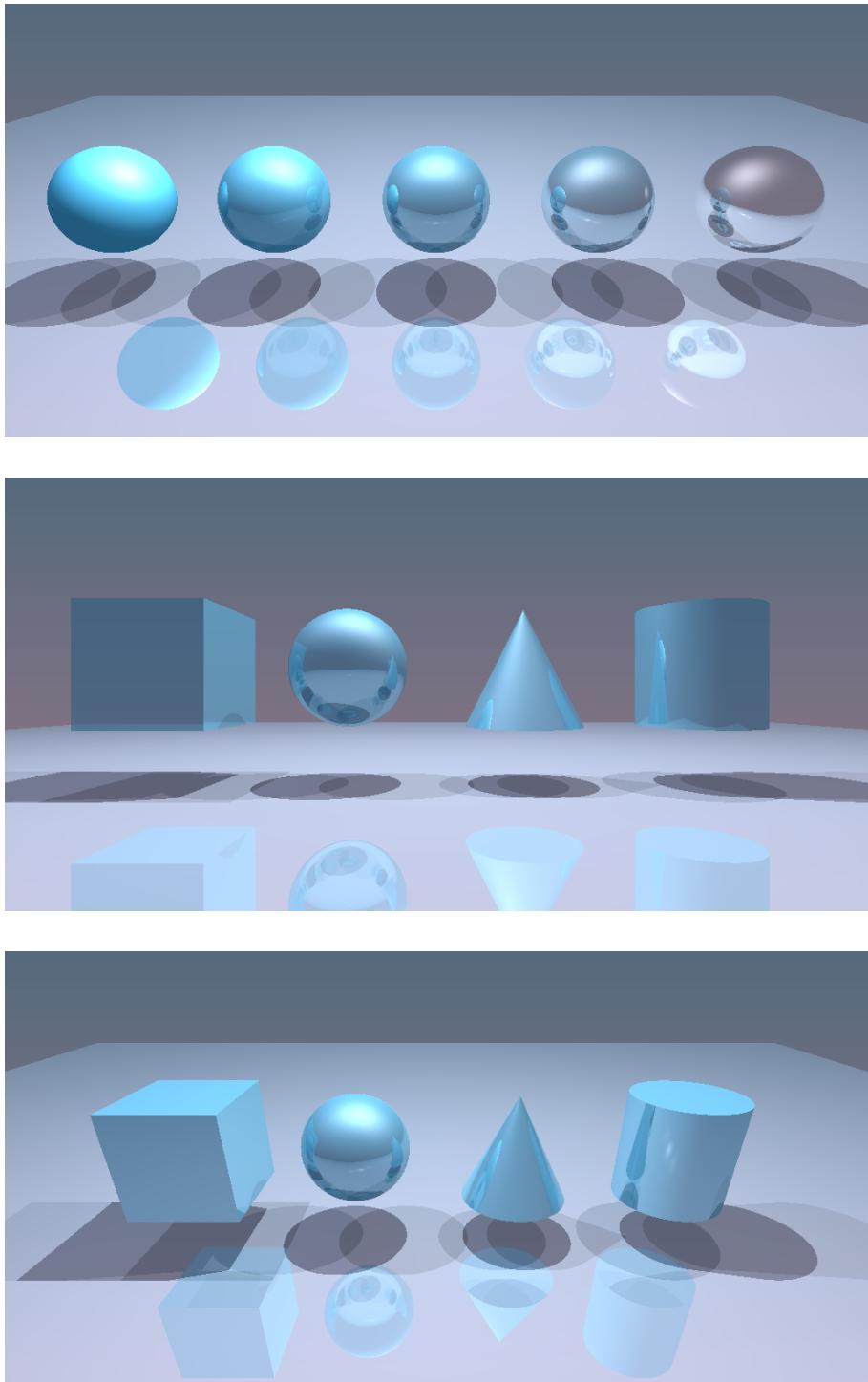


Figure 1: Reflection example

## **Refraction** (Objective 2)

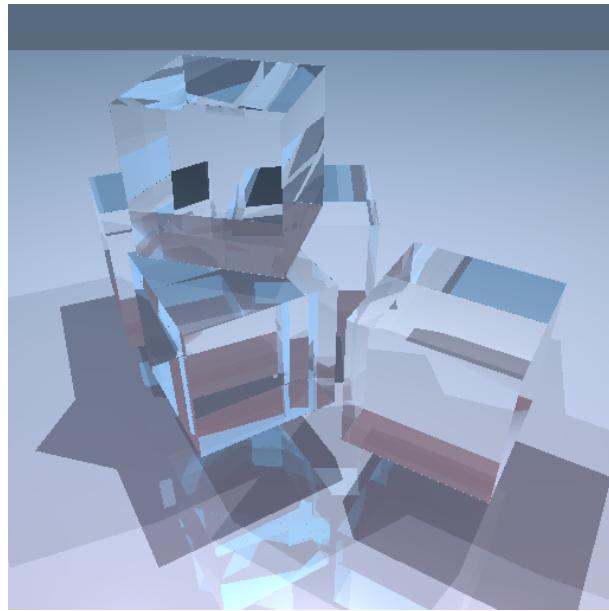


Figure 2: Refraction example

## More Primitives (Objective 3)

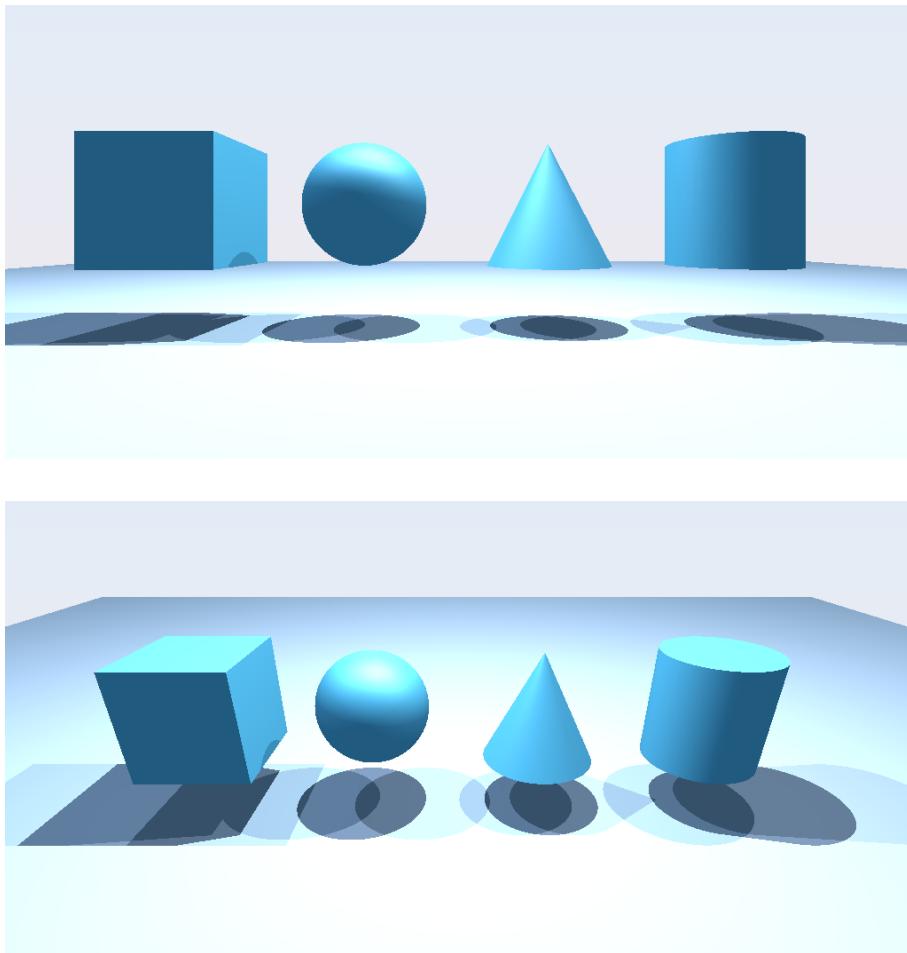


Figure 3: Support for cone and cylinder primitives in addition to cubes and spheres

## Adaptive Anti-Aliasing (Objective 4)

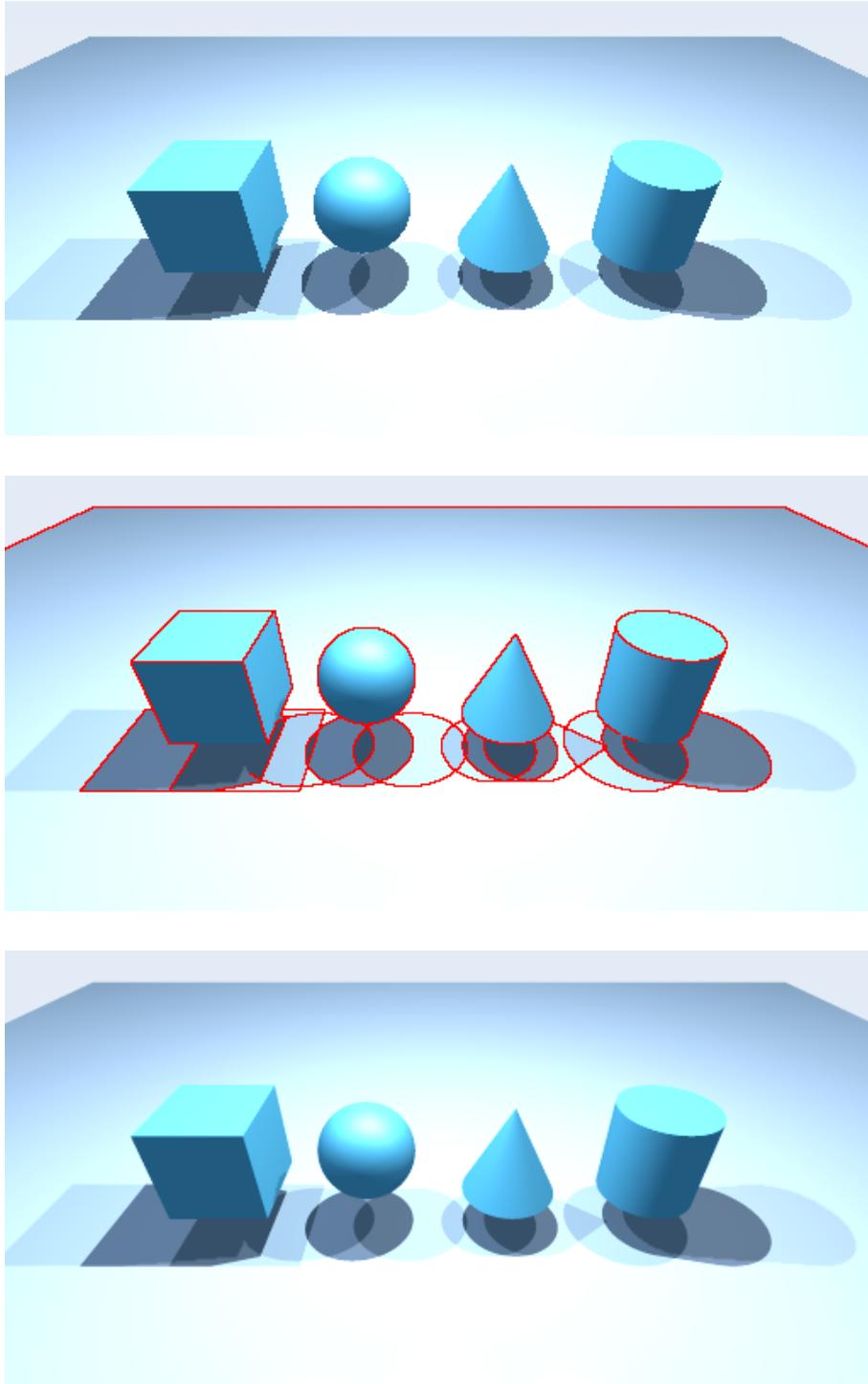


Figure 4: (top) anti-aliasing on, (middle) edge detection, (bottom) anti-aliasing on

## Soft Shadows (Objective 5)

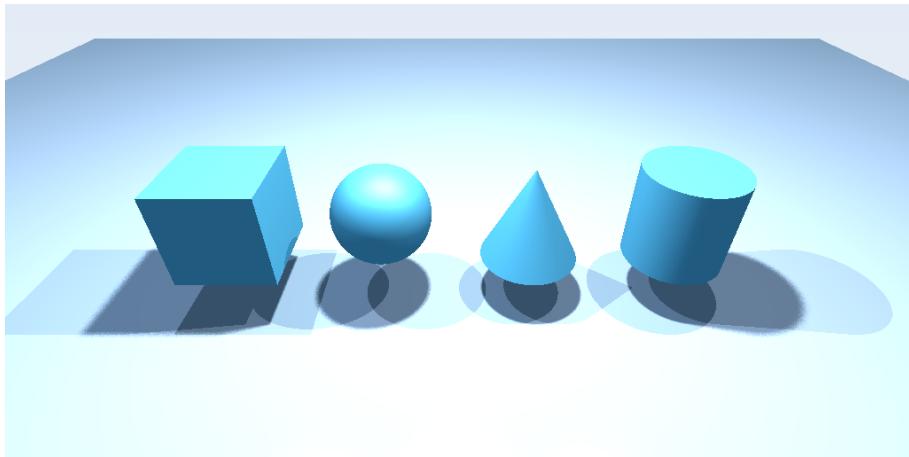


Figure 5: Soft shadows example

## Texture Mapping (Objective 6)

A1	A2	A3	A4	A5	A6	A7	A8
B1	B2	B3	B4	B5	B6	B7	B8
C1	C2	C3	C4	C5	C6	C7	C8
D1	D2	D3	D4	D5	D6	D7	D8
E1	E2	E3	E4	E5	E6	E7	E8
F1	F2	F3	F4	F5	F6	F7	F8
G1	G2	G3	G4	G5	G6	G7	G8
H1	H2	H3	H4	H5	H6	H7	H8

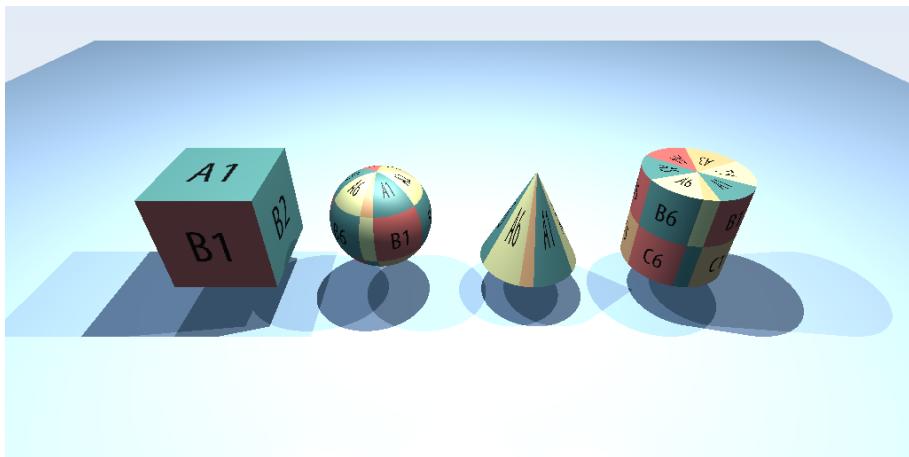


Figure 6: (top) texture image, (bottom) texture mapping

## Normal Mapping (Objective 7)

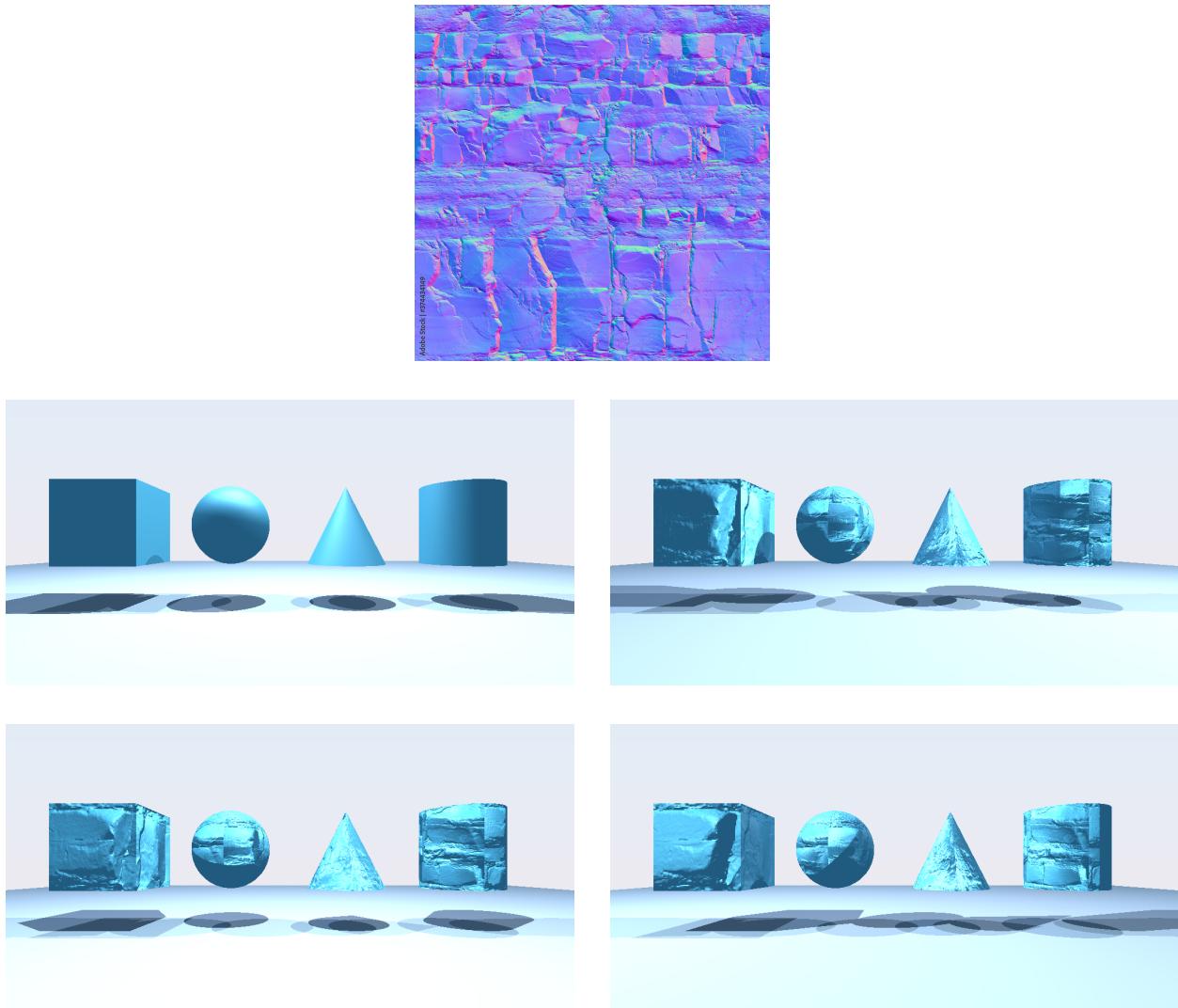


Figure 7: (top) normal map image, (bottom) normal mapping from different light angles

## Phong Shading (Objective 8)

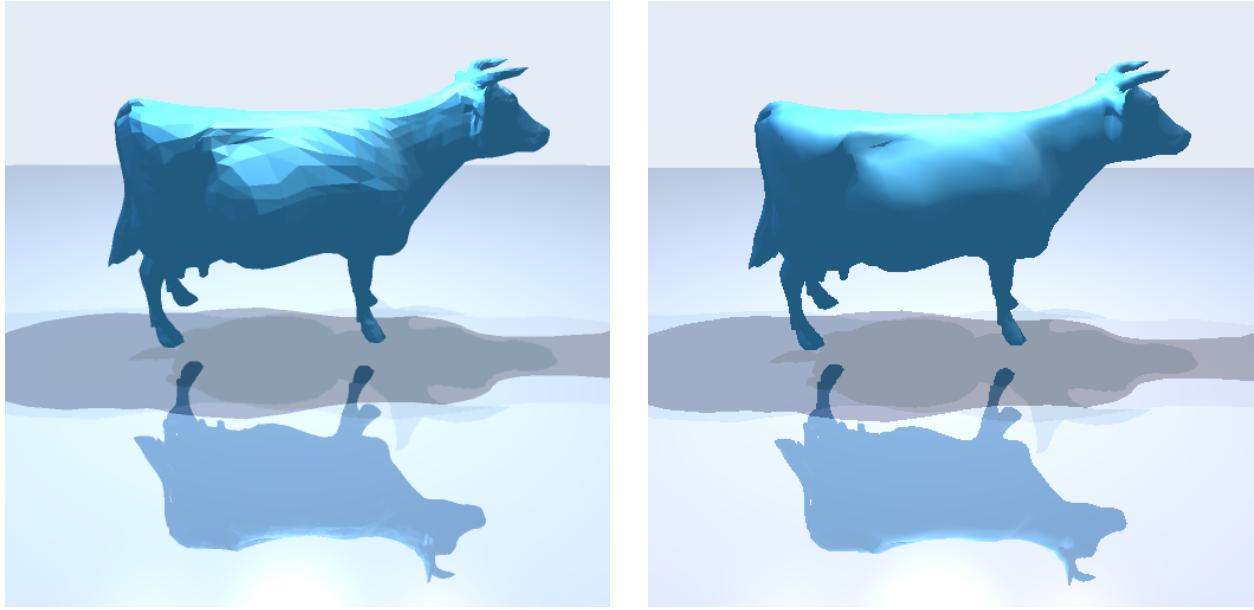


Figure 8: (left) phong shading off, (right) phong shading on

## Photon Mapping (Objective 9 & 10)

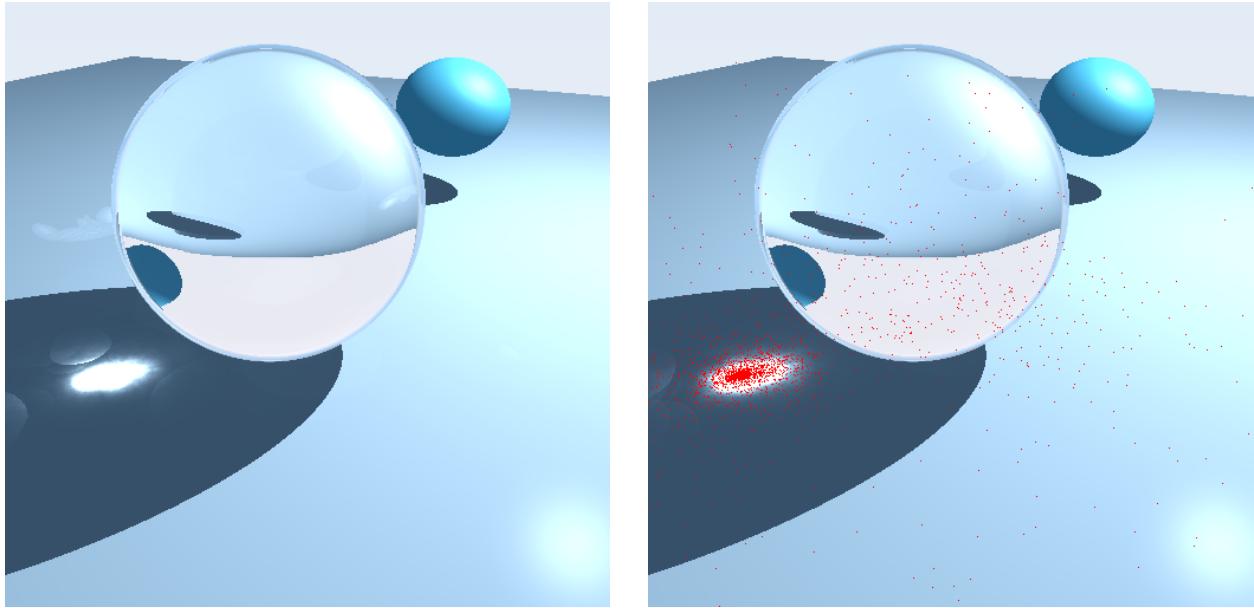


Figure 9: (left) sphere with caustic effects, (right) red dots are photons casted into the scene

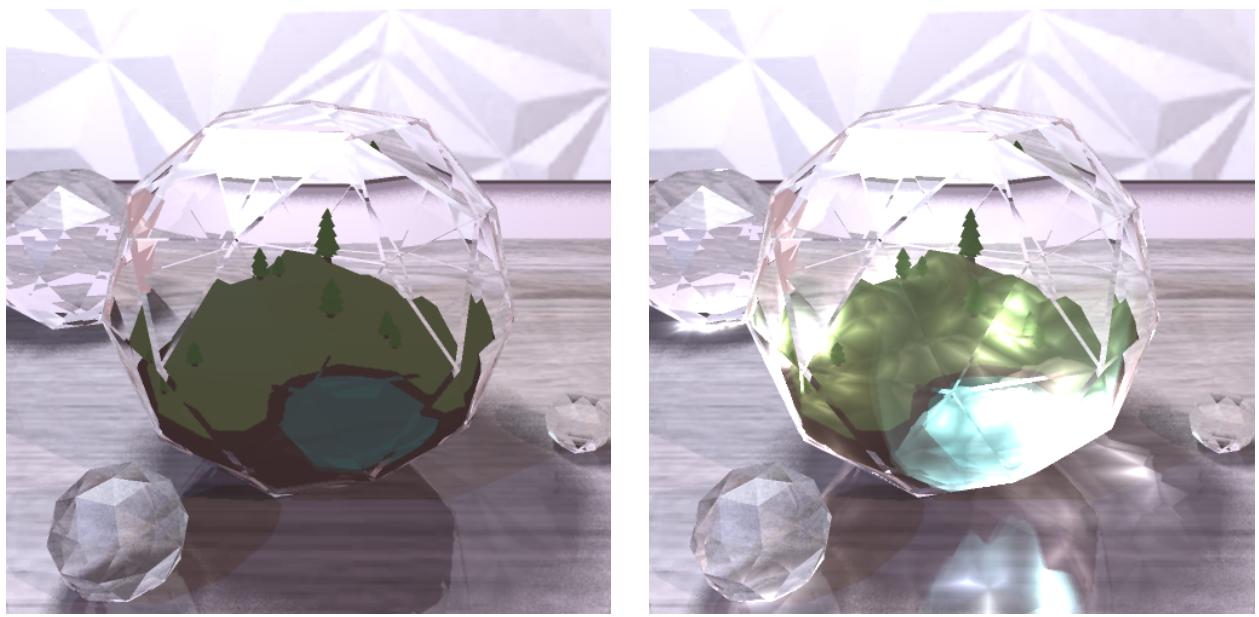


Figure 10: (left) final scene without caustic effects, (right) final scene with caustic effects