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COMPUTER RENDERING

Rendering – Today's Class

- Rendering in Architecture
- Technical Components of Rendering
- Illuminating a Model

Rendering in Architecture

- Test Design Quality Performance
- Test Quantitative Performance
- Present Information
- Renderings have different purposes

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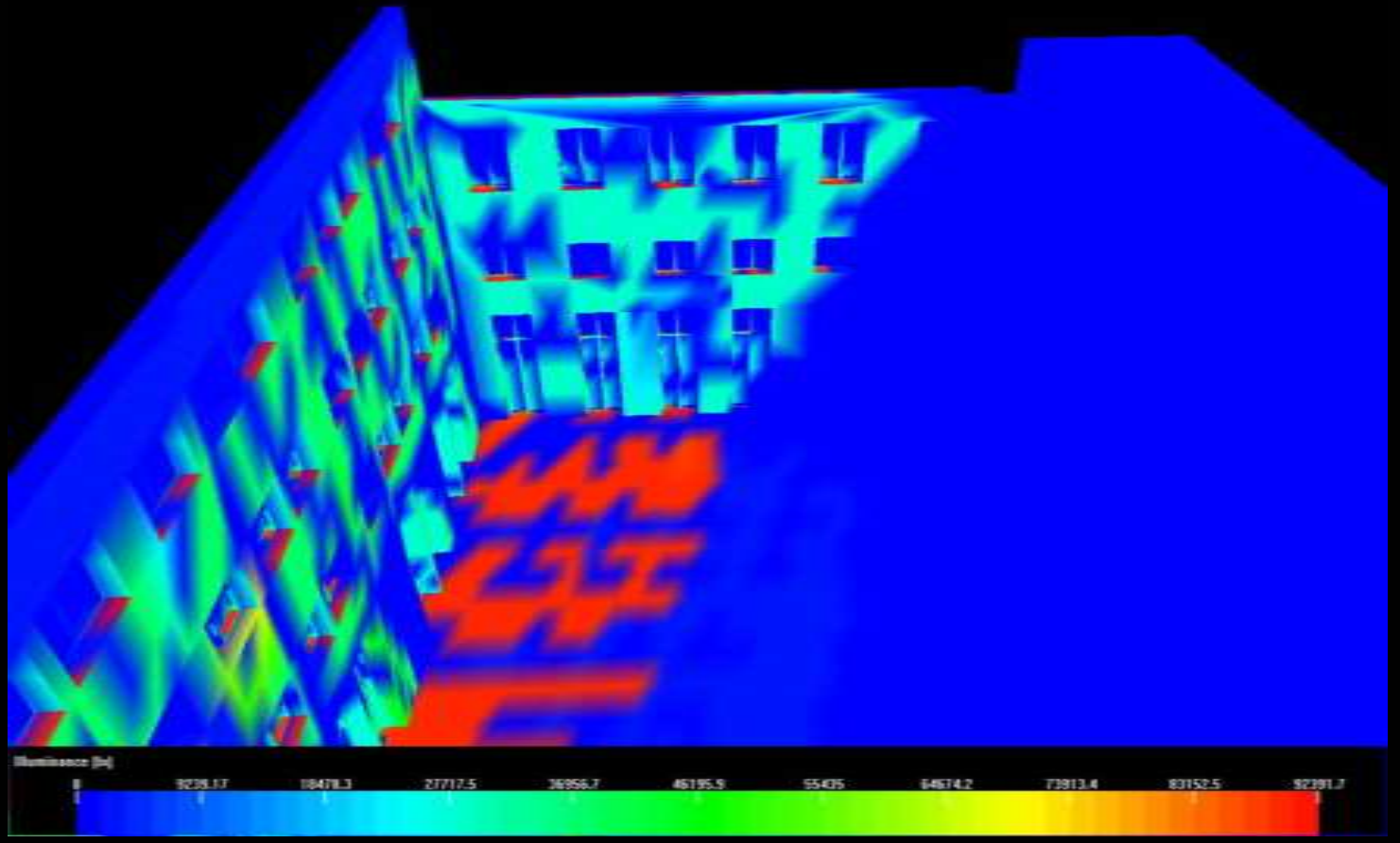
QUANTITY VS. QUALITY

QUANTITY VS. QUALITY



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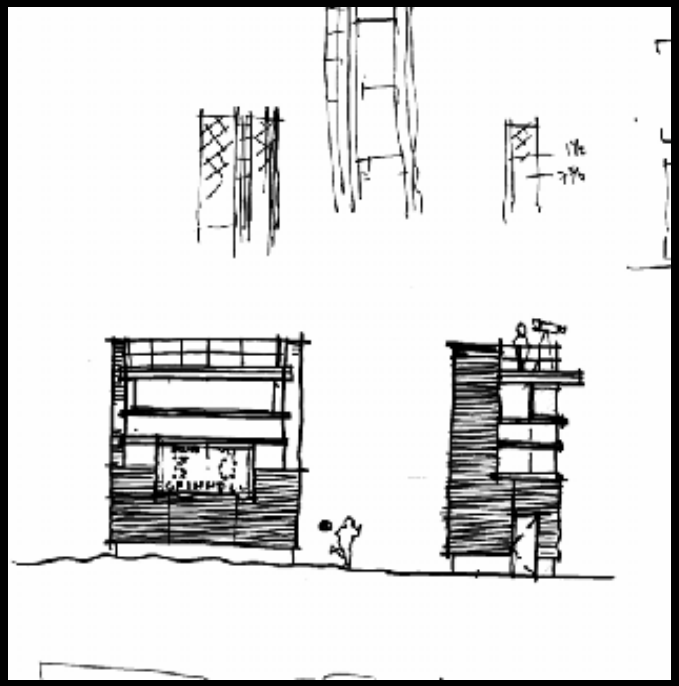
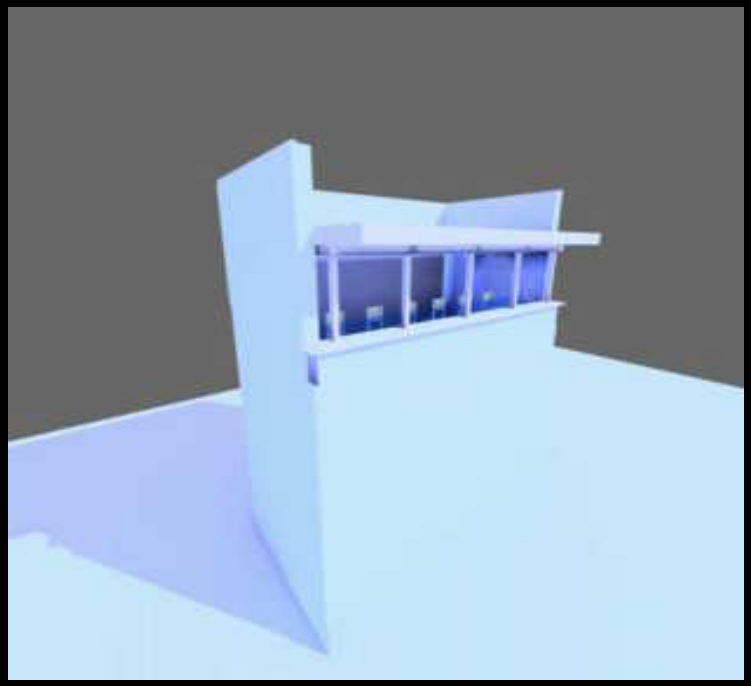
GRINNELL COLLEGE

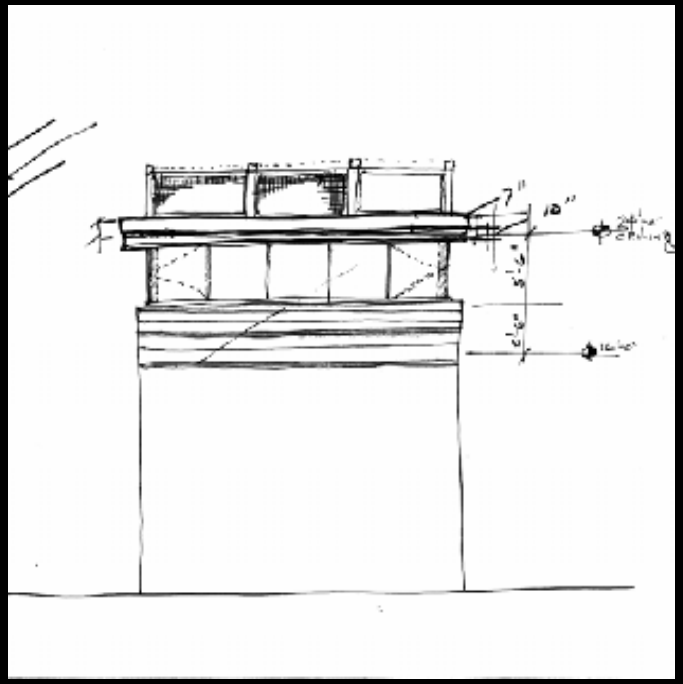
Rendering

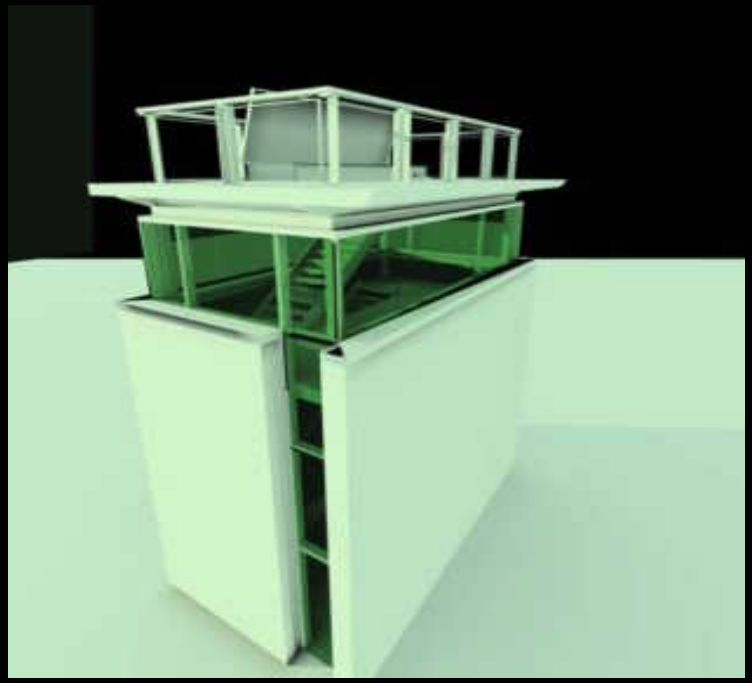




GRINNELL COLLEGE

Rendering





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Rendering

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Rendering

THE CITY SCHOOL

Color Sketches

THE CITY SCHOOL

Color Sketches

THE CITY SCHOOL

Color Sketches

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THE CITY SCHOOL

Color Sketches

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Artificial Light Studies

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Artificial Light Studies

Artificial Light Studies

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Artificial Light Studies

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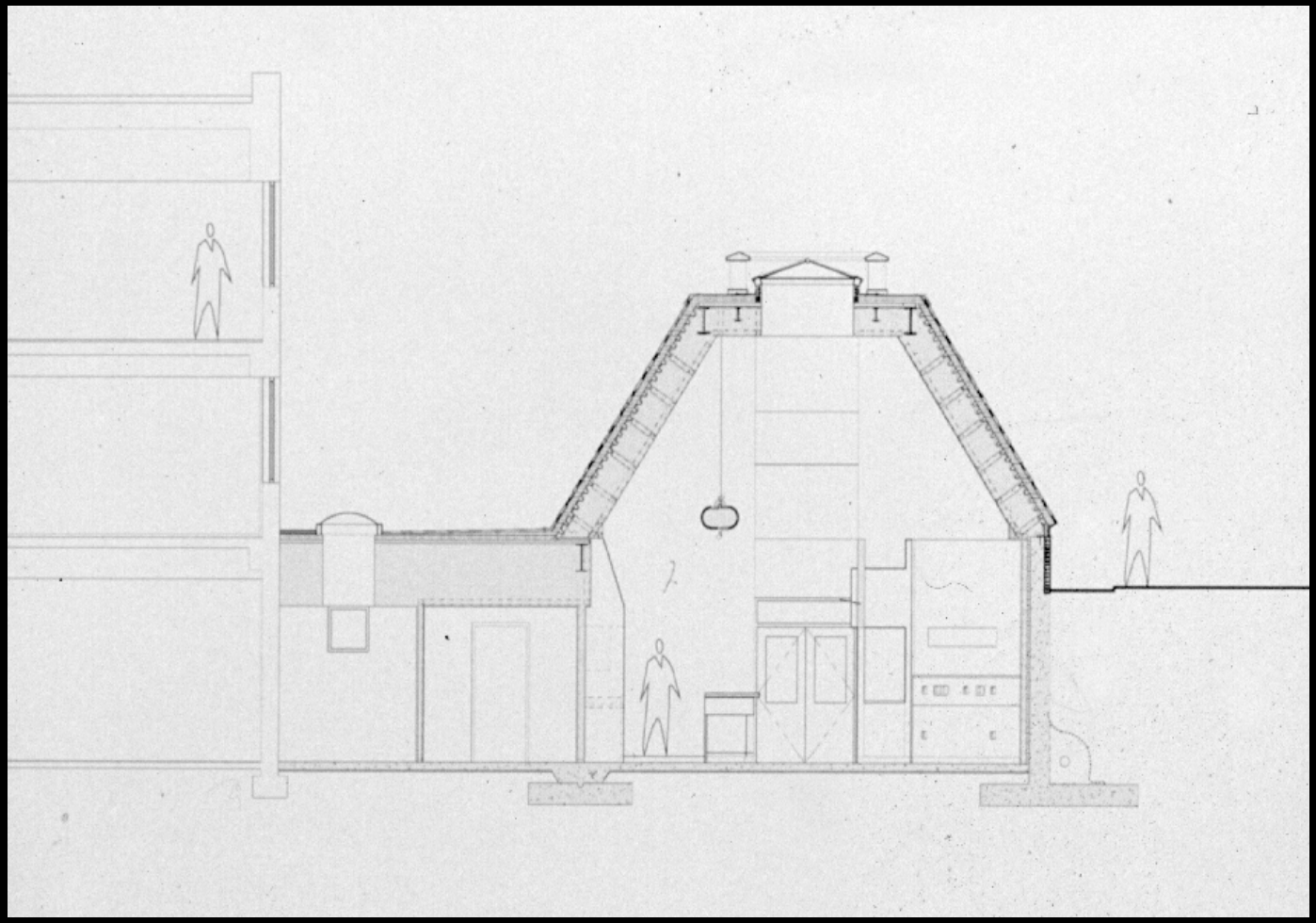
Day Light Studies



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Day Light Studies

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Day Light Studies

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Day Light Studies

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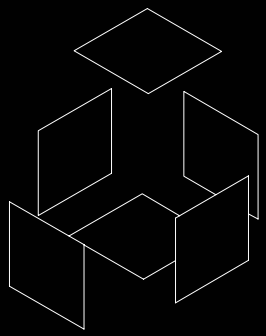
Rendering Qualities

- **Light & Shadow**
- **Color**
- **Texture**

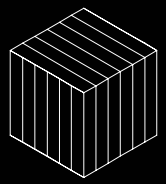
TECHNICAL COMPONENTS

- **Computer Rendering**
- **Surface Treatment**
- **Image Manipulation**

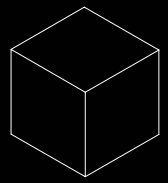
MODEL REPRESENTATIONS



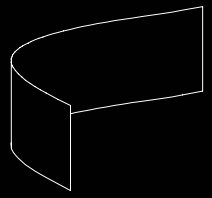
Surface Models



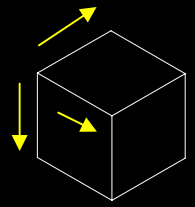
Ruled Surface



Solid Modeling



NURB Surface Modeling



Parametric Modeling

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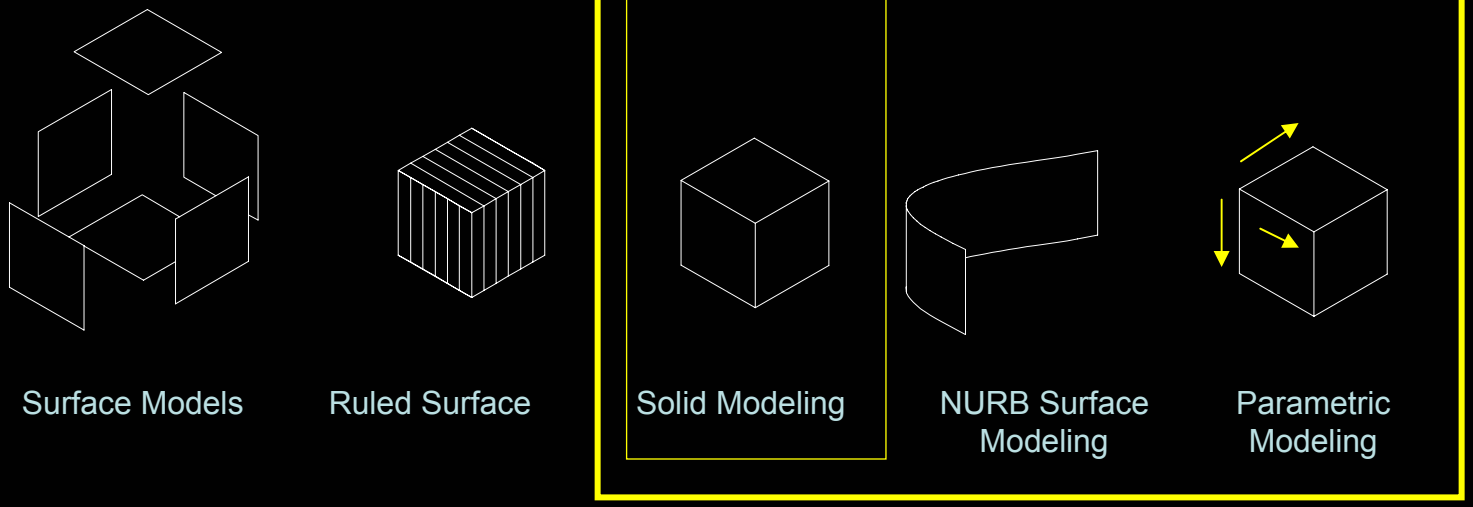
MODEL REPRESENTATIONS

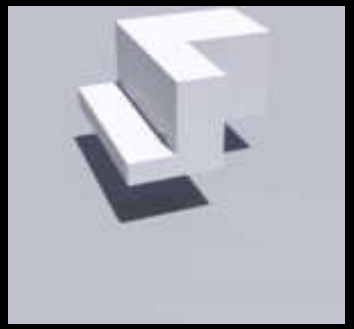


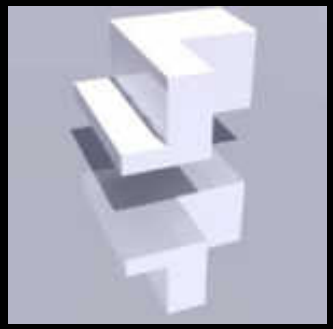
VISUAL REPRESENTATION

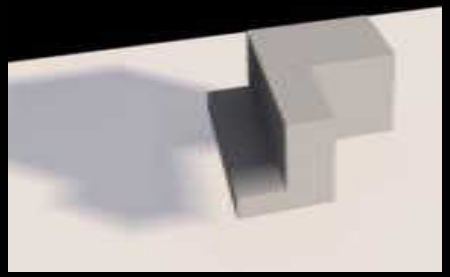
Geometrical Representation

Hidden Line

Shading







Render

Raytrace

Radiosity

RENDERING COMPONENTS

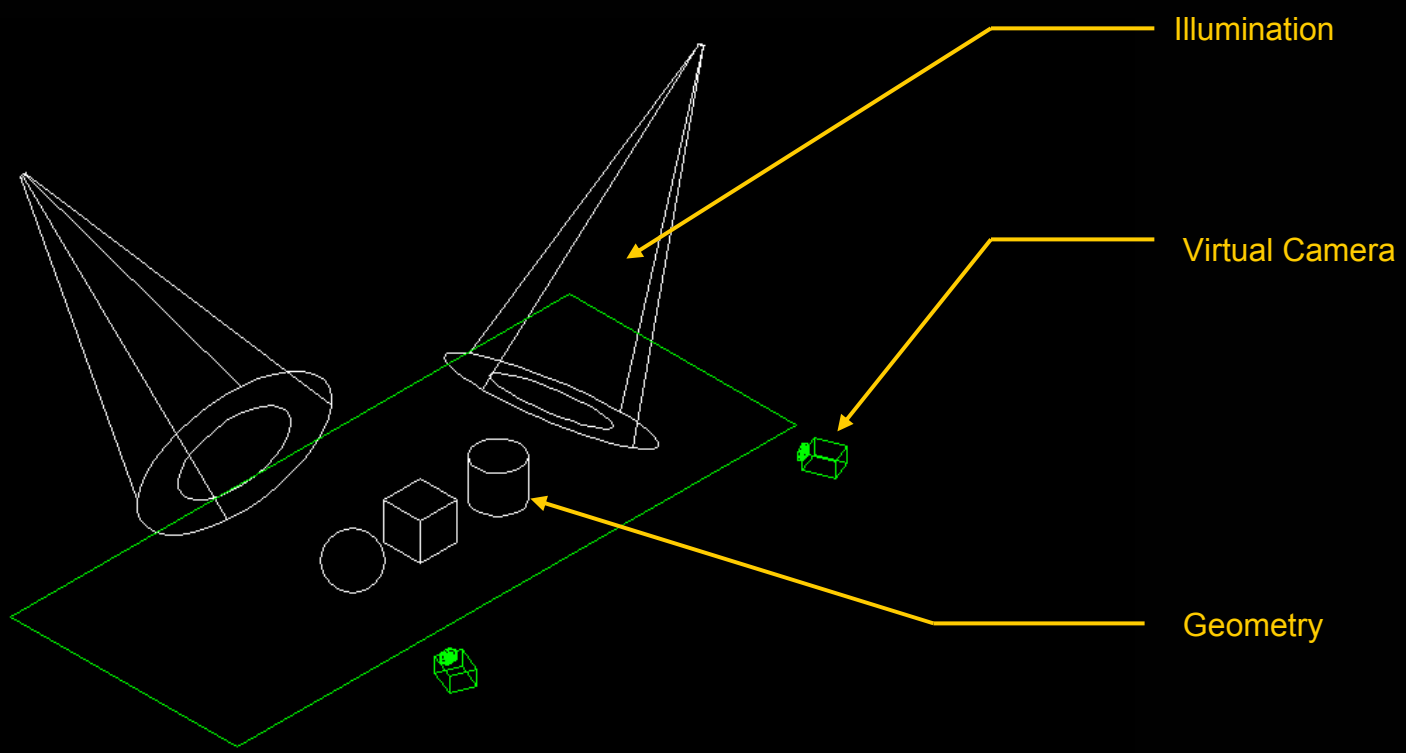
Modeling

Rendering

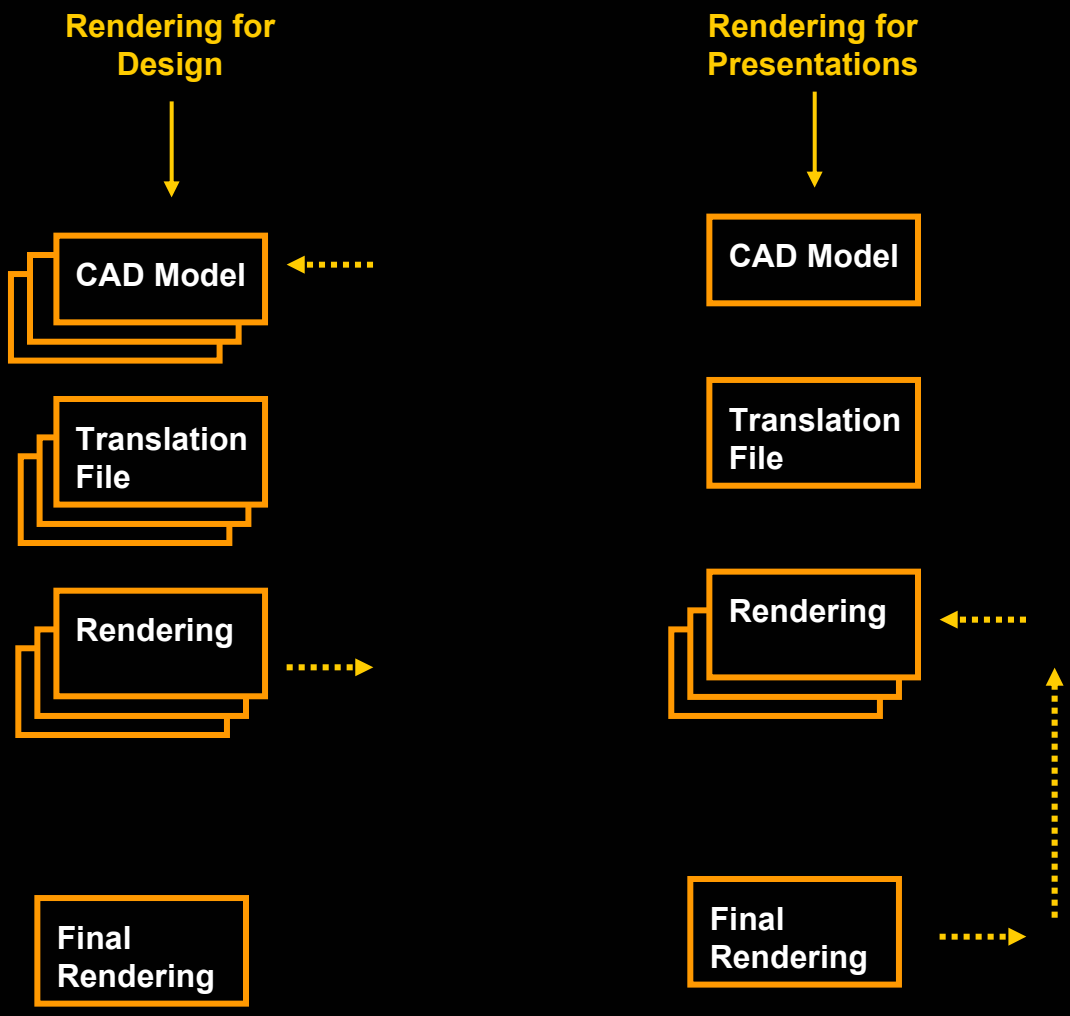
- Lights
  - Spots
  - General
  - Day lighting
- Camera
- Surface Manipulation
  - Shading
  - Ray Tracing
  - Textures
  - Maps

Animation

RENDERING SCENE



RENDERING PROCESS



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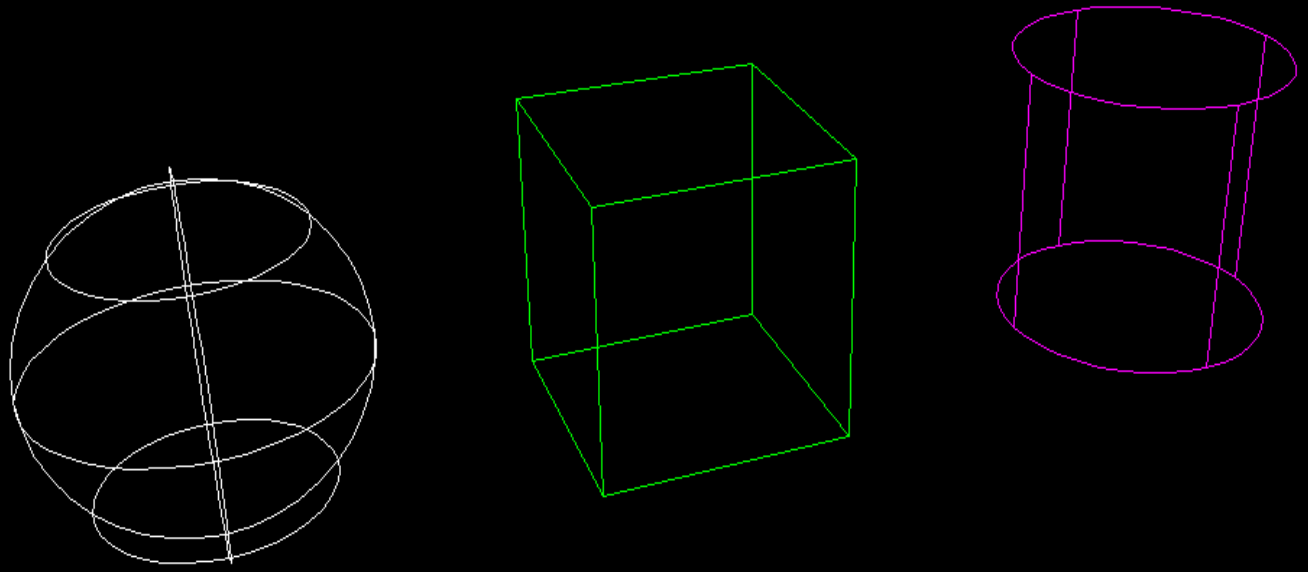
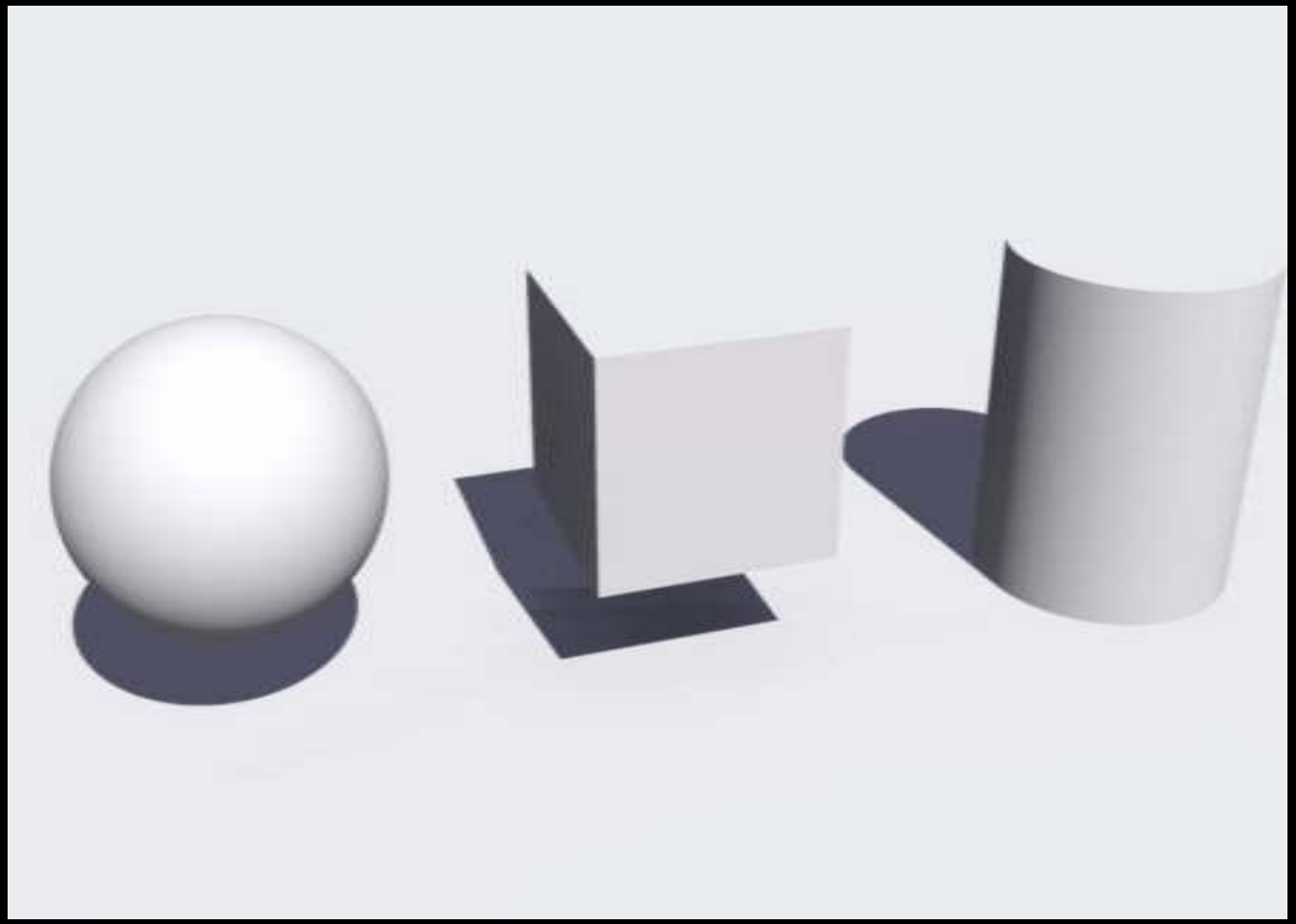
SURFACES - WIRE FRAME



SURFACES - SHADING



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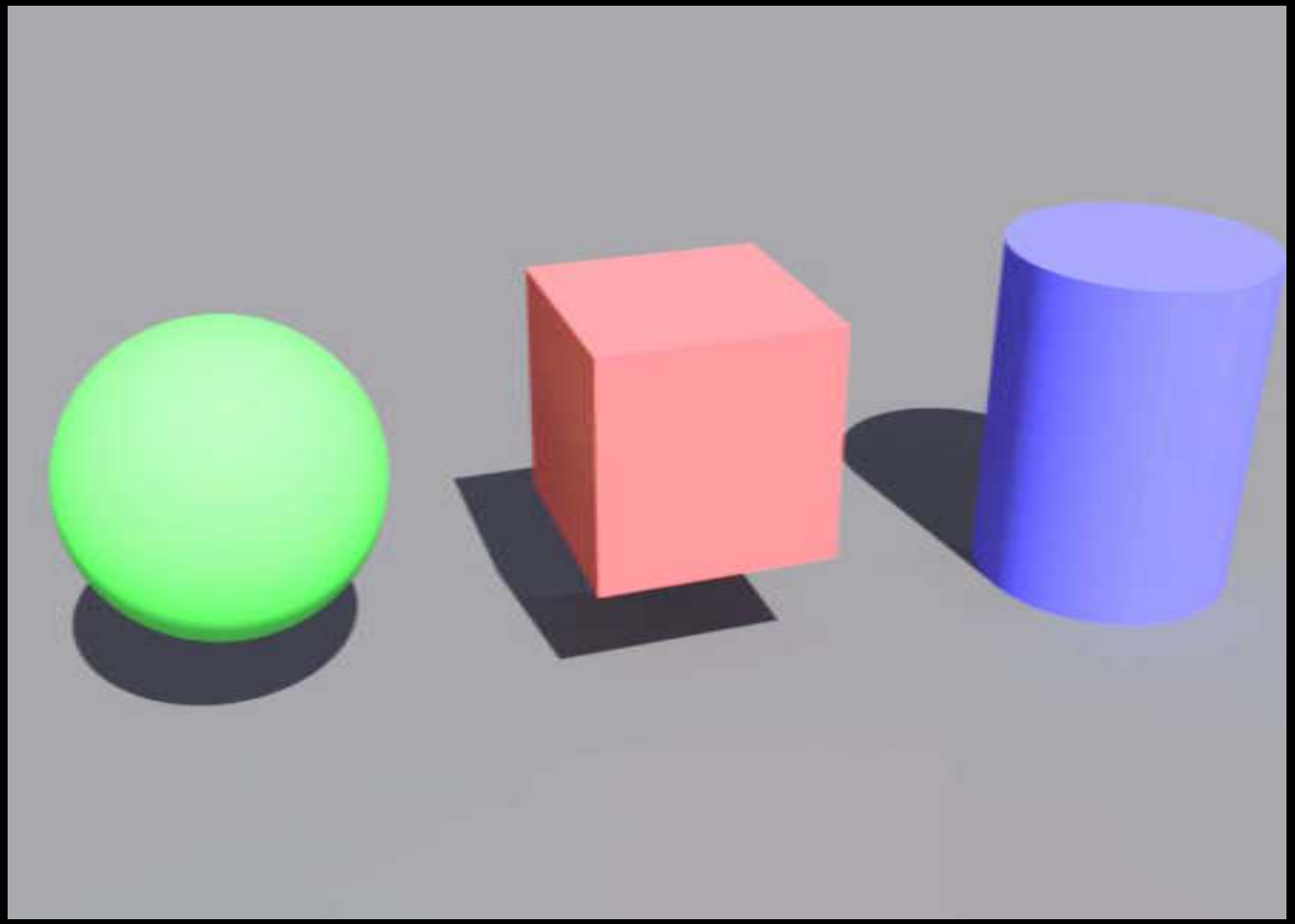
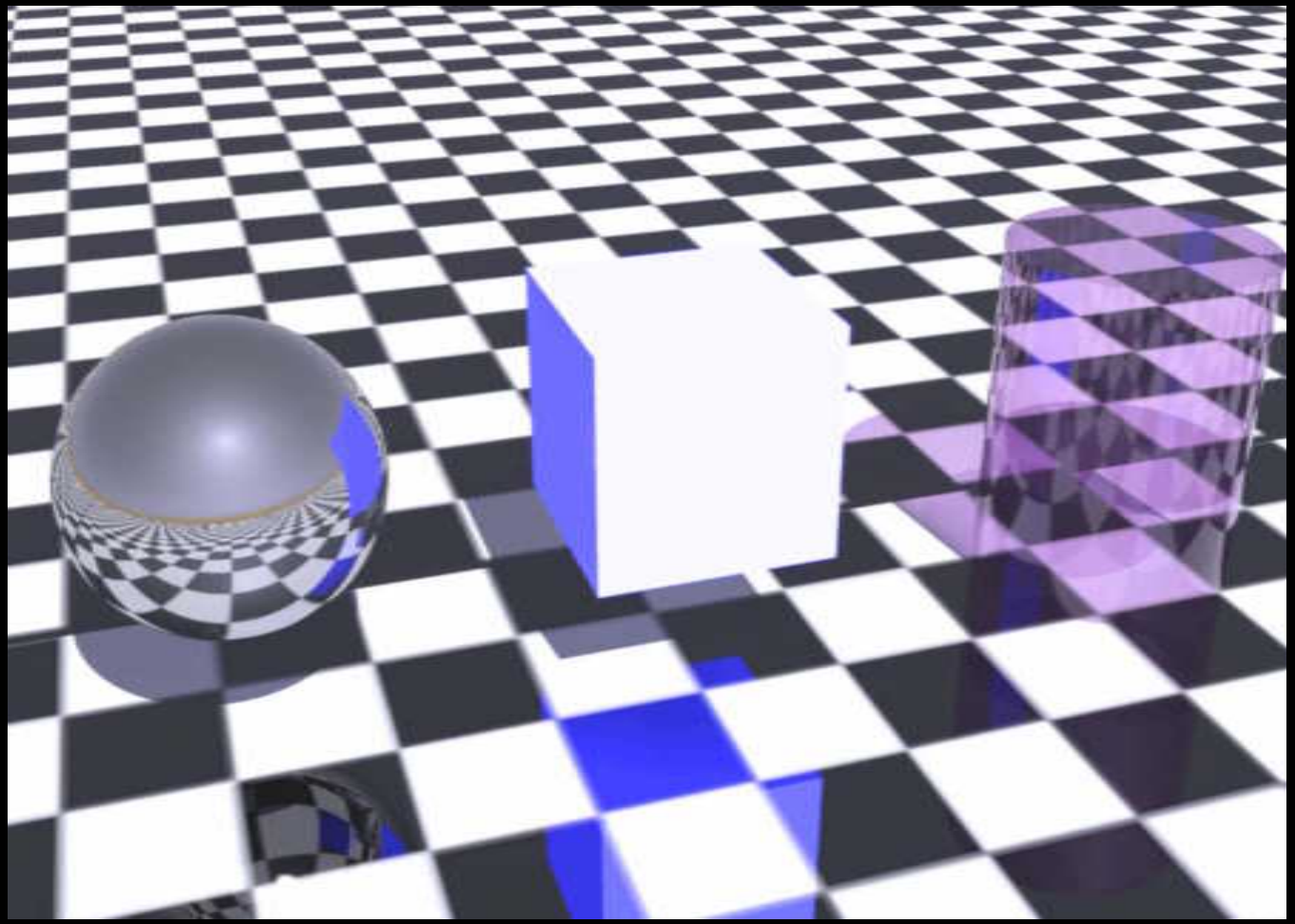
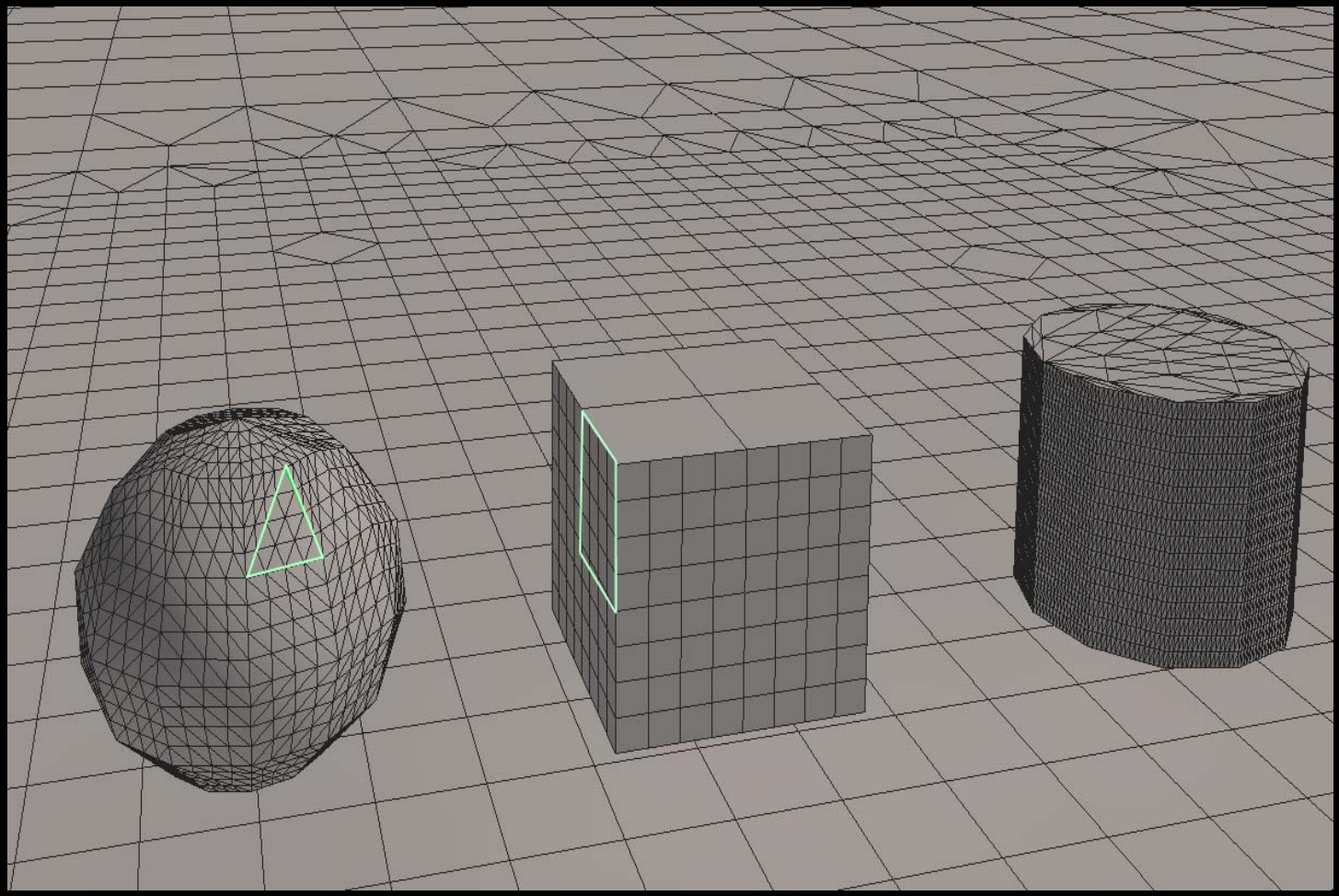
SURFACES - COLOR



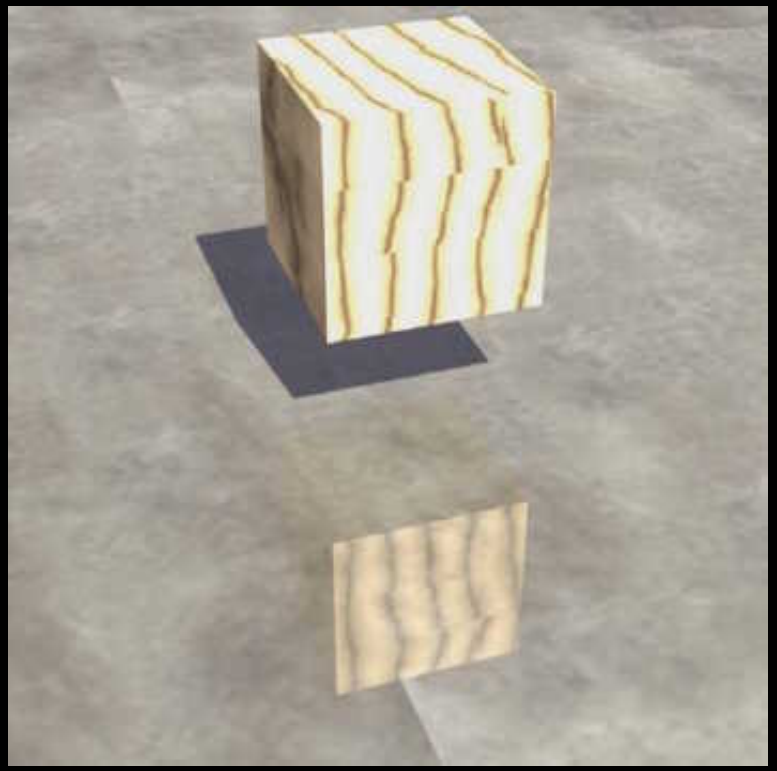
SURFACES – RAY TRACING



SURFACES - RADIOSITY



SURFACE - TEXTURES AND MAPS



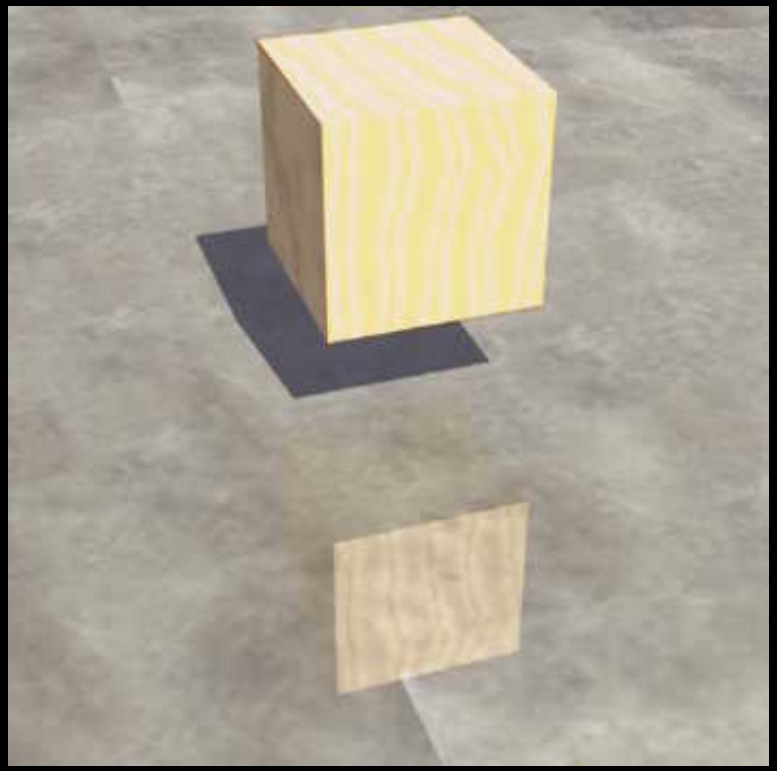


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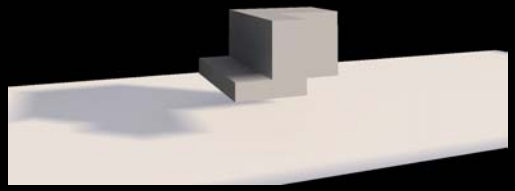
IMAGE MANIPULATION



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Illumination

- Import a Model
- Setting up Lights
- Setting up Cameras
- Creating an Image

RENDERING PROCESS

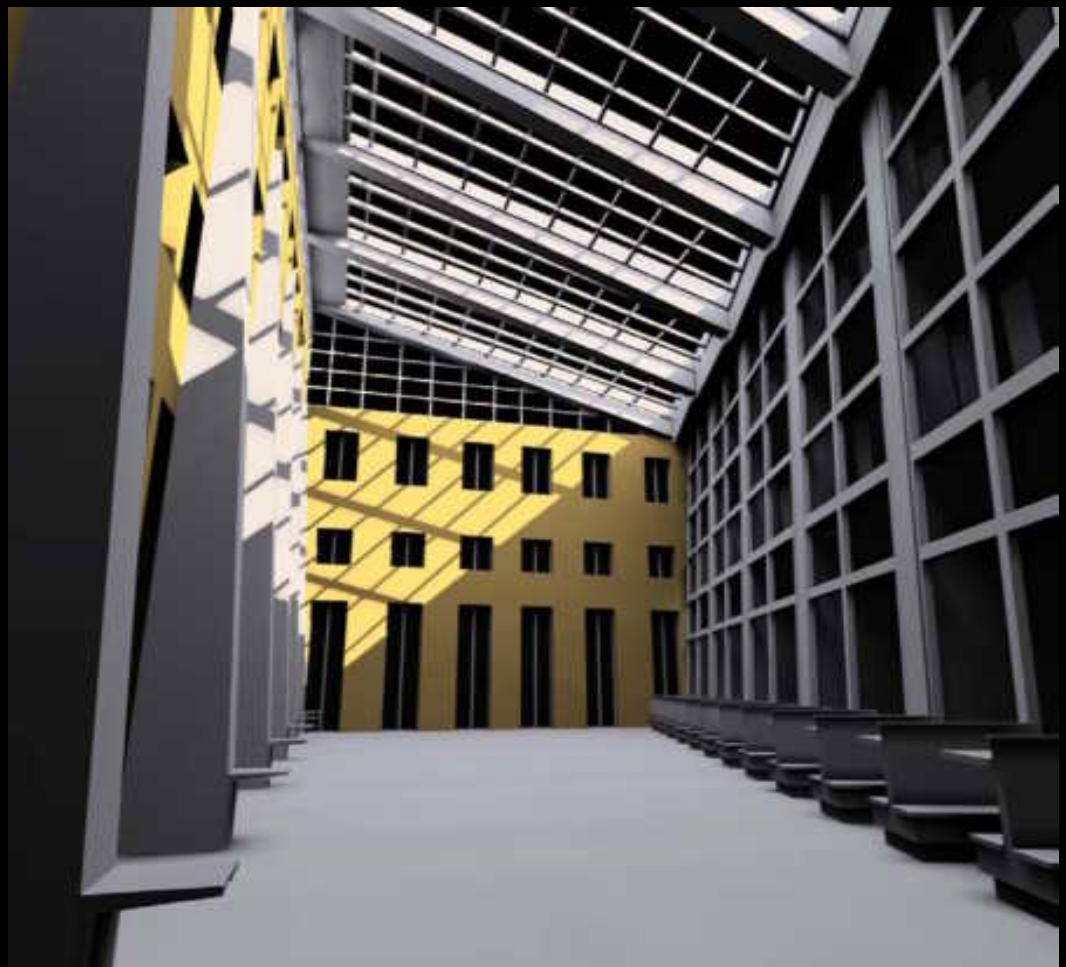
Mono Chromatic Model

RENDERING PROCESS

Mono Chromatic Model

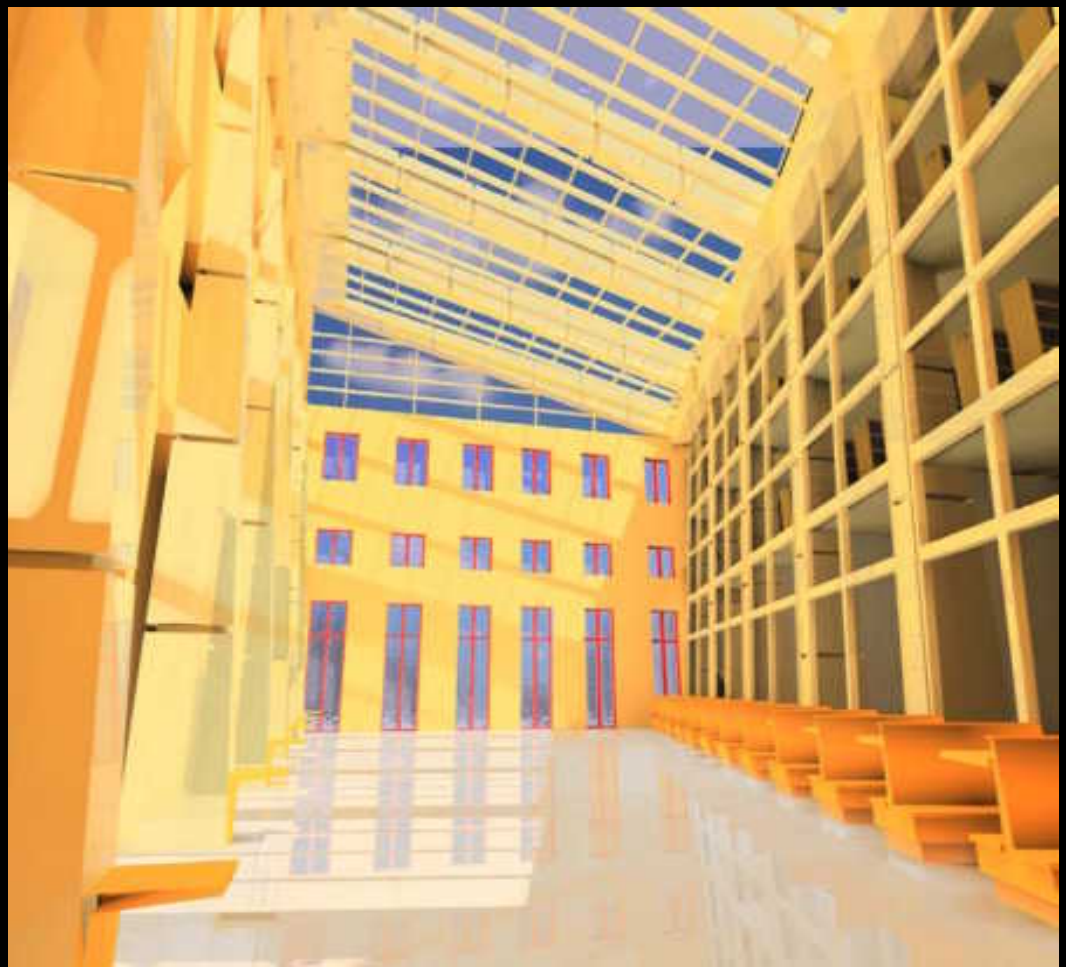
RENDERING PROCESS

Color and Light Model



RENDERING PROCESS

Surface and Light



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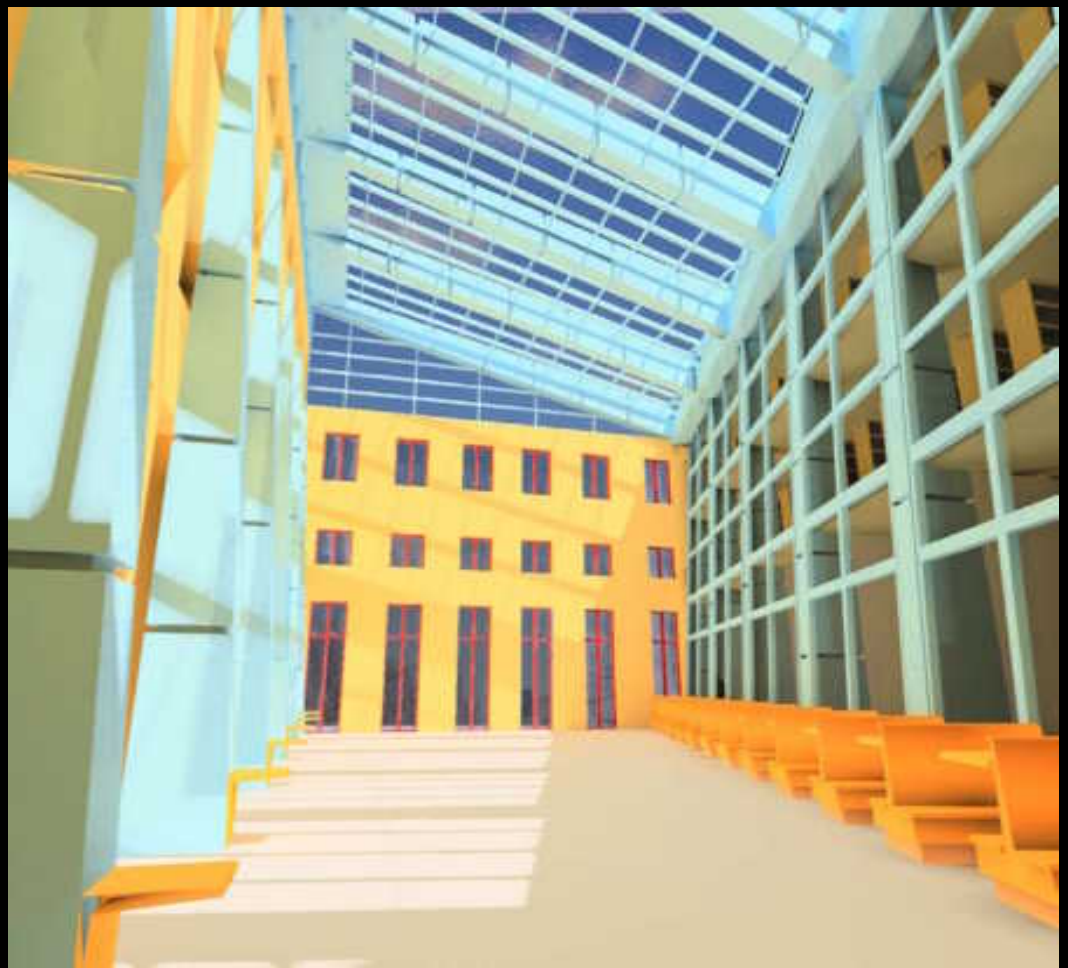
RENDERING PROCESS

Color and Light



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RENDERING PROCESS

Color and Light

RENDERING PROCESS

Light and Surface

RENDERING PROCESS

Mono Chromatic Model

RENDERING PROCESS

Mono Chromatic Model

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IMAGE MANIPULATION

Rhino