Lighting - the Key for Photorealistic Rendering

Ciro Sannino
Author and V-Ray Licensed Trainer
“...it’s the use of contrasts of light to achieve a sense of volume, in modelling three-dimensional objects”
HIERARCHY
Let the principles drive your choices
Light with the Medium Gray
Light with the Medium Gray
Hierarchy

2 Layers

Primary / Secondary light
Light Hierarchy
In everyday life
Light Hierarchy
In everyday life
Sun light is Flat

We need Chiaroscuro anyway!
Duomo di Modena
1200 – 1300 dc
PLAY with different sun positions
Hiearachcy

3 Layers

Primary / Secondary / Fill light
Secondary: different options
Hierarchy

4 Layers

Primary / Secondary / Fill light / Accent

Where?
Inverse Square Law

- **HIGH CONTRAST**
- **LOW CONTRAST**

Graph showing intensity versus distance, illustrating the inverse square law.
VIDEO: 4-Layer Hierarchy (interior)
How principles guide my scene setup
RATTO DI PROSERPINA
Gian Lorenzo Bernini, Rome, 1621-1622
'I conquered the marble; I made it as flexible as wax. This means that sculpture is now no different from painting.'

Gian Lorenzo Bernini
Exposure
Balancing interior / exterior
Light Balance
INTERIOR / EXTERIOR
How should work the light in my image?

Don’t Trust your imagination
EXPLORER REAL PICTURES / USE REFERENCES
VIDEO: exposure for backgrounds
Check list for Backgrounds

- Set a camera with a consistent exposure
- Put a panel orthogonal to the camera
- Use VrayLightMtl (or any material with self-illumination)
- Place the horizon correctly
- Use a texture with a consistent exposure
  (use simulated Sky as reference)
Fixing 3D
[in post production]
3 ideas to keep in mind

PRINCIPLES / CHIAROSCURO / HIERARCHIES
1. Let the principles drive your choices
2. Focus on chiaroscuro

3d / Photoshop
3. Work with Hierarchies

Essential way: maximum efficiency with the minimum effort
“What is essential is perfect

Leonardo Da Vinci
Grazie mille

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