

#16: Computer Cinematography: The *Toy Story* Lighting Model

CSE167: Computer Graphics

Instructor: Ronen Barzel

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Film Cinematography

- What makes film look different from home movie?
 - Camera
 - Lighting
- Not trying for “photorealism”
- Lighting in cinematography
 - Contribute to storytelling
 - Set mood
 - Compose image
 - Direct viewer’s eye

Real-World Film Lighting

- *Practical lights:*
 - lights that are visible onscreen
 - e.g. desk lamps, ceiling lamps, flashlights, fires, ...
 - rarely major contributors to illumination
- Main lights and spotlights placed off-camera
 - To create desired illumination effect
- Standard three-point lighting setup:
 - Key light -- provides major source of illumination & shadow
 - Fill Light -- fills in dark areas & shadows made by key
 - Back light -- creates subtle highlights around edges
 - helps give sense of 3D depth
 - separates subject from background