CS451 Conclusion

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What Have You Learned?

What Topics did You Find Most Challenging?

What Topics did You Find Least Challenging?

Dose CS351 Help?

- In what way?
- Should CS351 be a prerequisit?

What Topics Didn’t You Learn but Wish to Learn?

What are the Topics that You Didn’t Even Know?

- Atmospheric Scattering
- Light Linked List
- Reflection Occlusion
- Ambient Occlusion Color Bleeding
- Light Stage Systems
- …

Atmospheric scattering

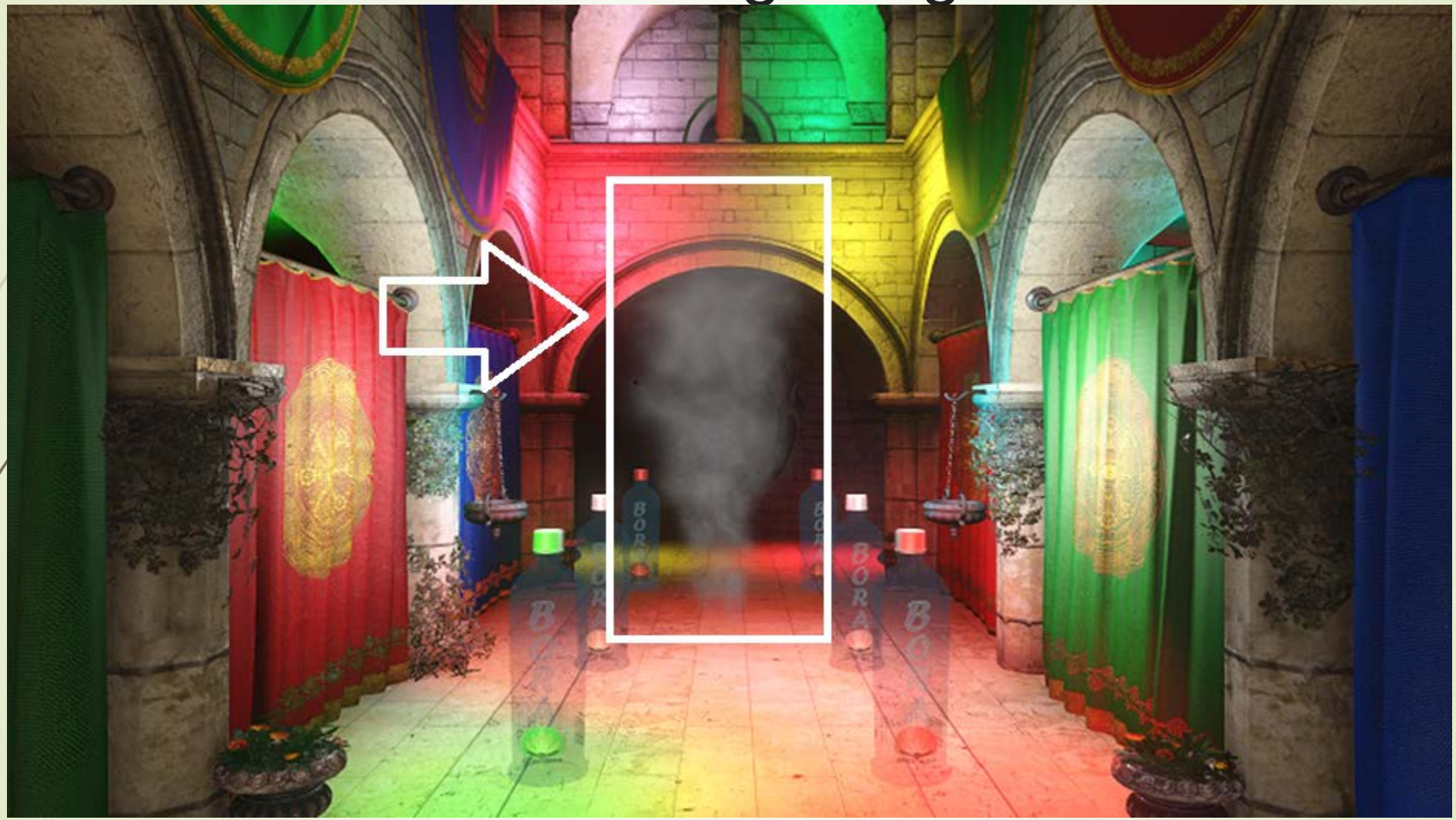
- Sky color
- Fog
- Clouds
- “God rays”
- Light shafts
- Volumetric shadows

Light shafts image source: http://en.wikipedia.org/wiki/File:Crepuscular_rays_09-11-2010_1.jpg author Brocken Inaglory

Old: Deferred Lighting

Old: Deferred Lighting

Old: Deferred Lighting



New: Light Linked List

Light Linked List

Store lights in a per-pixel linked list

Reflection Occlusion On

Reflection Occlusion Off

AO Color Bleeding Off

AO Color Bleeding On

Large Scale AO (Off)

Large Scale AO
off

Large Scale AO (On)

Large Scale AO

Large Scale AO contribution
[contrast enhanced]

Light Stage Systems

http://gl.ict.usc.edu/Research/PresidentialPortrait/

WH
.GOV

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on Computer Graphics and
Interactive Techniques
Technical Papers
PREVIEW

Resources to Learn New Techniques

- SIGGRAPH courses
- SIGGRAPH University (youtube channel)
- Eurographics States of the Art Reports (STARs)
- BOOKs: GPU gems, GPU pro
- Online courses
  - Udacity https://www.udacity.com/wiki/cs291
  - edX Foundations of Computer Graphics https://www.edx.org/course/foundations-of-graphics-computers-uc-berkeleyx-cs-184-1x