

Ambient Occlusion

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Ambient Occlusion

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- 3d

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- (vs)
(gouraud shading),
(phong shading)
- (geometry)

Ambient Occlusion Image

- AO, DirectLight, AO + DirectLight



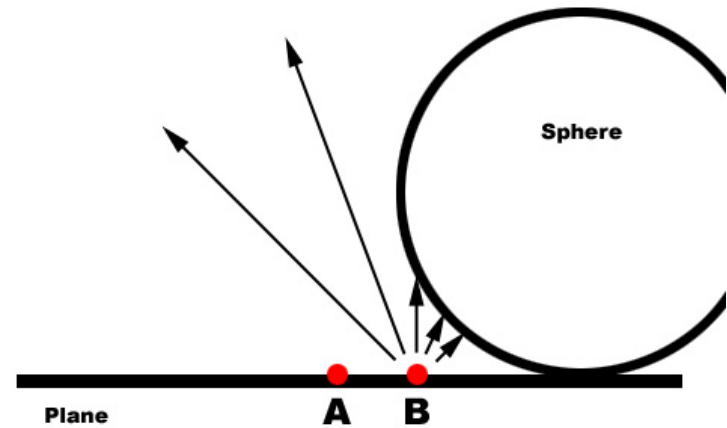
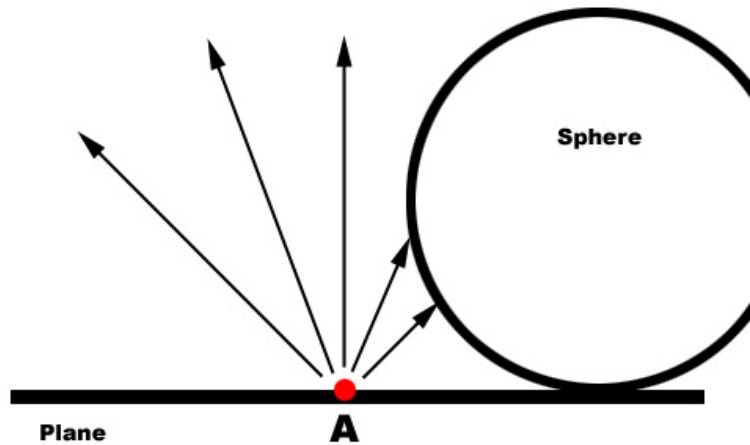
Image from http://www.gamasutra.com/features/20040319/hill_01.shtml

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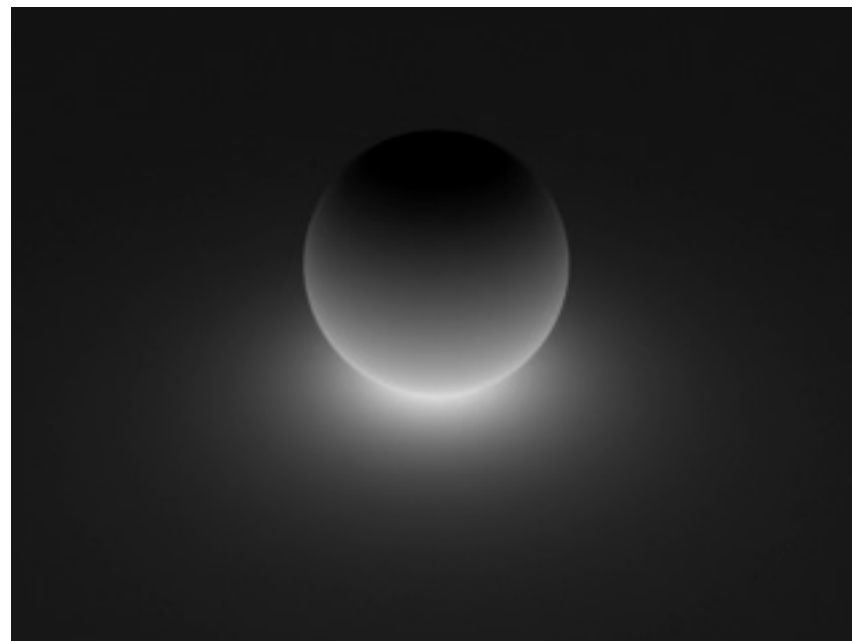
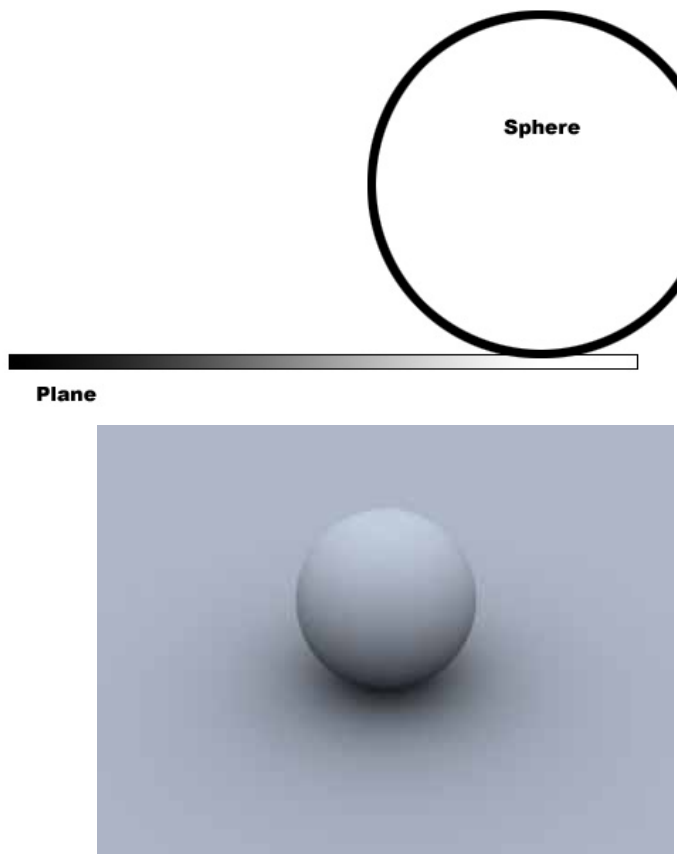
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Image from http://www.neilblevins.com/cg_education/ambient_occlusion/ambient_occlusion.htm

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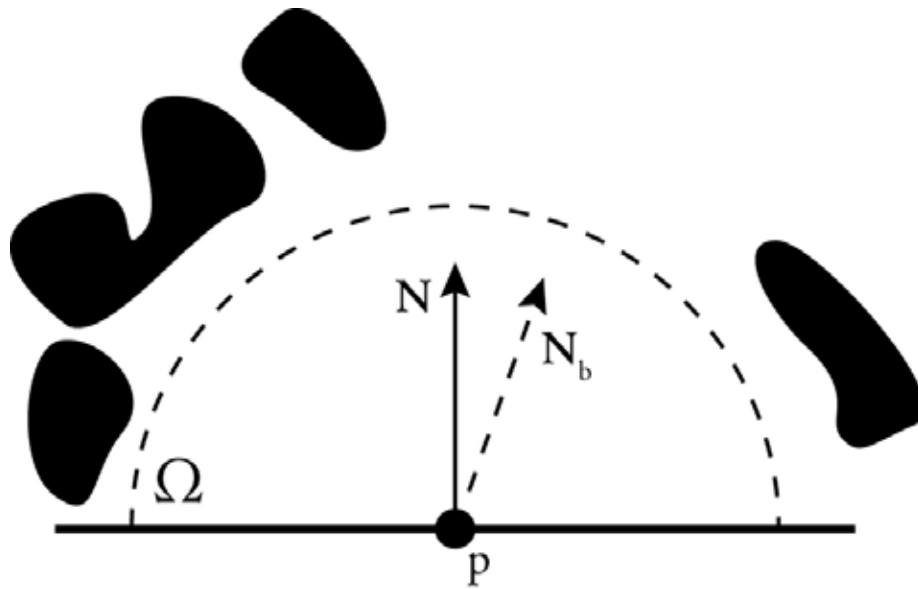
Occlusion

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$$A_p = \frac{1}{\pi} \int_{\Omega} V_{p,\omega} (N \cdot \omega) d\omega$$

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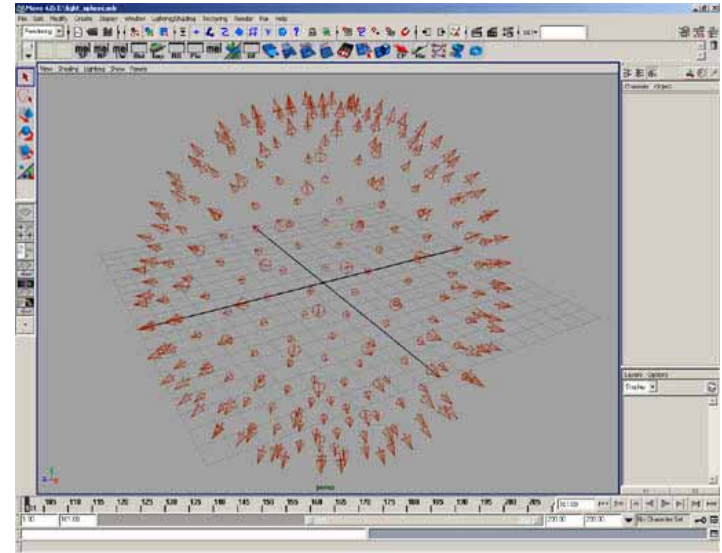
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- Monte Carlo

- Raytraced Ambient Occlusion
- Depth Map Based Ambient Occlusion Light
- Ambient Occlusion Fields
- Dynamic Ambient Occlusion

Depth Map Based Ambient Occlusion Light (1)

- occlusion



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Depth Map Based Ambient Occlusion Light (2)

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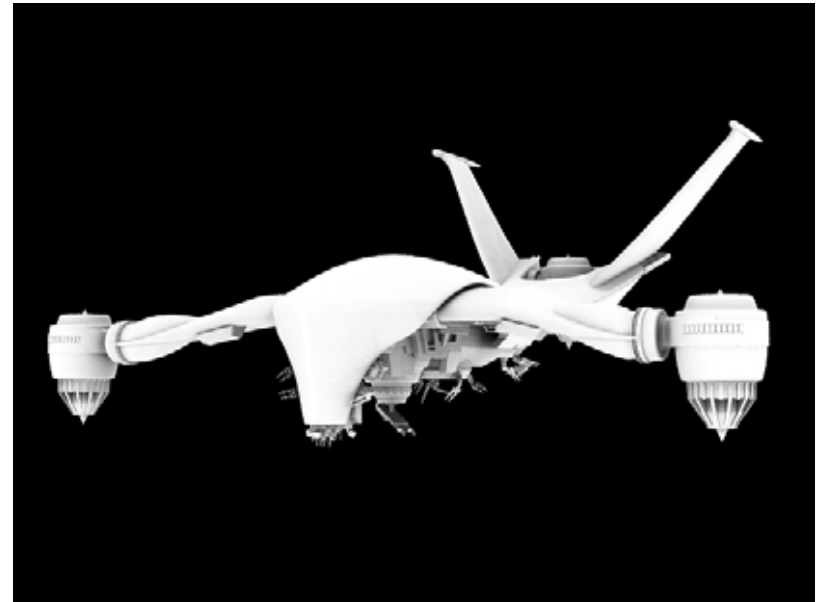


Image from <http://zj.deathfall.com/depthbasedOcc.htm>

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Depth Map Based Ambient Occlusion Light (3)

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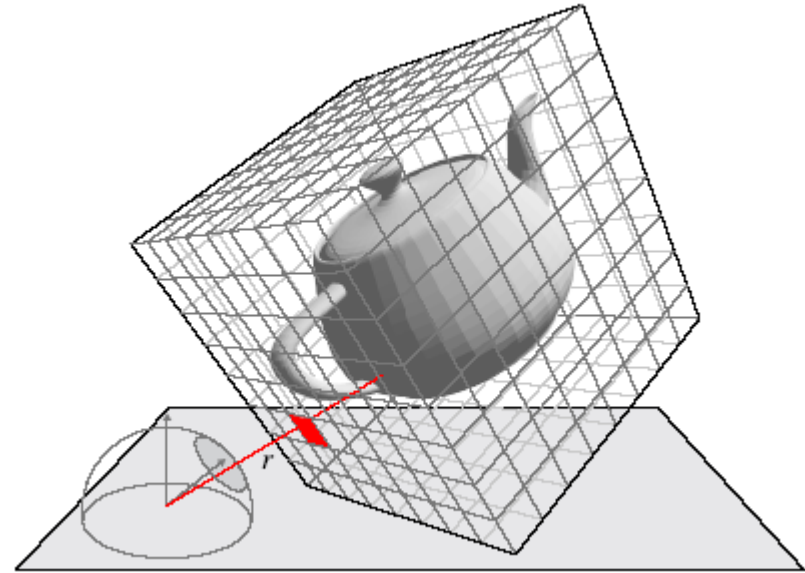
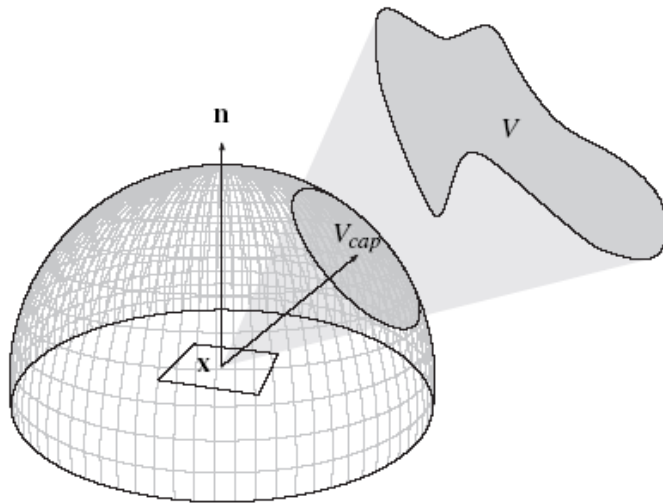
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Ambient Occlusion Fields(1)

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(occluder)
- Occluder
가
(Field)

Ambient Occlusion Fields(2)

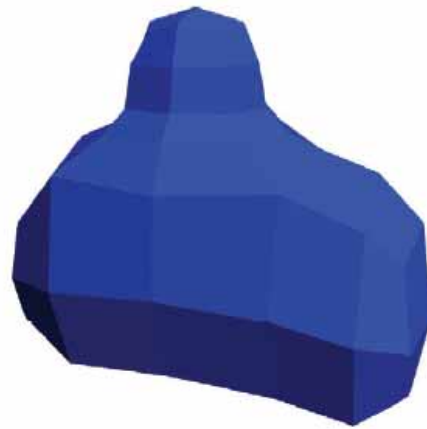


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Dynamic Ambient Occlusion(1)

- Occluder n
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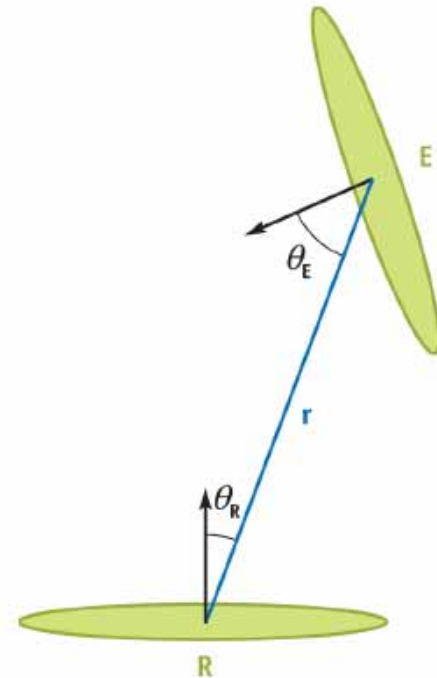
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Dynamic Ambient Occlusion(2)

- occluder

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- - Ambient occlusion (*)
- http://en.wikipedia.org/wiki/Ambient_occlusion

- - Surface Shading Ambient Occlusion
- http://fundza.com/rman_shaders/ray/ambient_occlusion/occlude1.html

- - Ambient occlusion
- <http://zj.deathfall.com/ambientocclusion.htm>

- - Ambient Occlusion (*)
- http://www.neilblevins.com/cg_education/ambient_occlusion/ambient_occlusion.htm

- - Using Ambient Occlusion
- <http://www.illuminatelabs.com/tutorials/ambientoccl/ambientoccl.html>

- - Depth Map Based Ambient Occlusion Lighting
- http://www.andrew-whitehurst.net/amb_occlude.html

- - Depth Map Based Ambient Occlusion
- <http://zj.deathfall.com/depthbasedOcc.htm>

- - Final Project: Real-Time Ambient Occlusion
- http://www.cs.wisc.edu/~schenney/courses/cs779-s2003/final_projects/ltokheim/

- - Assorted Notes about Ambient Occlusion
- <http://www.cs.unc.edu/~coombe/research/ao/>

- - Hardware Accelerating Art Production
- http://www.gamasutra.com/features/20040319/hill_01.shtml