Moteur de Lancer de Rayons

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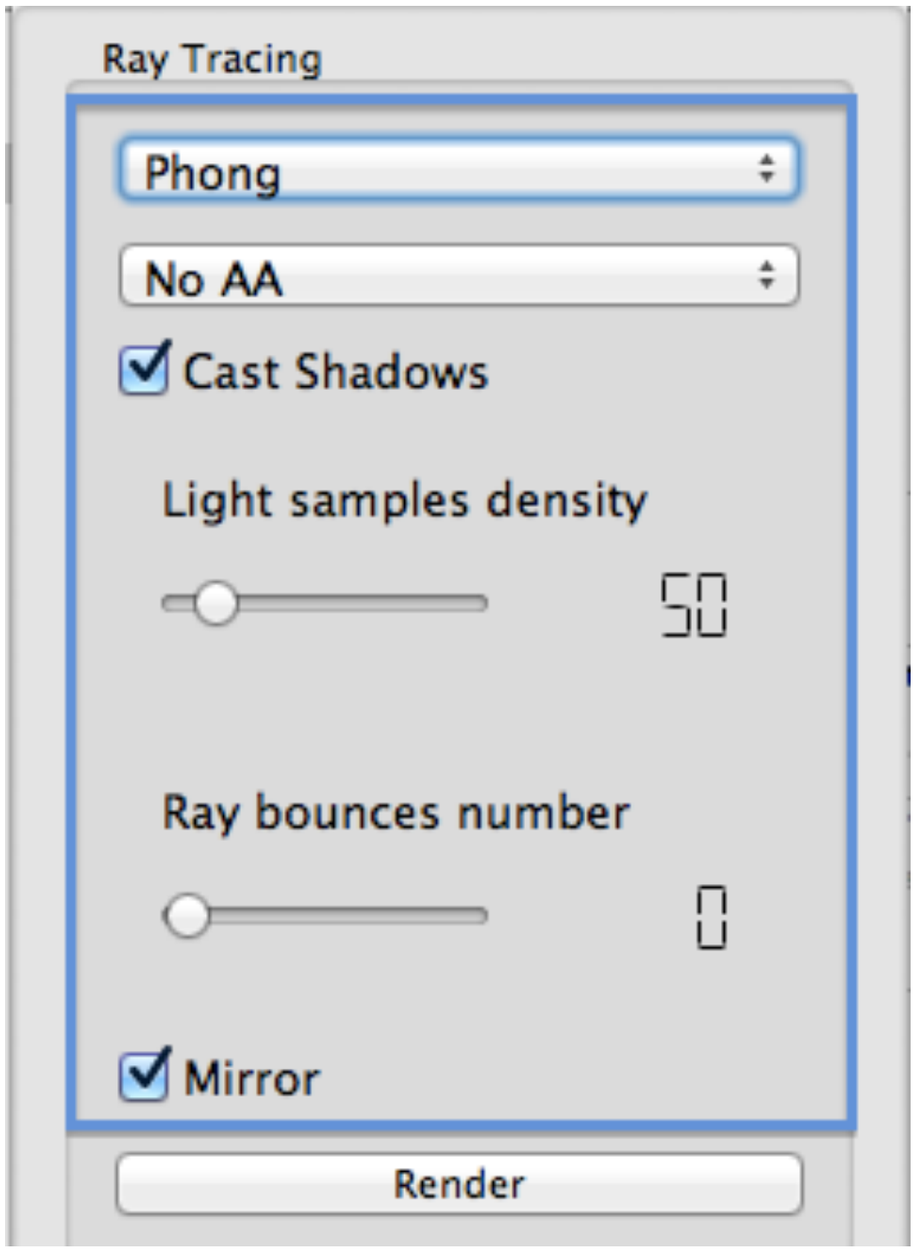
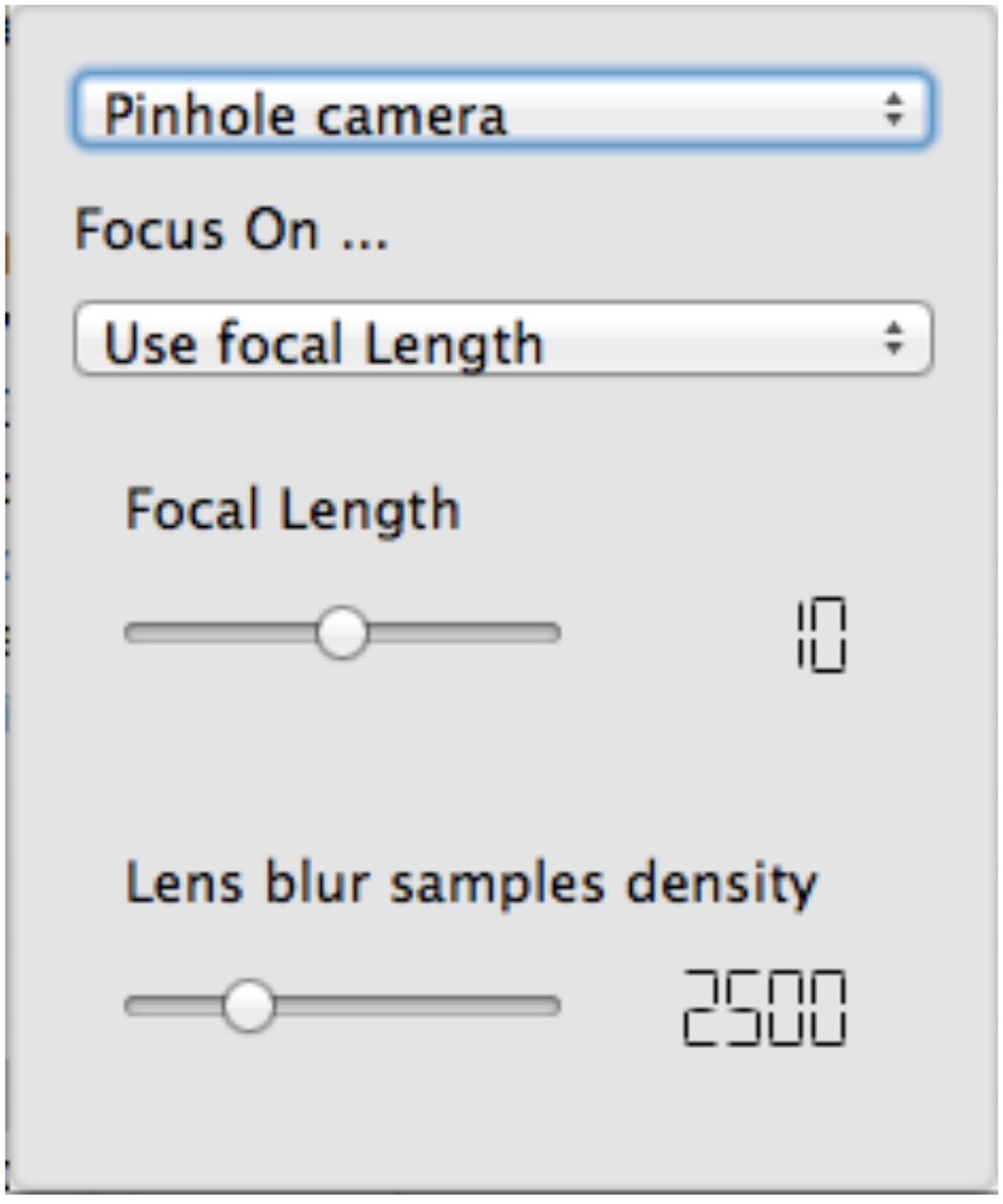
IMAGE RENDU AVEC TOUS LES EFFETS

Description du moteur

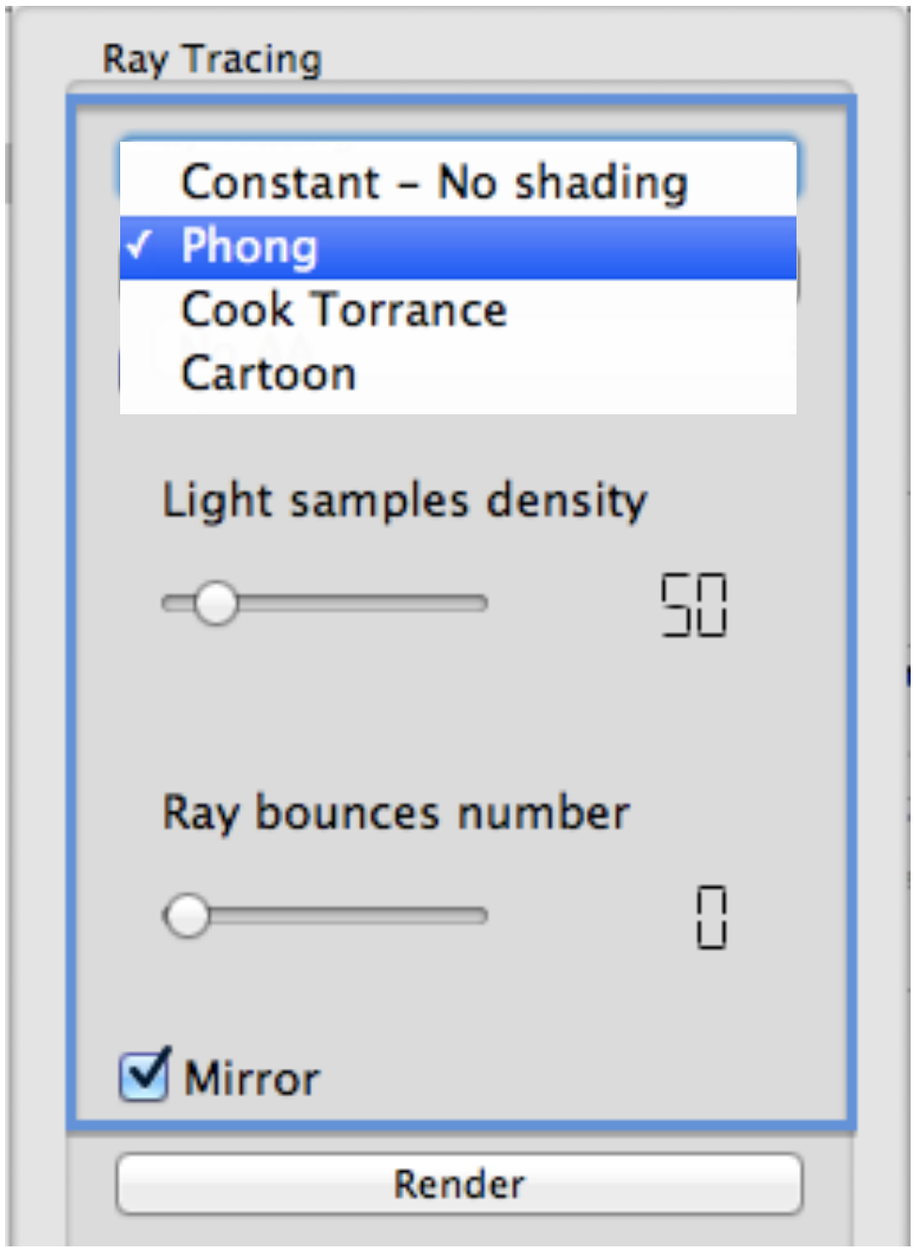
- Choix des BRDFS
- Antialiasing
- Ombres portées
- Réfléctions
- Lumières étendues (de forme arbitraire) & ombres douces
- Flou de focus
- Path Tracing

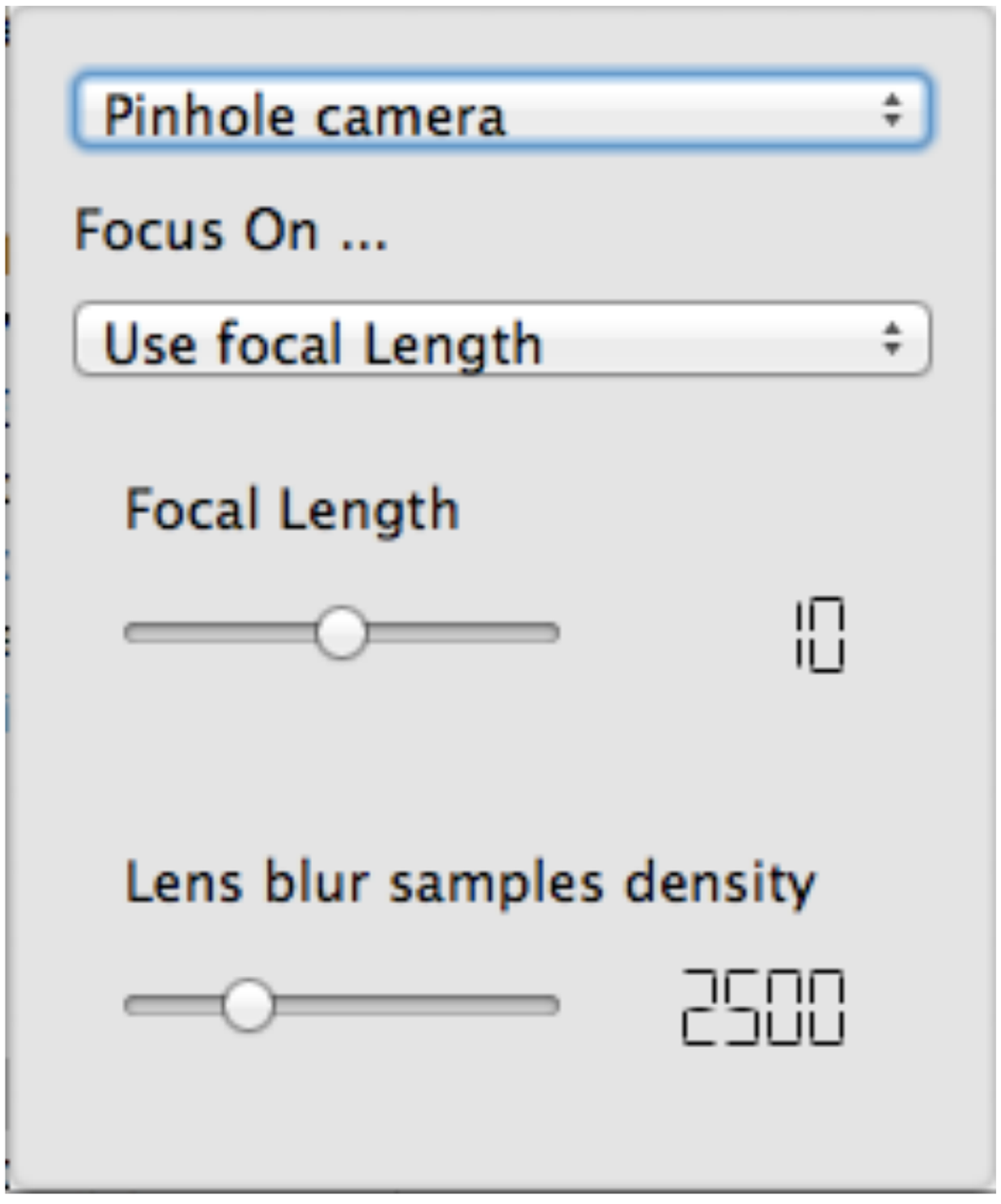
Interface


Ray Tracing
Phong
No AA
Cast Shadows
Light samples density
50
Ray bounces number
0
Mirror
Render

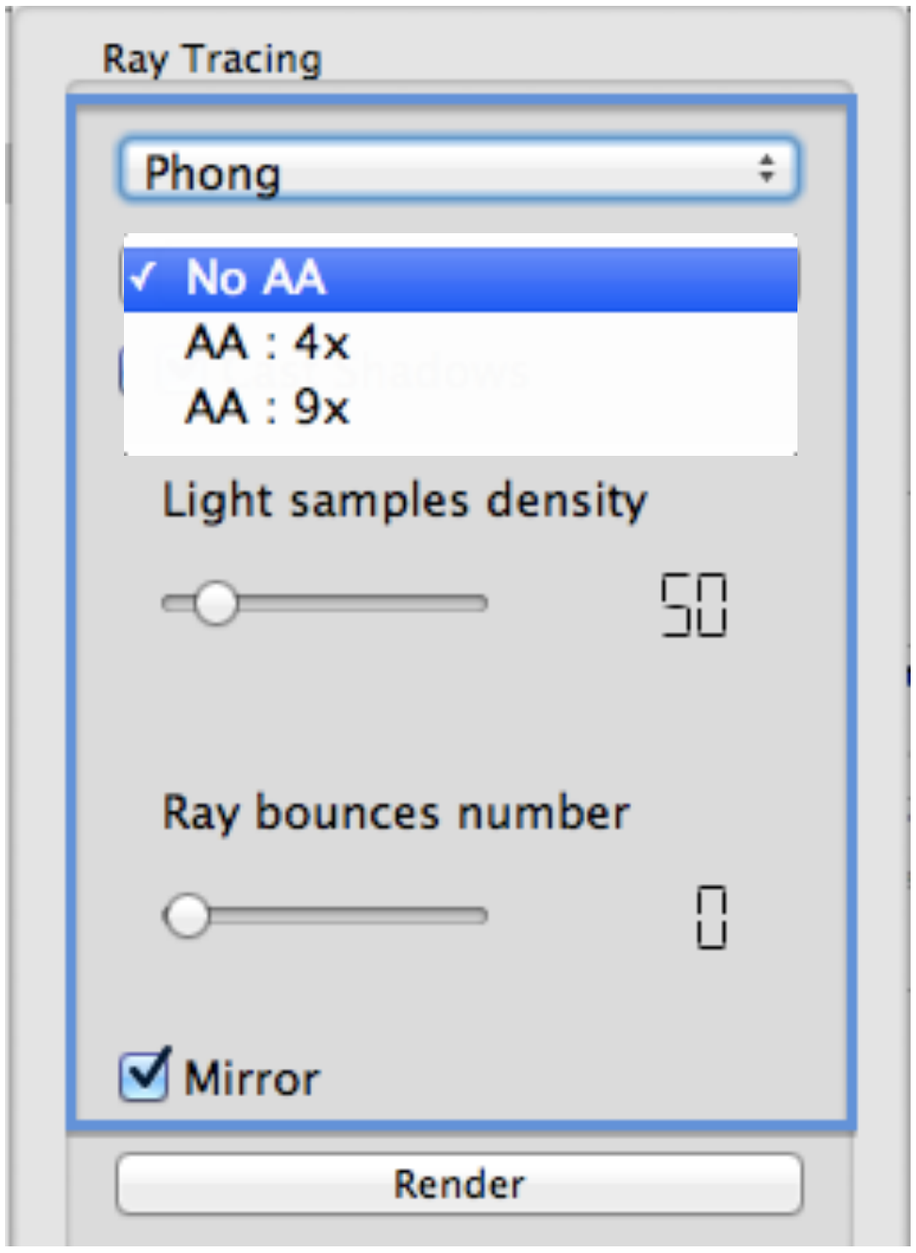

Pinhole camera
Focus On ...
Use focal Length
Focal Length
10
Lens blur samples density
2500

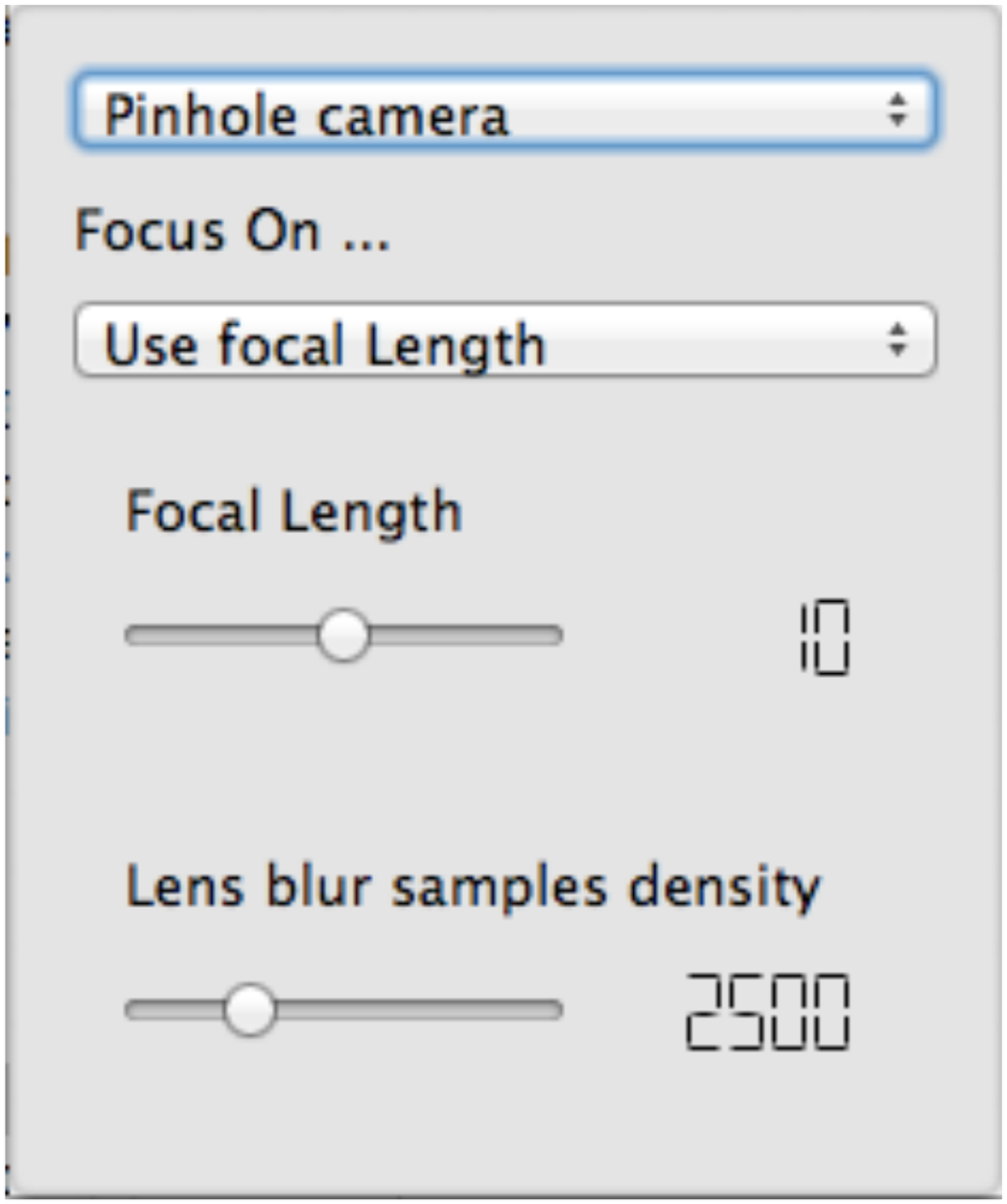
Interface

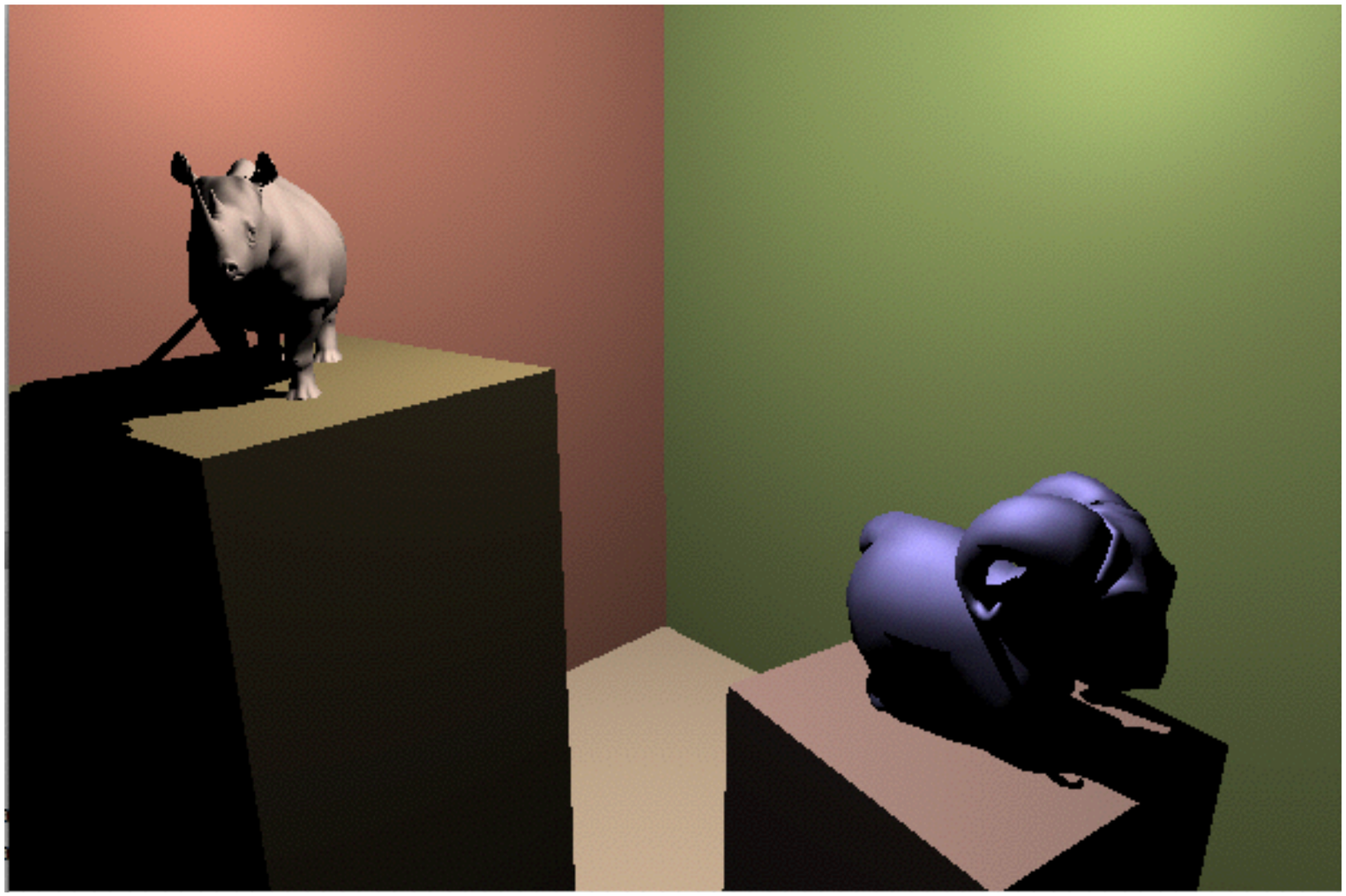

Ray Tracing
Constant – No shading
✓ Phong
Cook Torrance
Cartoon
Light samples density
50
Ray bounces number
0
Mirror
Render


Pinhole camera
Focus On ...
Use focal Length
Focal Length
10
Lens blur samples density
2500

Interface

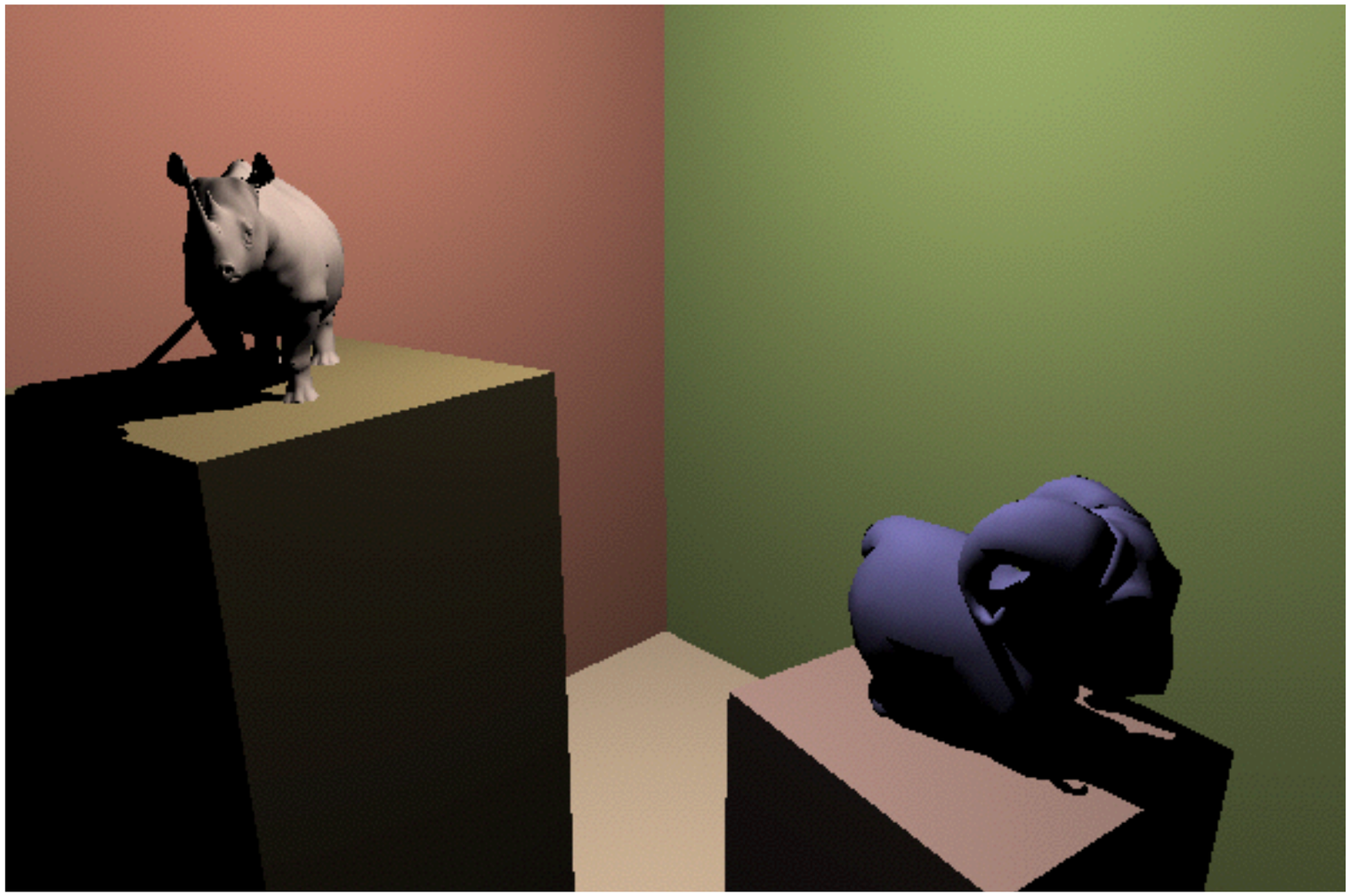

Ray Tracing
Phong
No AA
AA : 4x
AA : 9x
Light samples density
50
Ray bounces number
0
Mirror
Render


Pinhole camera
Focus On ...
Use focal Length
Focal Length
10
Lens blur samples density
2500



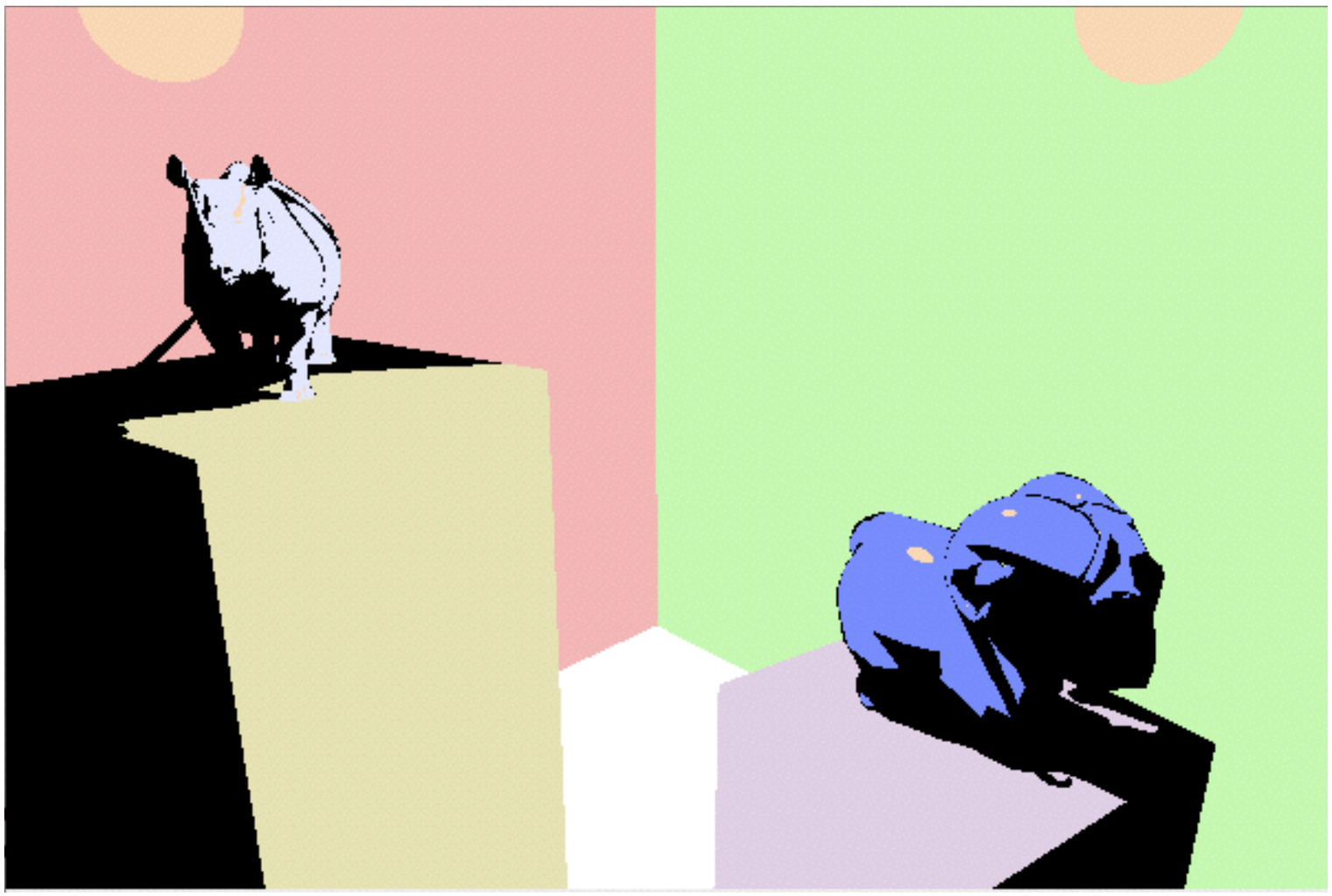
BRDF

Phong - Cook Torrance - Cartoon



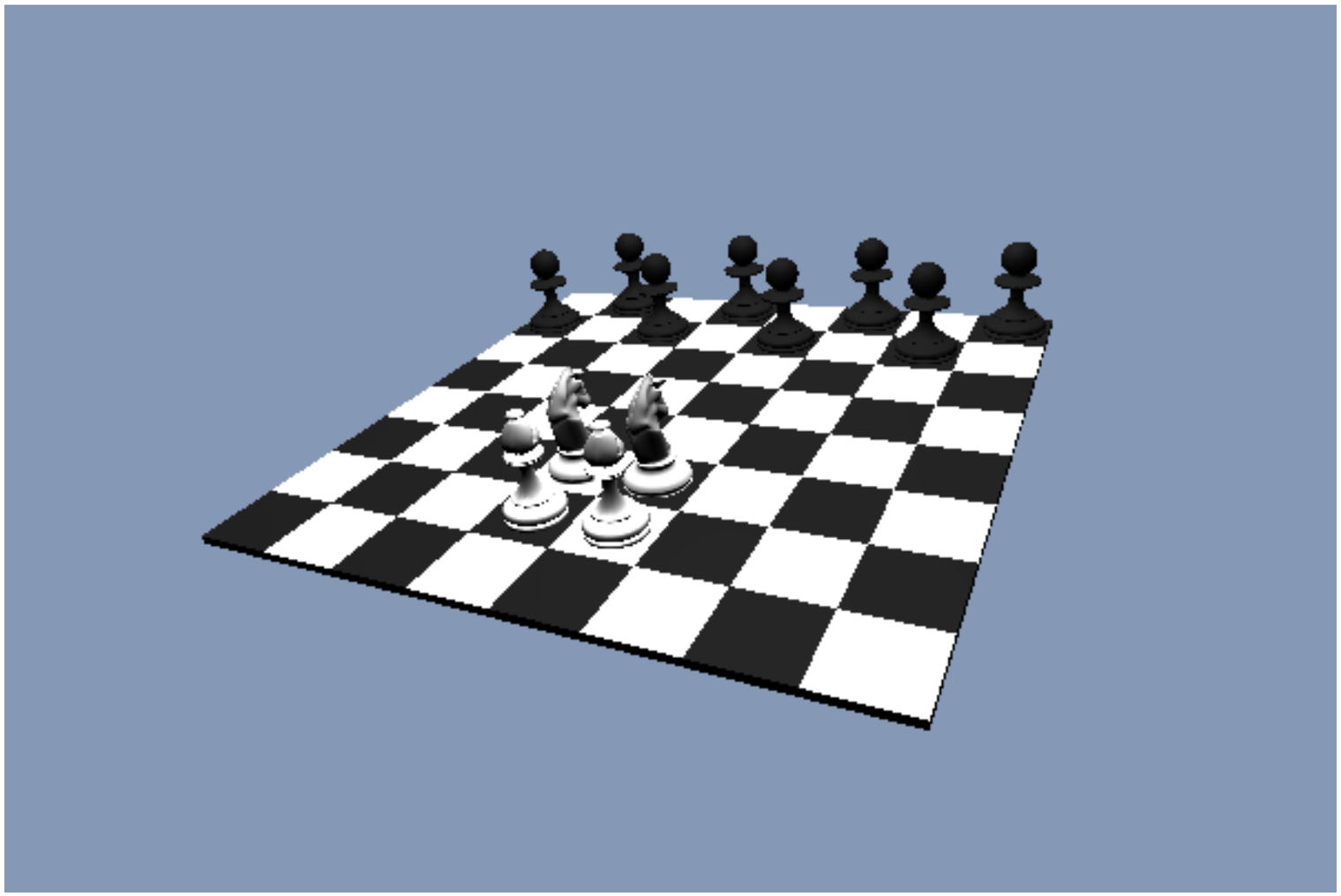
BRDF

Phong - **Cook Torrance** - Cartoon



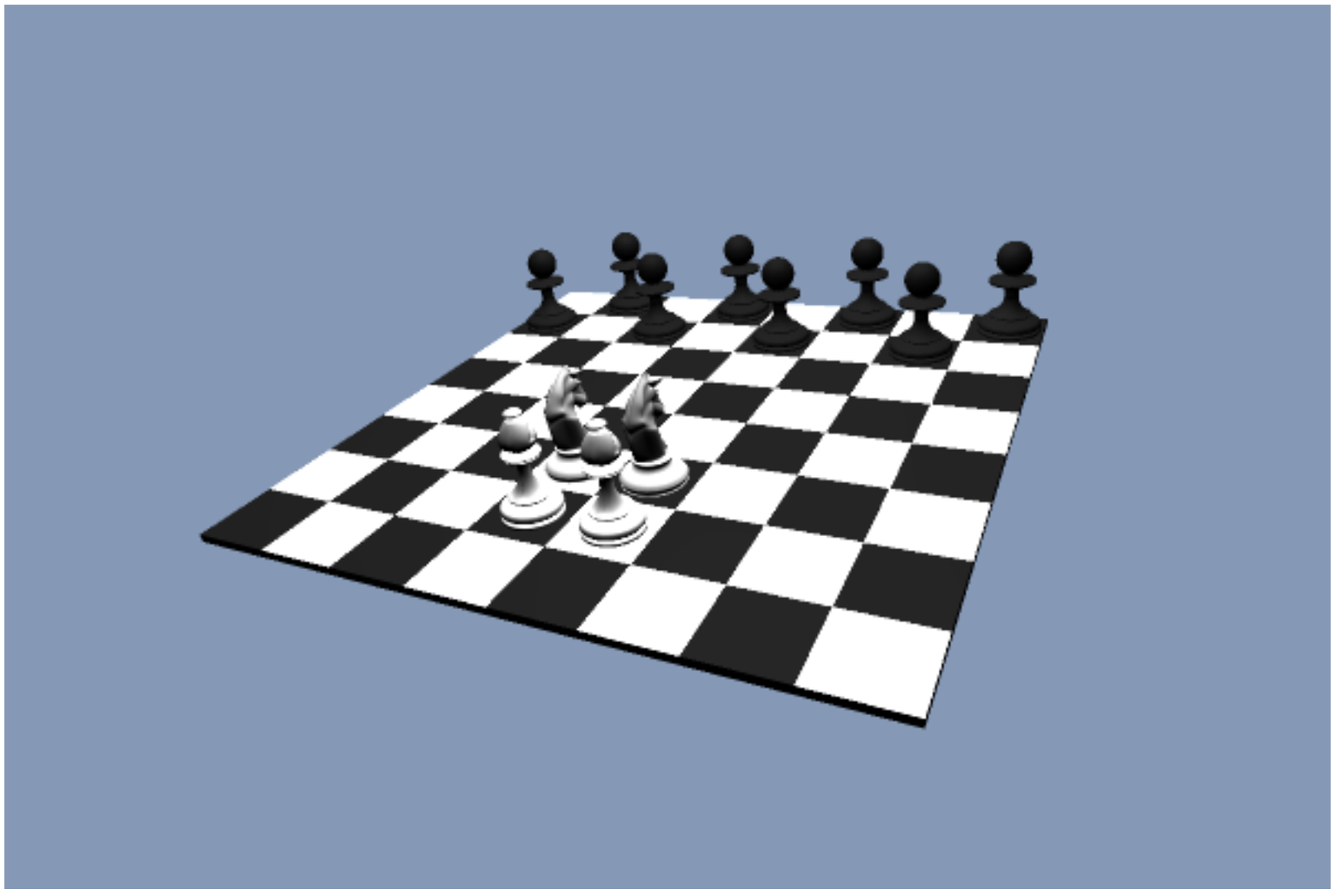
BRDF

Phong - Cook Torrance - **Cartoon**



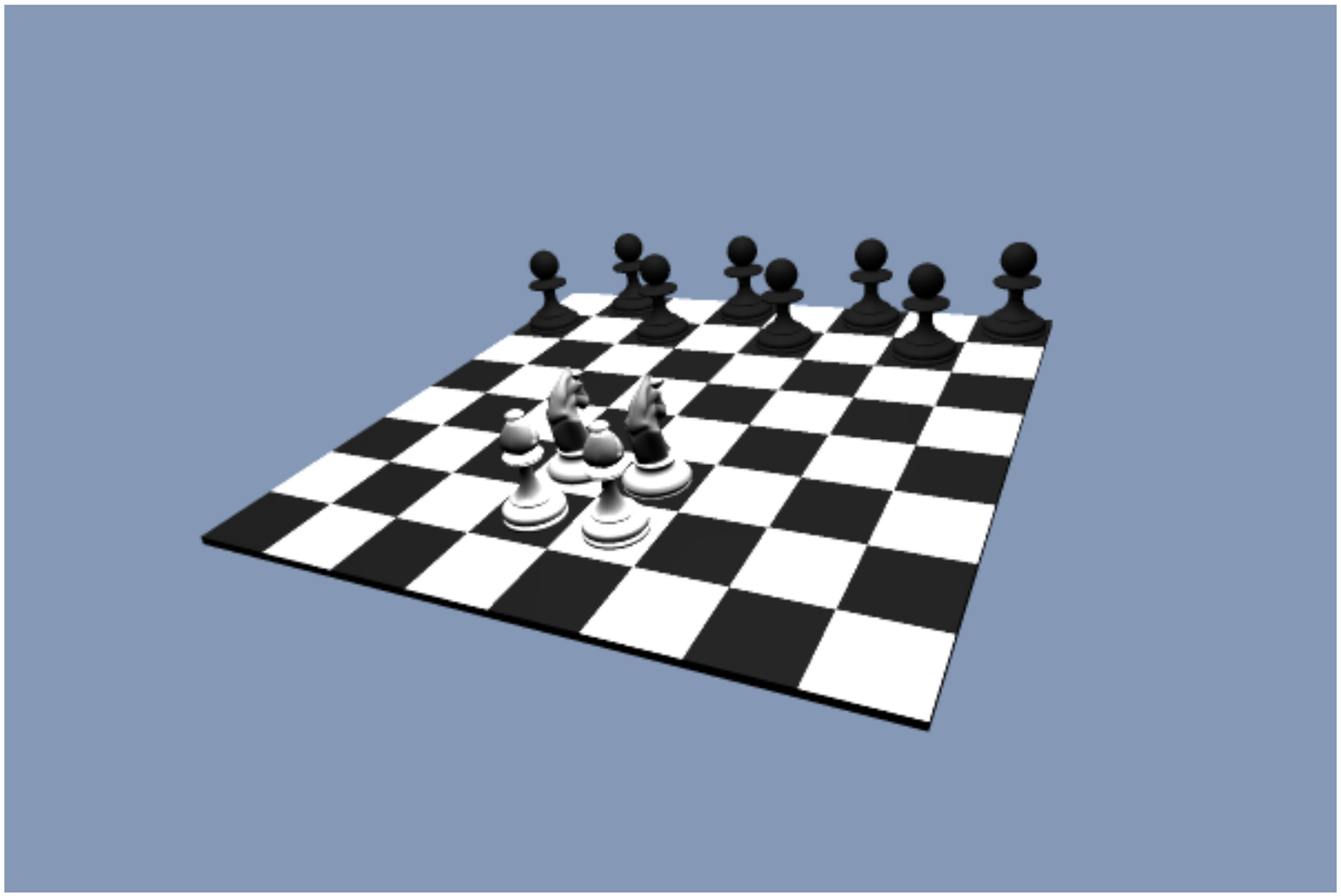
Antialiasing

0x - 4x - 9x



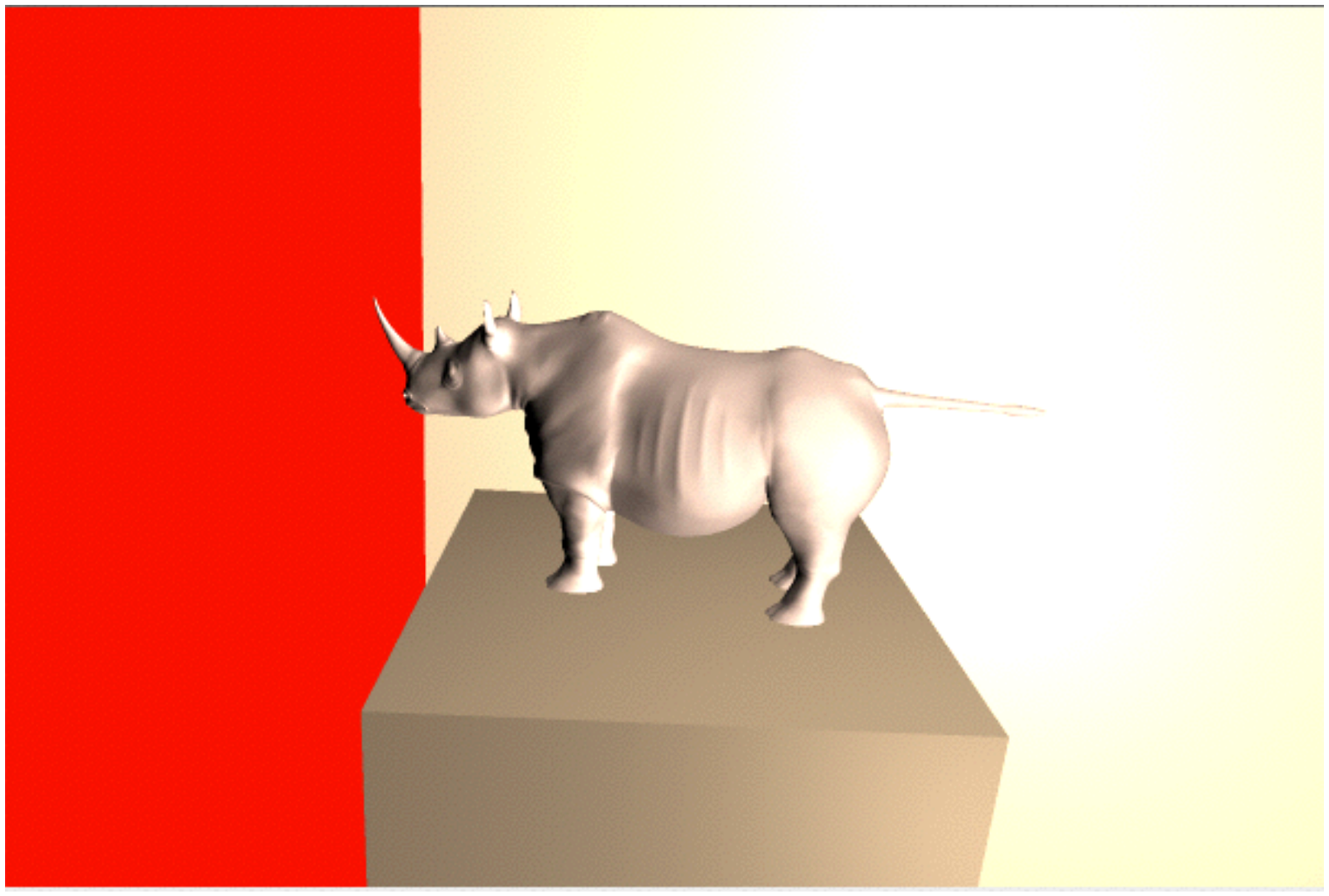
Antialiasing

0x - **4x** - 9x

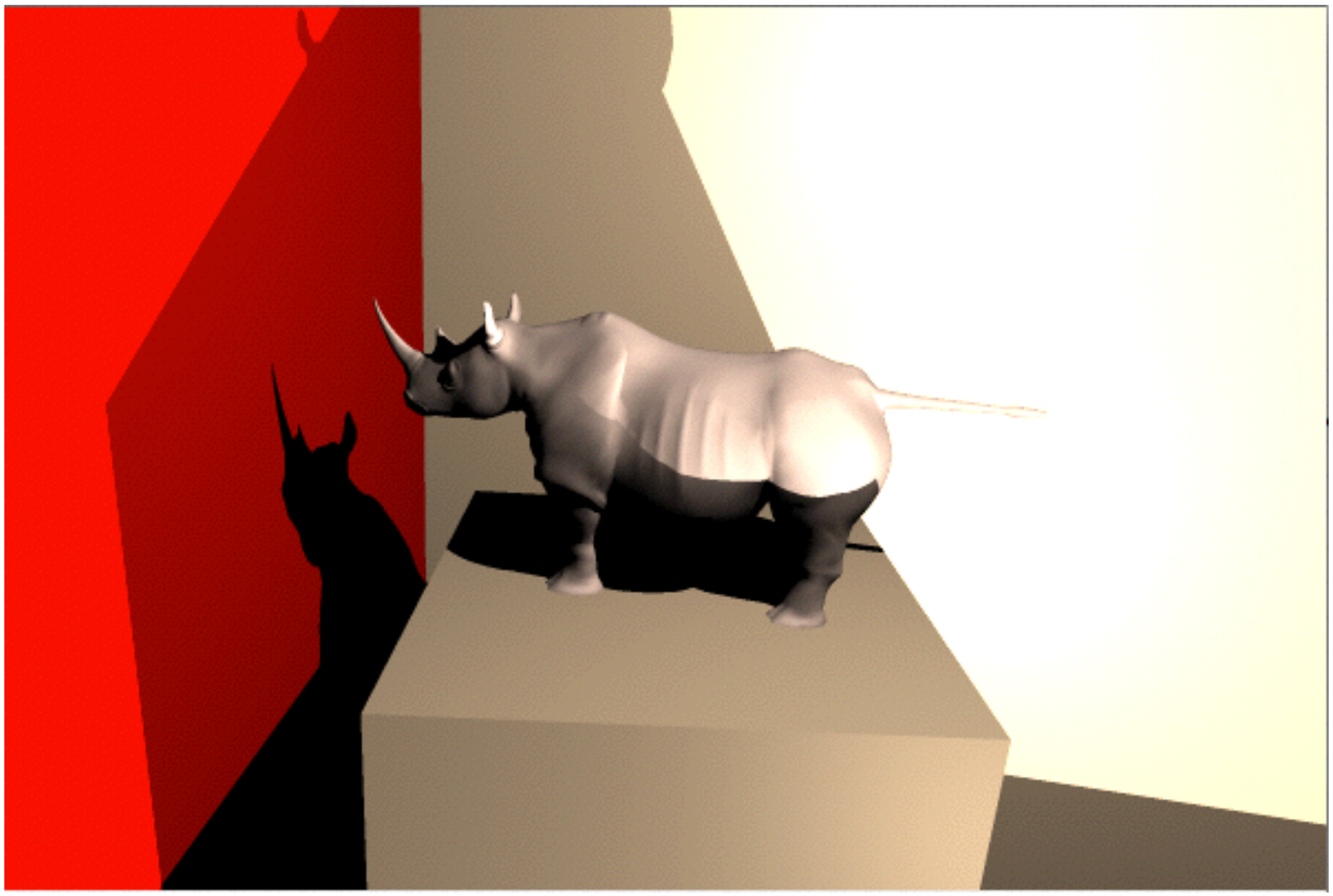


Antialiasing

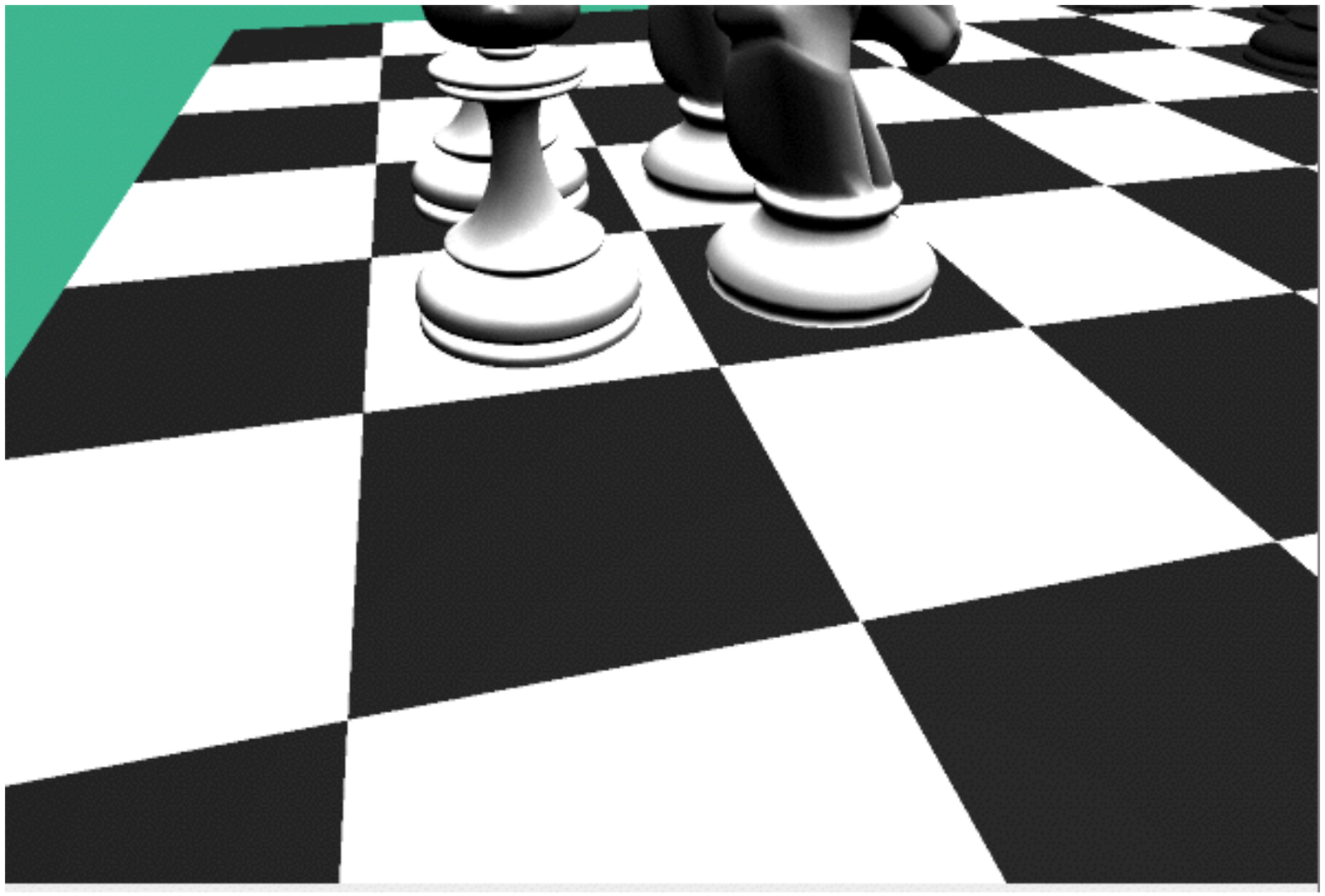
0x - 4x - **9x**



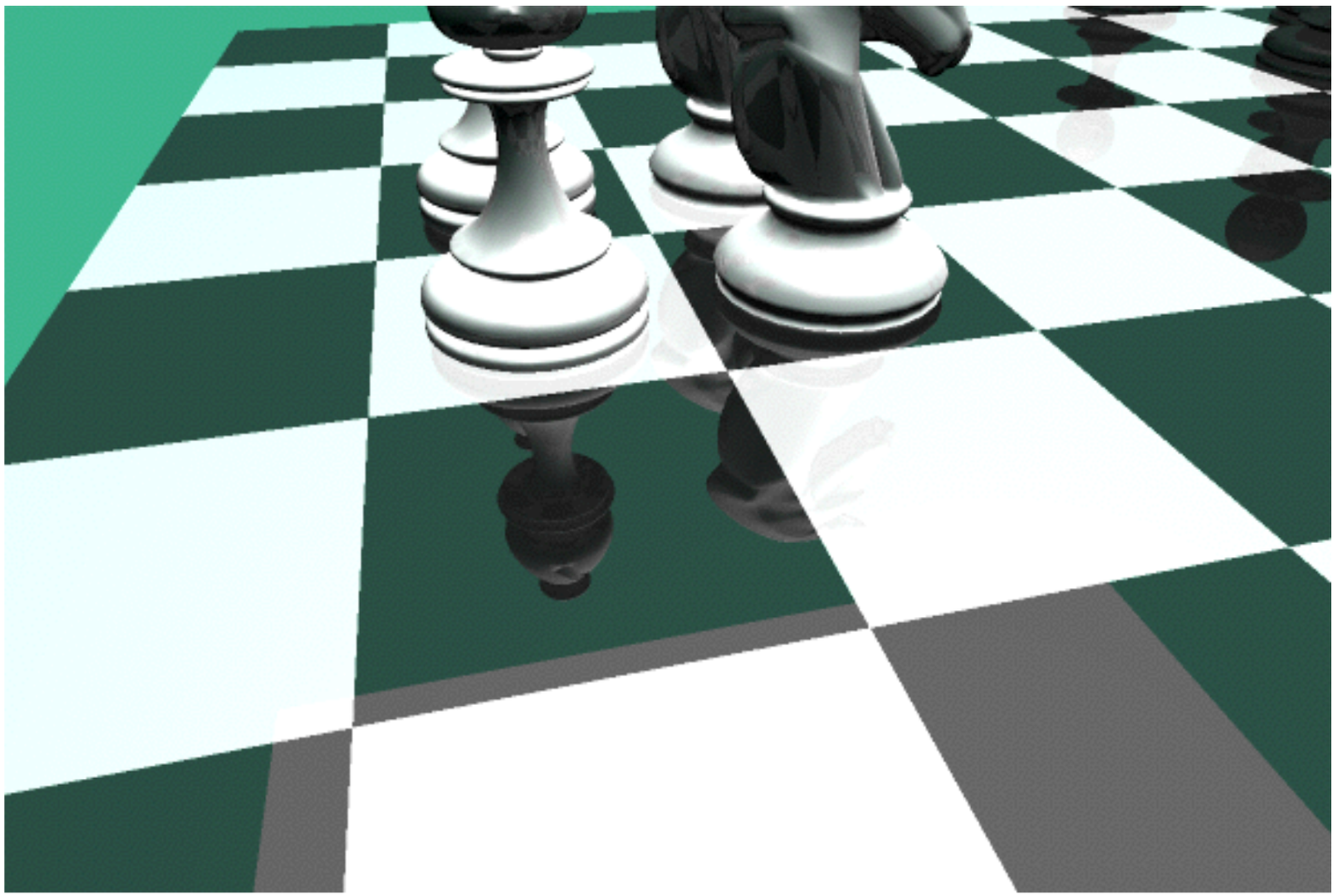
Ombres portées



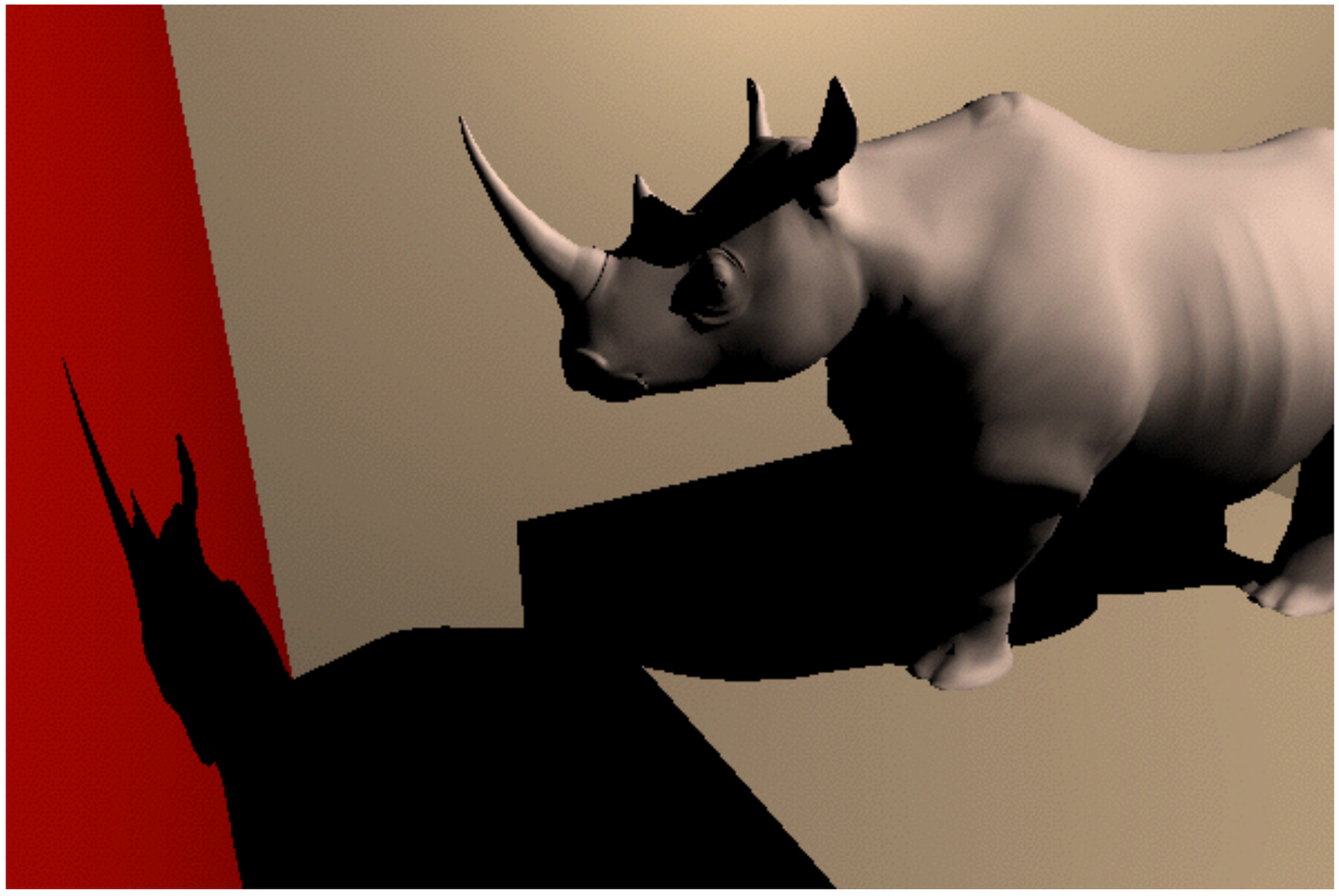
Ombres portées



Réfléctions

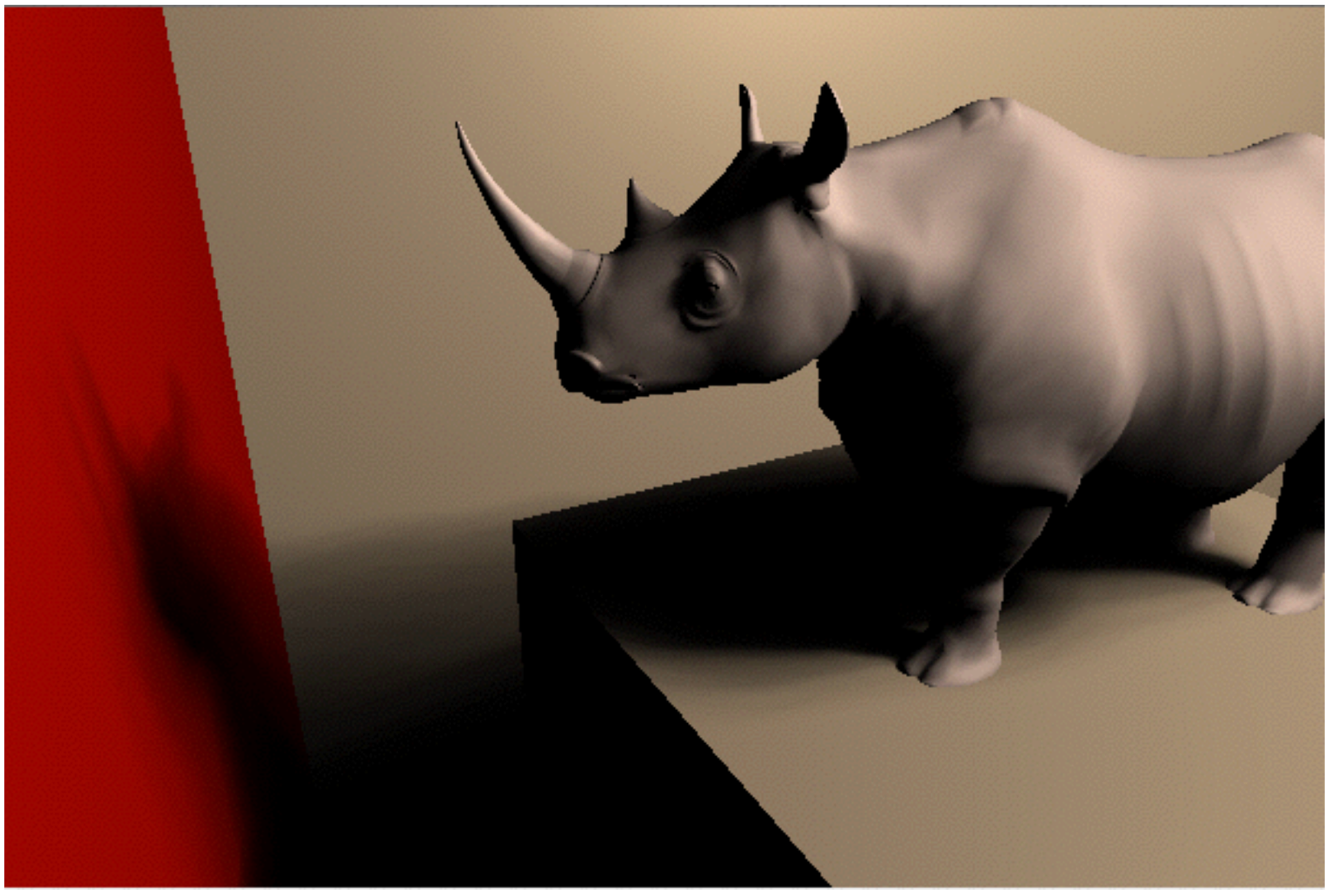


Réfléctions



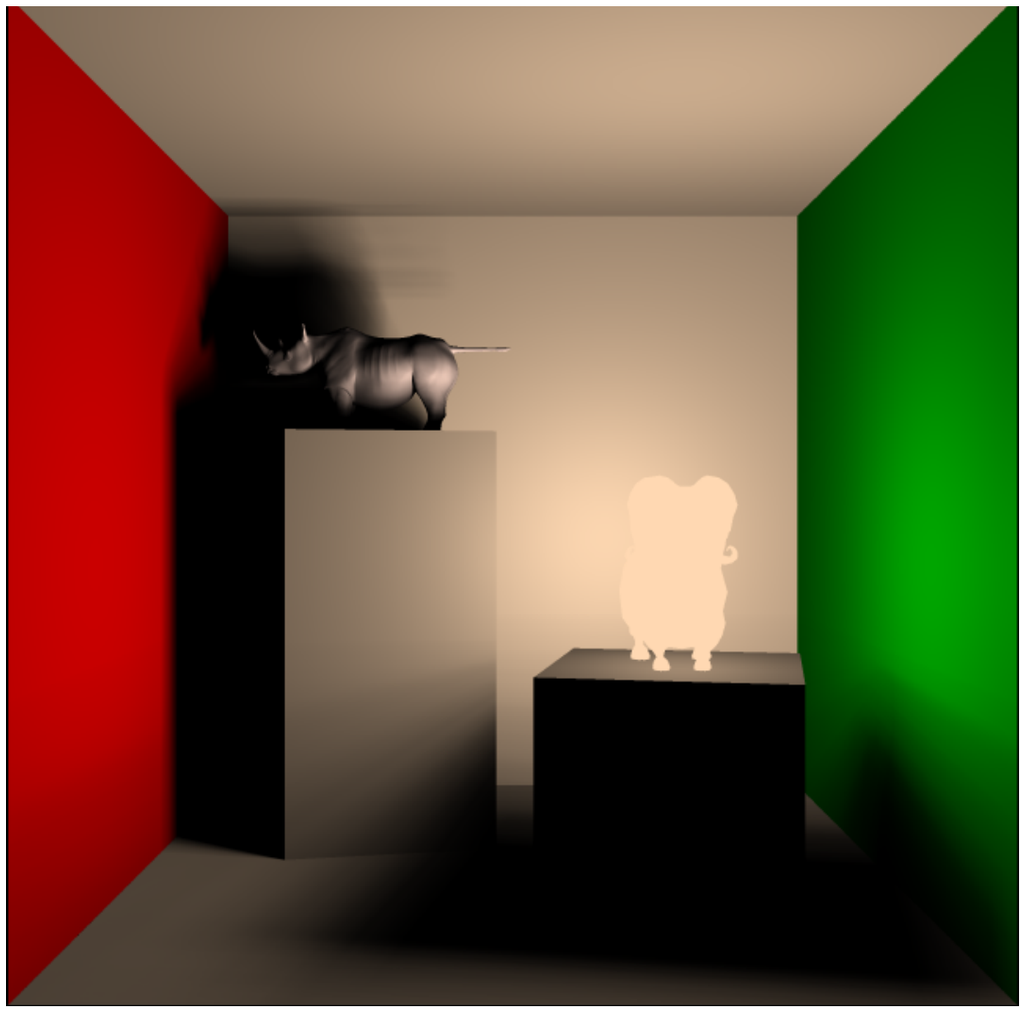
Sources de lumière étendues

1 échantillon



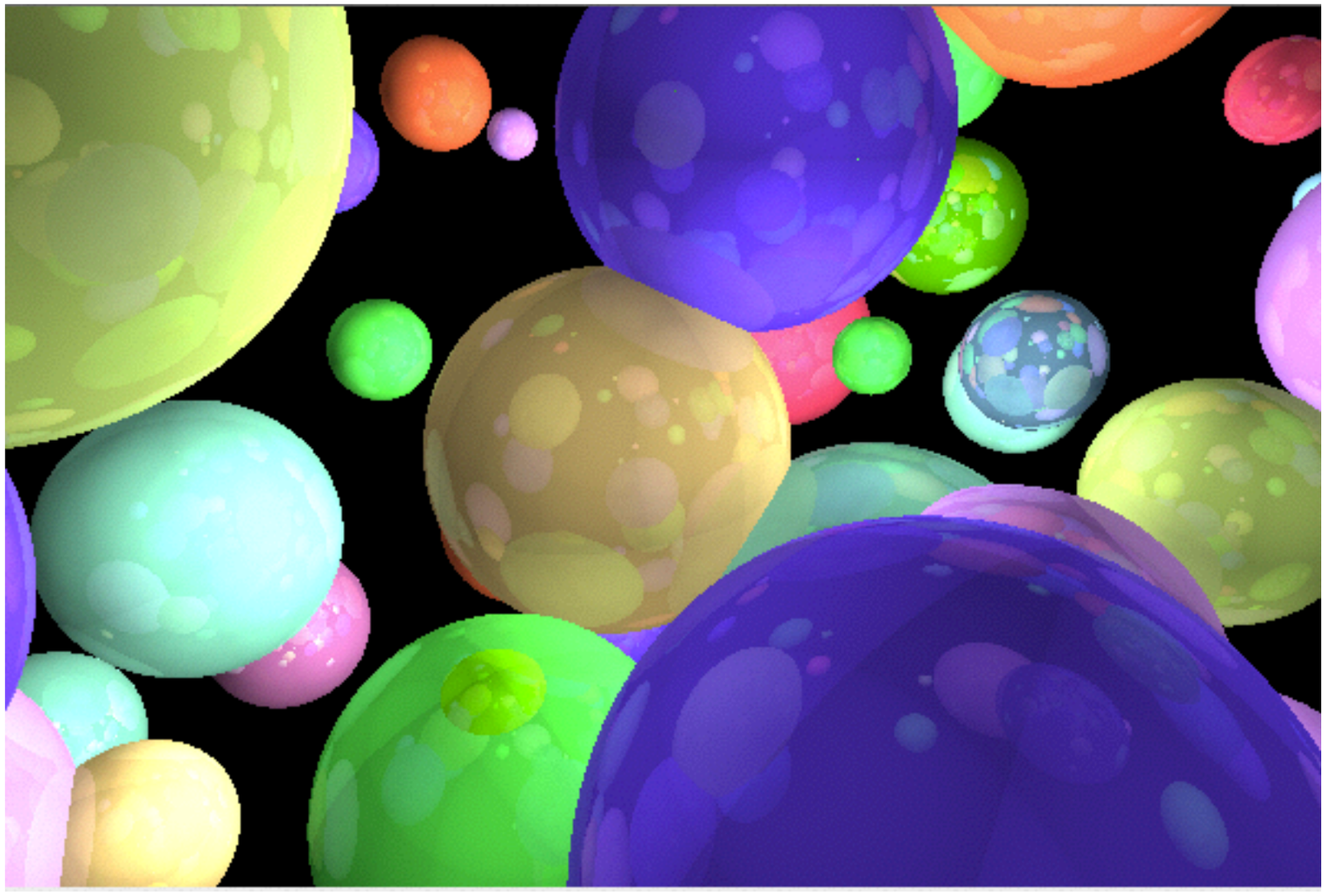
Sources de lumière étendues

N échantillons



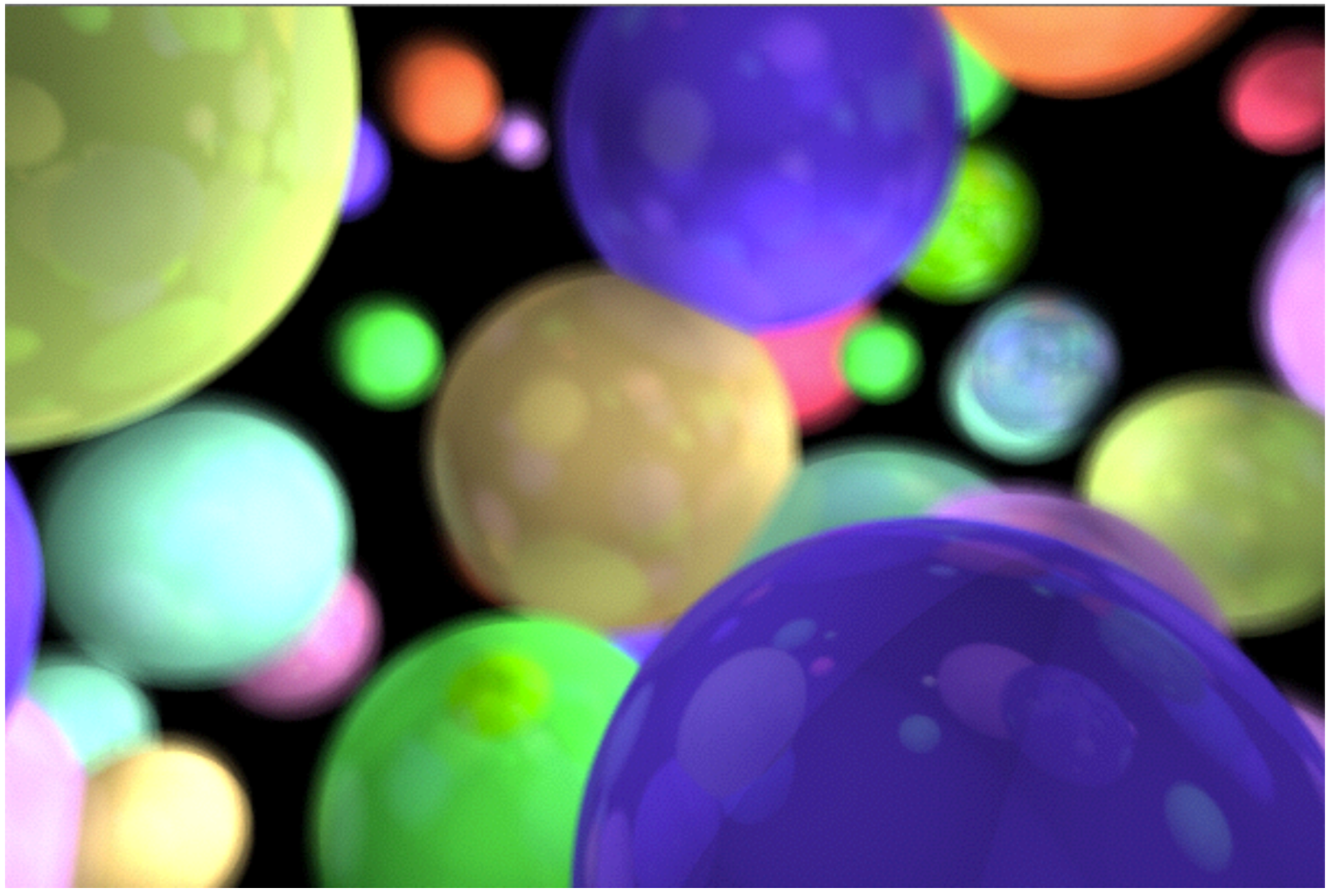
Sources de lumière étendues

Géométrie arbitraire - Échantillonage adaptatif



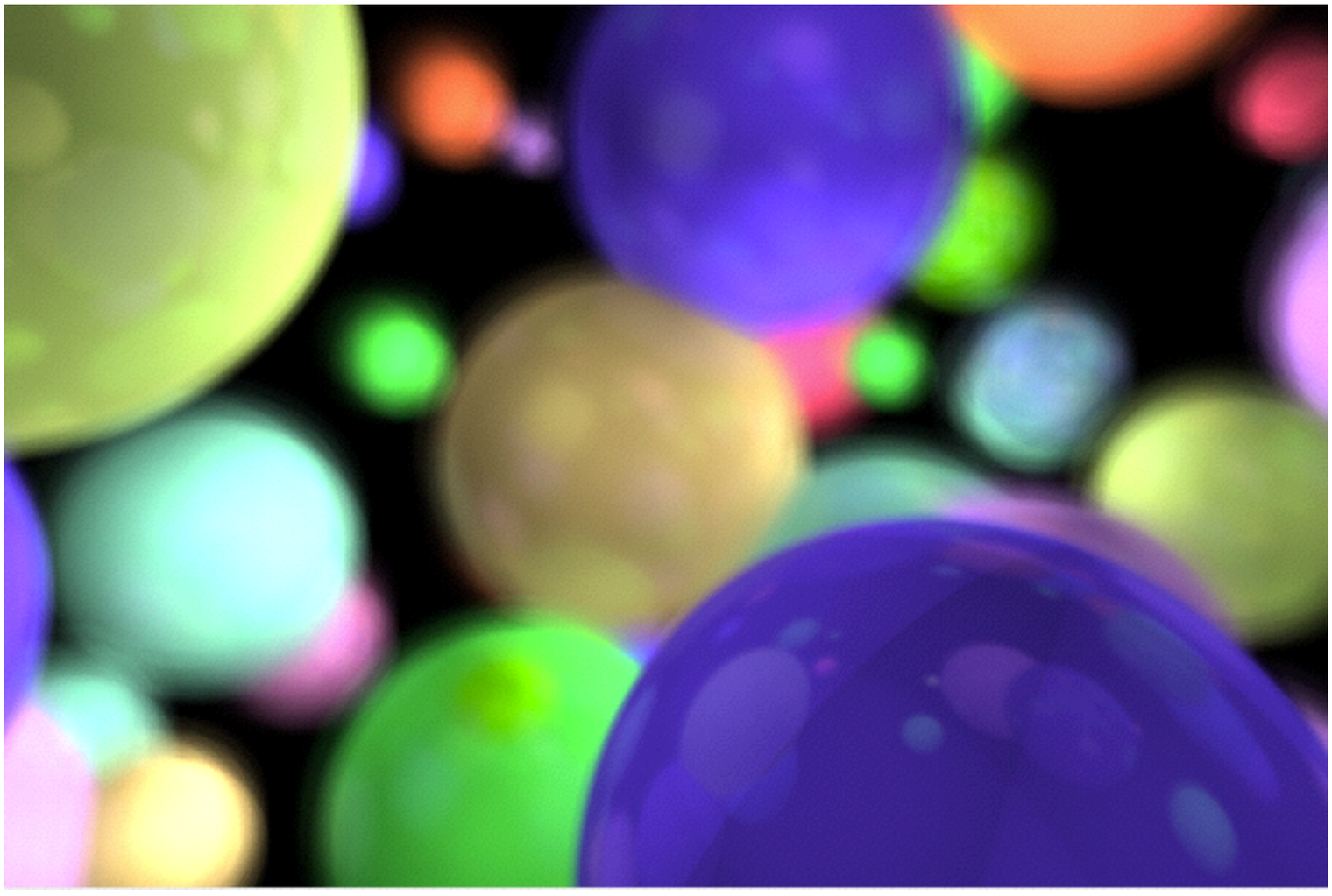
Flou de focus

Sténopé



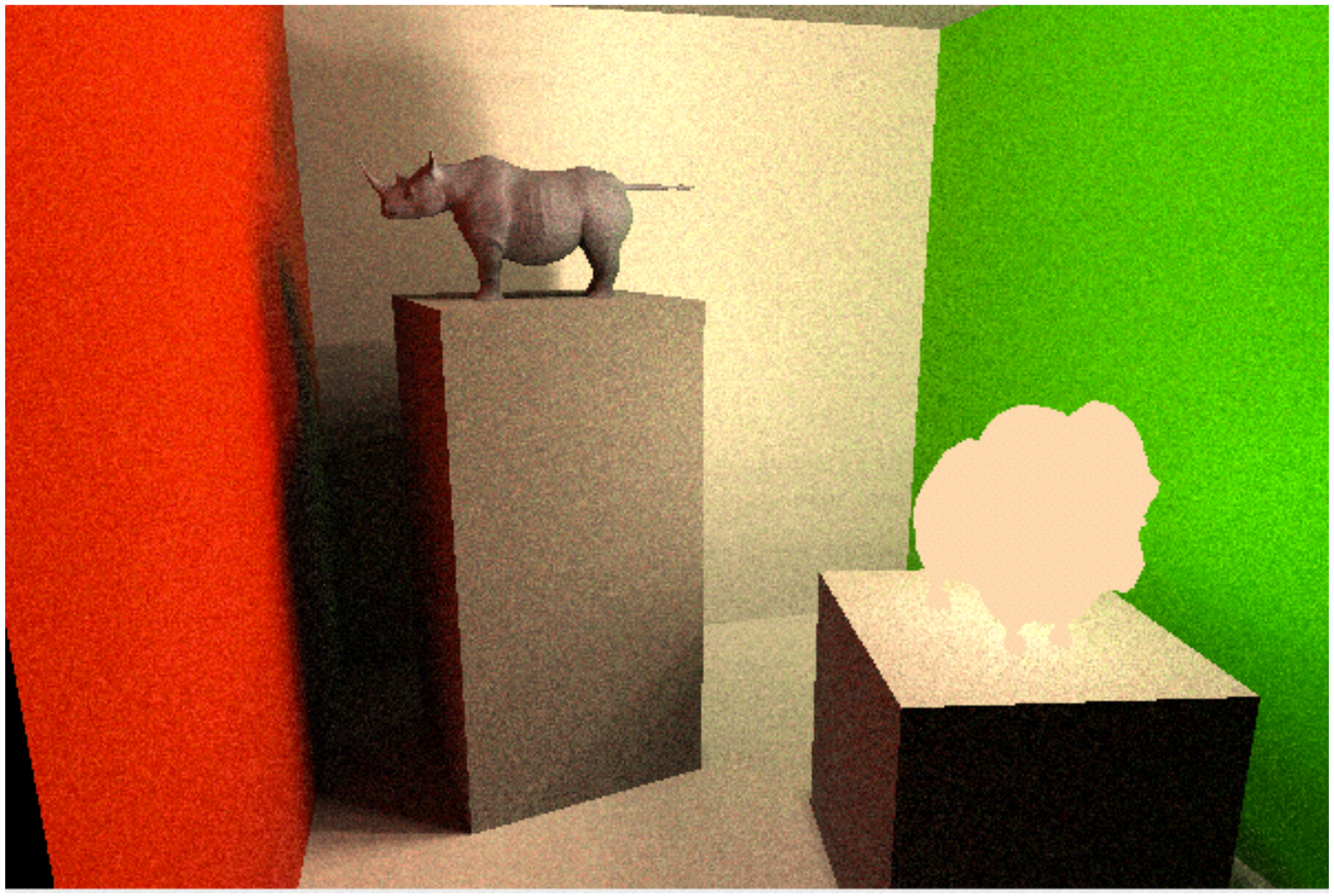
Flou de focus

Petite ouverture



Flou de focus

Grande ouverture



Path Tracing

Light Bleeding

Points techniques

Utilisation des KD-Tree

Render

Points techniques

Séparation des responsabilités

Render

Threading

RayIterator

RayTracer

Render

Threading

RayIterator

Basic Ray Iterator

Grid AA Ray Iterator

Lens Blur Ray Iterator

RayTracer

Basic (BRDF)

KDTree

Shadow

Extended Light

Mirror

Path Tracer

Render

Threading

RayIterator

Basic Ray Iterator

Grid AA Ray Iterator

Lens Blur Ray Iterator

RayTracer

Basic (BRDF)

KDTree

Shadow

Extended Light

Mirror

Path Tracer

Render

Threading

RayIterator

Basic Ray Iterator

Grid AA Ray Iterator

Lens Blur Ray Iterator

RayTracer

Basic (BRDF)

KDTree

Shadow

Extended Light

Mirror

Path Tracer

Render

Threading

RayIterator

Basic Ray Iterator

Grid AA Ray Iterator

Lens Blur Ray Iterator

Progressive Ray Iterator

RayTracer

Basic (BRDF)

KDTree

Shadow

Extended Light

Mirror

Path Tracer

Transparent

Améliorations Possibles

- Rendu Progressif
- Transparence
- Meilleur description de la scène
- Flou de mouvement

Merci pour votre attention