



Low Poly: Style Through Economy

Ethan Redd

Designer/Developer



ethanredd



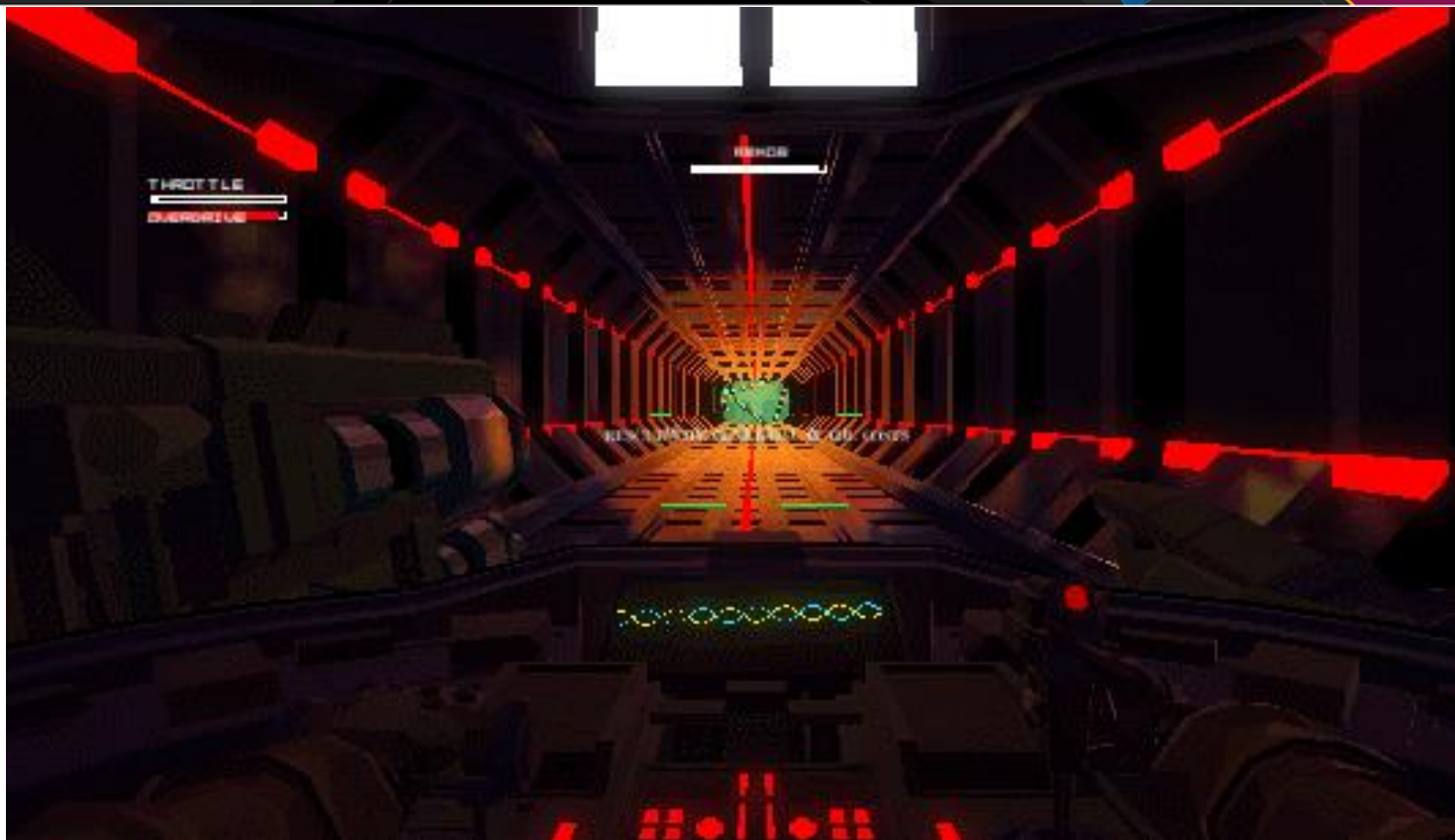
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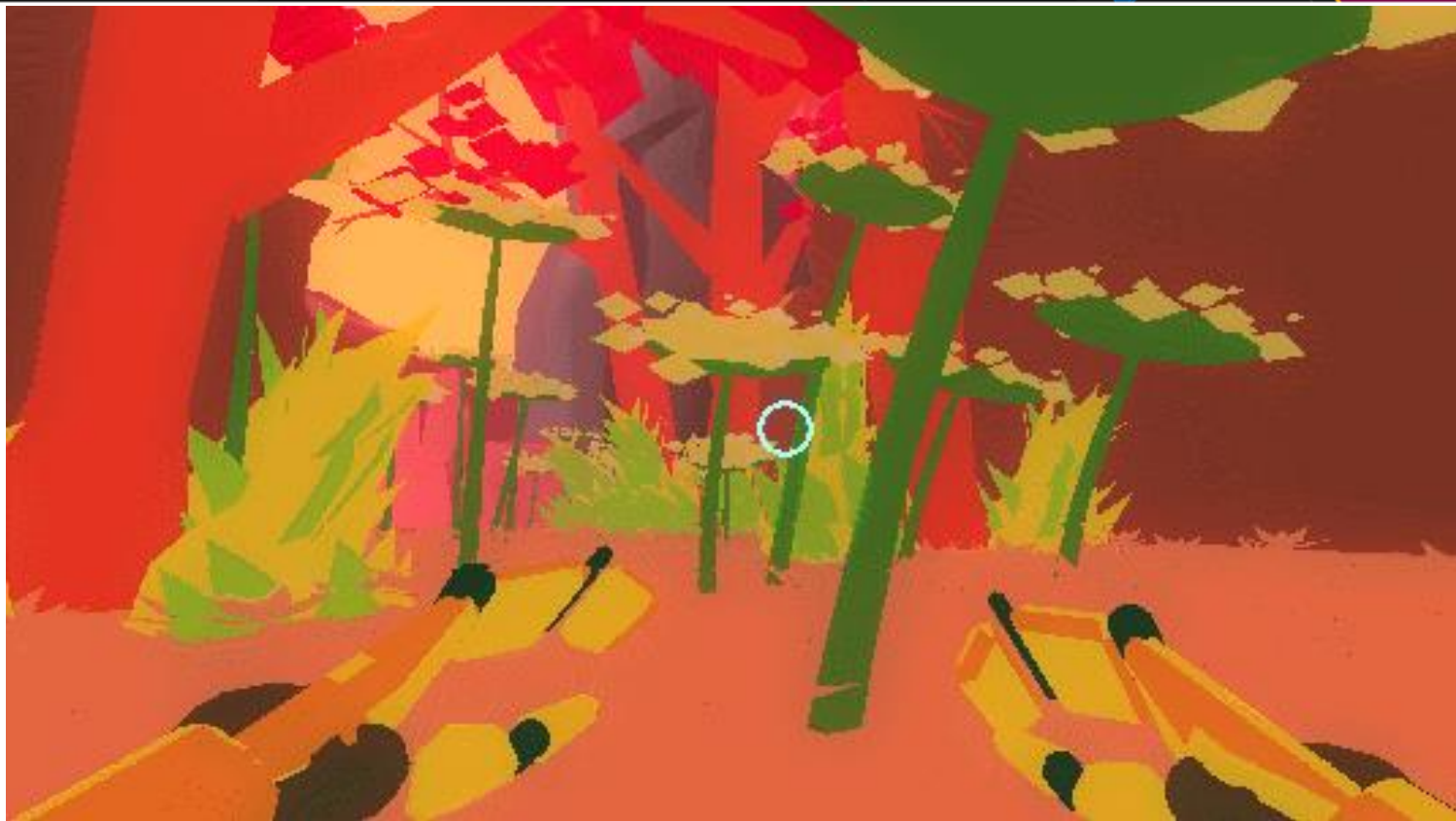


INTRODUCTION

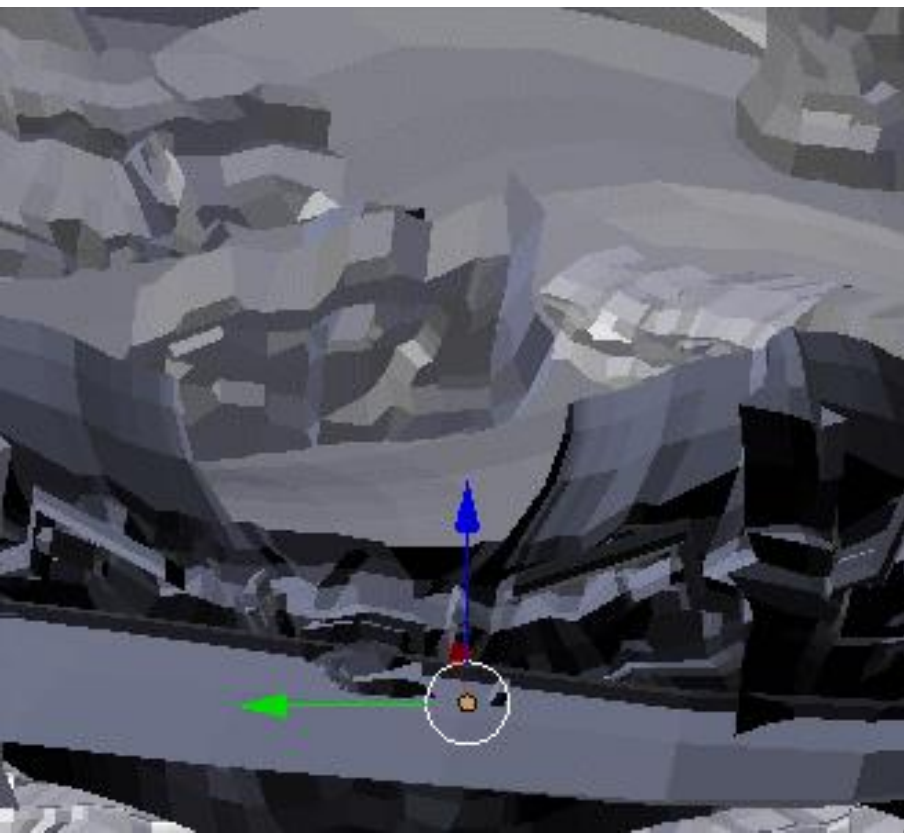
"Who are you?"













What is Low Poly?

- Discipline/aesthetic of “surface economy”
- Economy > Fidelity
- Subjective; generally <8k per asset





“Metal Gear Solid” Franchise - Kojima Productions/Konami





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MODERN BENEFITS

"Why Low Poly in today's landscape?"

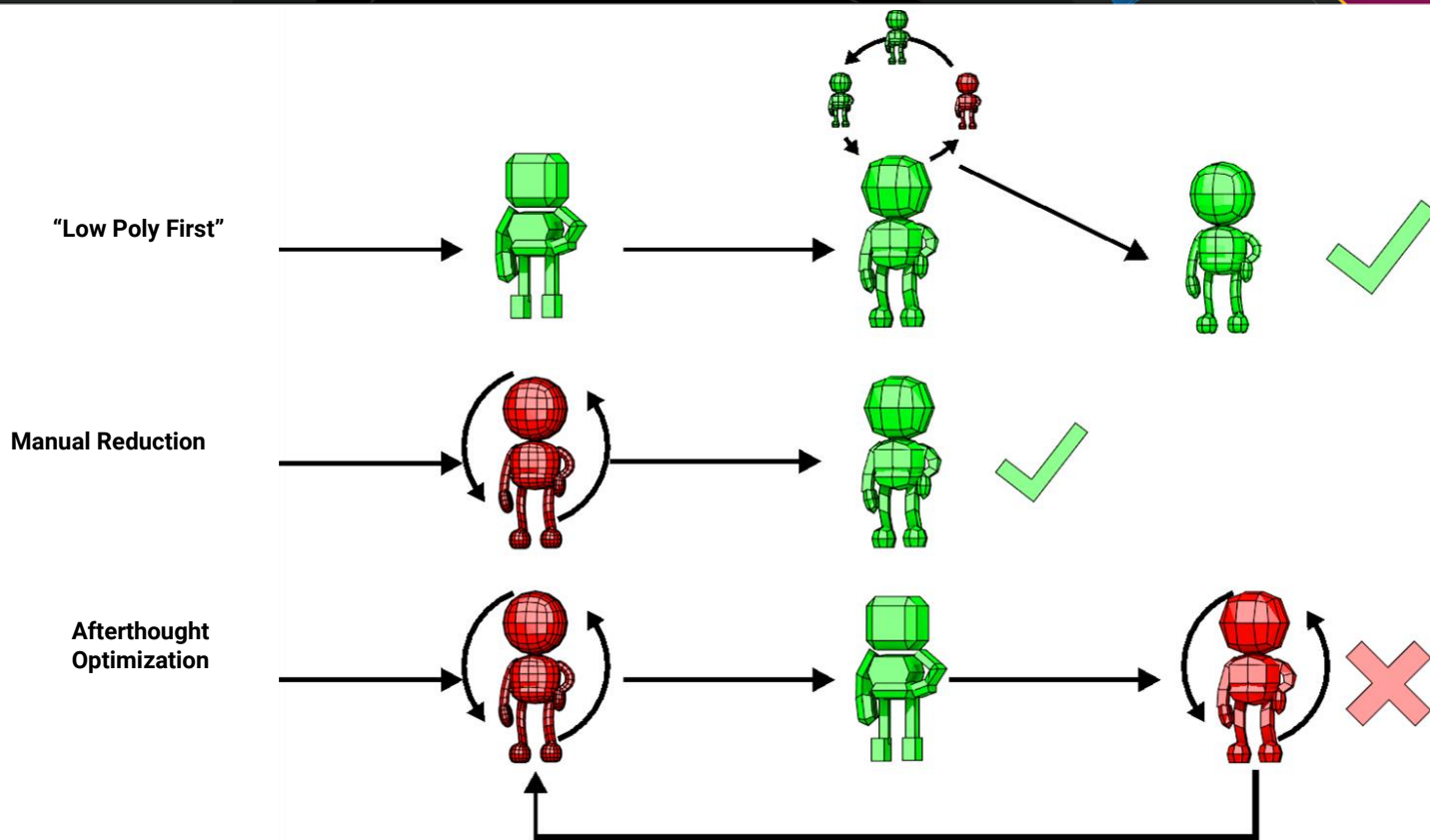




Benefits: Productivity

- Lower existential barrier
- Quicker to produce
- Allows increase in output/scope when art-bound







Benefits: Computational Efficiency

- Produce for small screens
- Reach “the next billion users”
- Less overhead for post-processing/fillrate/etc bound games/VR





Thinking the Low Poly Way

- 1) “Stylistic Compatibility”
- 2) Resolution consciousness
- 3) Consider silhouette at all times
 - a) Approximation vs Accuracy
- 4) Supplemental/“Old School” Render Tricks
 - a) Fake things through particles/shaders/text
 - b) Incorporating other “lo-fi”/NPR techniques





Resolution and Consistency





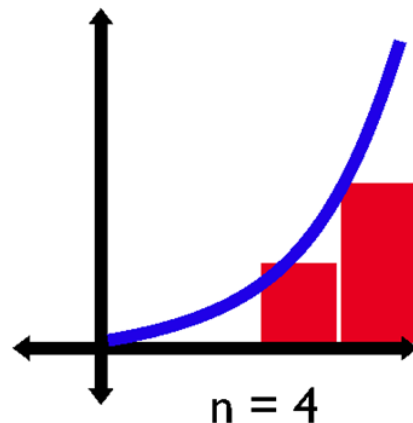
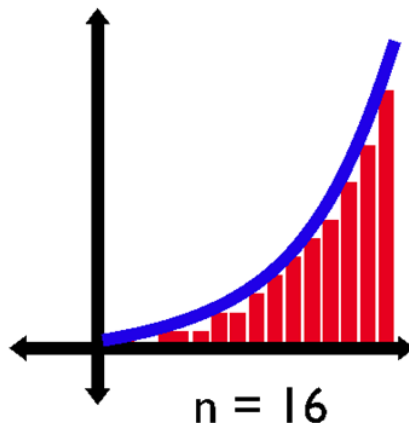
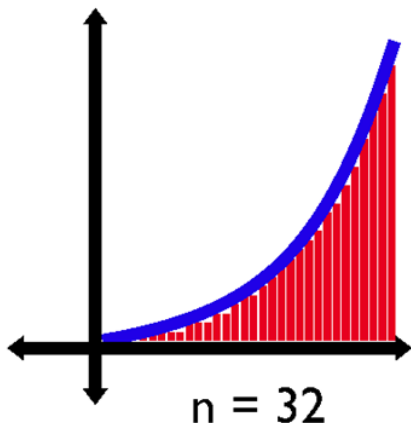
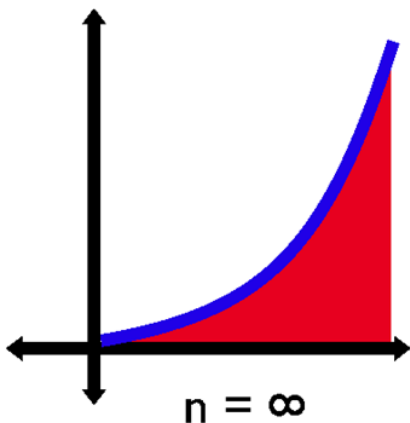
Approximation

Actual Value

High Fidelity

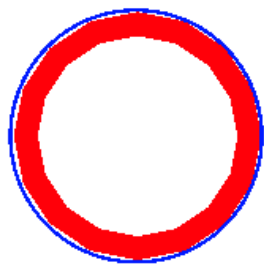
Low Fidelity

Insufficient

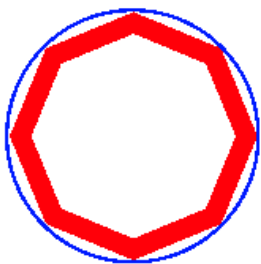




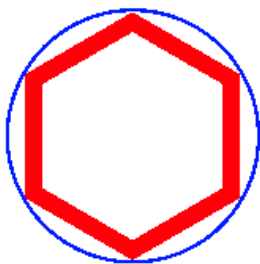
Extending the concept to shape:



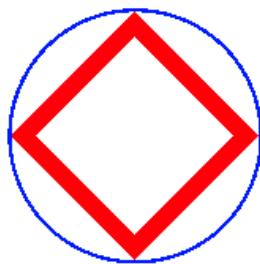
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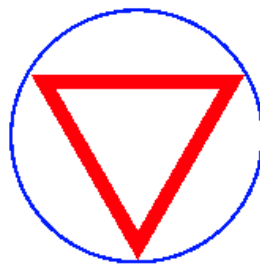
8



6



4



3

Verts (n)





Approximating a sphere with varying fidelity



Rings

....

64

32

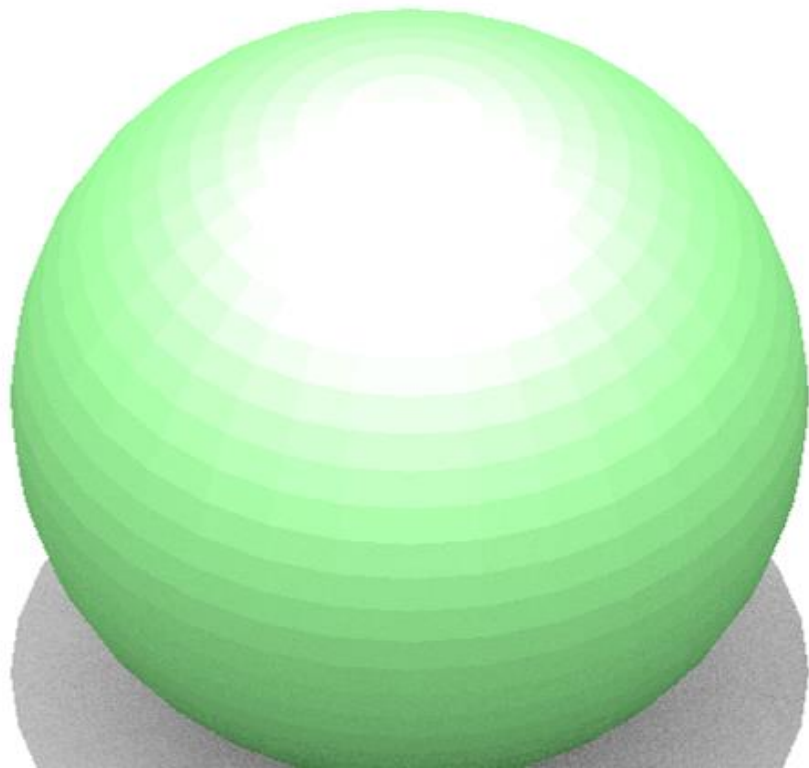
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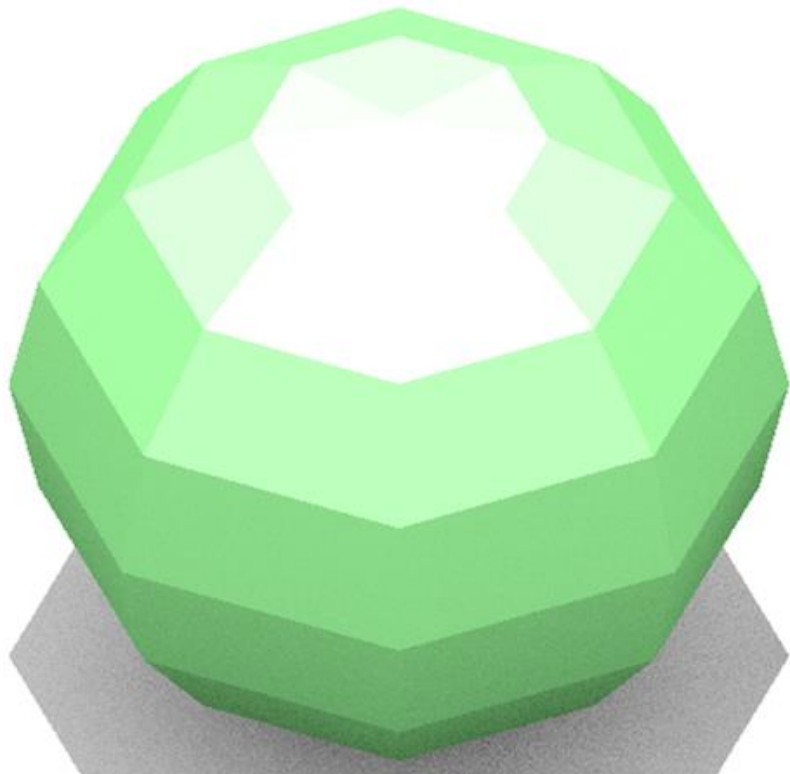




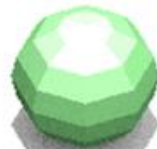
“Atomic Consistency”

- Communicates **scale**
- Promotes **cohesion**/order
- “Sells it” when working loosely





- “Atom size” is your ***lower bound***
- Each model/cluster has its own **local atom size**
- Intentional atomic variation **a tool**





Resolution (con't)

"Dispersal"



"Fitting"

Rough | Accurate

Atom Size

Global | Local

Density

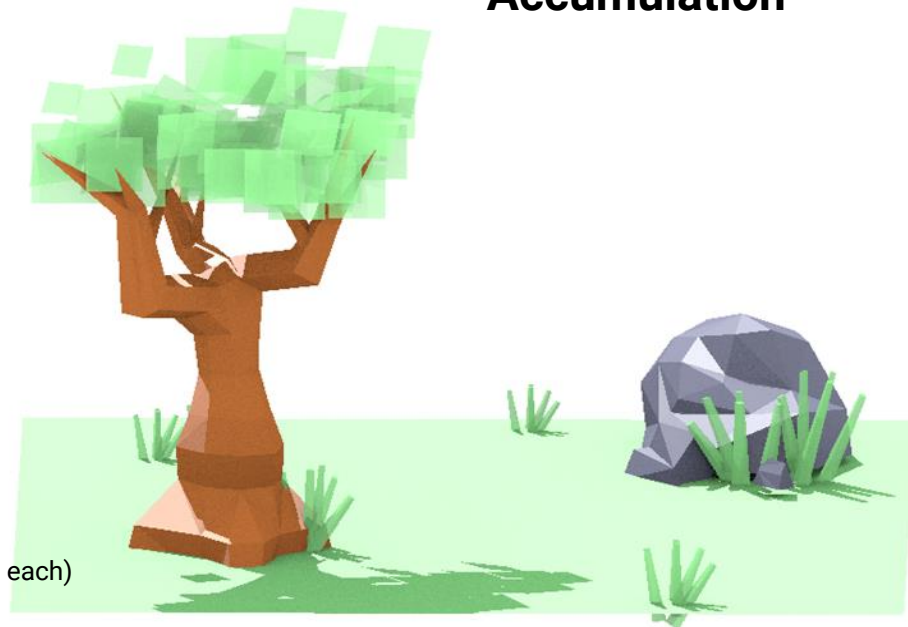
Rich | Sparse

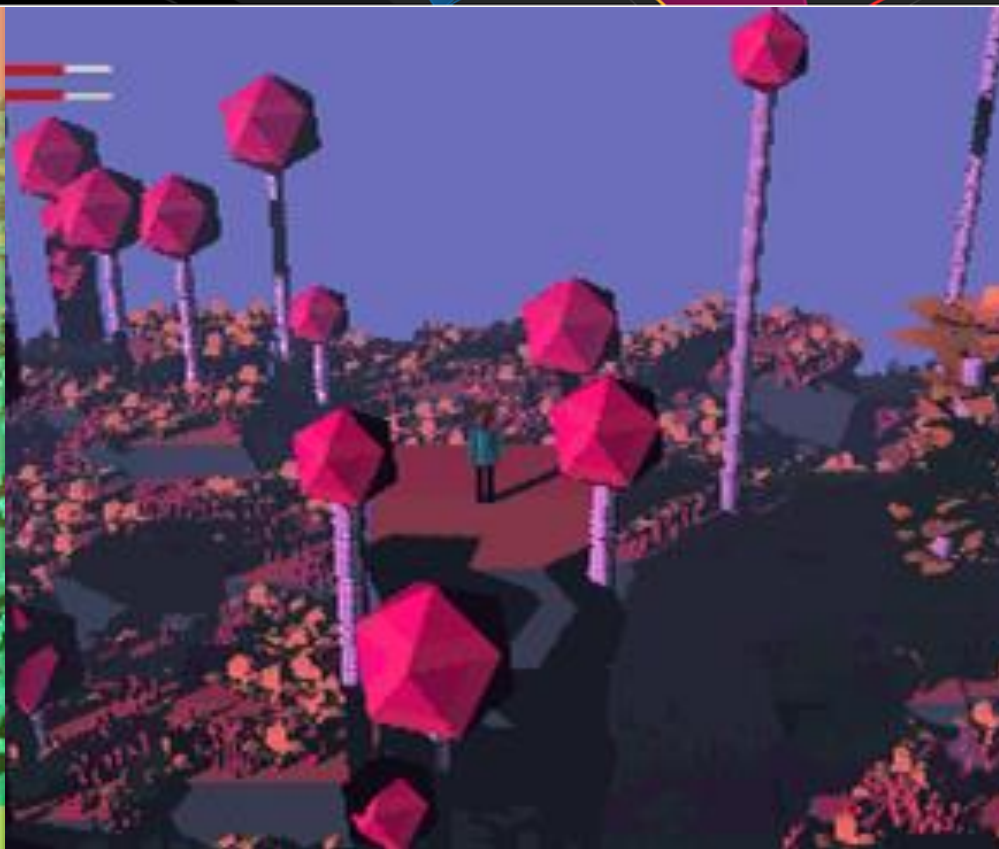
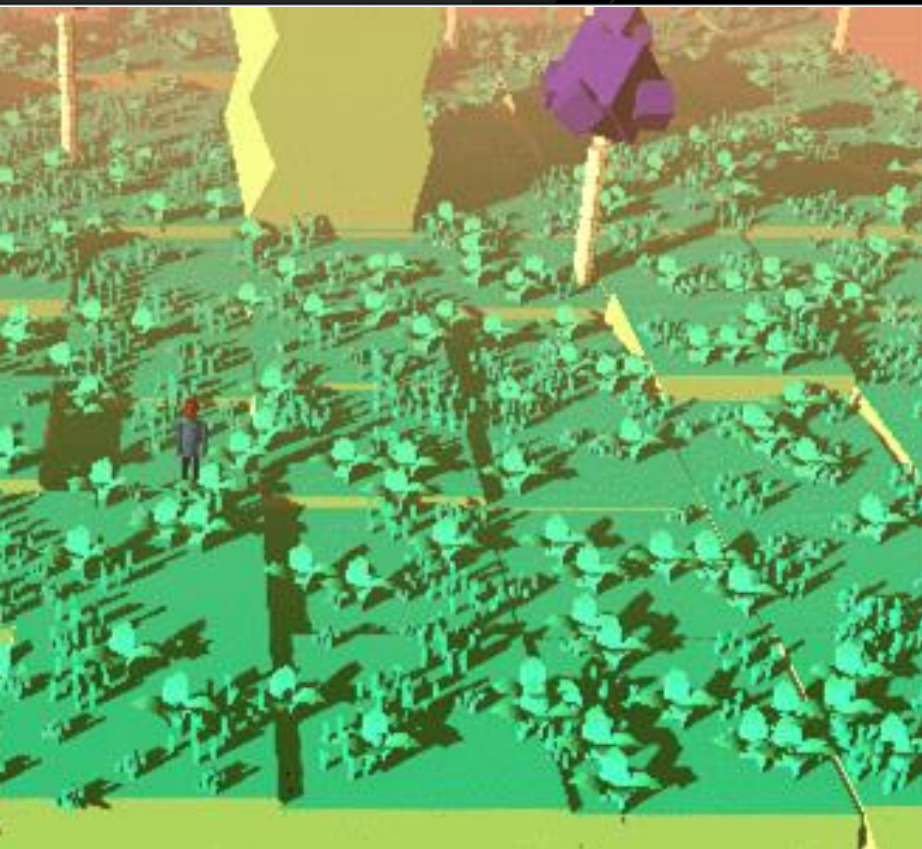
Innate Composition

Muddy | Clear

(~800tris each)

"Accumulation"







Accumulation Techniques

- “Hero” assets for large props
- Polygonal density used for “breadcumbing”

Dispersal Techniques

- Litter to environment
- Used to catch additional light/shadow





SILHOUETTE AND FORM

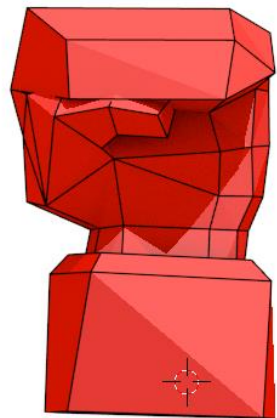




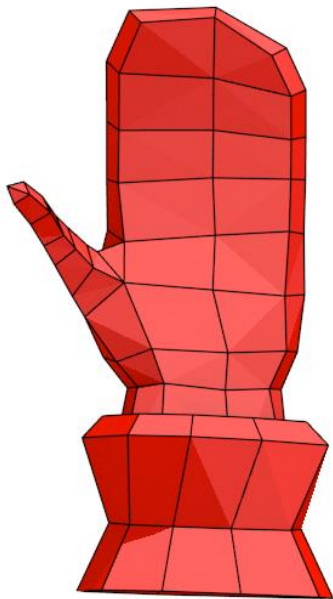
Silhouette Consciousness

1. How legible is the overall shape?
2. How should light/shadow interact with this?
3. Am I (over/under) selling curvature?

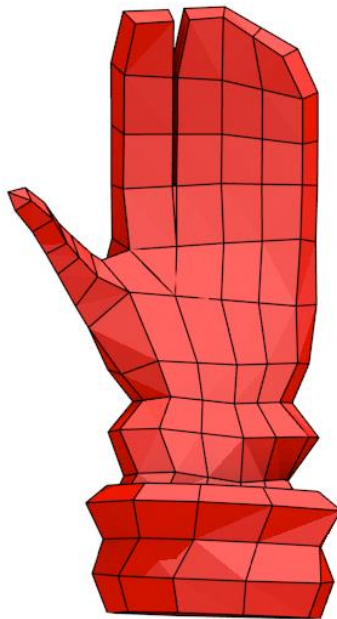




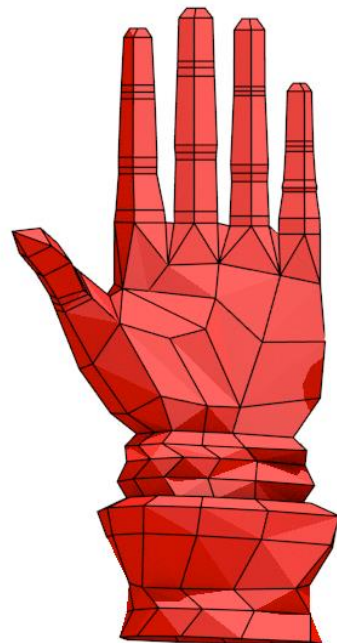
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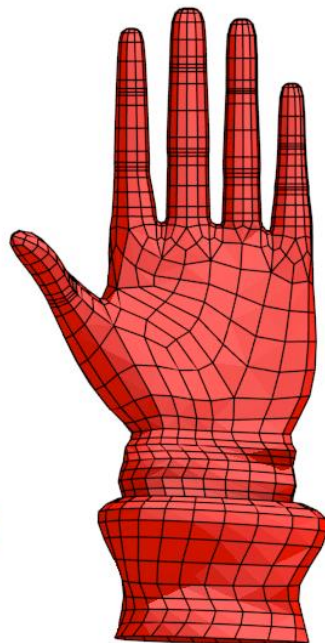
256



400

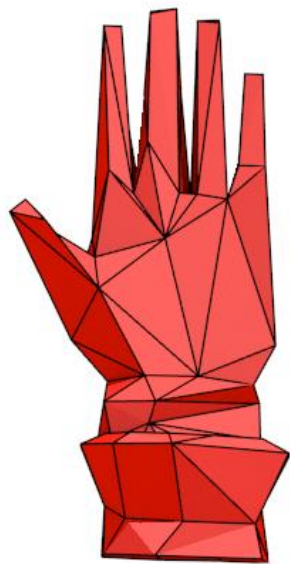


800



3.4k

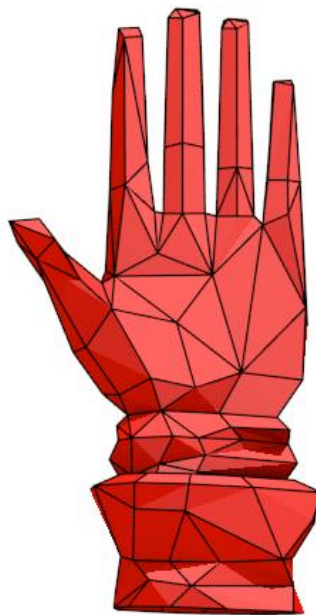




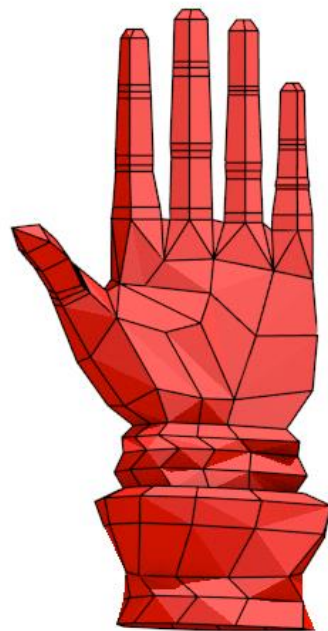
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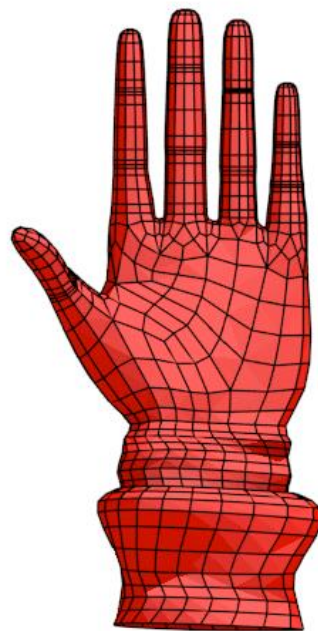
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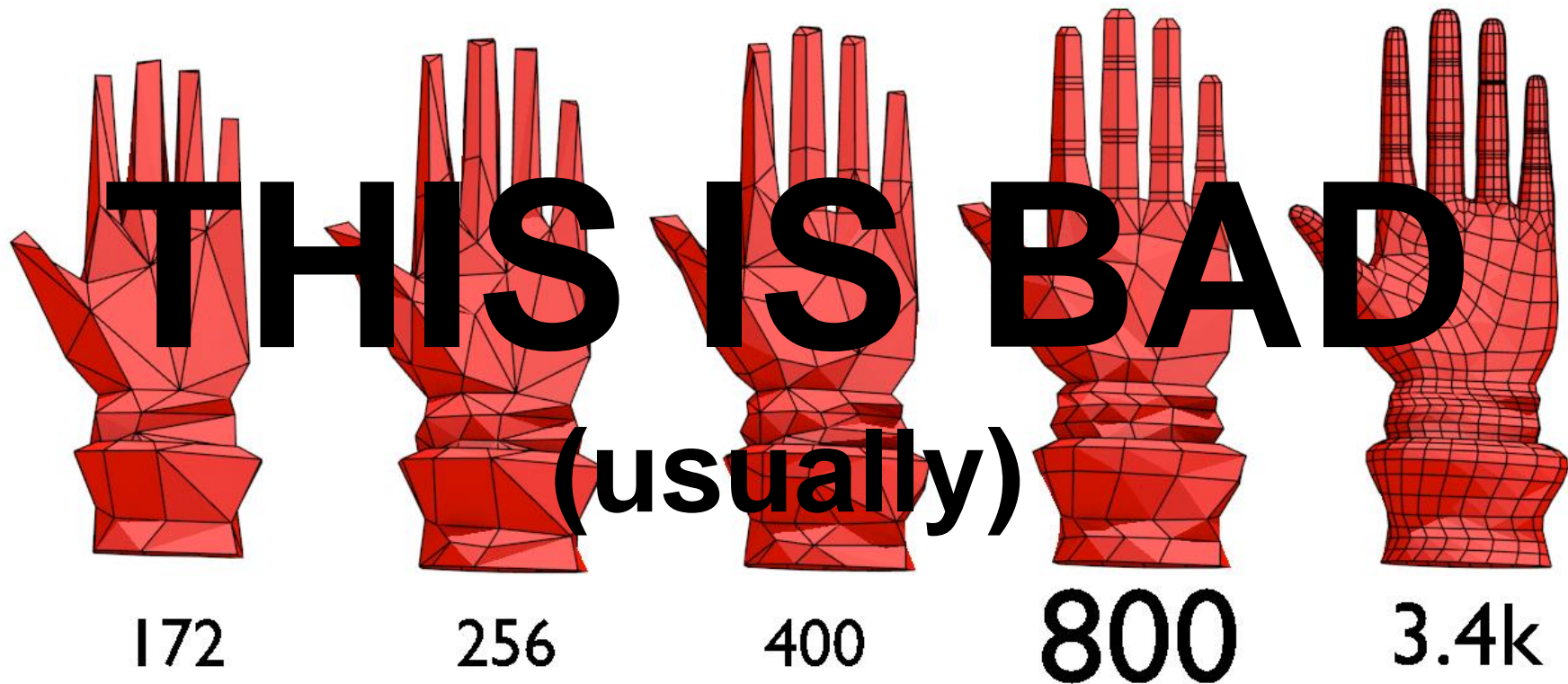


800



3.4k







"CHEATING"

Lightning Round: Non-modeling Tricks to "Sell It"



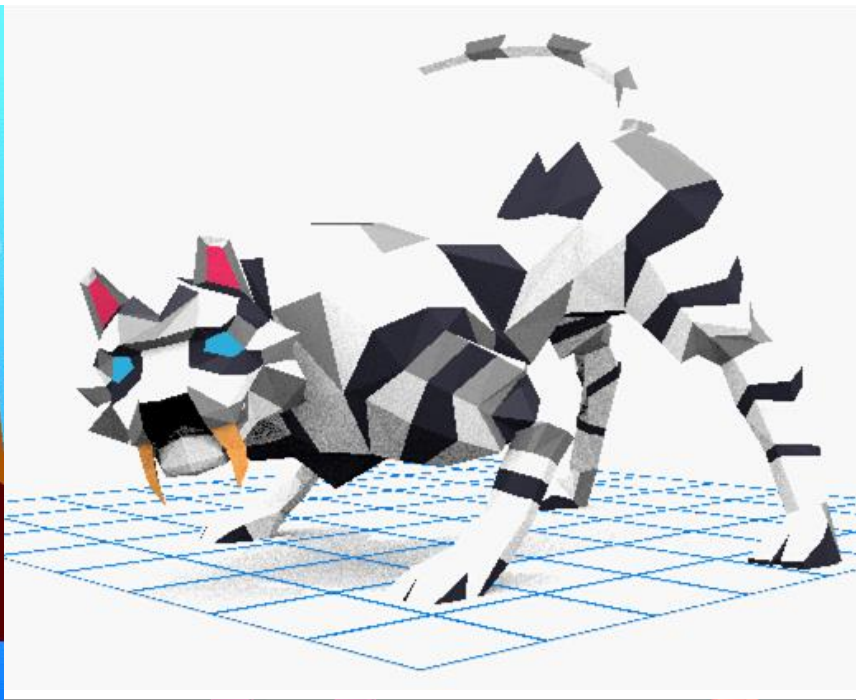


Low Resolution Rendering



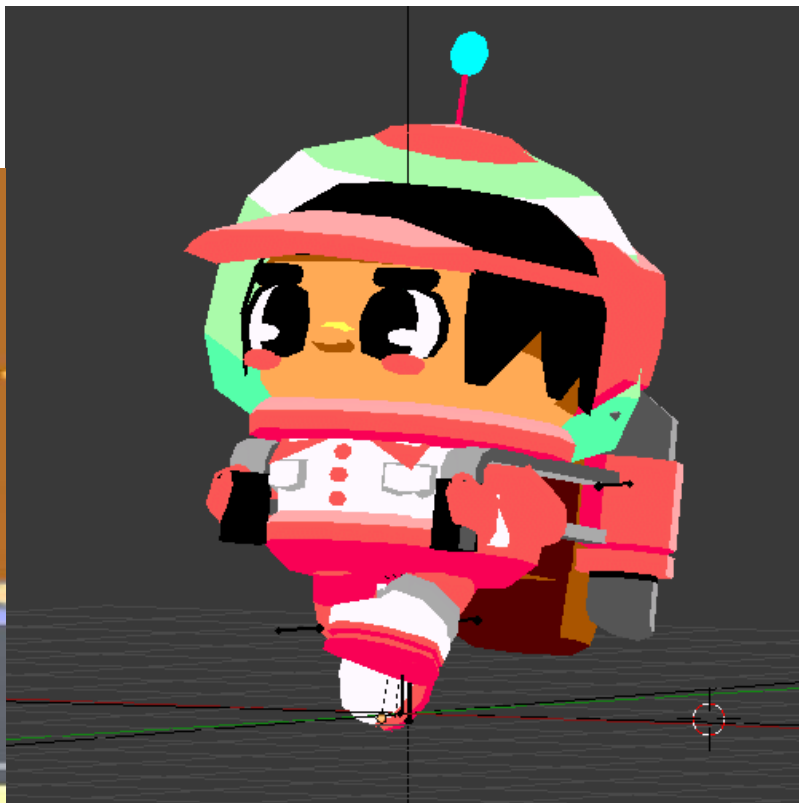


Color Palettes as Textures (per face color)



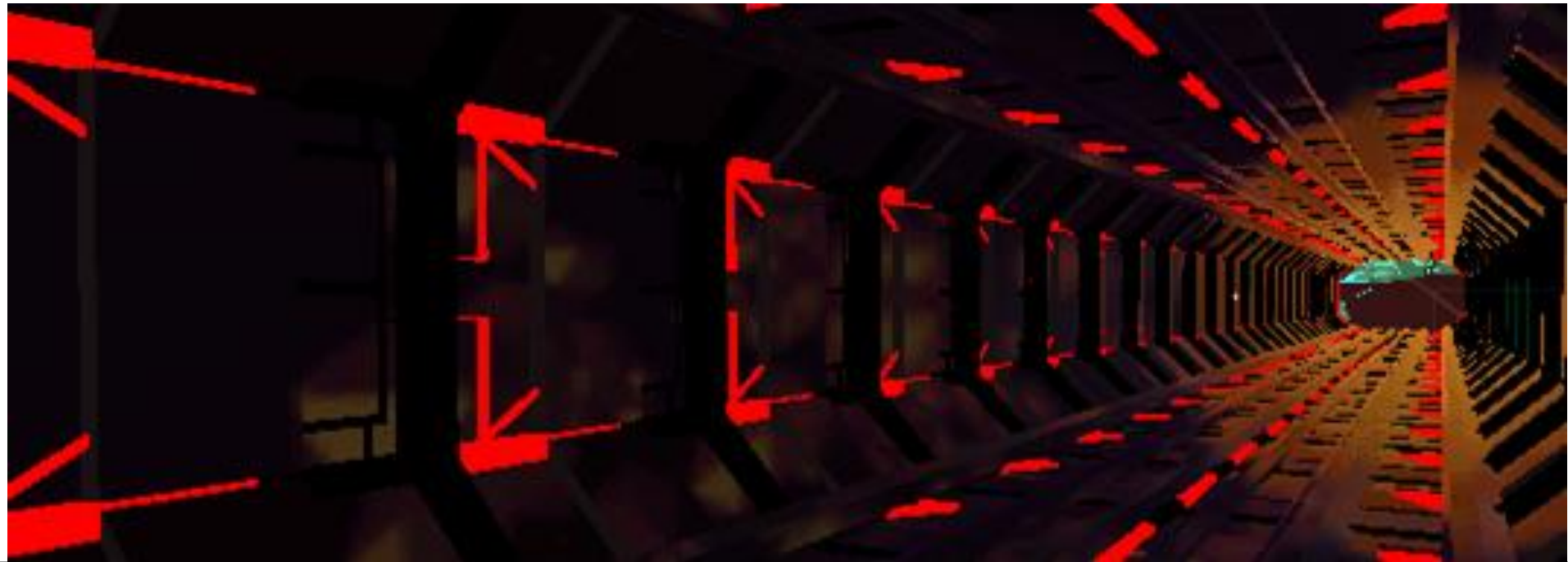


Fun with Normals



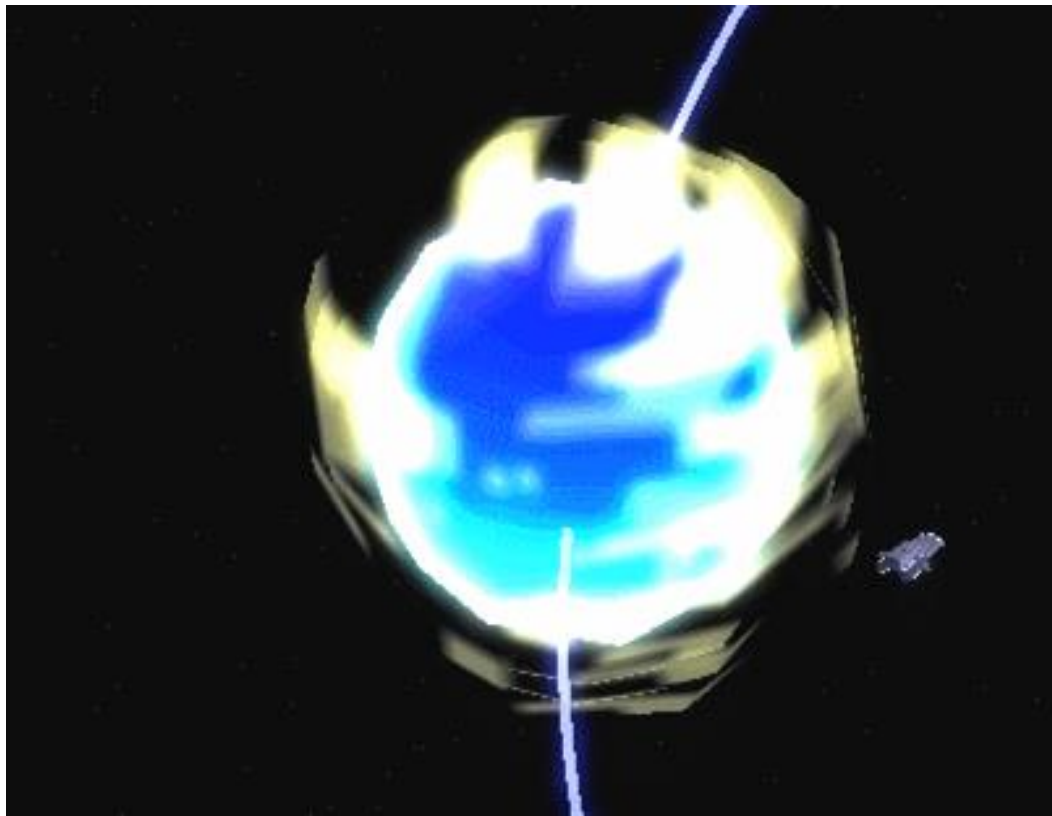
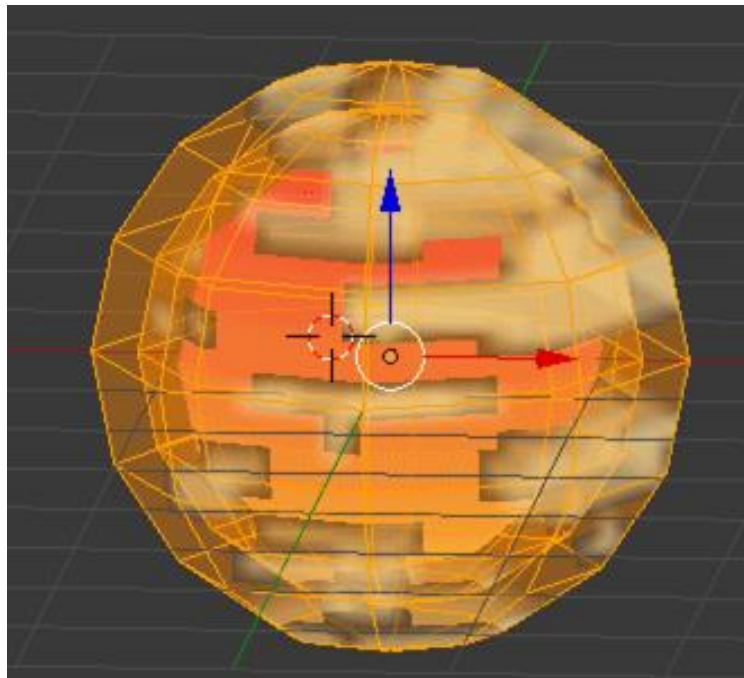


Scrolling UVs: Advanced Maneuvers





Scrolling UVs





TAKEAWAYS

- CONSIDER STYLISTIC COMPATIBILITY
- APPROXIMATE, DON'T DUPLICATE
- BE CONSISTENT WITH RESOLUTION
- DEVELOP STRONG SILHOUETTES
- CHEAT HARD WHEN POSSIBLE
- dont decimate pls





Thanks for coming!



EthanRedd



kiddradd

hey@ethanredd.com for hatemail

Work hard, trust your gut, and improve every day ^-^b

