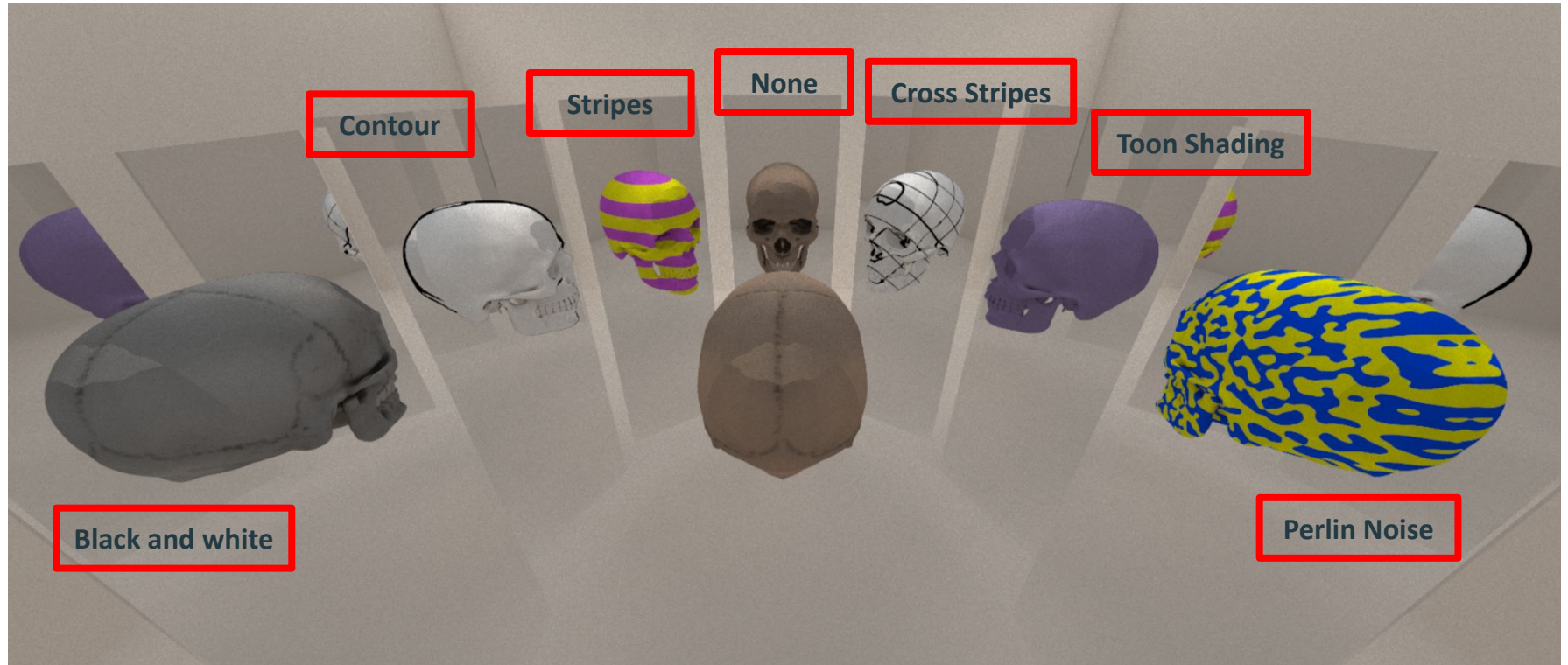# WebGPU Pathtracer + NPR + Cloth Sim
Milestone 3

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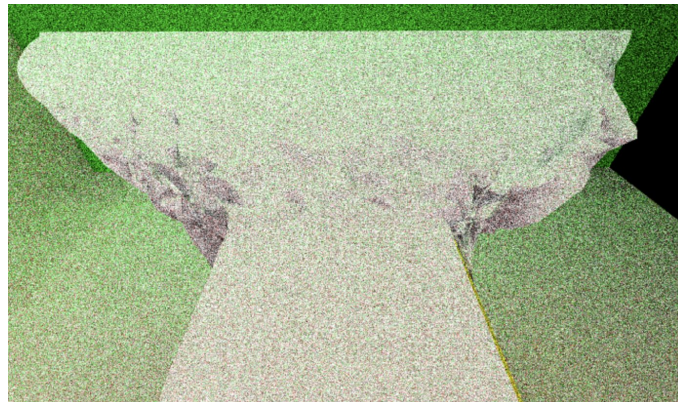
NPR Stylization Exploration

Cloth Sim

Cloth Sim Working - mediocre results

- Integrating LOD refinement + other
  techniques from progressive dynamics
  paper should yield more realistic results
- Optimized significantly from last
  milestone, avoid significant BVH
  reconstruction

Essentials already achieved:

- Gravity, collisions, contracting, etc.

TODO

- Improve performance (OPTIMIZE!)
    - A lot of massive, unnecessary uniform buffer updates
- Performance analysis
    - Focus on how we can minimize performance LOSS compared to base pathtracer
- Still thinking about how to approach requiredSamples…
    - Huge overhaul of how our pathtracer works needed if we want to stick 100% to the paper's implementation
    - Need to dynamically resize and keep track of subsequent extra rays (theoretically the number of rays can get unbounded!!!)