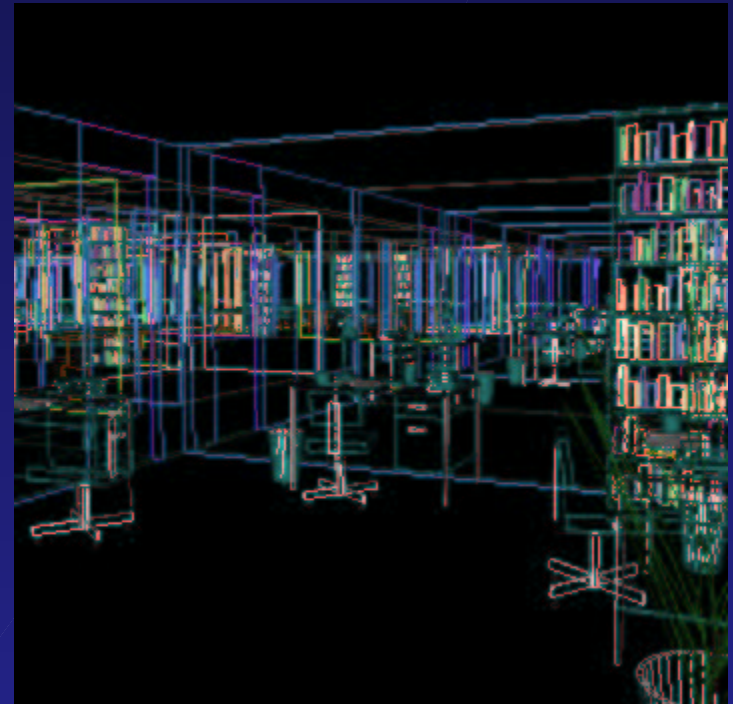


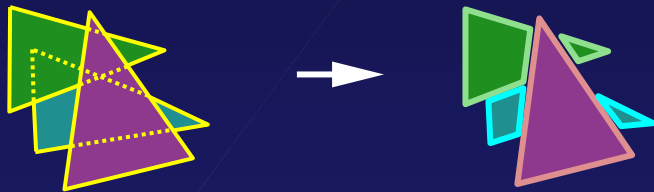
Depth Complexity

- The hardware **paints** each pixel many times, performing expensive per-pixel shading operations.
- No contribution from **invisible fragments**.



Visibility

- **Exact Visibility** – identify polygon fragments that are visible from a viewpoint [Sutherland et. al. 74].



- Paints each pixel **exactly** once.
- Unfortunately:
 - A scene containing n polygons can have $O(n^2)$ fragments.
 - Known algorithms are **complex** and hard to implement in interactive applications.
- Hardware **z-buffer** algorithm is widely used.

