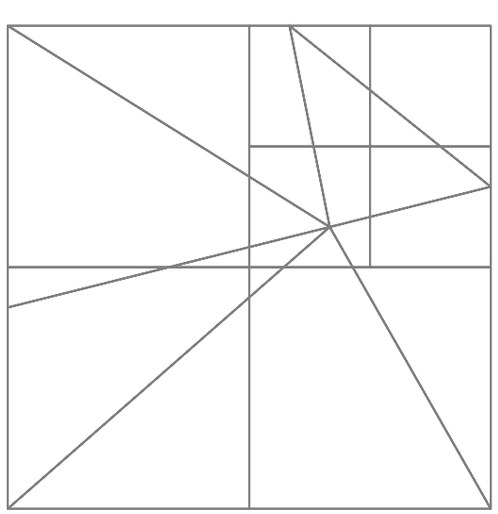
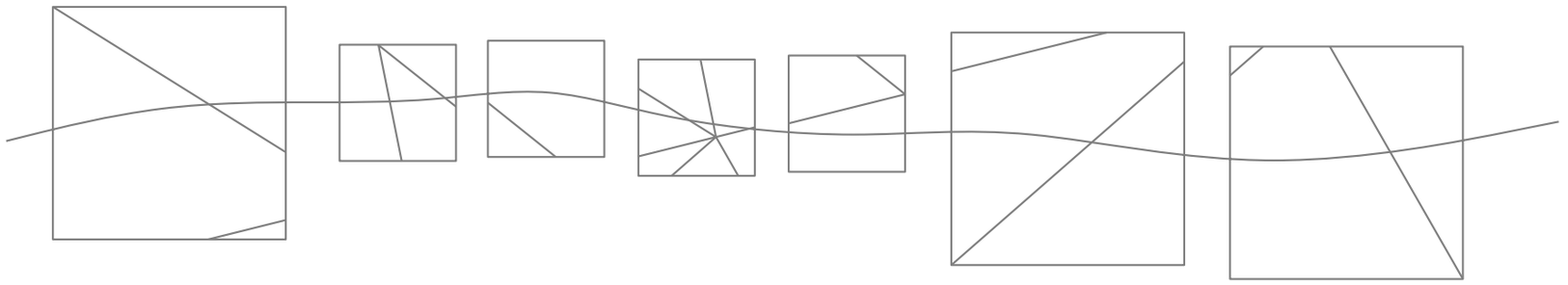
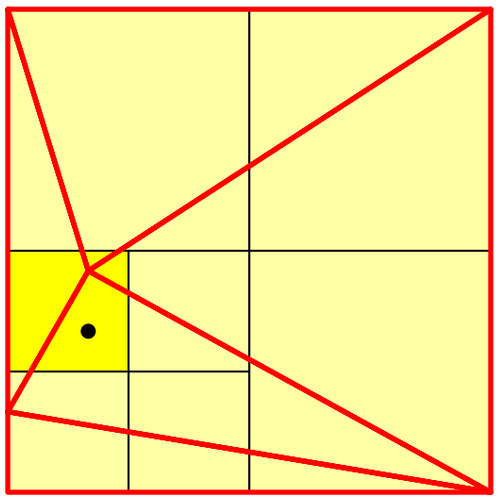
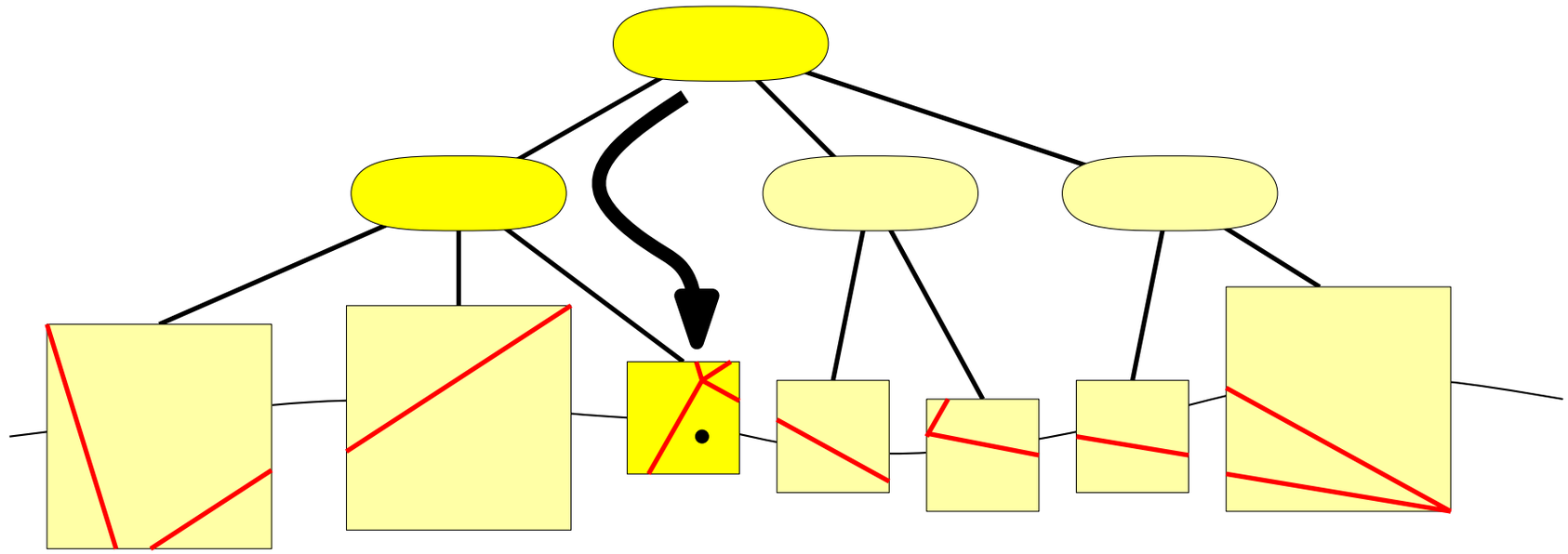
Map overlay with quadtrees in Z-order









n: number of triangles; B: disk block size

Ideally: $O(n)$ quadtree cells, $O(1)$ edges each

$\rightarrow$ Overlay in $O(scan(n)) = O(n/B)$ I/O's.

$\rightarrow$ Point location with B-tree in $O(\log_B n)$ I/O's.