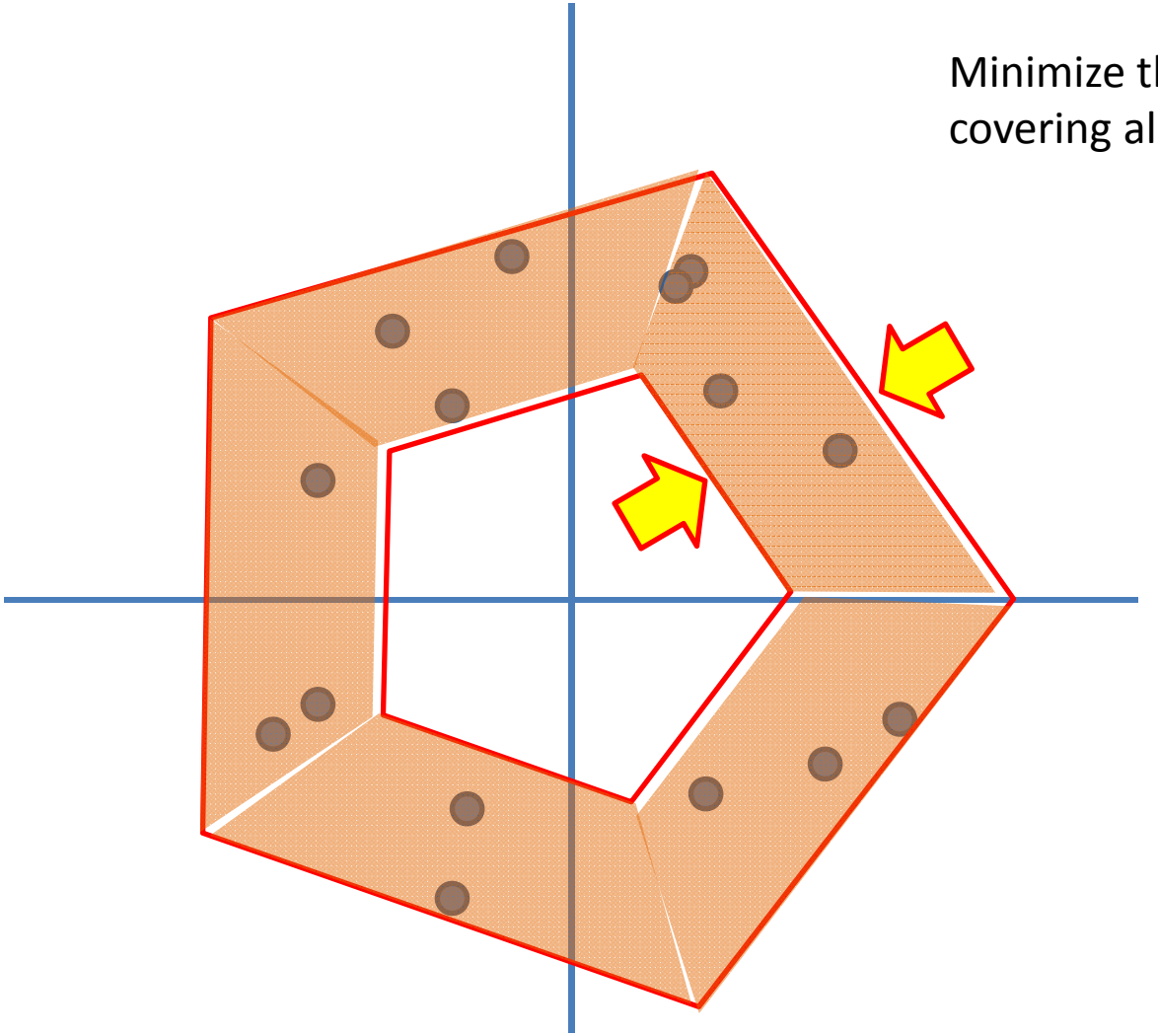
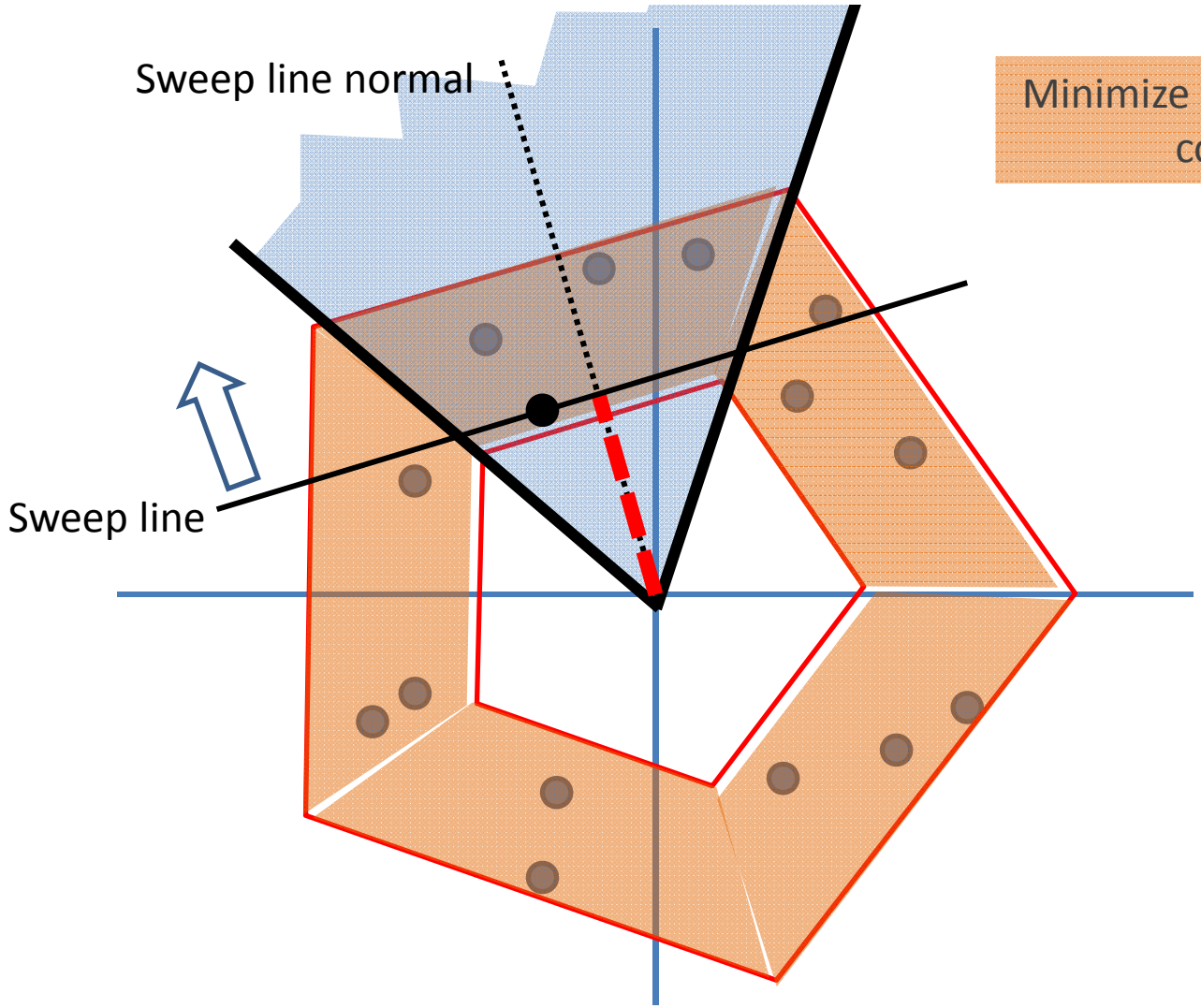


Minimize the thickness of the glyph covering all points

Live Archive: 8258 - Glyph Recognition



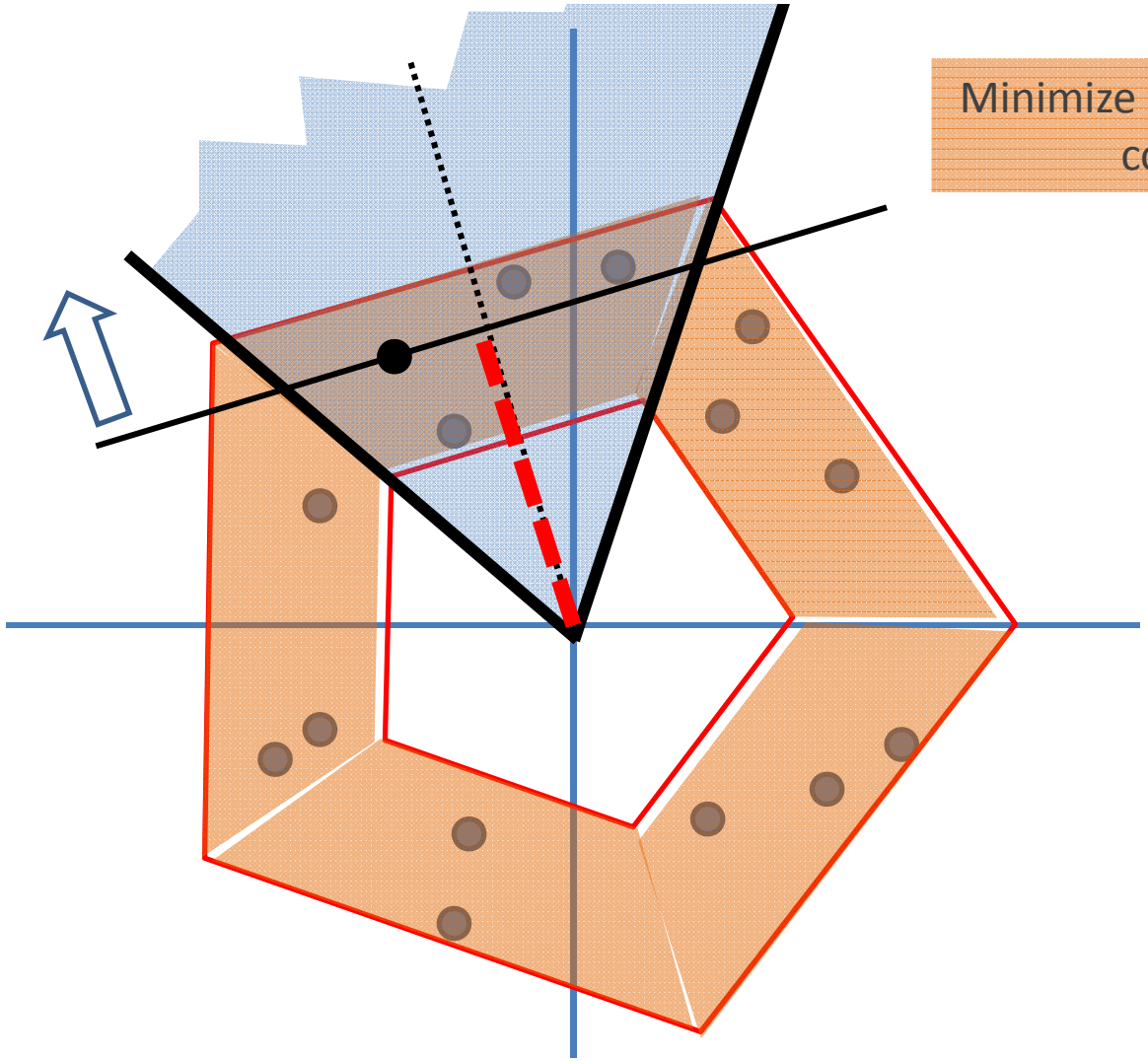
Minimize the thickness of the glyph covering all points

Method 1.
Process each of the 5 sections separately

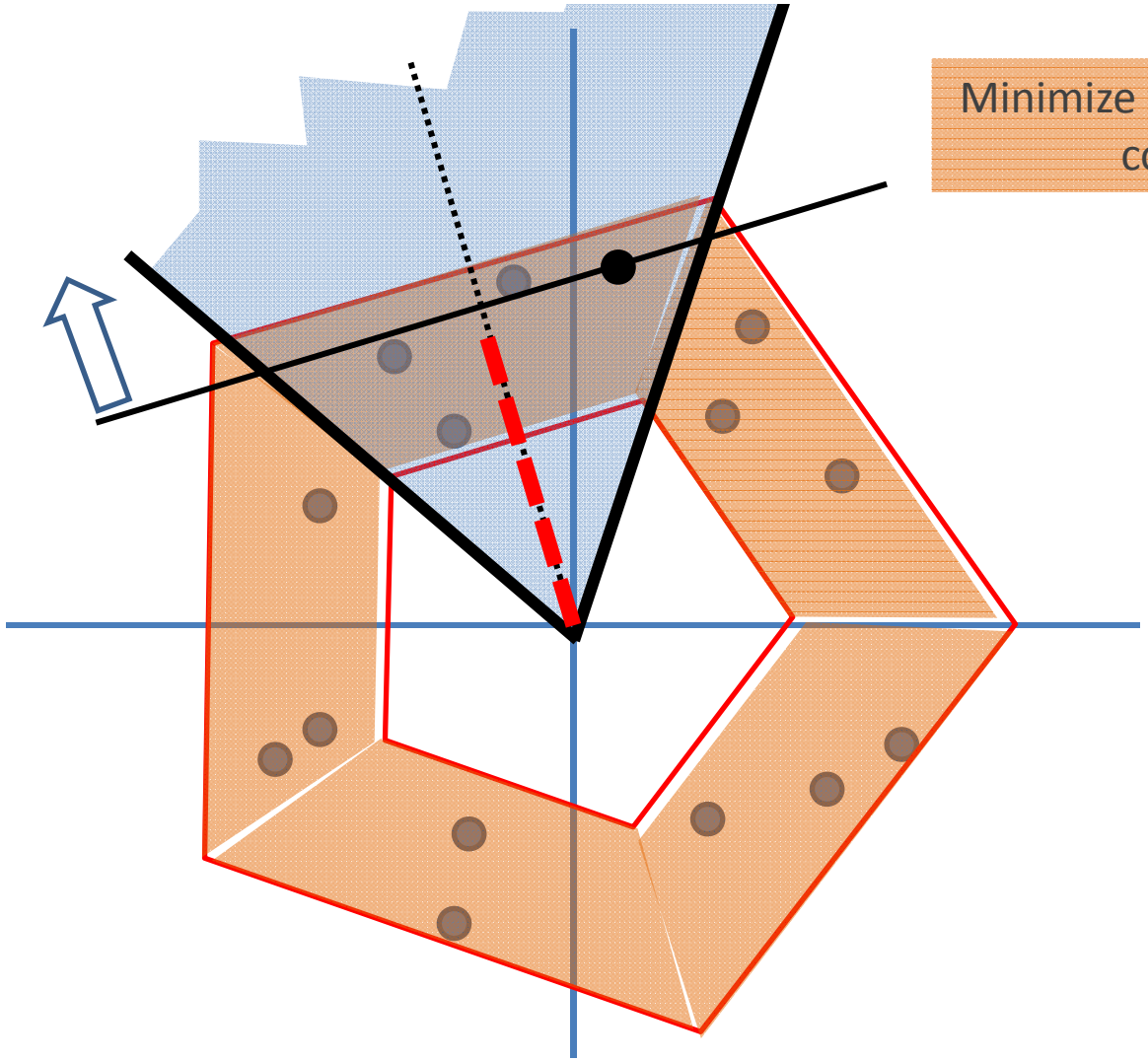
Drawback: In each section

==> The area to investigate (shaded) is different

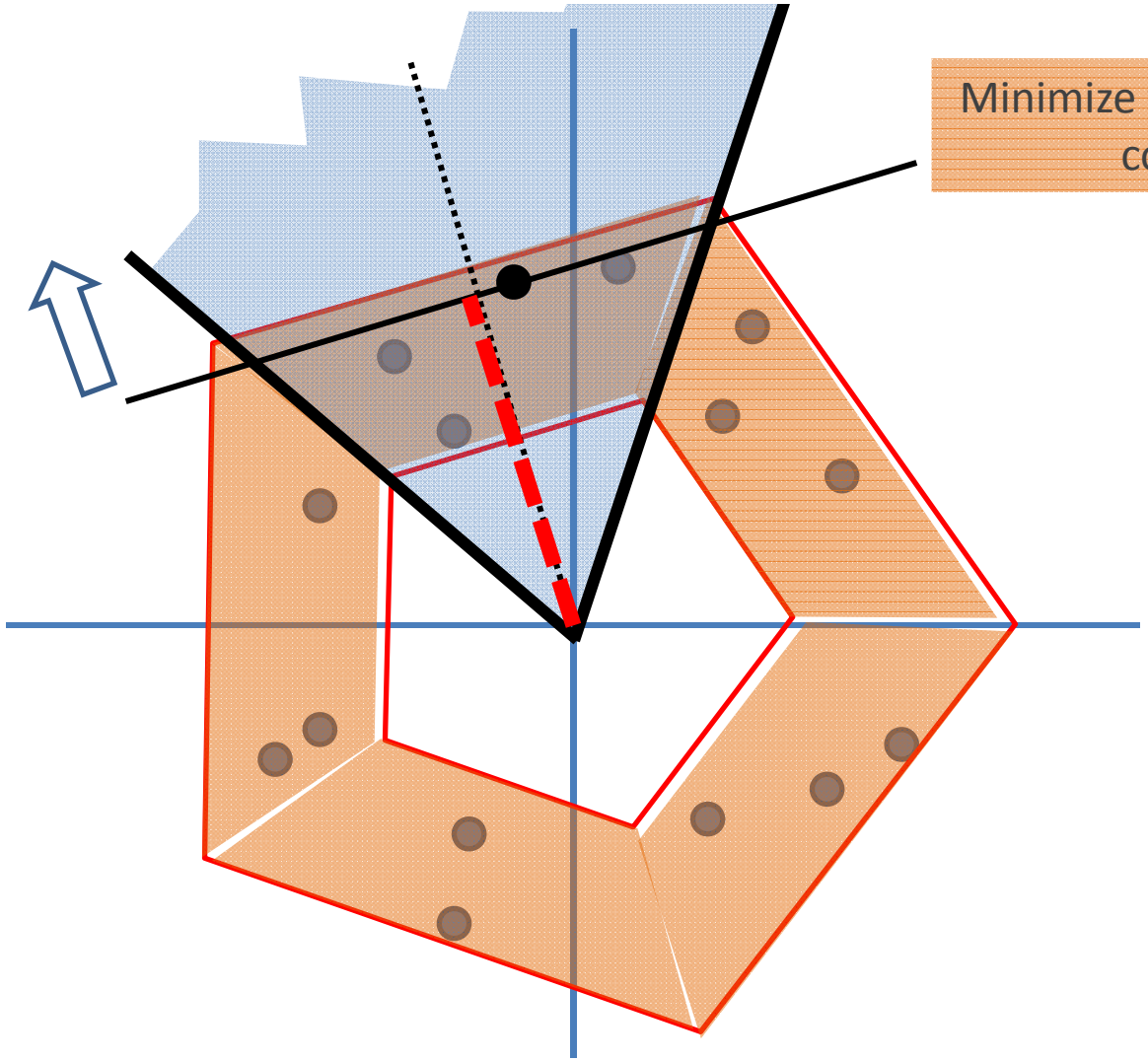
==> Sort the nodes along another sweep line normal



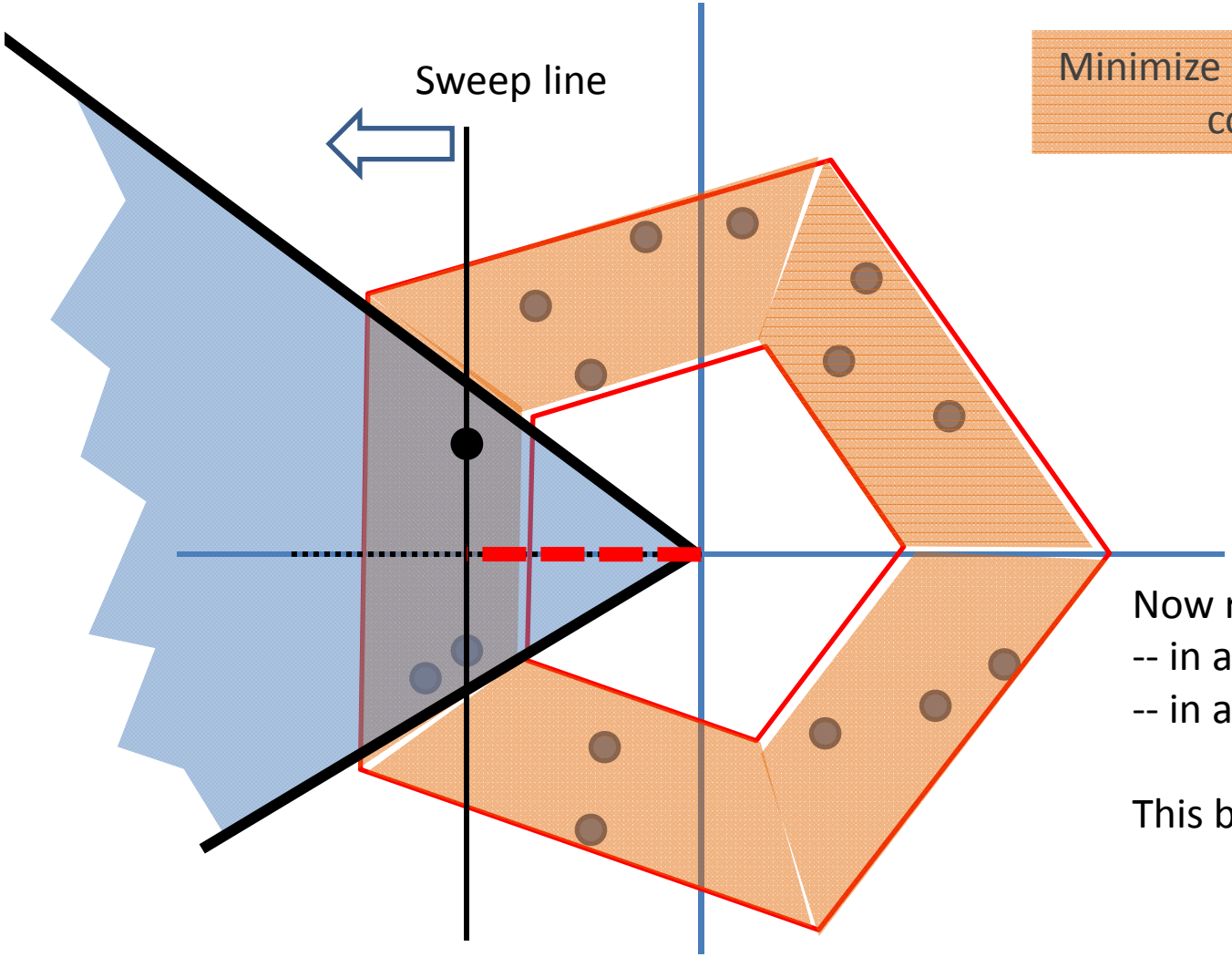
Minimize the thickness of the glyph covering all points



Minimize the thickness of the glyph covering all points



Minimize the thickness of the glyph covering all points



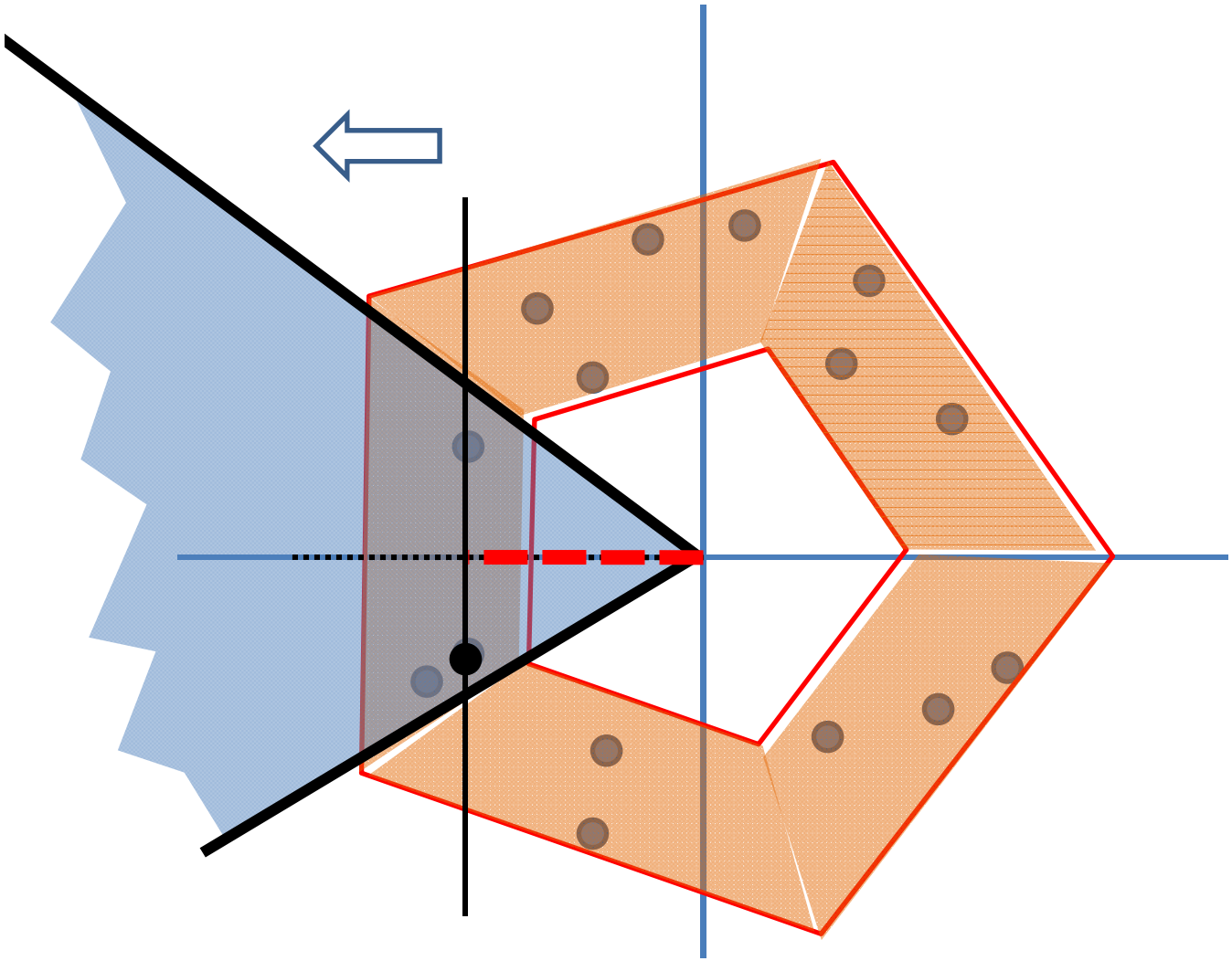
Minimize the thickness of the glyph covering all points

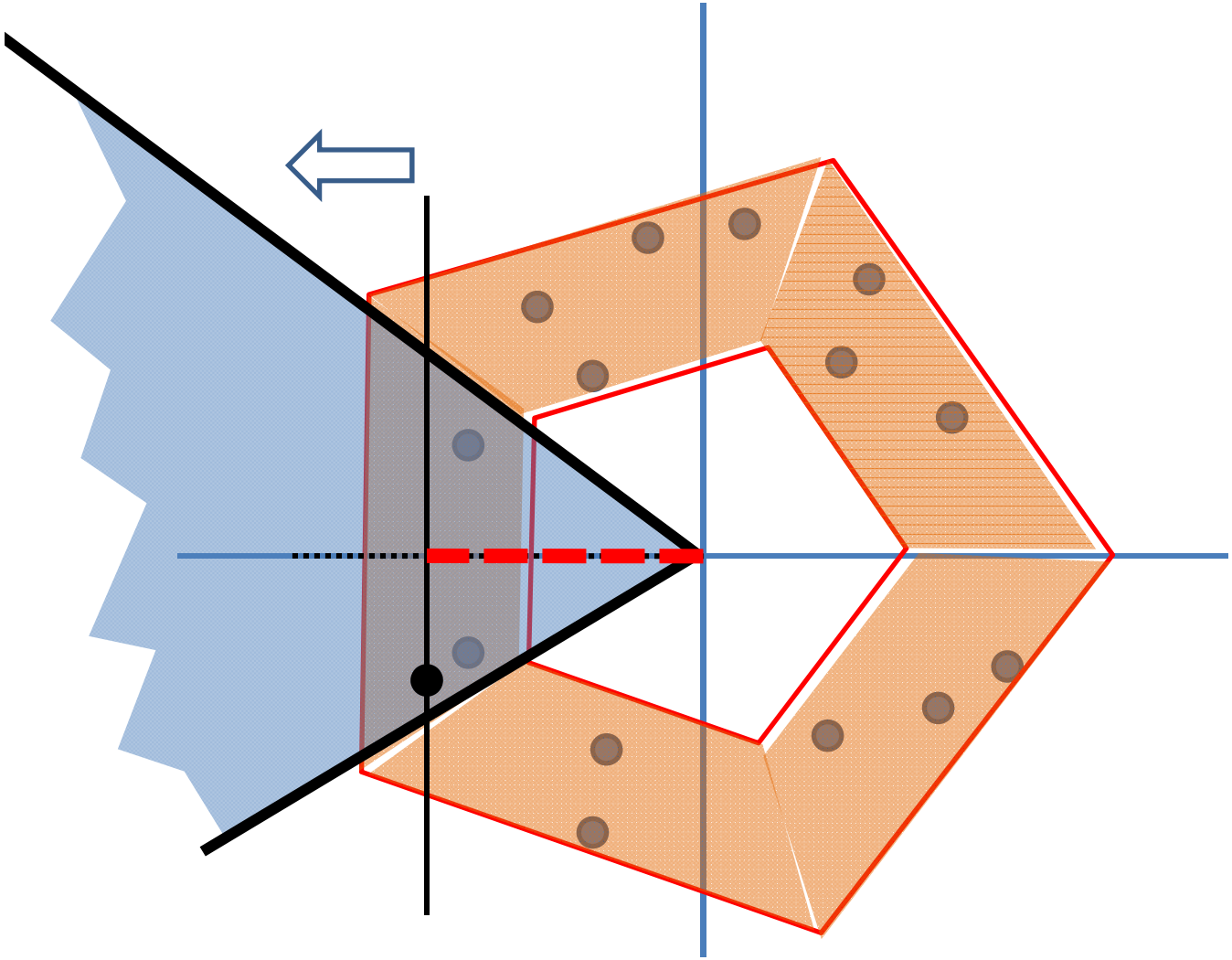
Now repeat the same process
-- in a different direction and
-- in a different area.

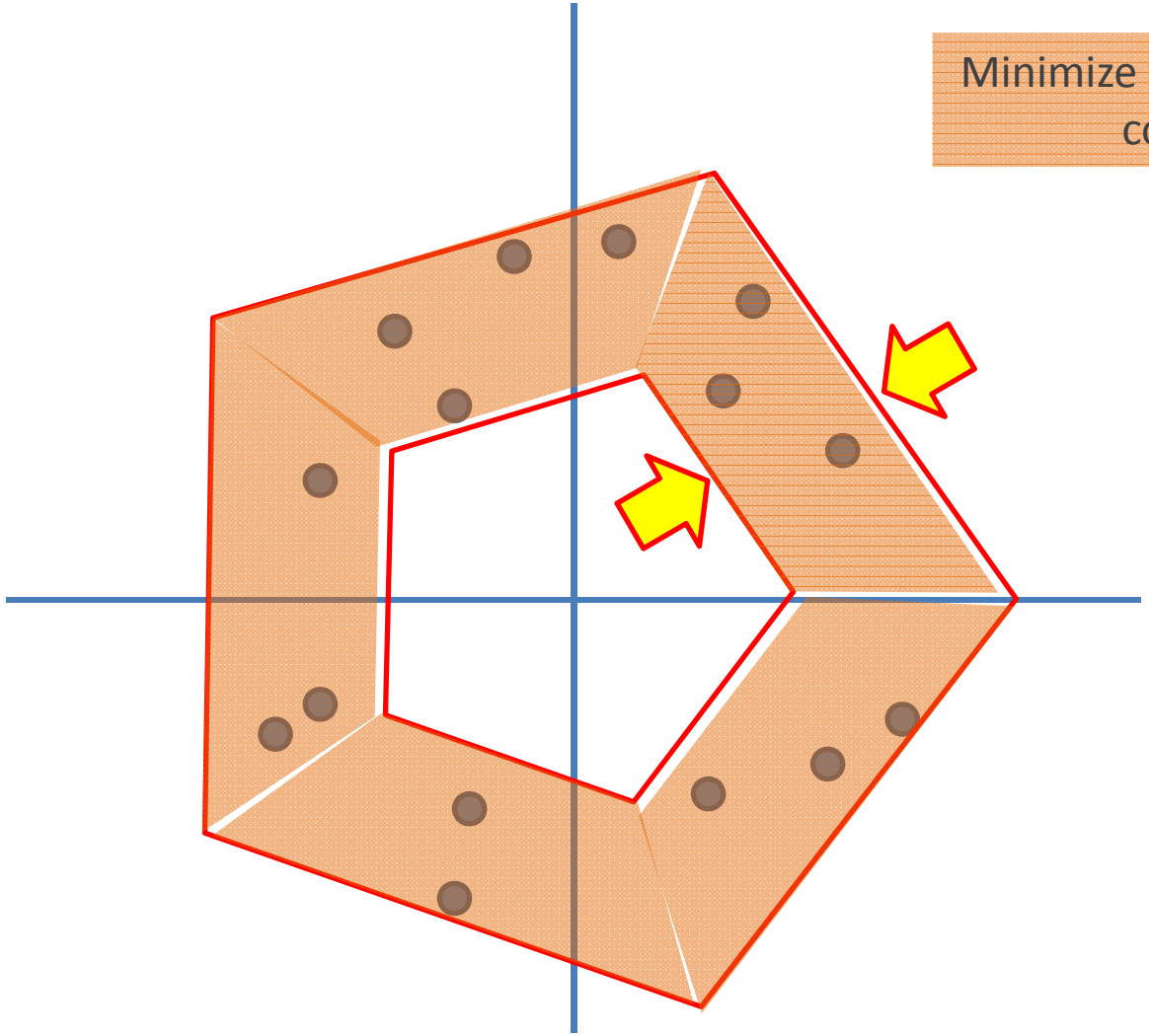
This brings in additional work.

Method 1.
Process each of the 5 sections separately

Drawback: In each section
==> The area to investigate (shaded) is different
==> Sort the nodes along another sweep line normal



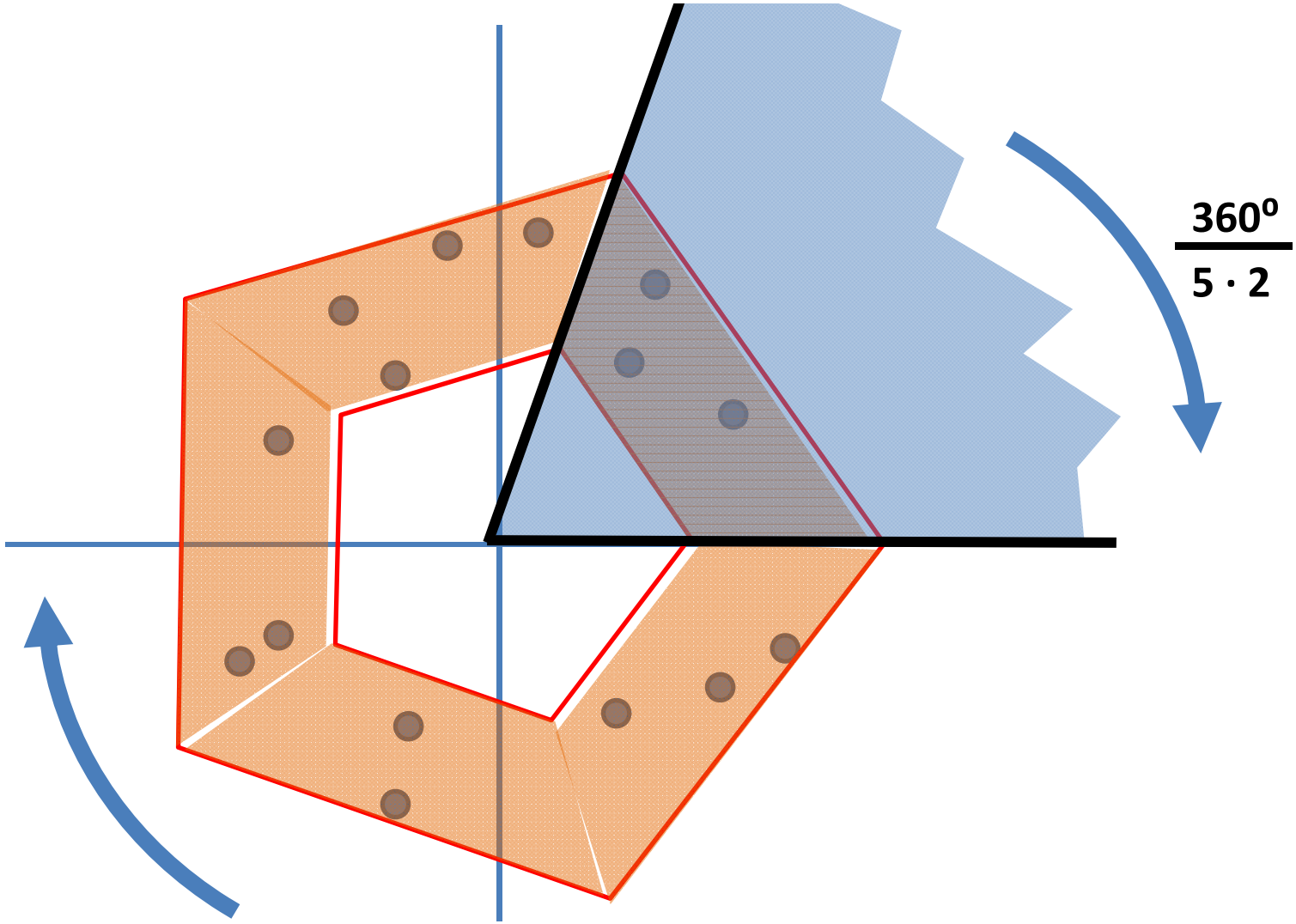




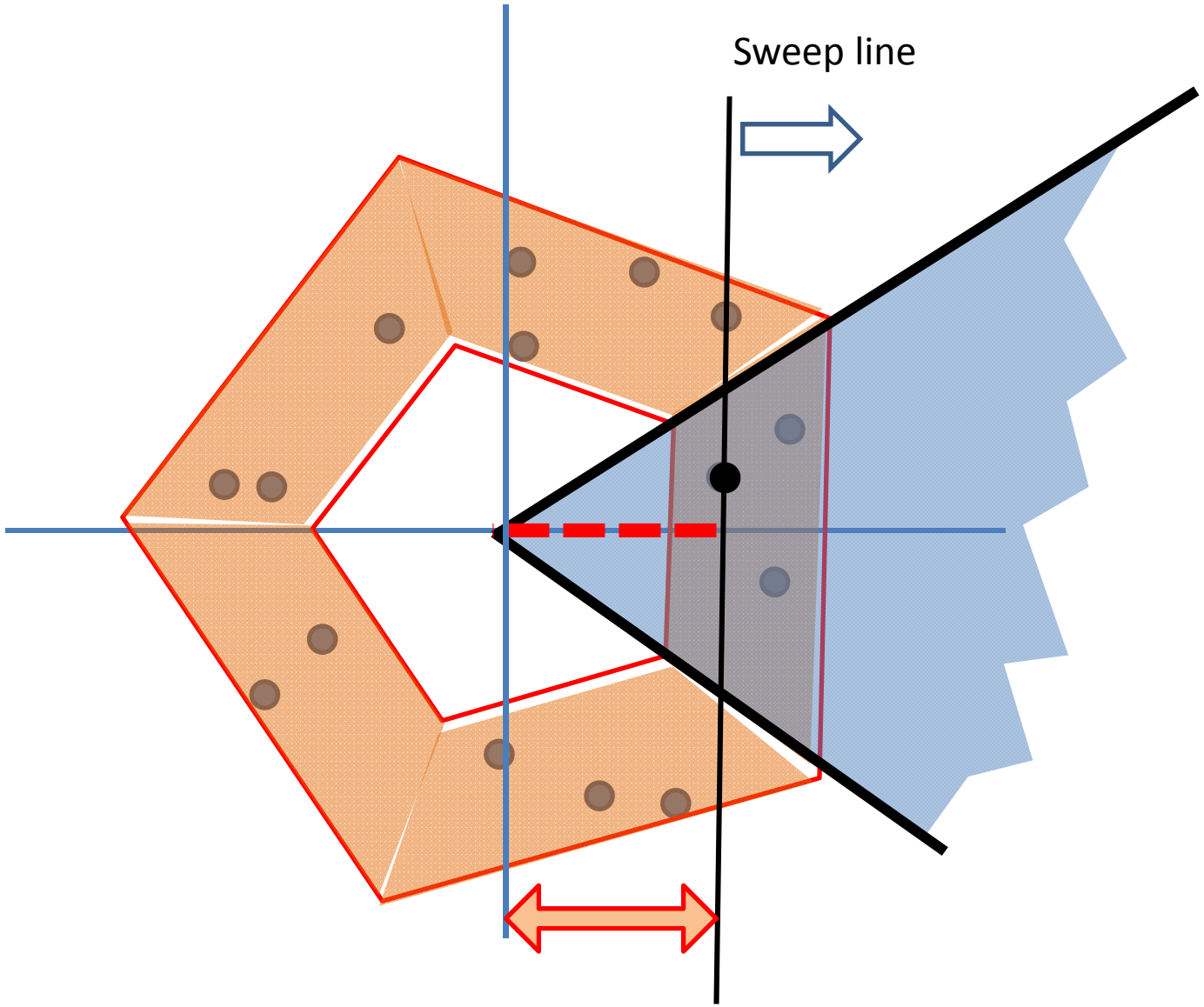
Method 2. Process each of the 5 sections in identical way.

Before processing the section, **rotate** the whole configuration into a fixed standard position.

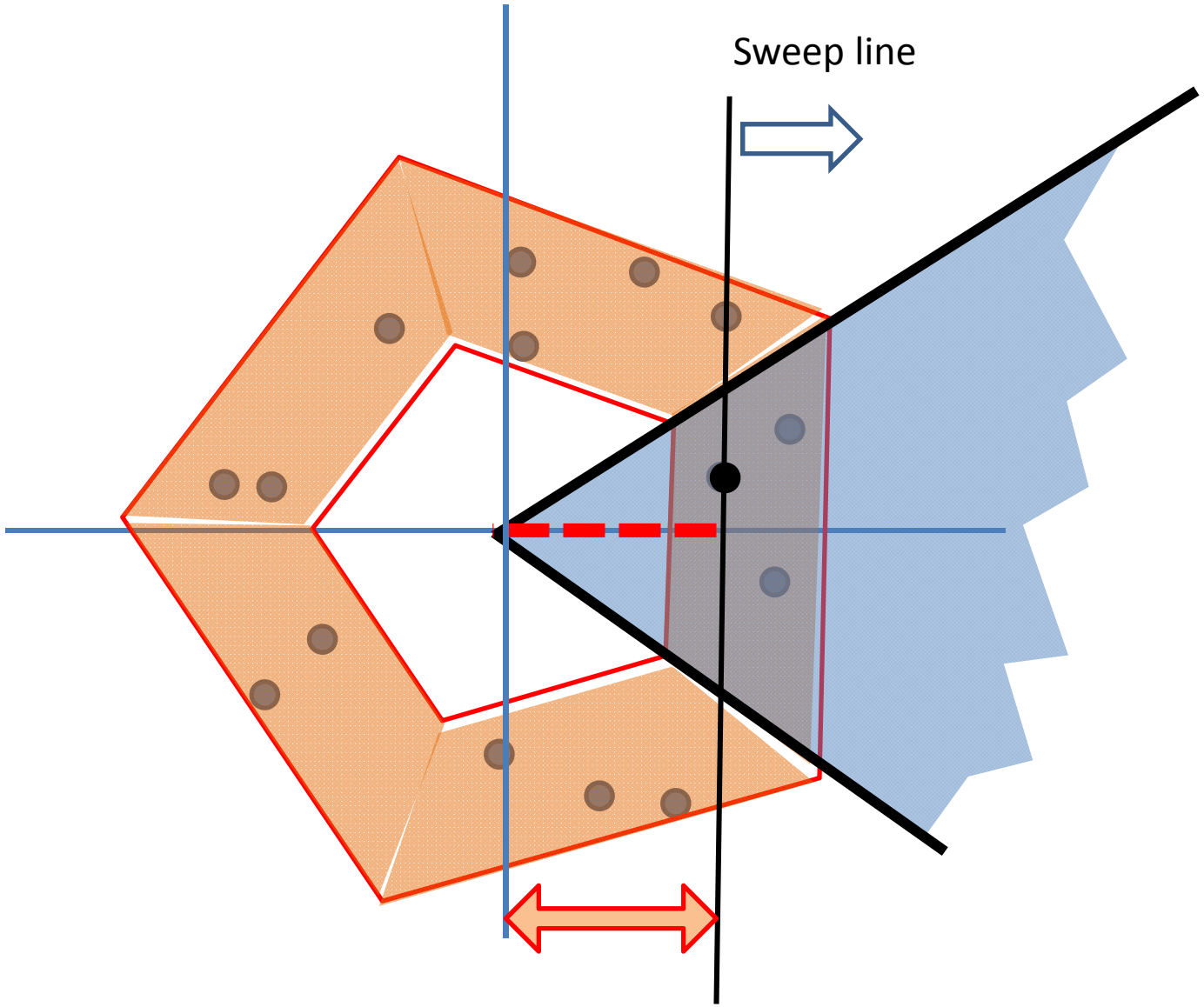
Advantage: Problems of Method 1 are gone.



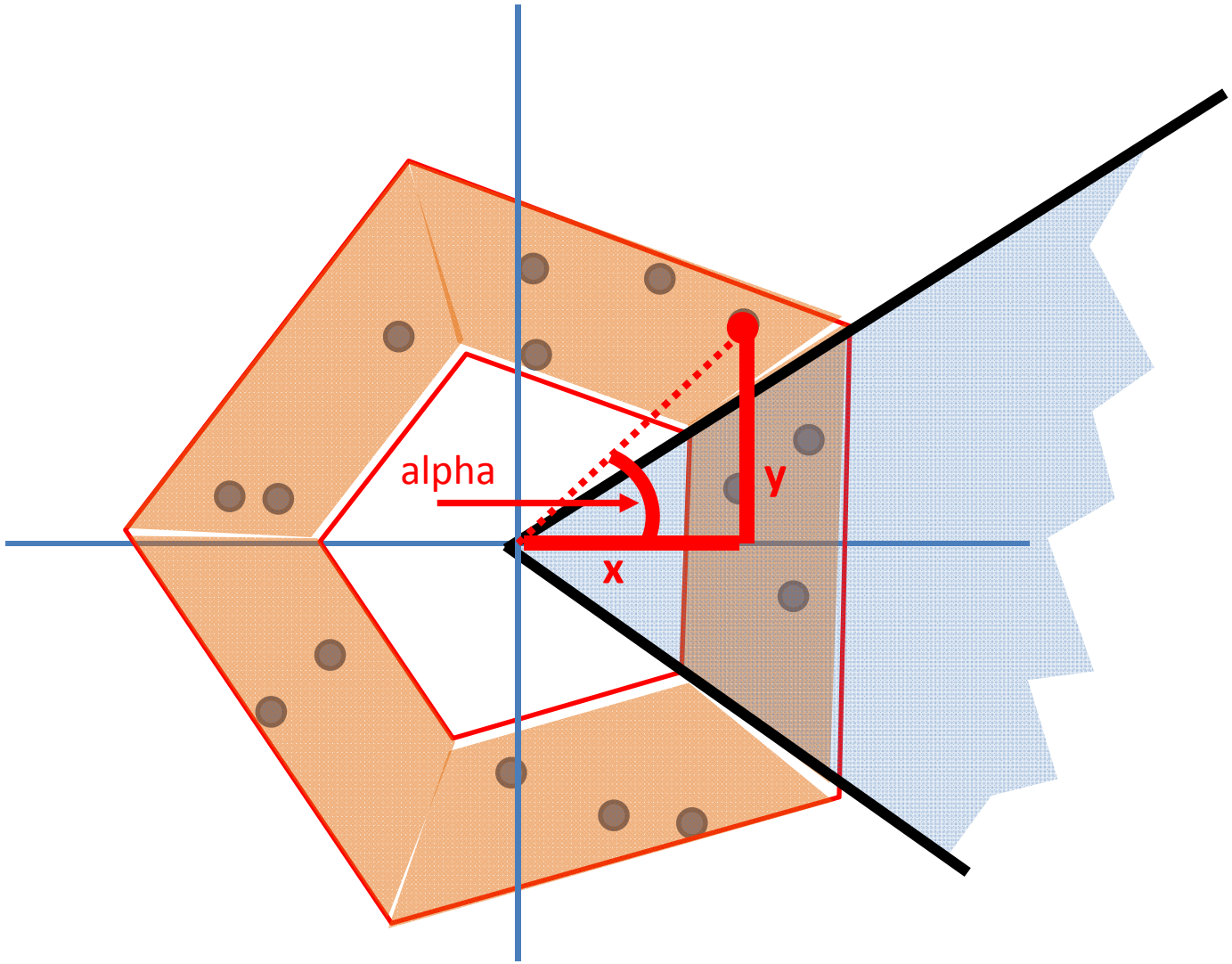
Rotate the whole configuration, points, glyph shape, everything.



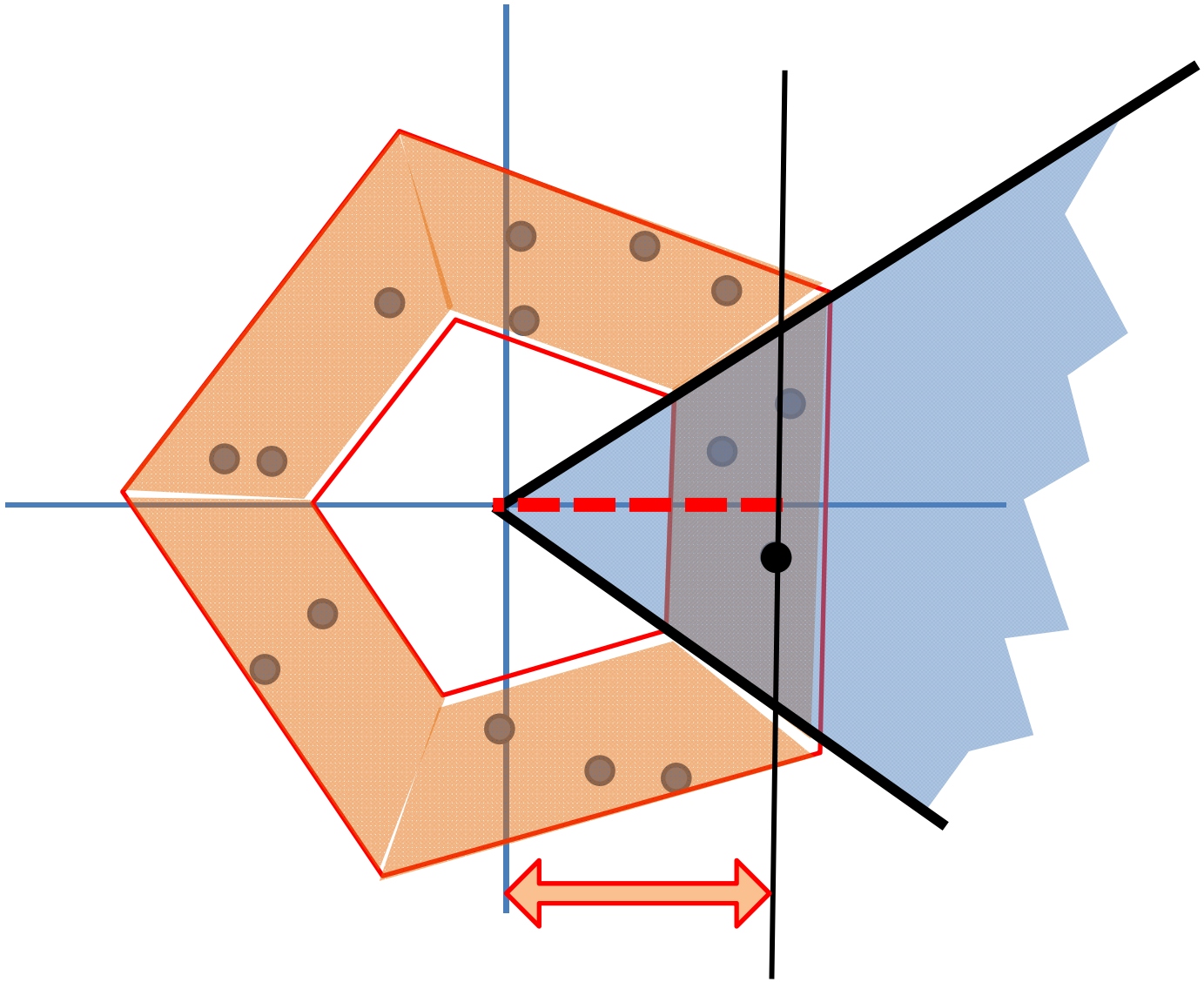
This is the standard position.
To explore the next area (to the left of the shaded one) just
rotate again the whole configuration by 360/5 degrees to the right
and repeat the investigation in the shaded area.

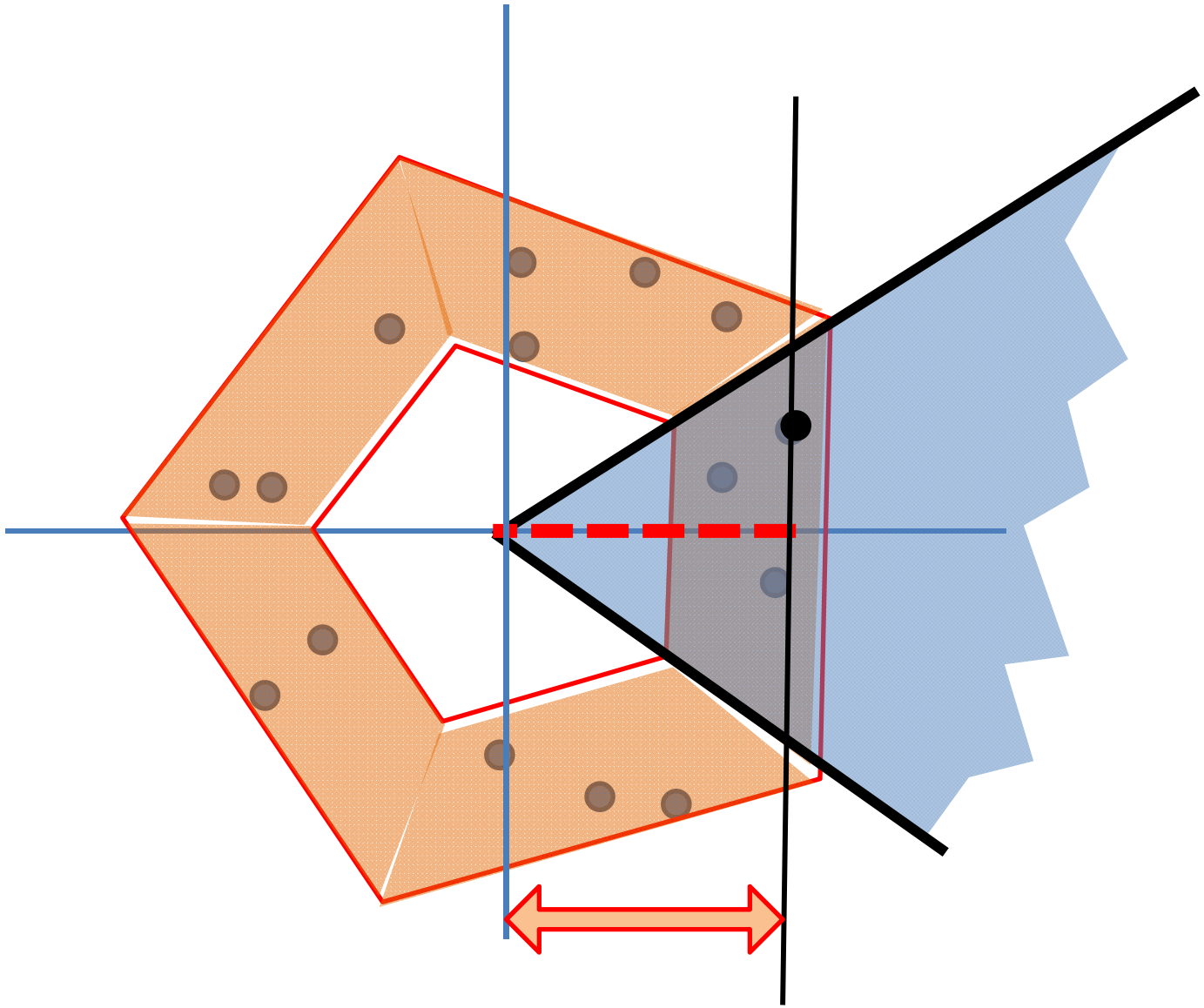


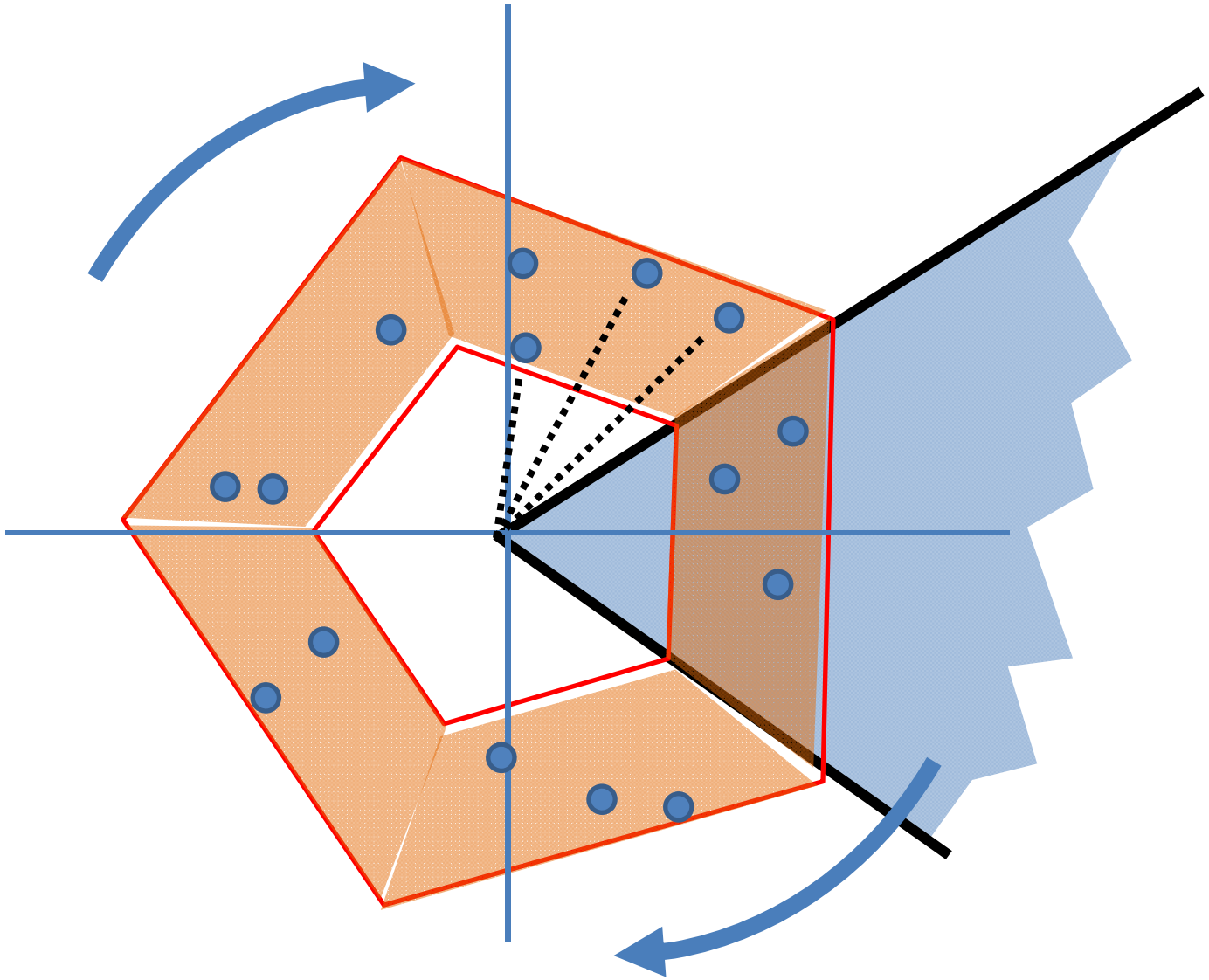
The points in the current (shaded) area can be processed in left->right order, according to their x-coordinate ==> no need of additional special sorting.



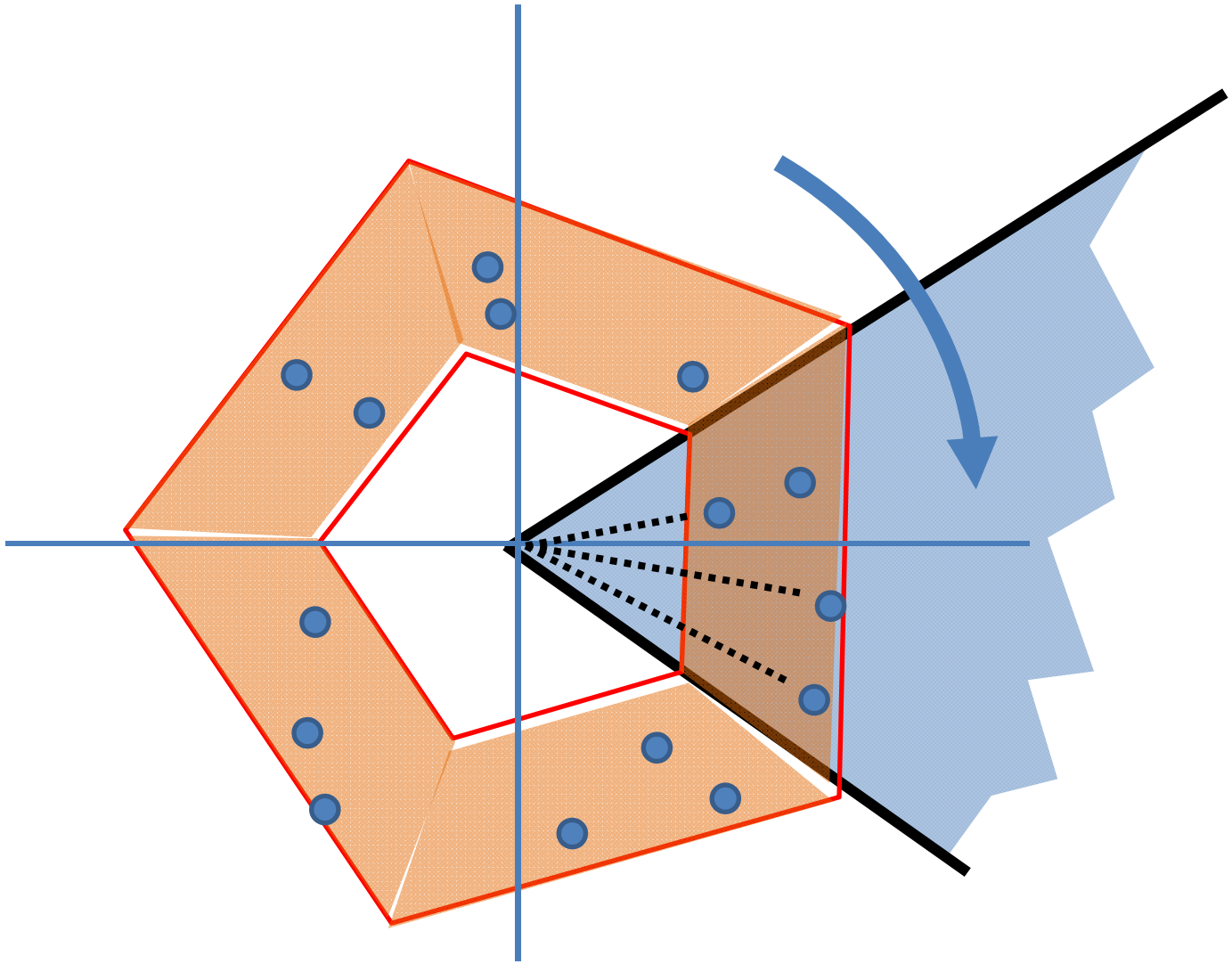
A node (x,y) is outside the area (= do not process it) when
abs(x/y) == tg(alpha) > tg(360°/10) .
Again, such node is recognizable very easily.



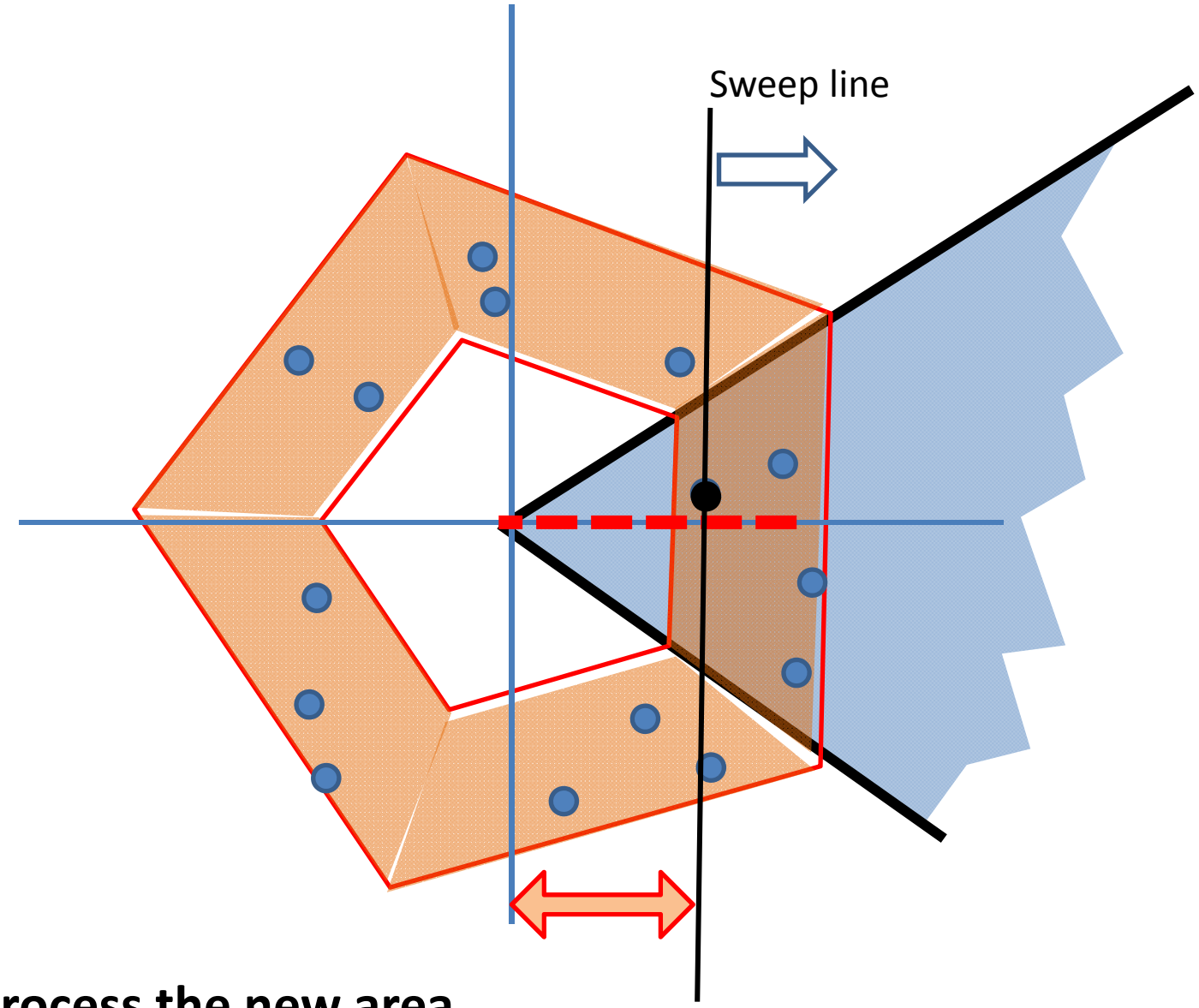




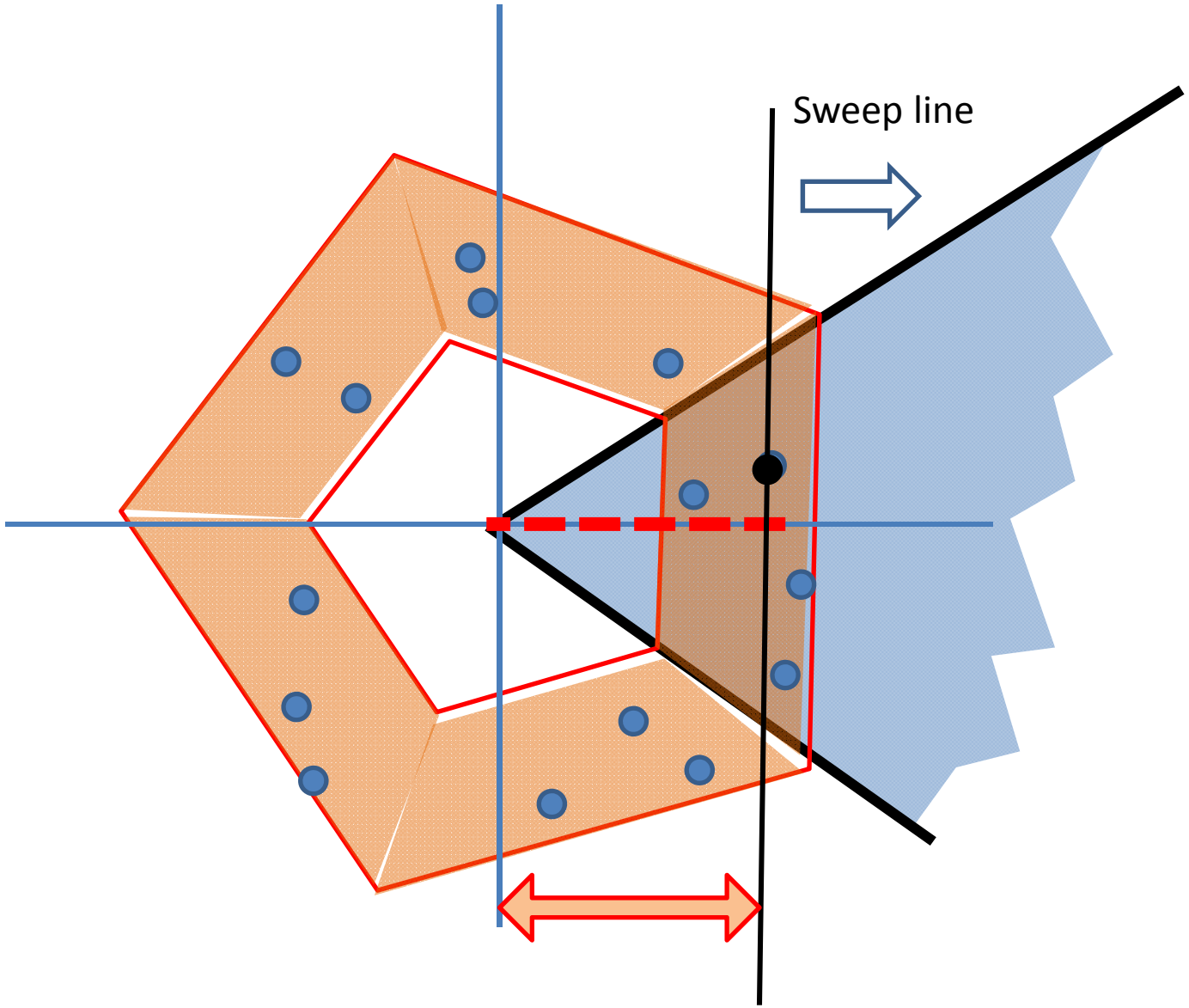
Rotate only points by 360° / #sides



Rotate only points by 360° / #sides



Process the new area
(= segment of the glyph and the corresponding points)
identically as before.



Etc...