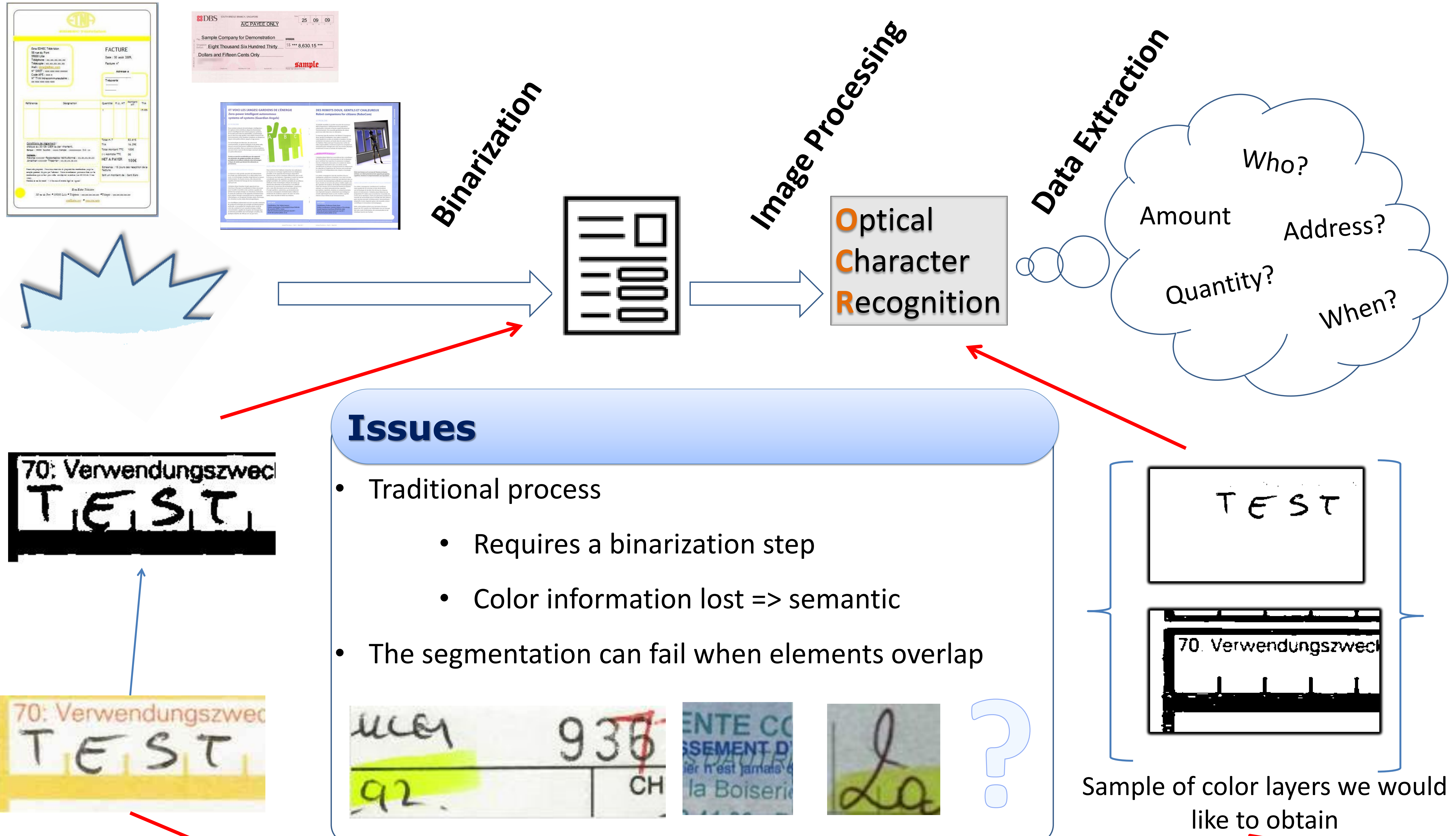


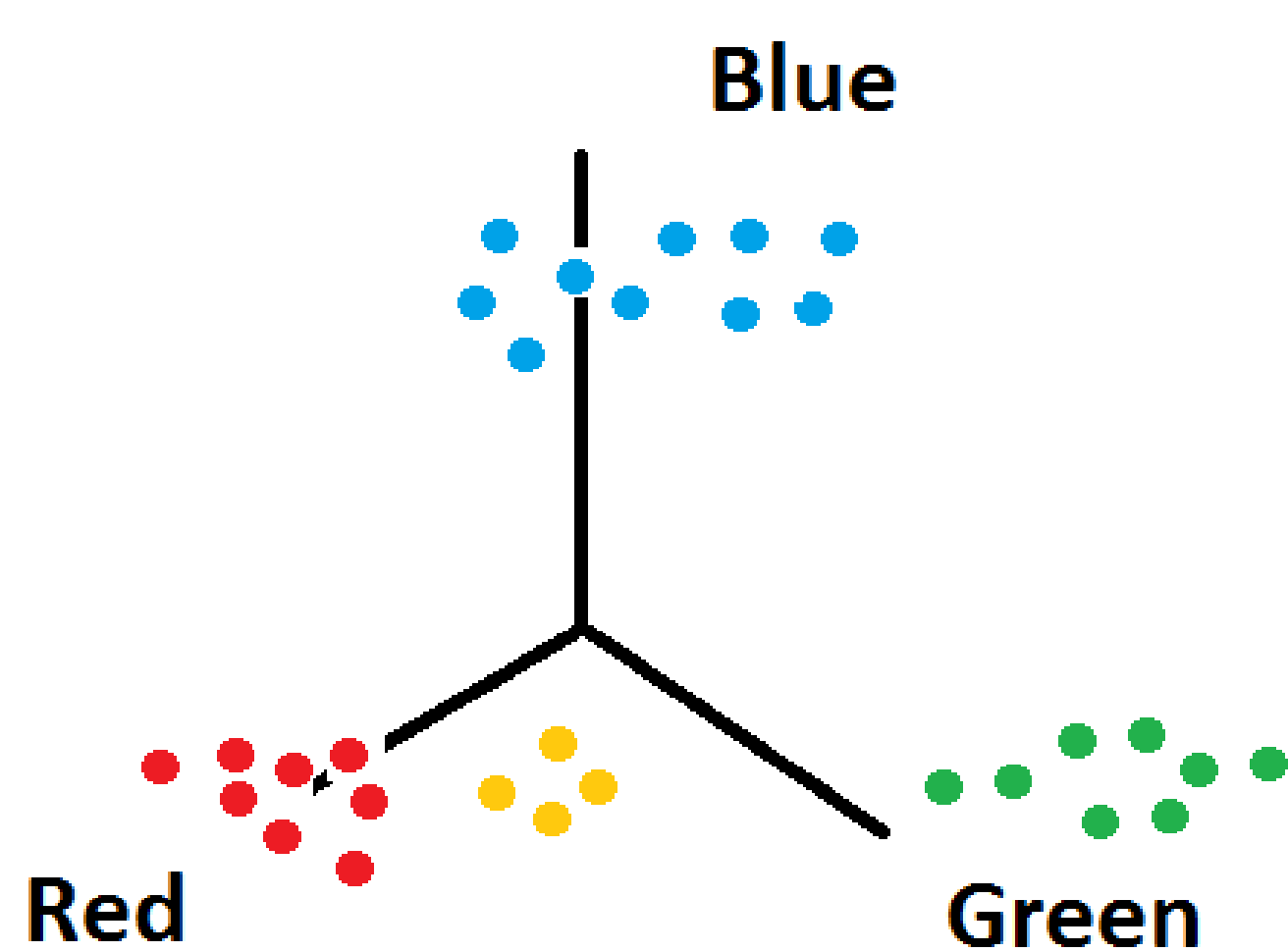
Dominant color segmentation Of administrative document images By hierarchical clustering

Color document dematerialization



What is a color?

- Color processing => complex
- Trichromatic color theories => Human vision
 - Colorimetric spaces => 3 color components
- How many colors for a document?
 - Limited
 - Made to be easily readable
 - Can have shades of a same hue



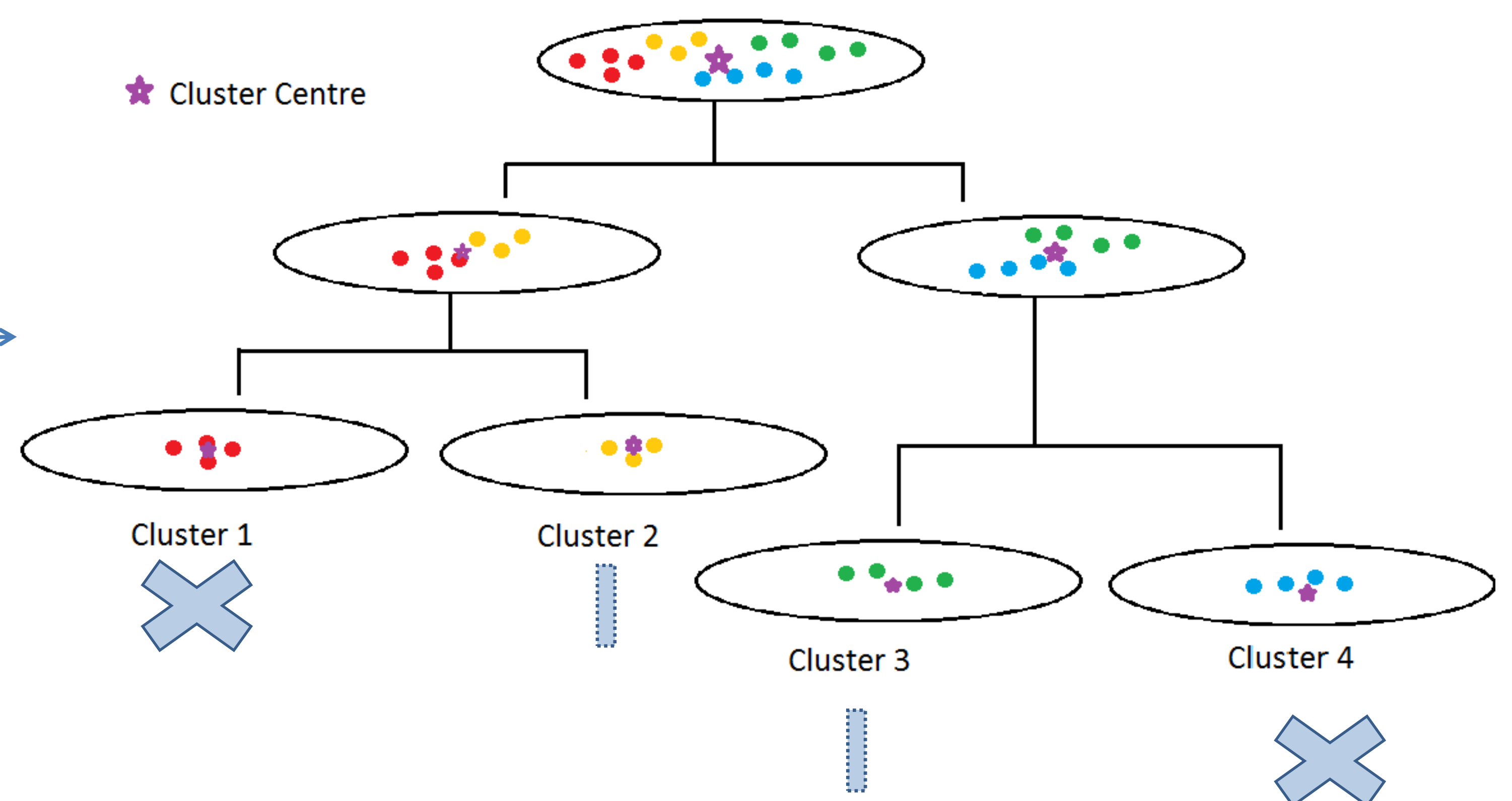
Look for point clouds
in the 3D histogram

References:

- [1] C. Fernandez-Maloigne (ed.), Advanced Color Image Processing and Analysis, Springer, 2012.
- [2] L. Macaire, N. Vandenbroucke, J. Postaire, Color image segmentation by analysis of subset connectedness and color homogeneity properties, Journal Computer Vision and Image Understanding, Volume 102 Issue 1, Pages 105-116, 2006.

Approach: Hierarchical clustering

- Idea: Find dominant colors
- Build one B&W mask for each color
- No user interaction



- The cluster respects some stopping rules?
 - Yes => **Compact** and **homogeneous** enough to be considered as a dominant color
 - No => has to be split again