

Detection Theory - Homework 2

MVA 2021-2022

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Bricks and columns

The bricks are grouped by color and shape similarity to form well-defined objects: the columns. We know they are indeed bricks and columns from past experience. Within each column the separation between bricks form lines of constant width with continuity of direction and we perceive vertical lines.

The columns are also grouped by similarity although there are some differences between them due to the lighting of the scene. There is good continuation and vanishing perspective for the first row of columns. There are also amodal completion, a light seen behind the first column.

Lights

Each light tube is formed by amodal completion, the light (white) mask a (black) structure that seems to be behind. By similarity the light tubes are grouped together. There is vanishing for the first row of lights as well.

Human

We perceive a human figure by past experience. By amodal completion, we see it as covering or masking part of the scene. Because of the same law we see the human figure behind his bag and his head behind his hood.

Floor and Ceil

Both the floor and the ceil have color constancy (grey). We also observe a line by good continuity in the intersection between wall and floor. The ceiling is background, so it has no shape.