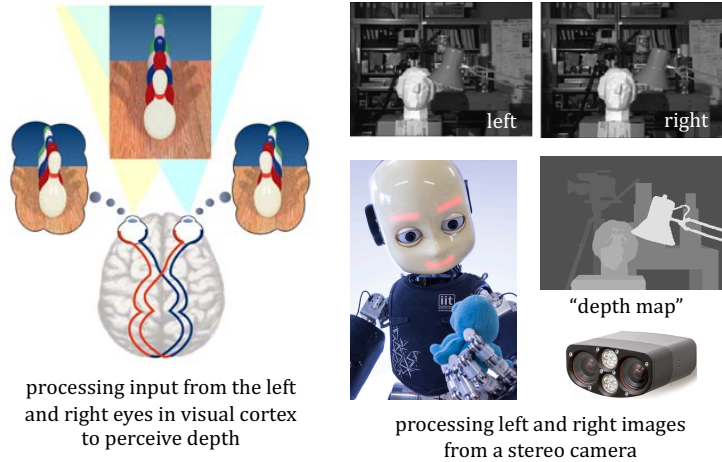


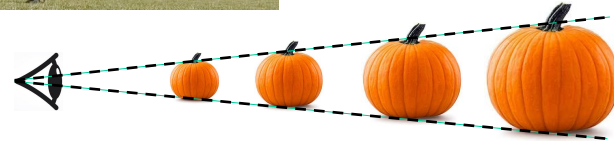
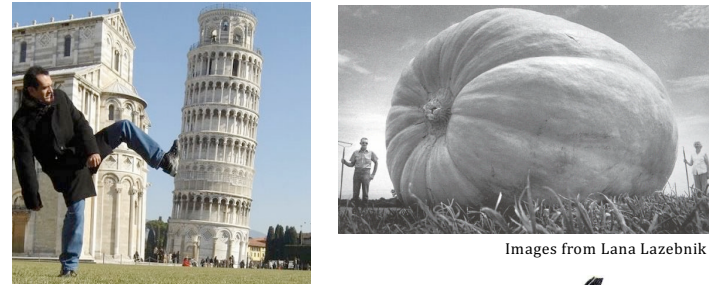
Binocular stereo vision



1

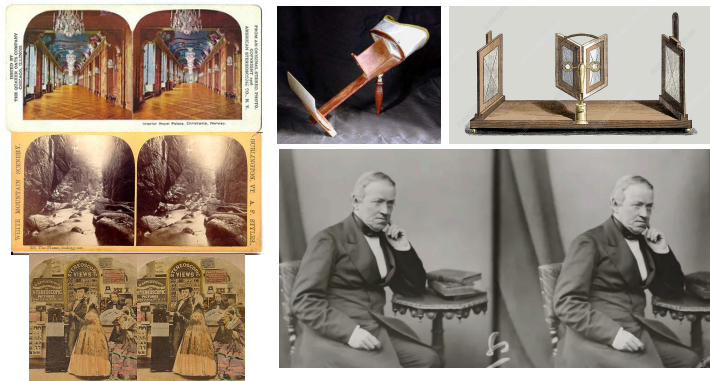
Why multiple views?

Depth is inherently ambiguous from a single view



2

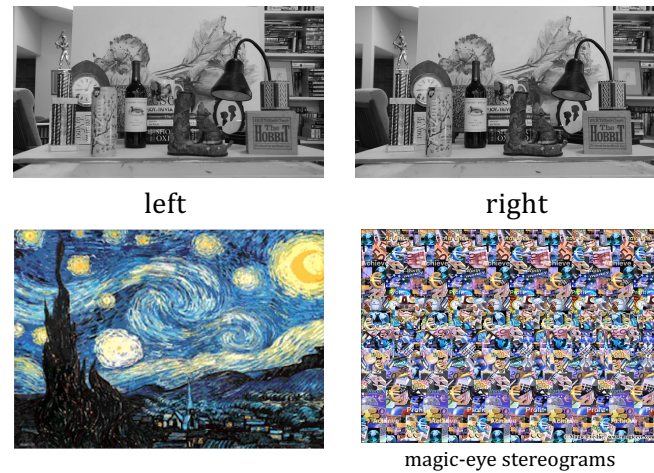
Stereograms and stereoscopes



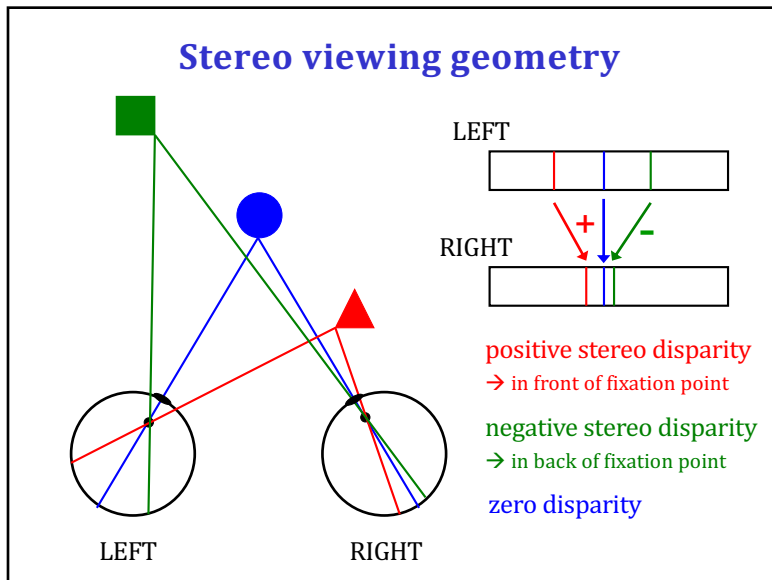
First stereoscope invented by Sir Charles Wheatstone, 1838

3

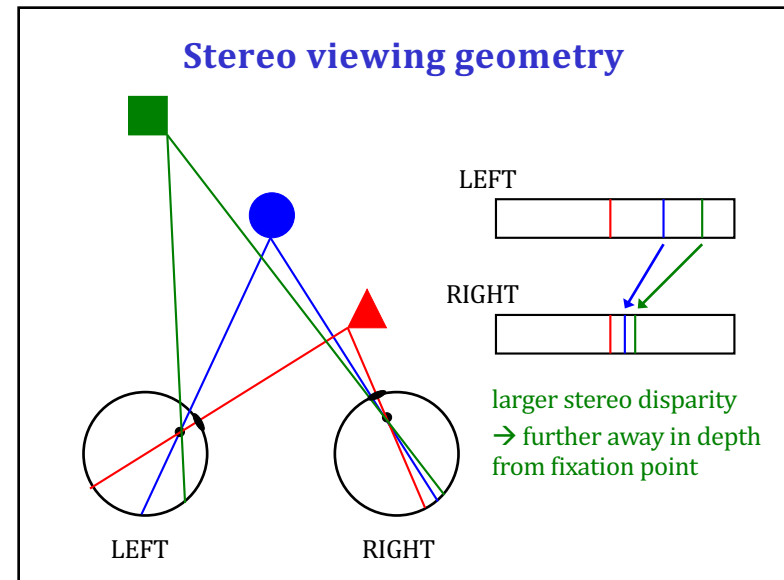
Stereo disparity



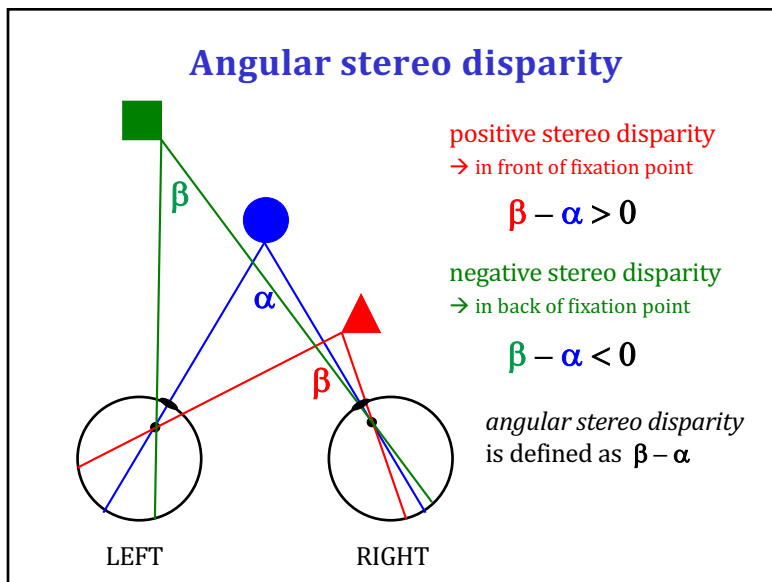
4



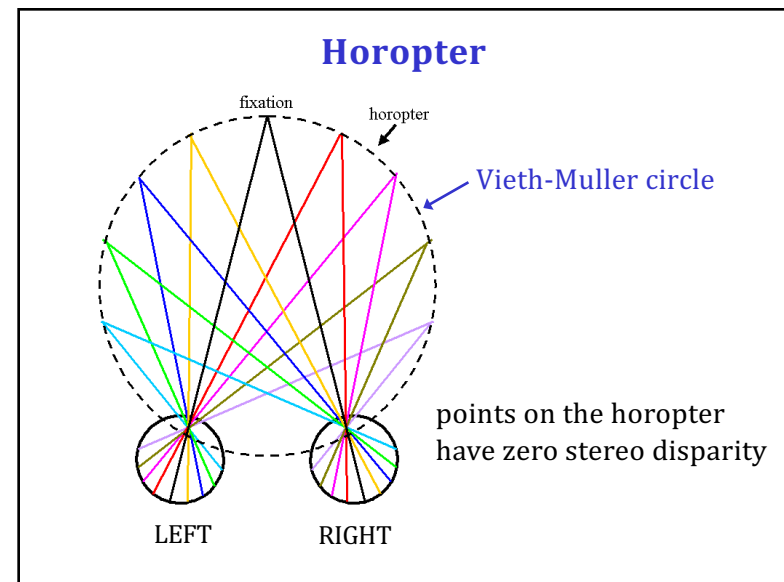
5



6



7



8

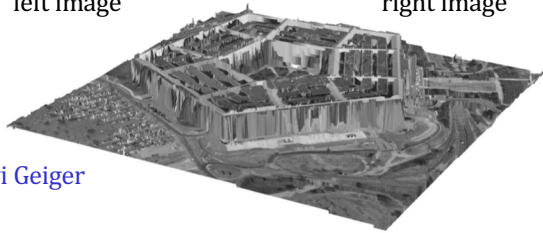
Results of stereo processing



left image



right image



Davi Geiger

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Steps of the stereo process



left

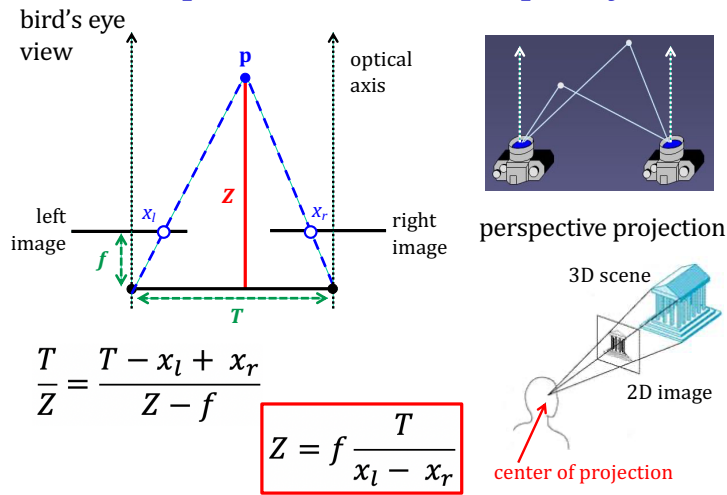


right

- extract features from the left and right images, whose stereo disparity will be measured
- match the left and right image features and measure their disparity in position
“stereo correspondence problem”
- use stereo disparity to compute depth

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Depth from stereo disparity



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Steps of the stereo process



left



right

- extract features from the left and right images, whose stereo disparity will be measured
- match the left and right image features and measure their disparity in position
“stereo correspondence problem”
- use stereo disparity to compute depth

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