

Perception Visuelle

G.-P. Bonneau

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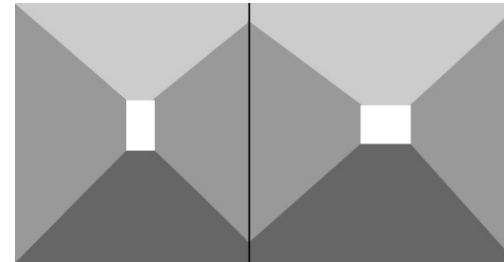
Perception: processus d'acquisition, d'interprétation, de sélection et d'organisation de l'information sensorielle

« Percevoir (visuellement) c'est identifier quelque-chose quelque-part, et ce besoin d'identification locale persiste même lorsque nous observons une configuration abstraite pour laquelle nous ne pouvons utiliser aucune expérience » [Gombrich'59]



[Patrick Hugues reverspective 'Venice', '02]

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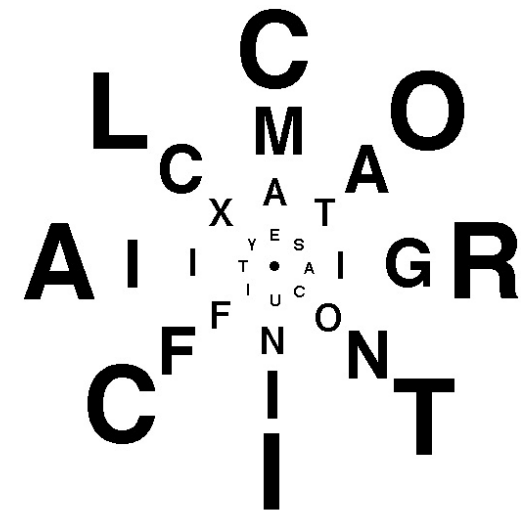
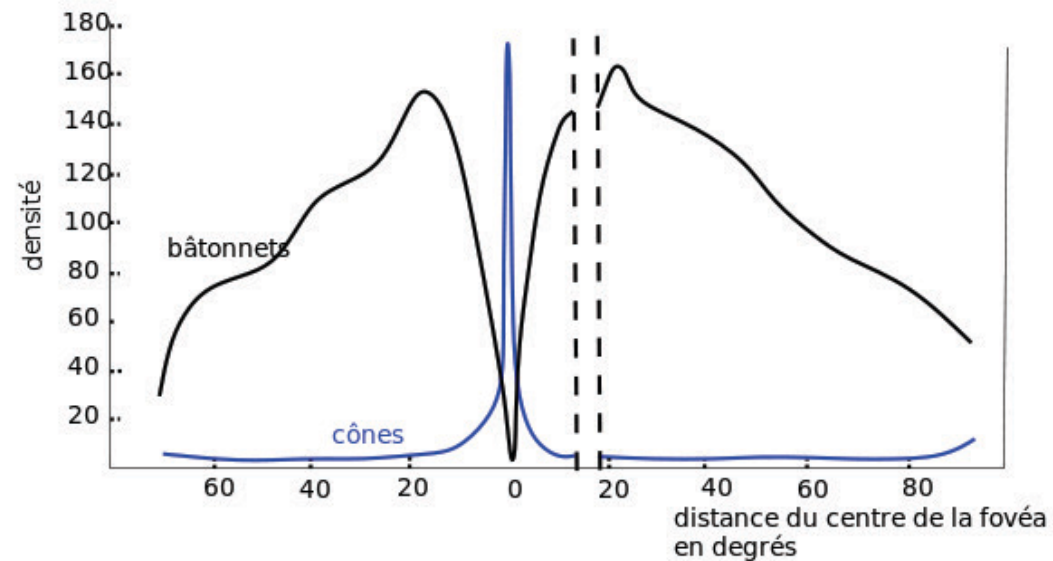


Acuité Visuelle

Fovéa vs Périphérie

Contraste : 120 millions bâtonnets

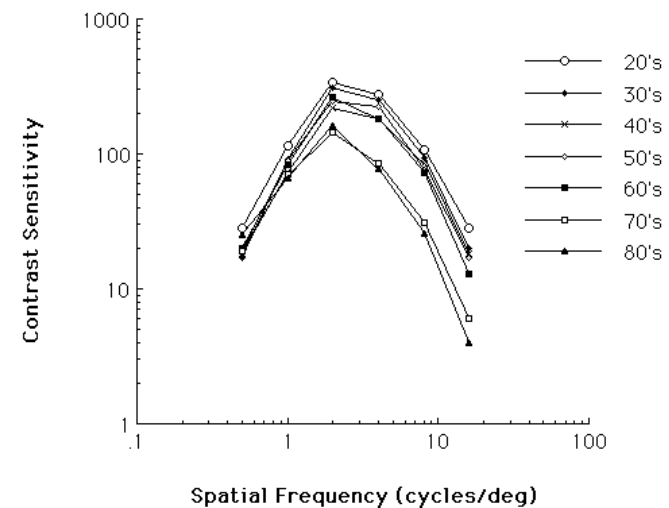
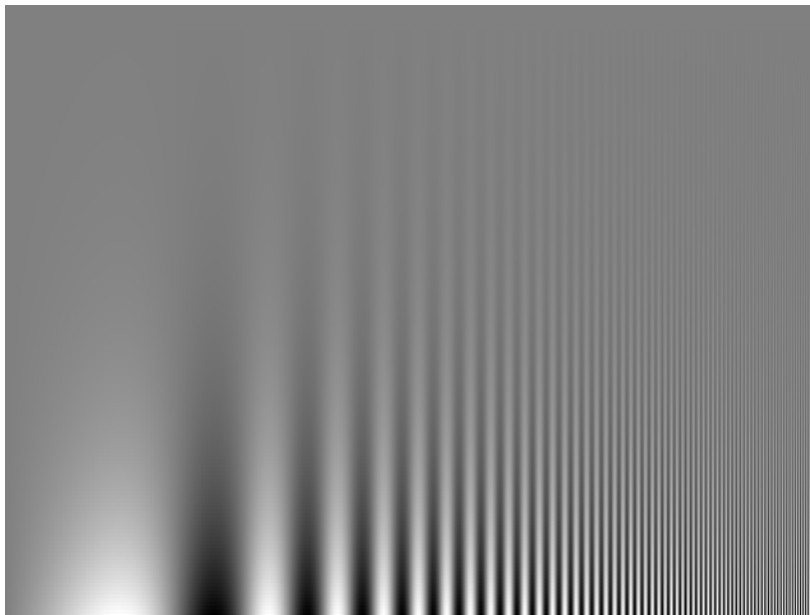
Couleurs : 5 millions cônes



[Anstis (1974)]

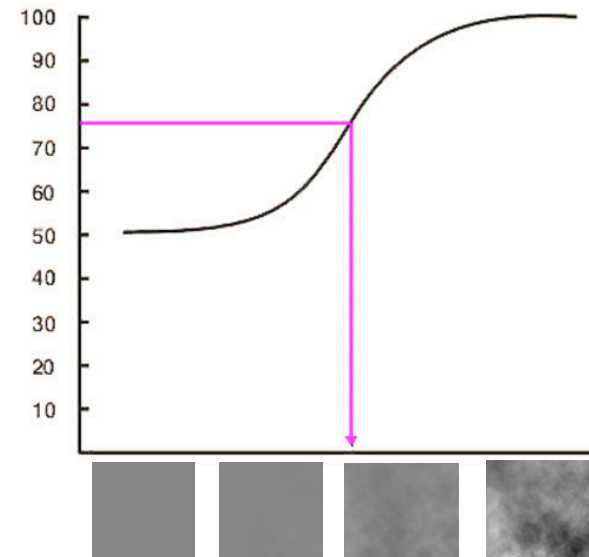
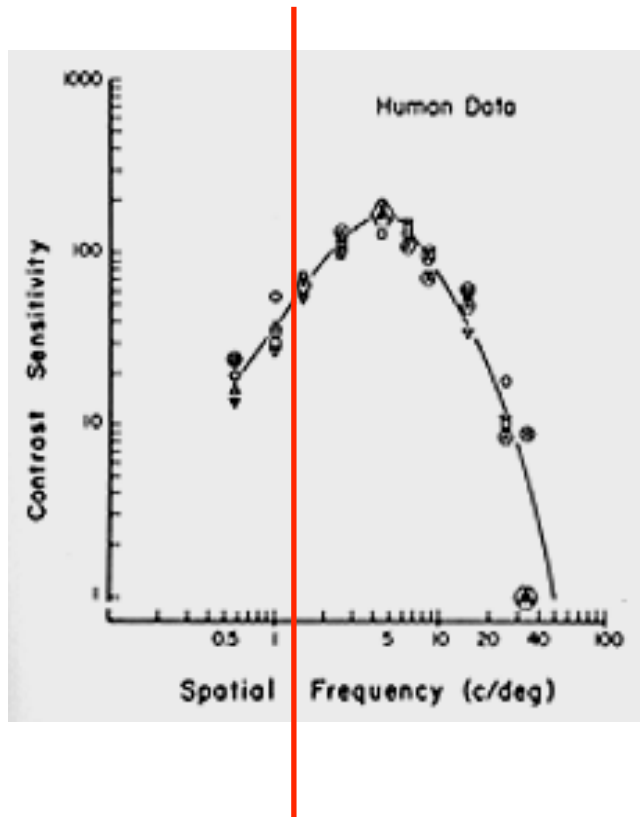
Sensibilité au contraste

- Courbe de sensibilité au contraste
 - Fréquence en cycles par degrés
 - Propre à chaque observateur

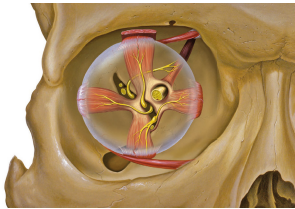


Mesure de la sensibilité au contraste

- Questionnaire à choix forcé



Saccades Oculaires



I. E. Repin, *Un visiteur inattendu* (1884)



Free viewing



Ages ?



Previous activity ?



Remember clothes



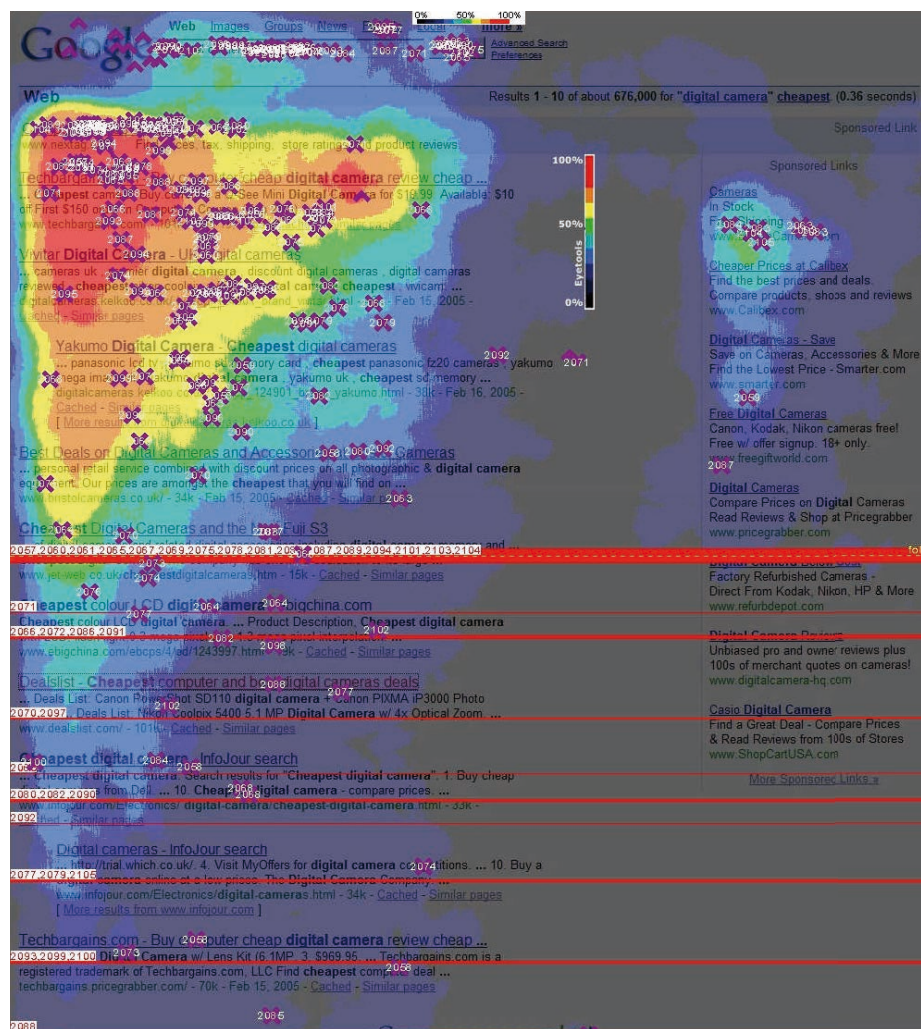
Remember objects



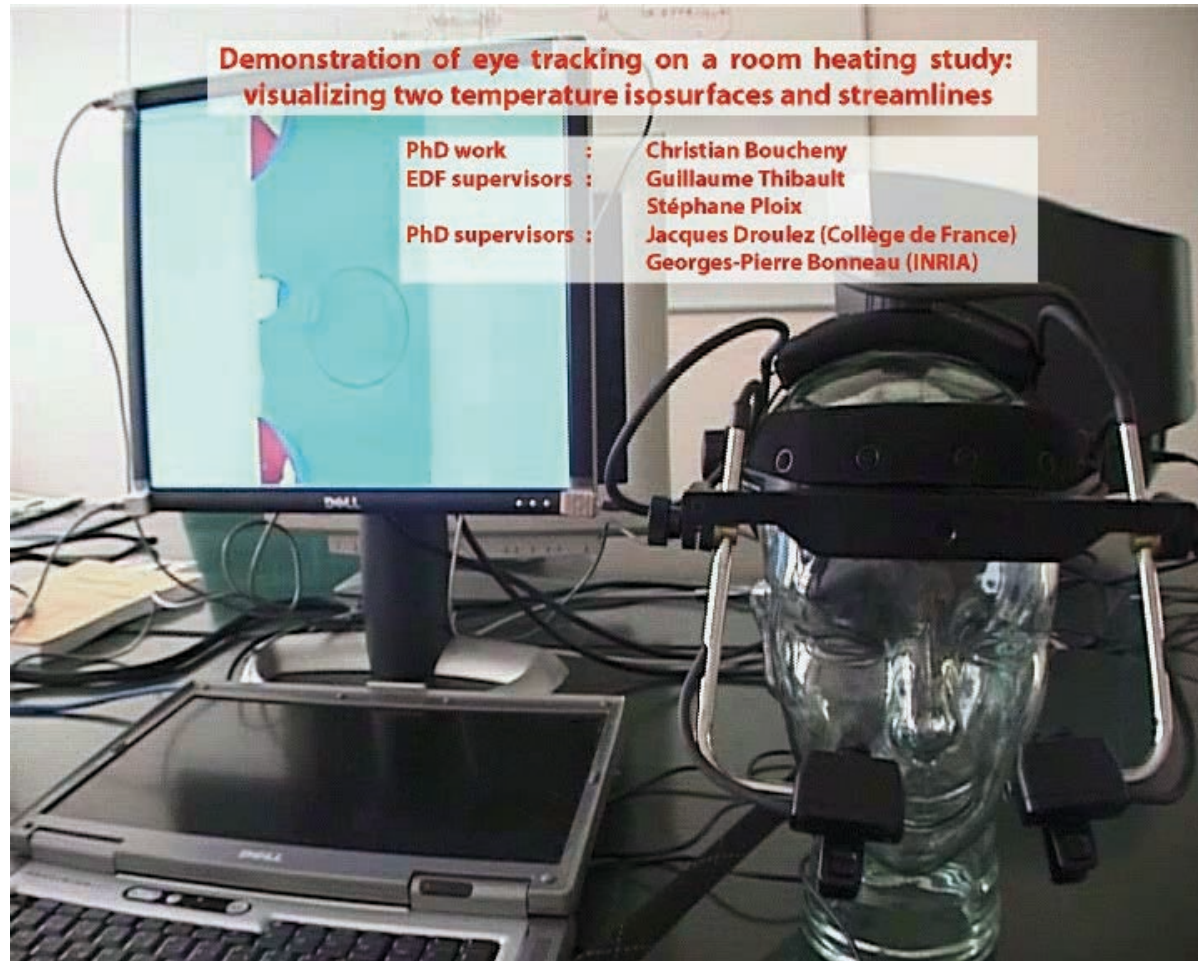
Away for how long?

Yarbus, *Eye movement and Vision*, 1967, fig. 109

Le Triangle d'Or



Eyetracking



Attention Visuelle

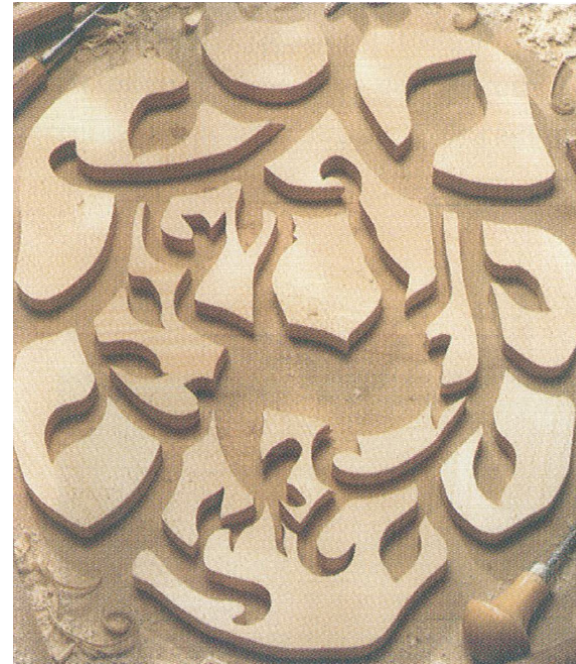
- Invisibilité du changement



A priori



<http://michaelbach.de/>



Basic Vision, pp. 226

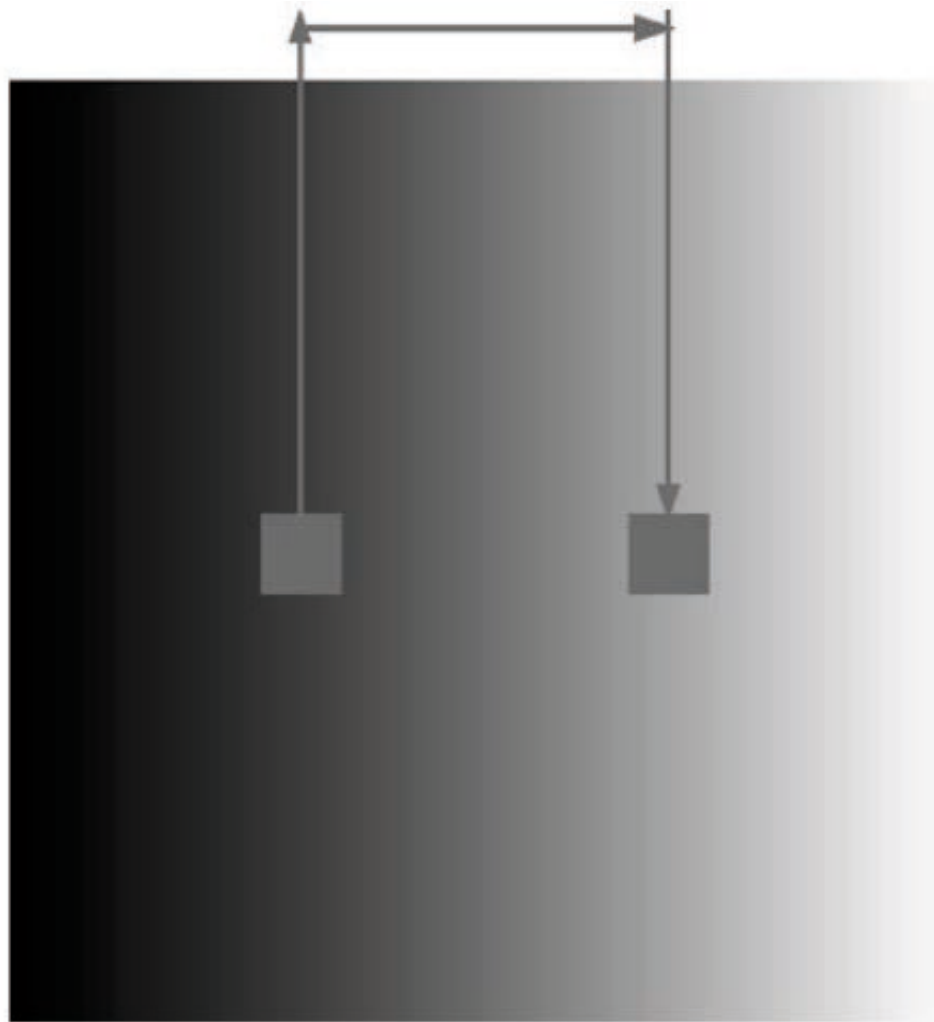
Perception de la luminance



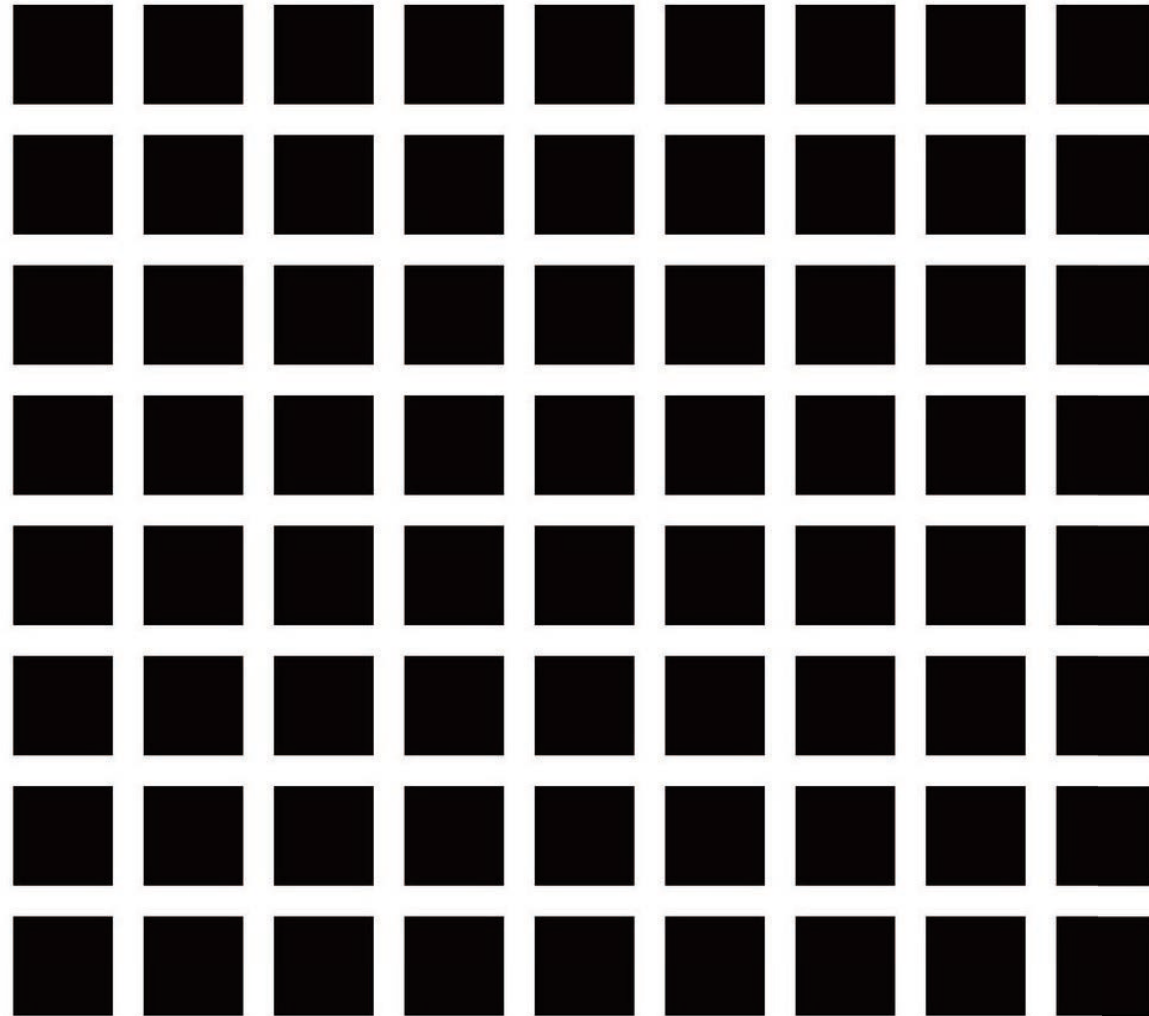
Perception de la luminance



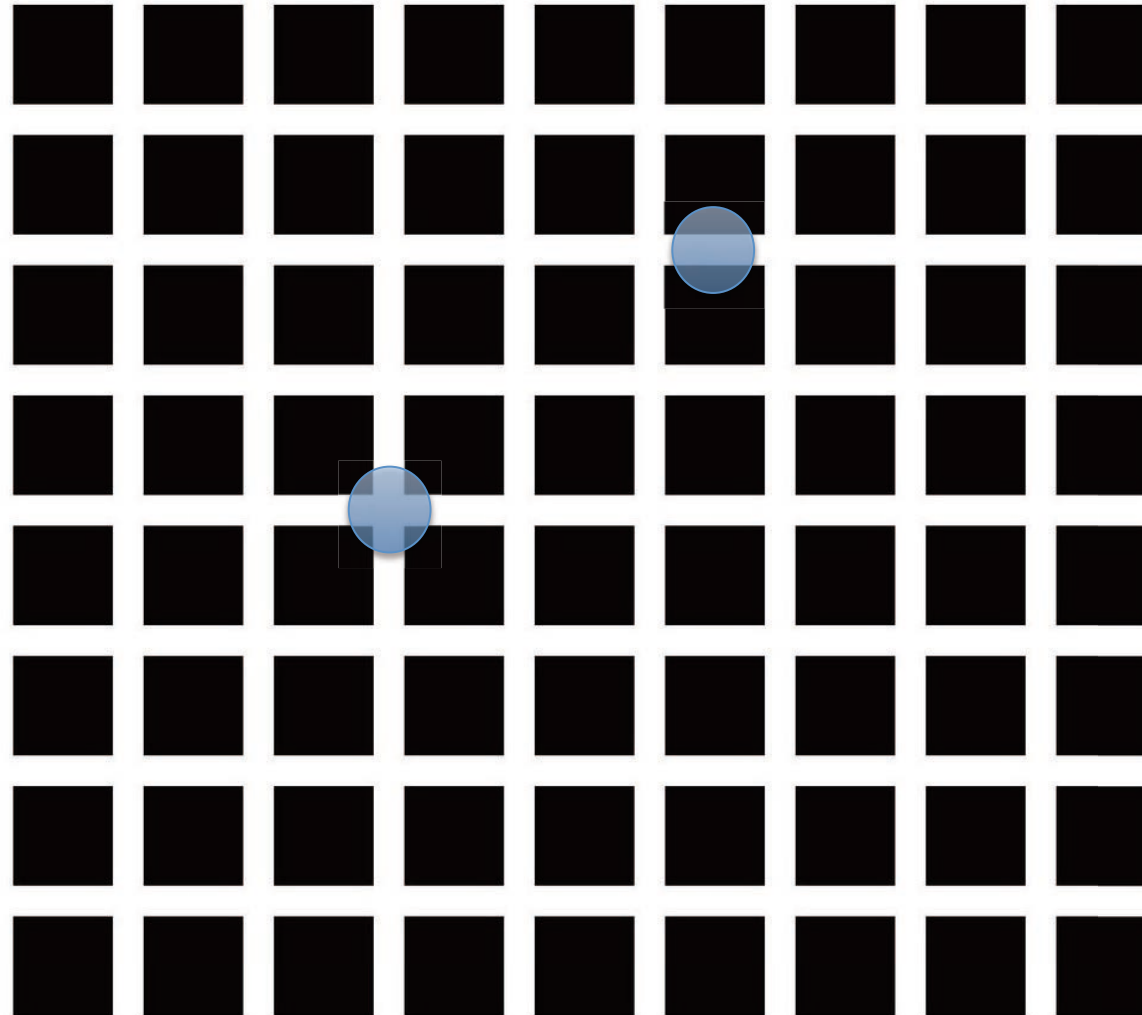
Perception de la luminance



Perception de la luminance

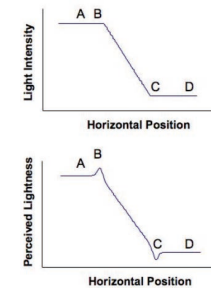


Perception de la luminance



Perception de la luminance

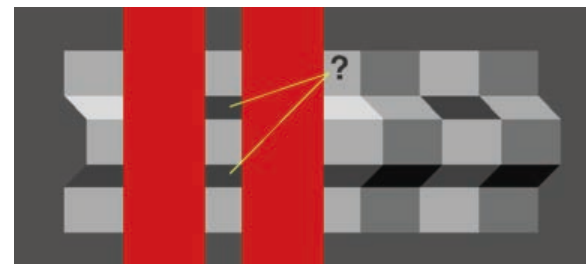
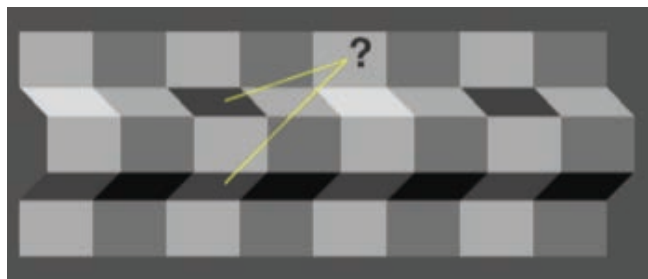
- Bandes de Mach



- Illusion de Cornsweet

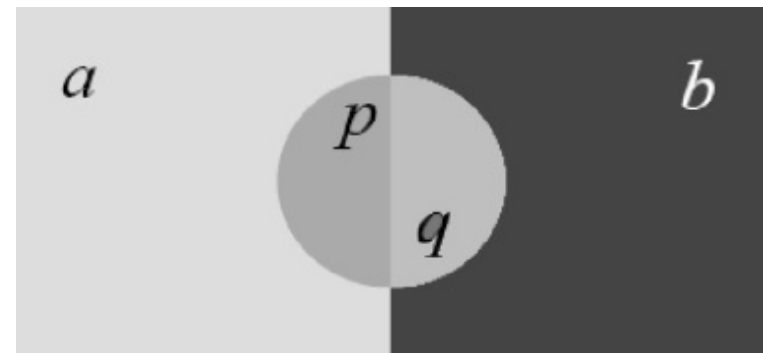
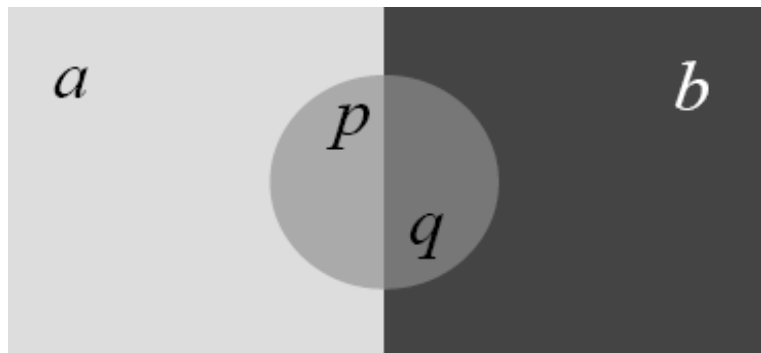


- Couverture ondulée de Adelson



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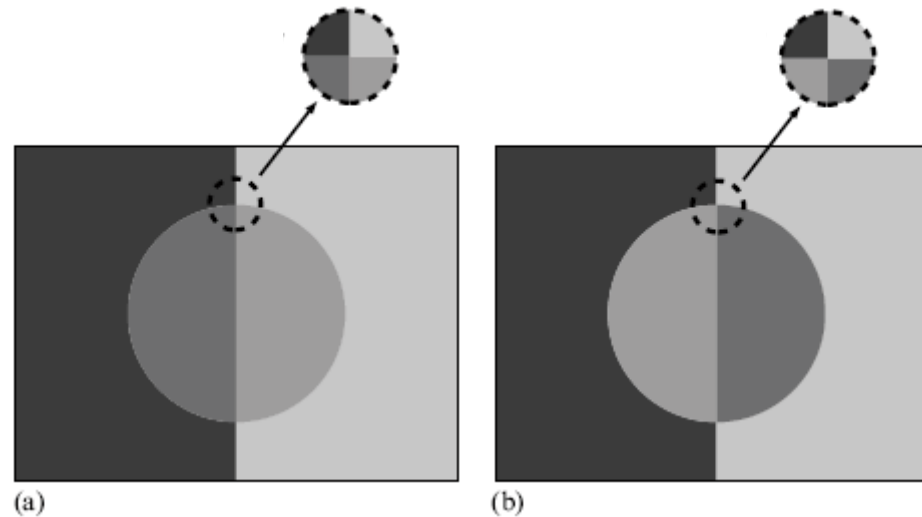
Perception de la Transparence



$$p = \alpha a + (1 - \alpha) t$$

$$q = \alpha b + (1 - \alpha) t$$

Perception de la Transparence



Transparent

Mosaïque

Opaque

