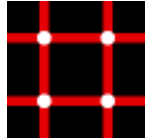
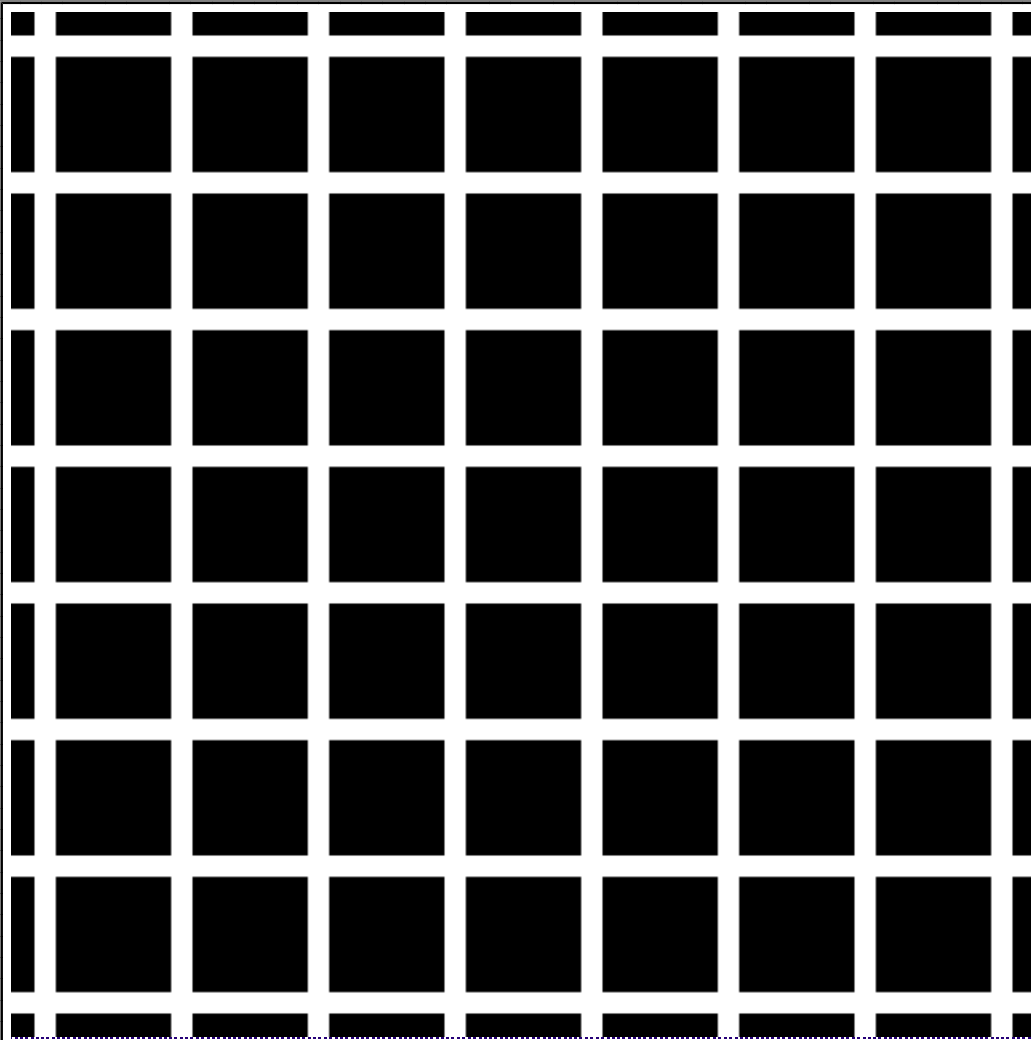


next→  
←prev

## Hermann-Grid and Scintillating Grid



From Michael's "Optical Illusions & Visual Phenomena"



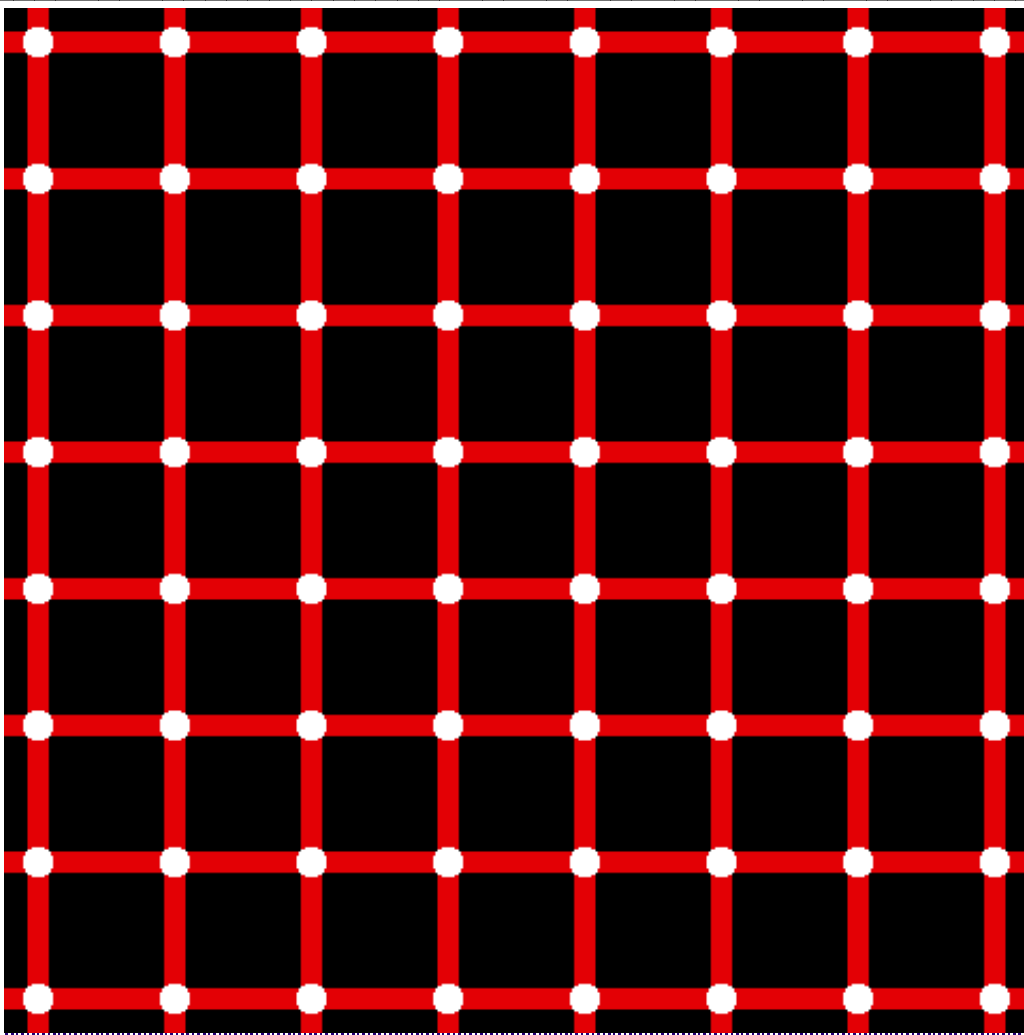
The standard Hermann-grid illusion. Dark patches appear in the street crossing, except the ones which you are directly looking at. (Hartline et al. 1956, Baumgartner 1960)

A much stronger illusion appears when you move the mouse pointer over the figure, the "Scintillating Grid". The Scintillation effect is probably caused by very different mechanisms than Hermann-Grid effect.

- 1993: First demonstrated by JR Bergen at the ARVO (in a weaker variant)
- 1994: Re-discovered by Bernd Lingelbach's wife Elke
- 1995: Demonstrated at the Tübingen ECVP meeting (Schrauf M, Lingelbach B, Lingelbach E & Wist ER. The Hermann

grid and the scintillation effect. Perception 24: suppl, 88-89)

- 1997: Schrauf M, Lingelbach B & Wist E. The scintillating grid illusion. Vision Res 37:1033-1038
- 2001: Invoked to explain Florida's election problems ("Count the black dots, recount to confirm..." ;-)



Question: Do the streets or the squares influence the colour of the apparent disks?

As you notice in the neighbouring figure, red streets leave the disks black. But if the squares are red (move mouse over figure), the disks acquire a reddish tint...

### *Sources*

Hartline HK, Wagner HG, Ratliff F (1956) Inhibition in the Eye of Limulus. J Gen Physiol 39:651-673

Baumgartner G (1960) Indirekte Größenbestimmung der rezeptiven Felder der Retina beim Menschen mittels der Hermannschen Gittertäuschung. Pflügers Arch ges Physiol 272:21–22

Schrauf M, Lingelbach B, Lingelbach E & Wist ER (1995) The Hermann grid and the scintillation effect. Perception 24: suppl, 88–89

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[VanRullen R, Dong T \(2003\) Attention and scintillation. Vision Res 43:2191–2196](#)

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[next→](#)

[←prev](#)

[Top](#)

[Back](#)

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