



Techniques d'Analyse par Microscopie

Cours proposé par
Edmundo NAVA SAUCEDO
aux étudiants de L1-S2



Observer
ça s'apprend

Leonard de Vinci, la Joconde



Musée du Louvre, Paris

Leonard de Vinci, la Joconde



Musée du Louvre, Paris

Illusion ?

illusion n. f. **1.** Perception erronée due à une apparence trompeuse.

2. Interprétation erronée d'une sensation réellement perçue.

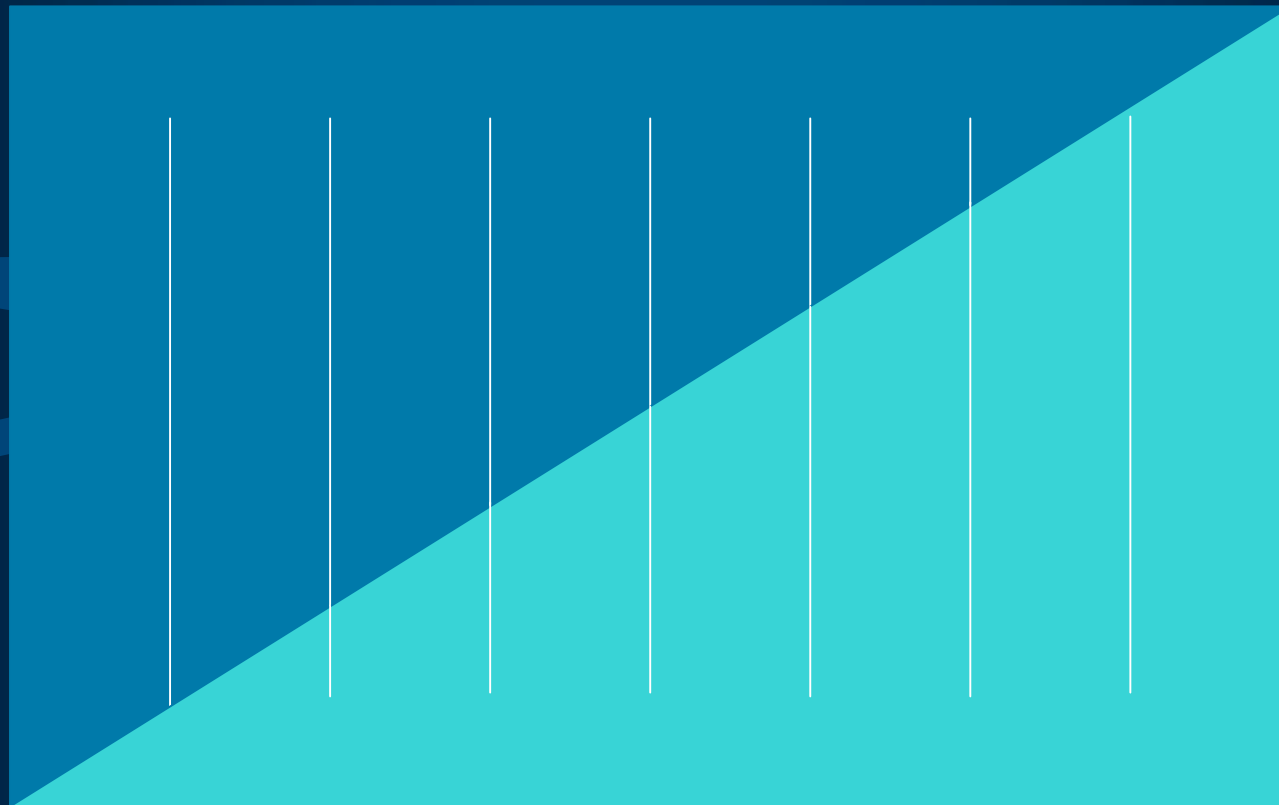
3. Apparence trompeuse dénuée de réalité.

4. Jugement erroné, croyance fausse, mais séduisants pour l'esprit.

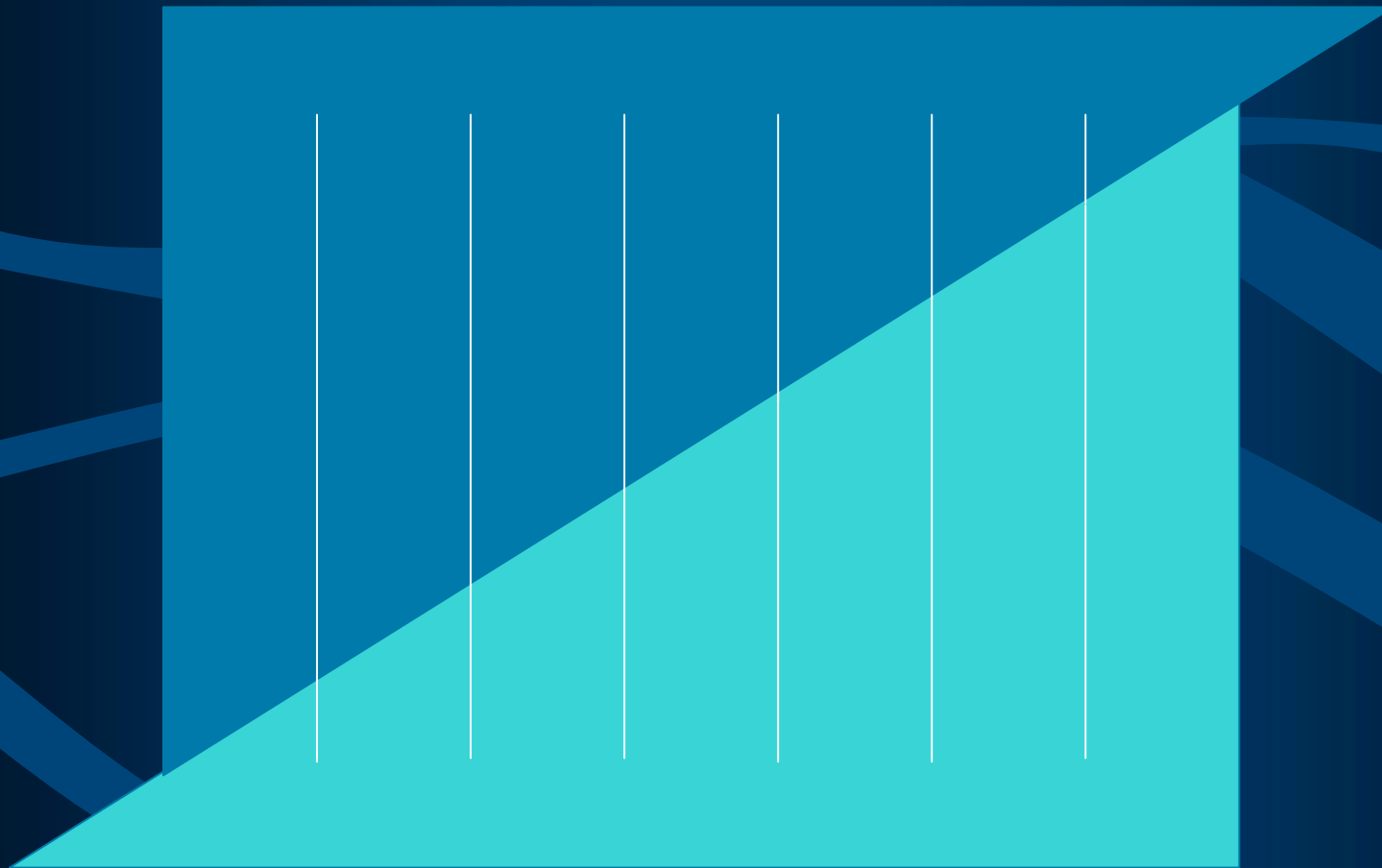
Lecture

Selon une étude de l'Université de Cambridge, l'ordre des lettres dans un mot n'a pas d'importance, la seule chose importante est que la première et la dernière soit à la bonne place. Le reste peut être dans un désordre total et vous pouvez toujours lire sans problème. C'est parce que le cerveau humain ne lit pas chaque lettre elle-même, mais le mot comme un tout. CFQD

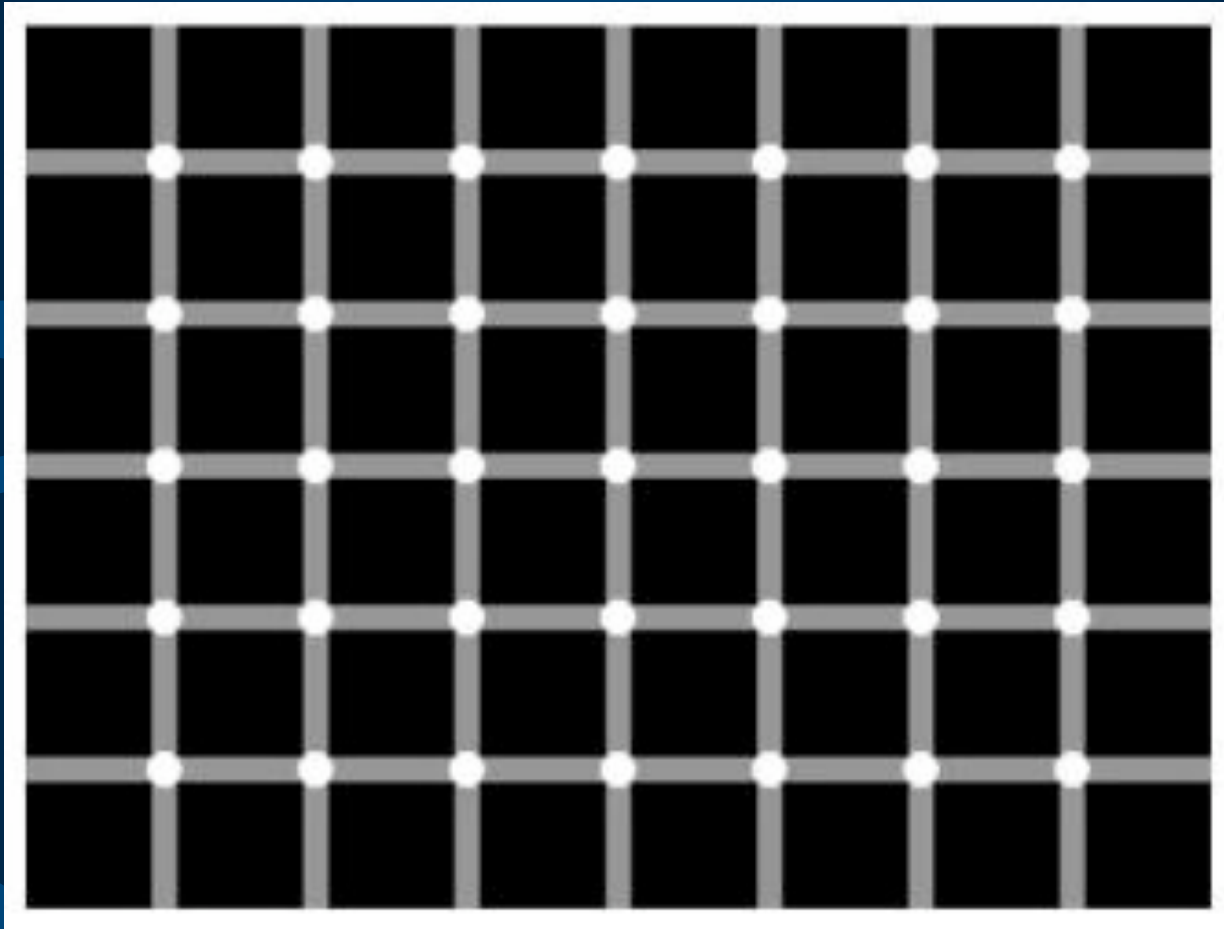
Lignes



Lignes



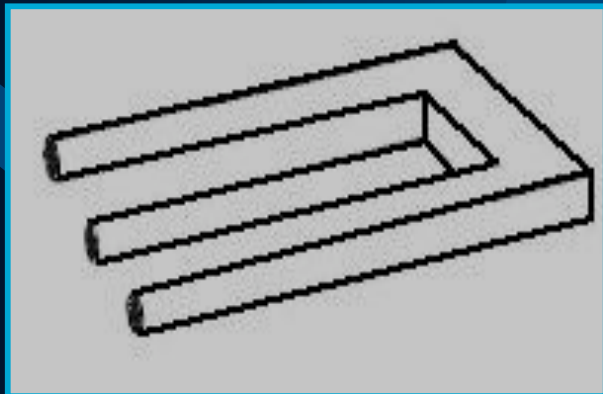
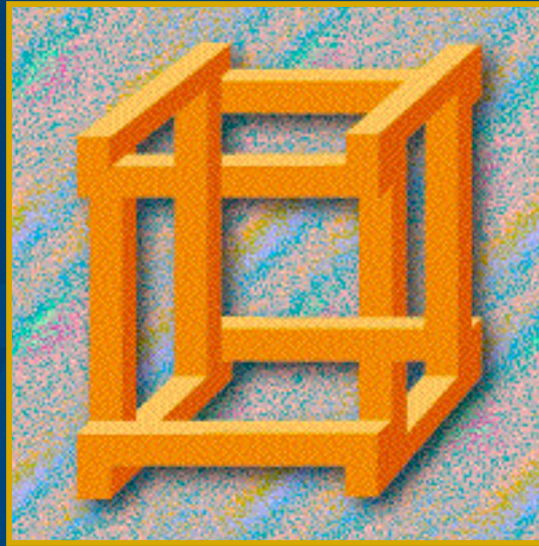
Points



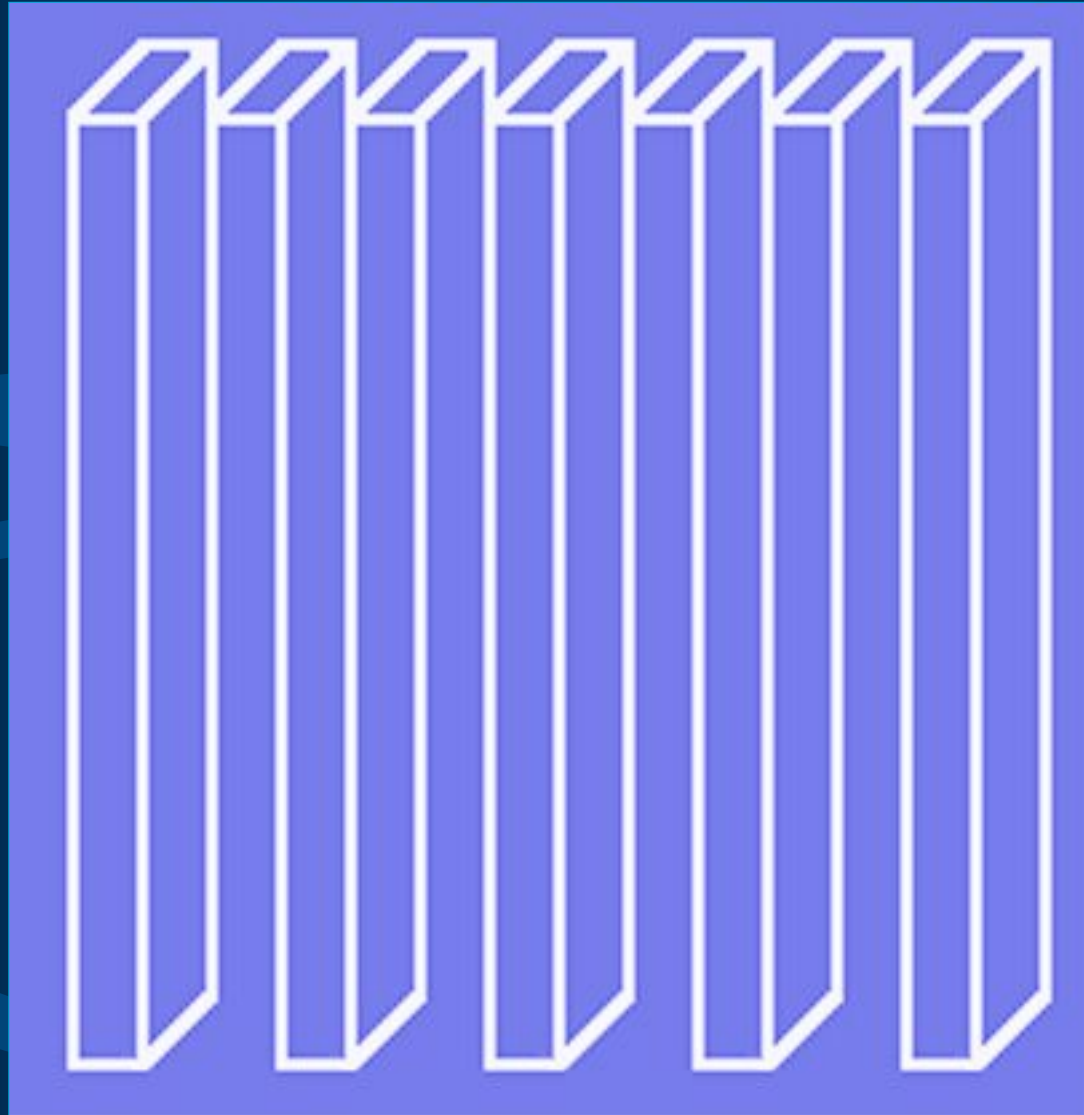
The background is a dark blue gradient with several lighter blue, wavy, horizontal lines. A small, bright cyan rectangle is positioned on the right edge, slightly above the center.

La perspective

Bizarre, bizarre !



7 ou 5 ?



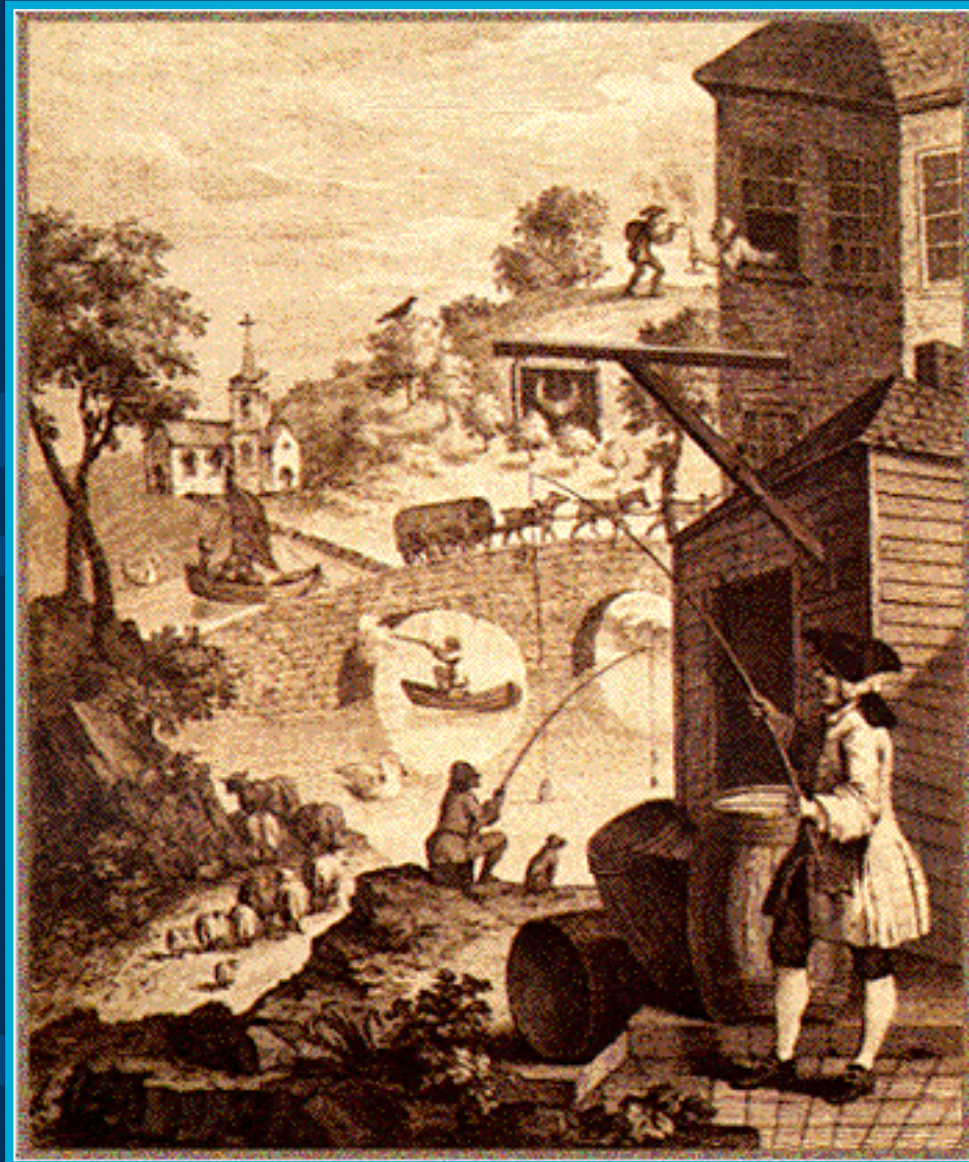
Victor Vasarely

Op'art



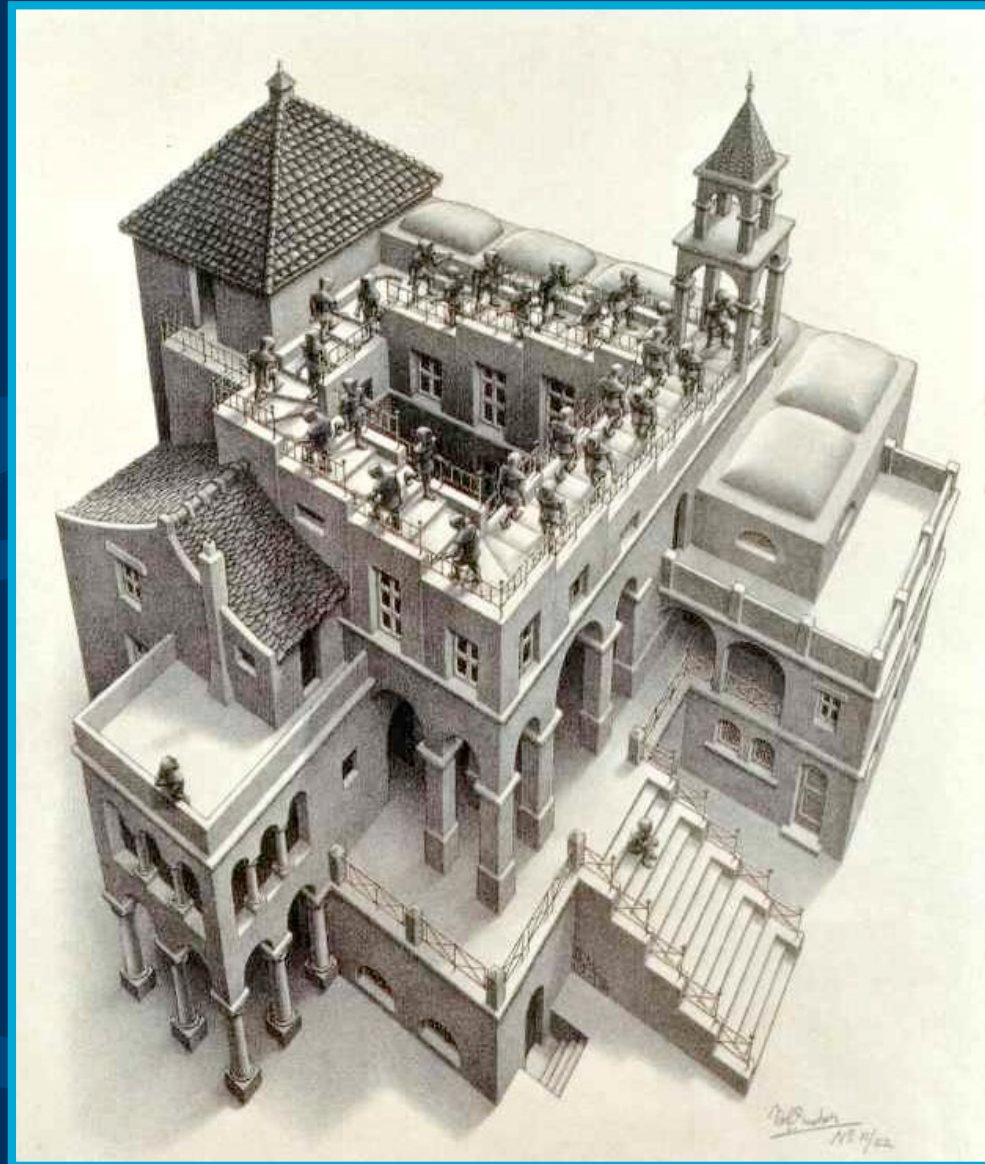
Hogarth

Mondes Impossibles



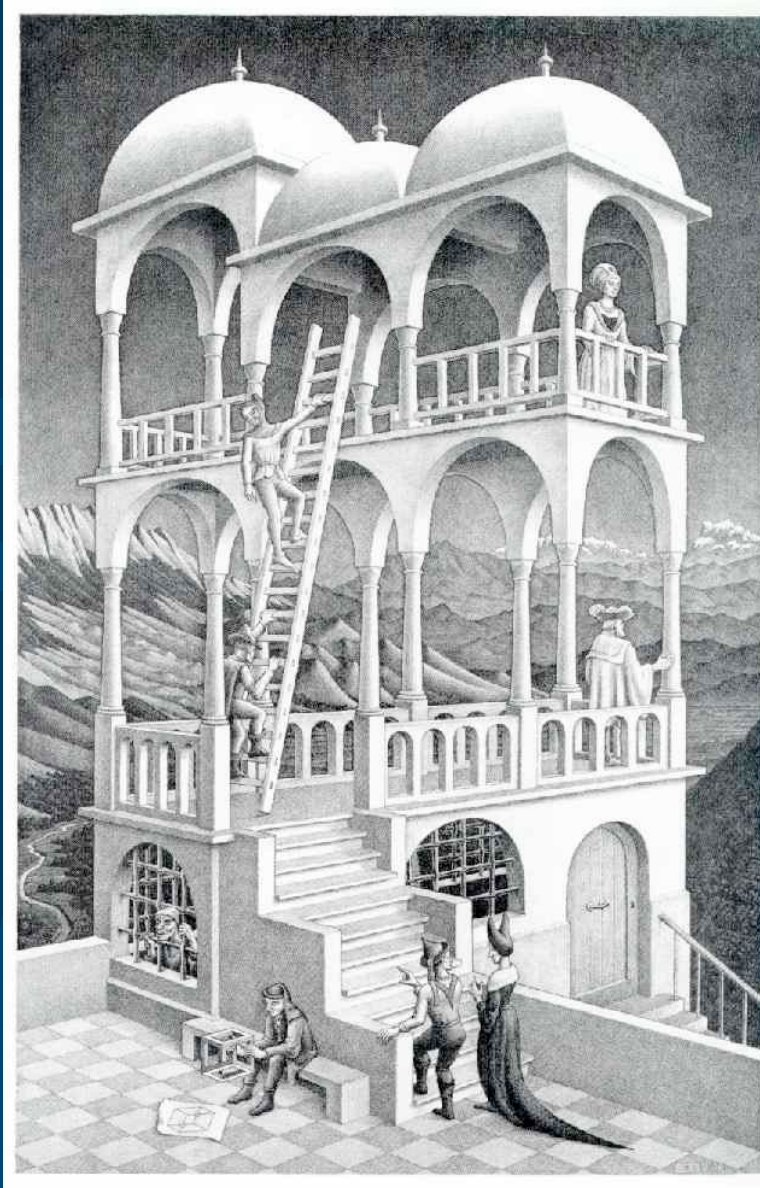
Escher

Mondes Impossibles



Escher

Mondes Impossibles



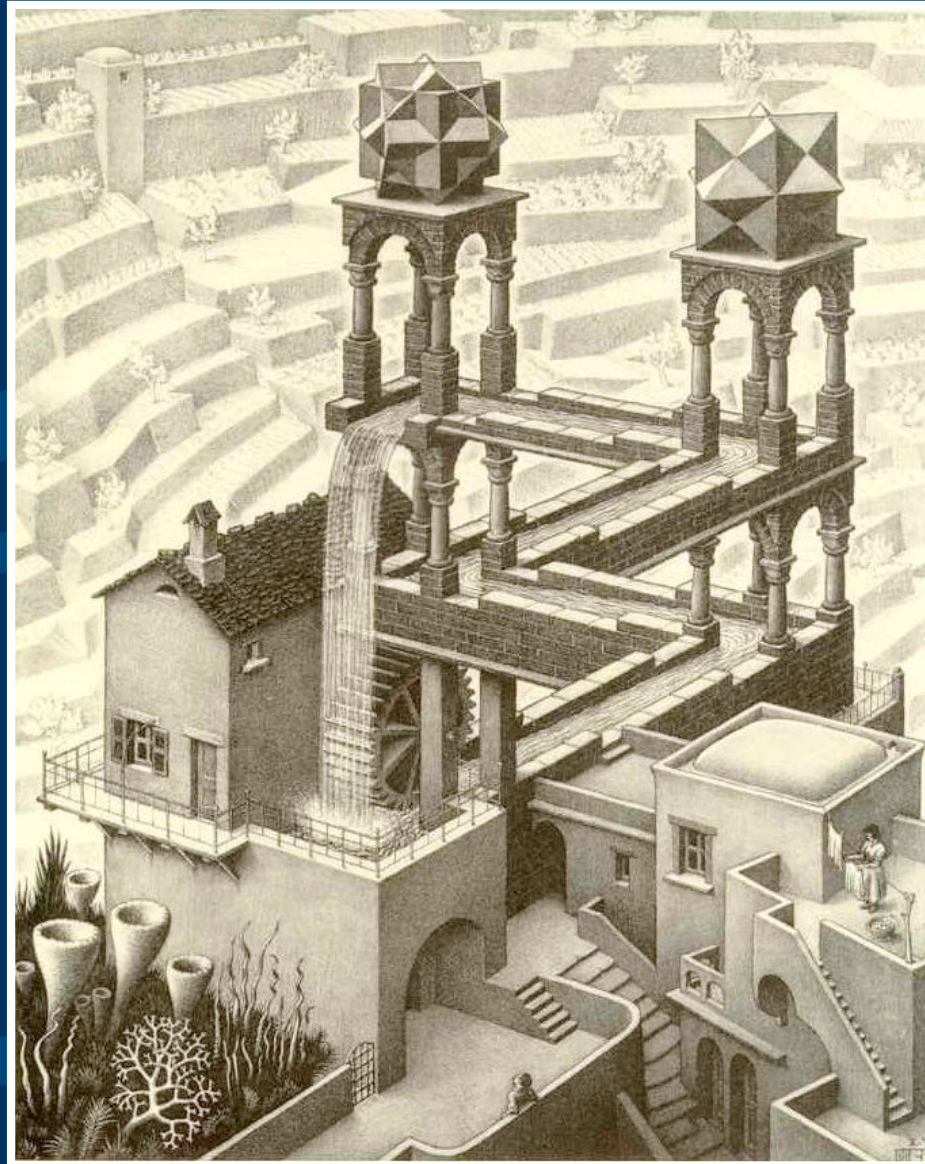
Escher

Mondes Impossibles



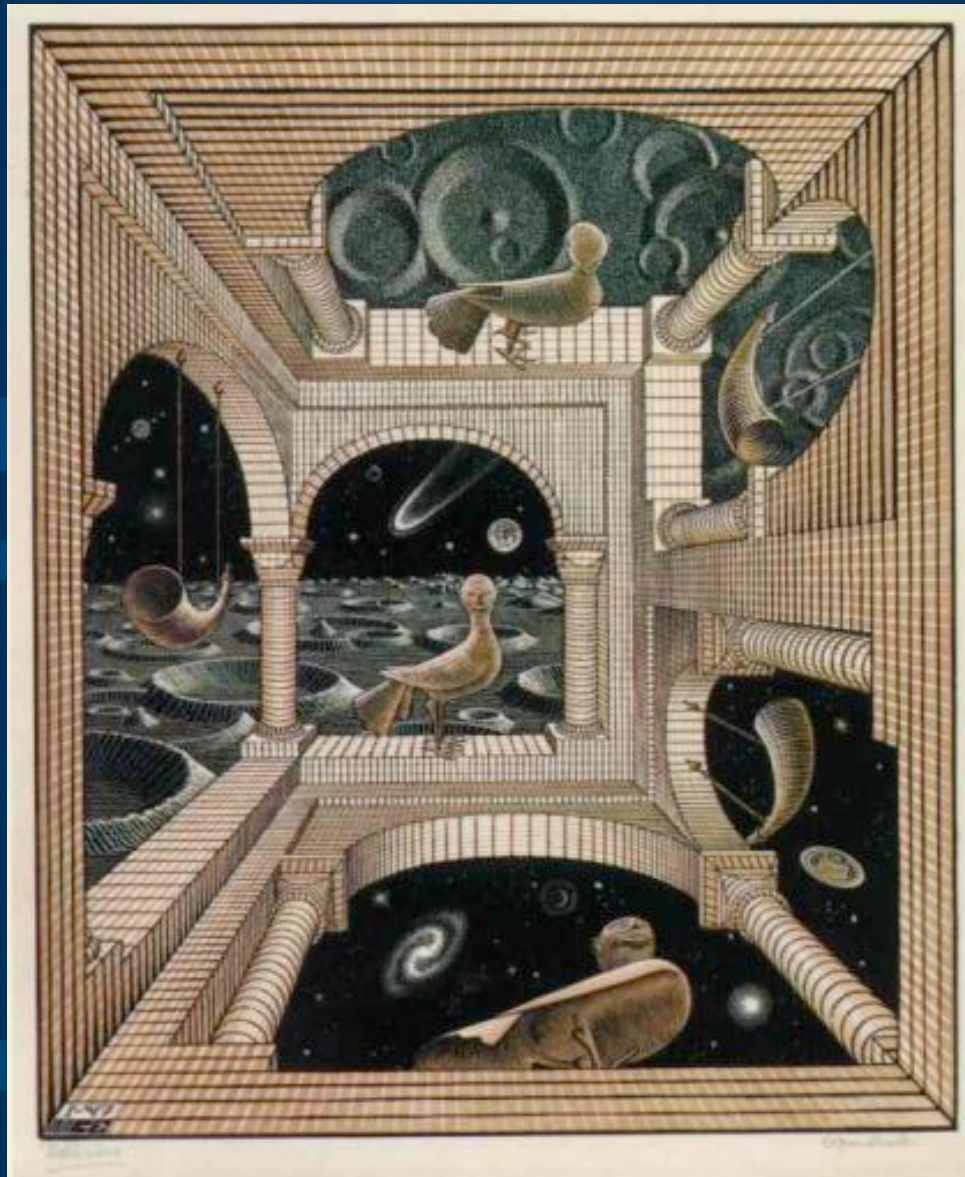
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Mondes Impossibles



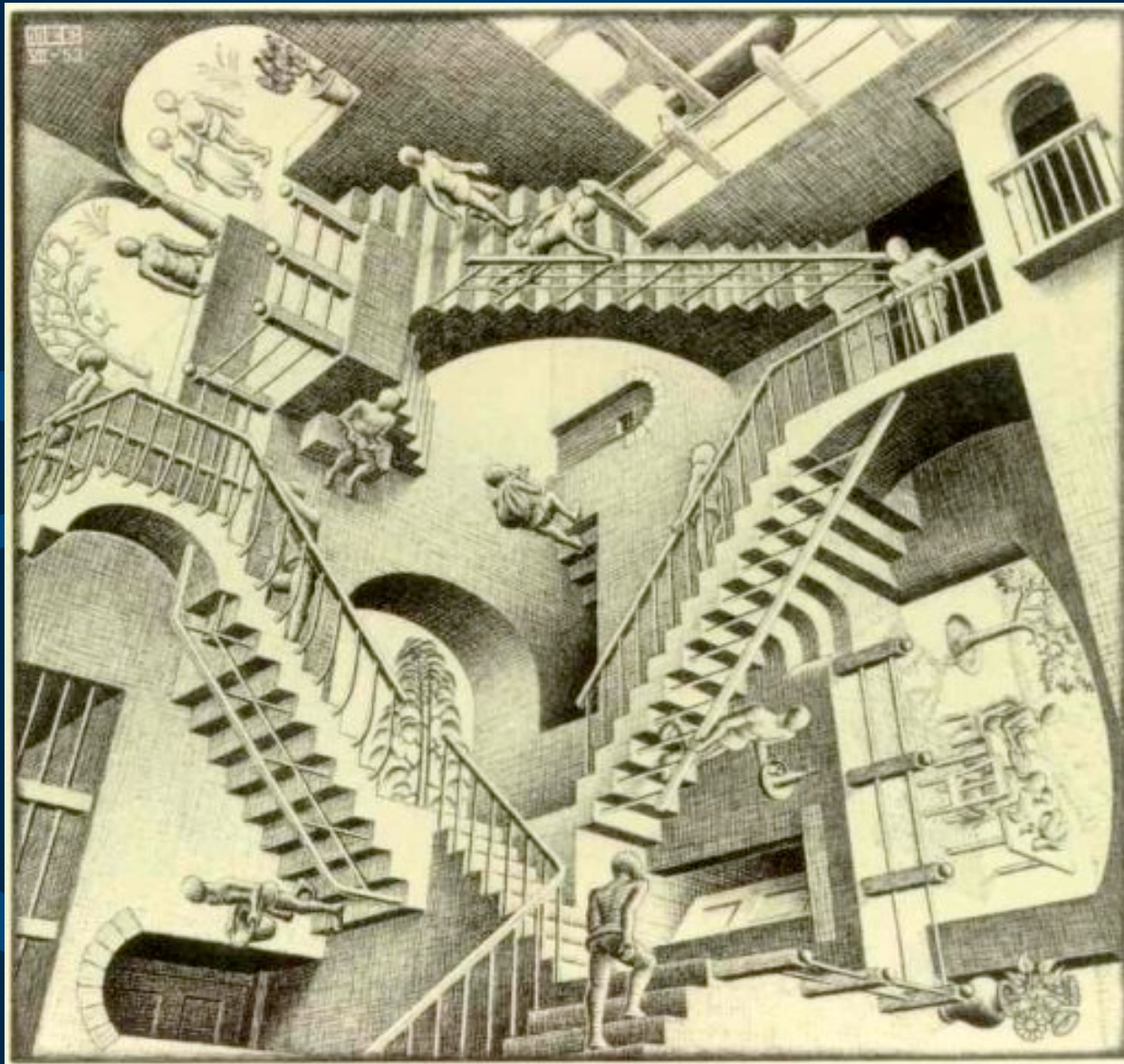
Escher

Mondes Impossibles



Escher

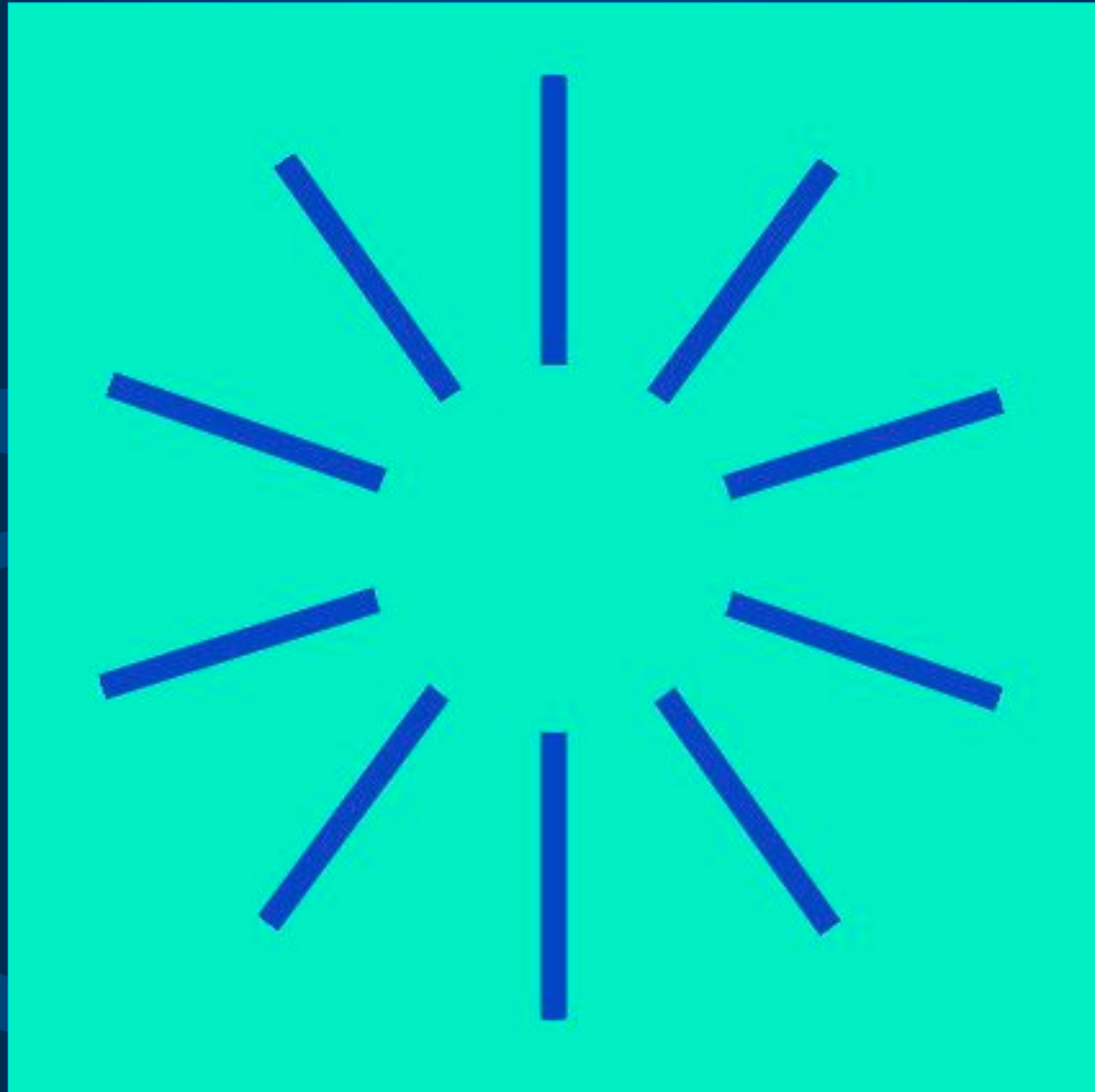
Mondes Impossibles



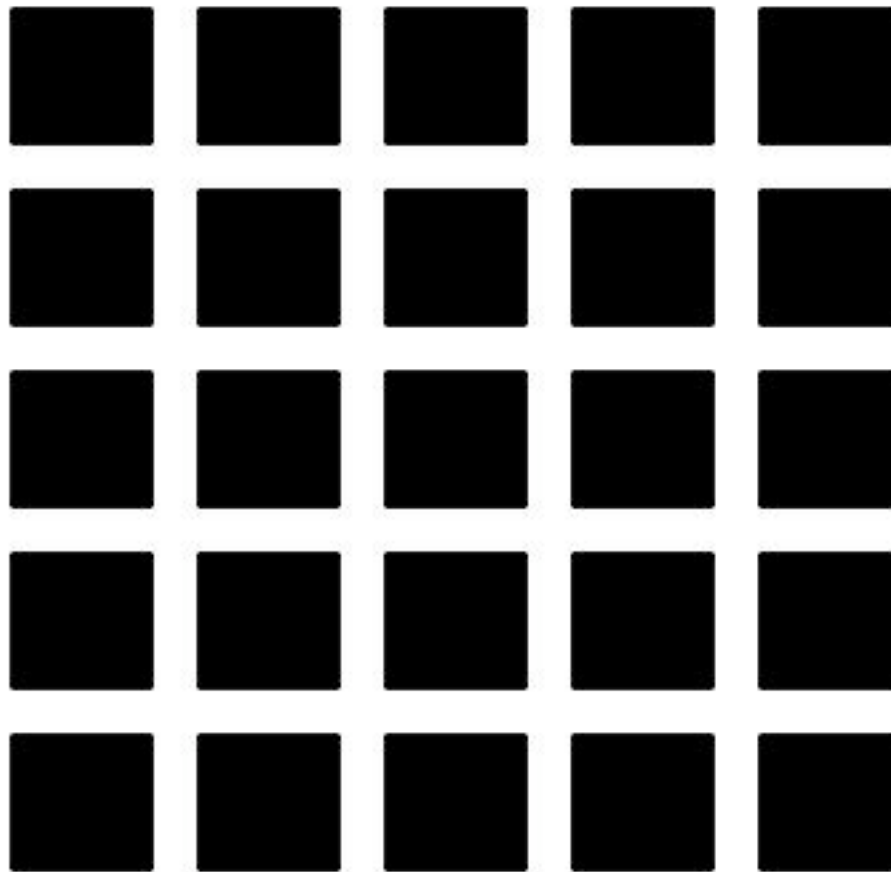
The background is a dark blue gradient with several lighter blue, wavy, ribbon-like shapes flowing across it. On the right side, there is a small, horizontal, metallic-looking ring or band.

Voir ce qui n'existe pas

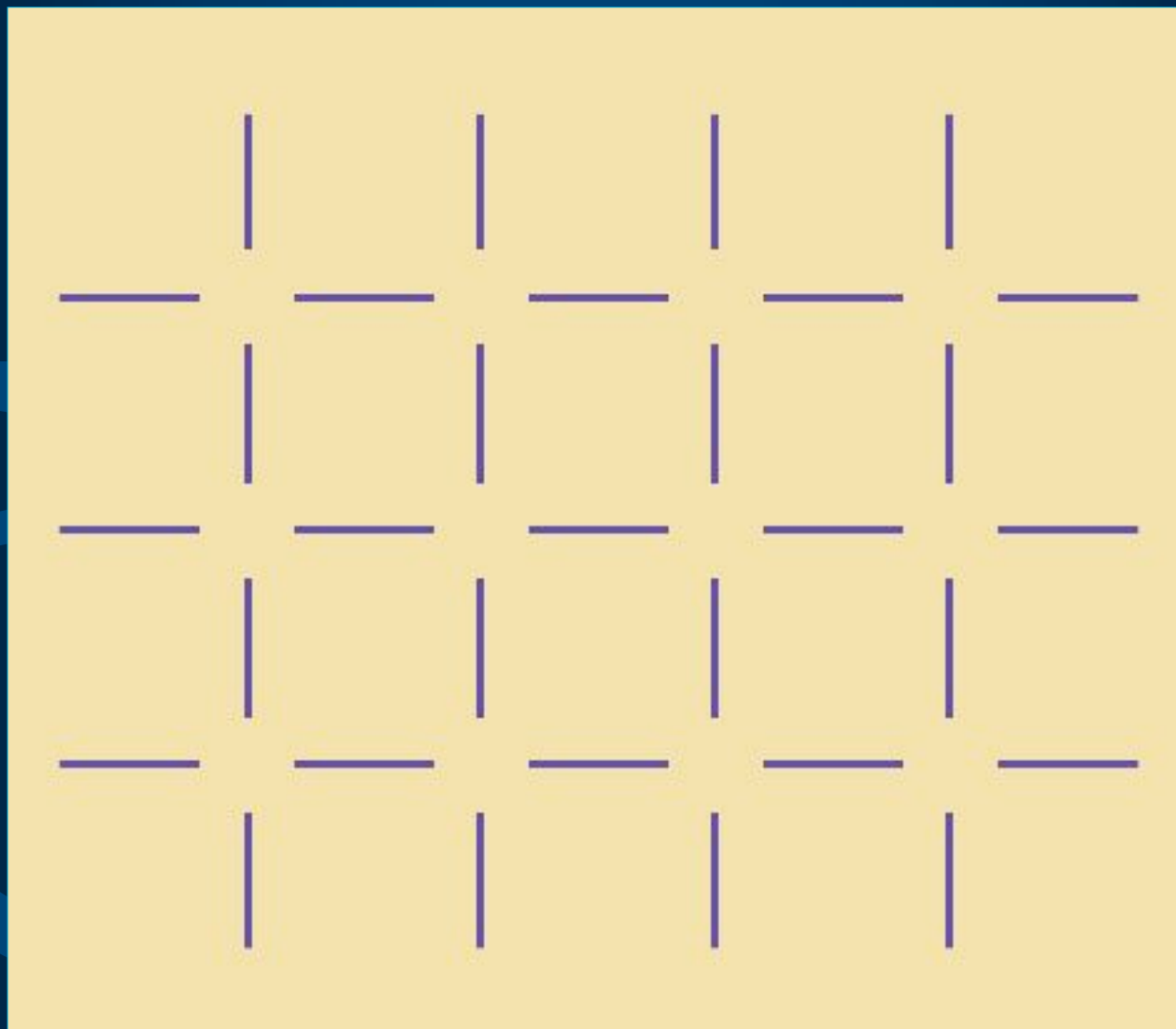
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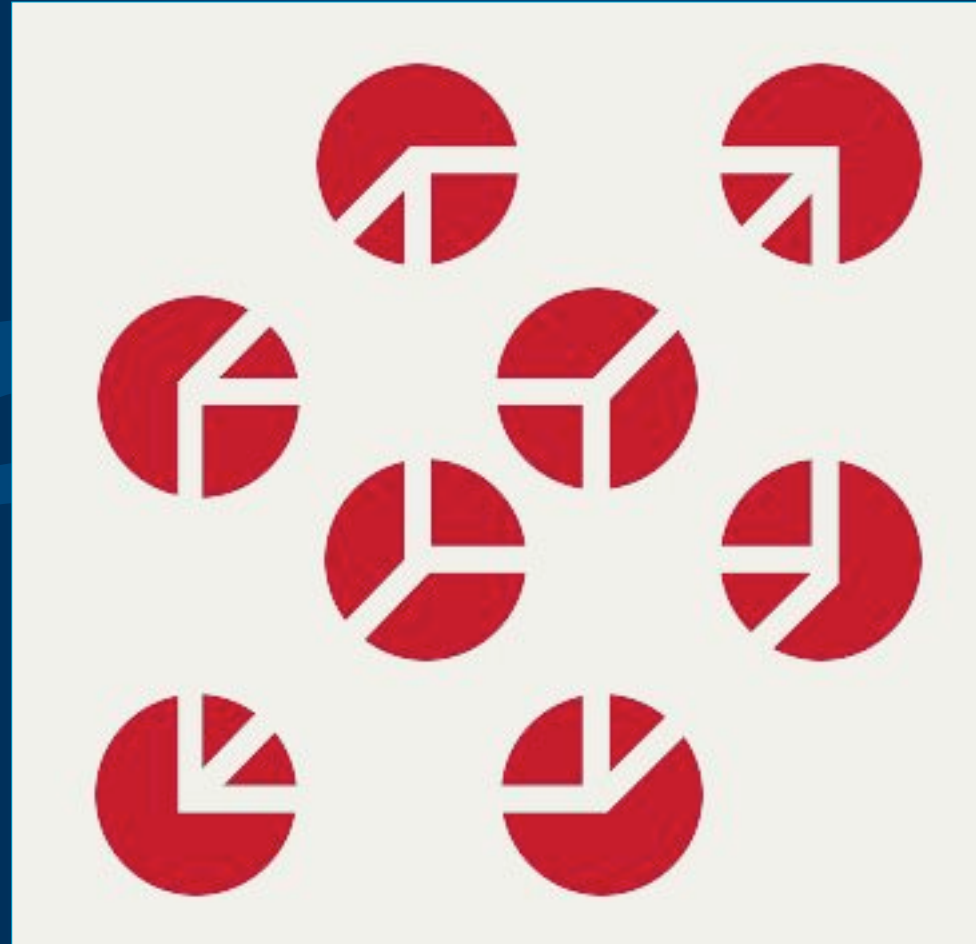
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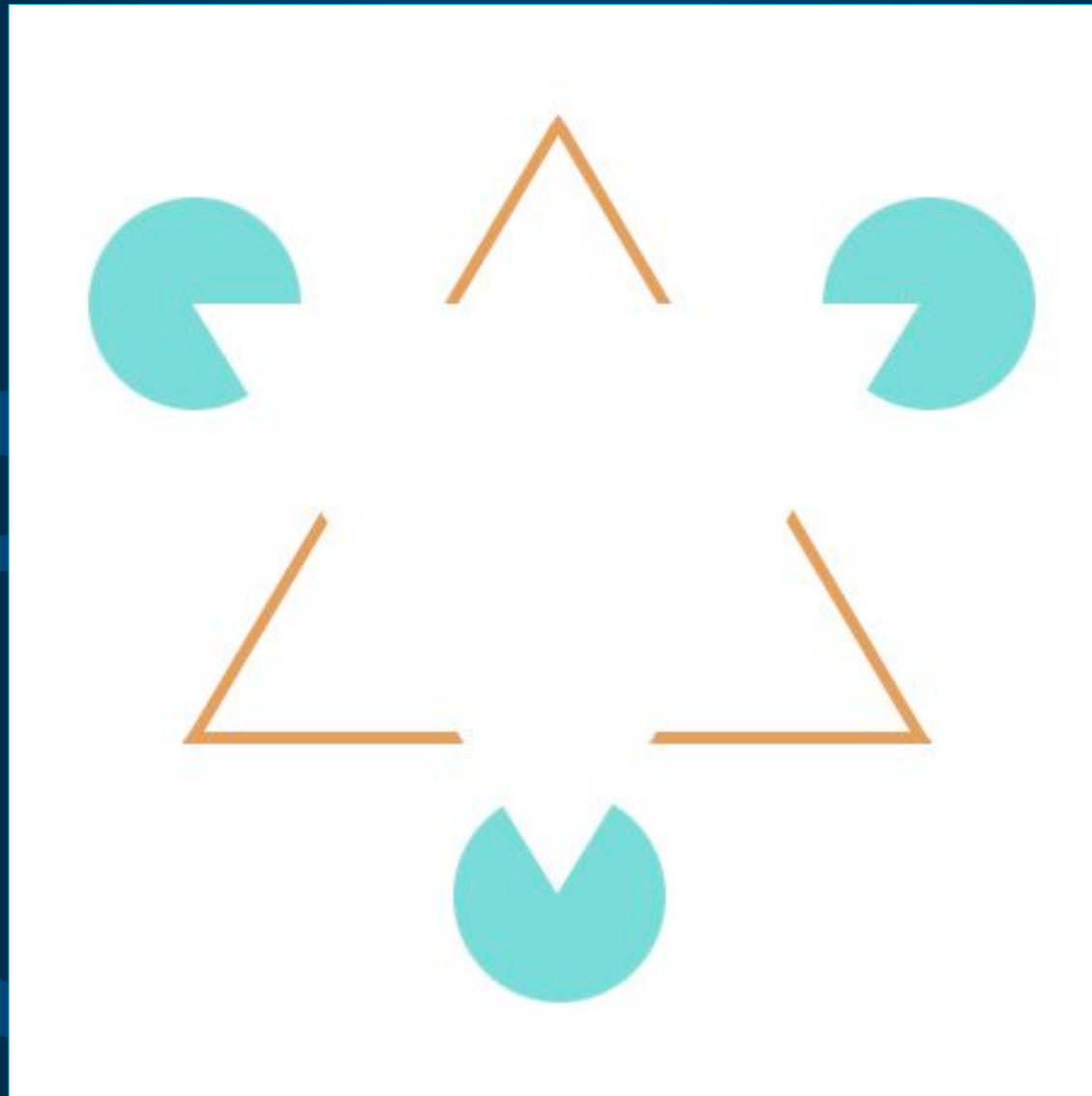
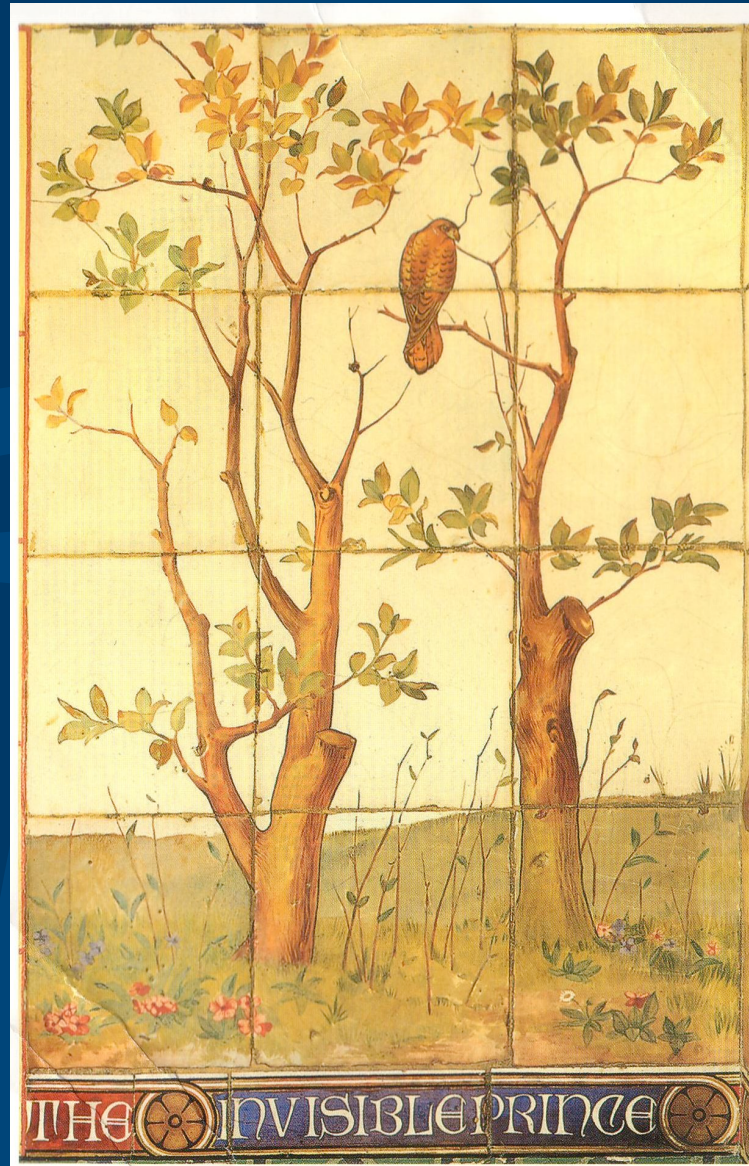
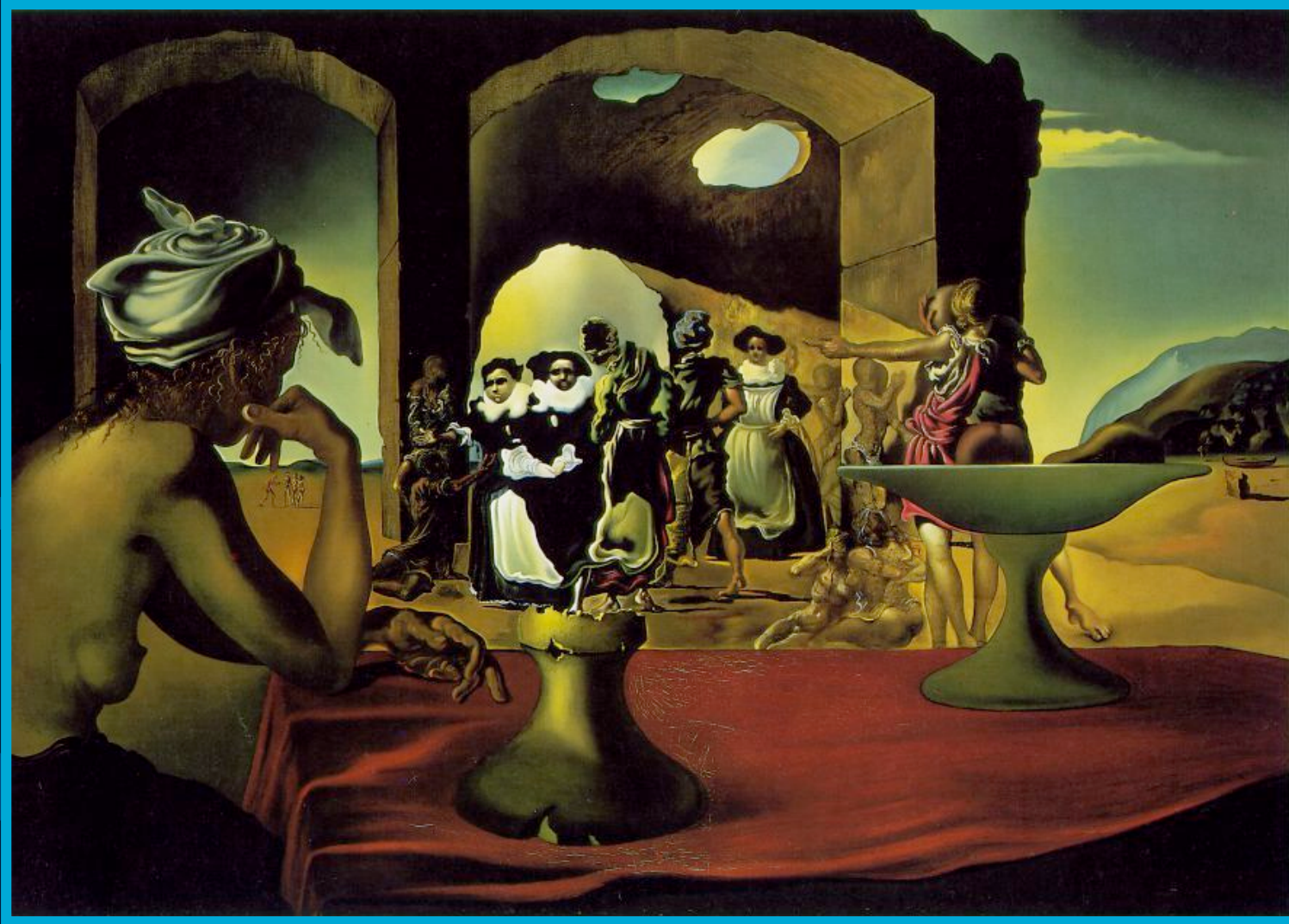


Image from Cardiff Castle, Wales



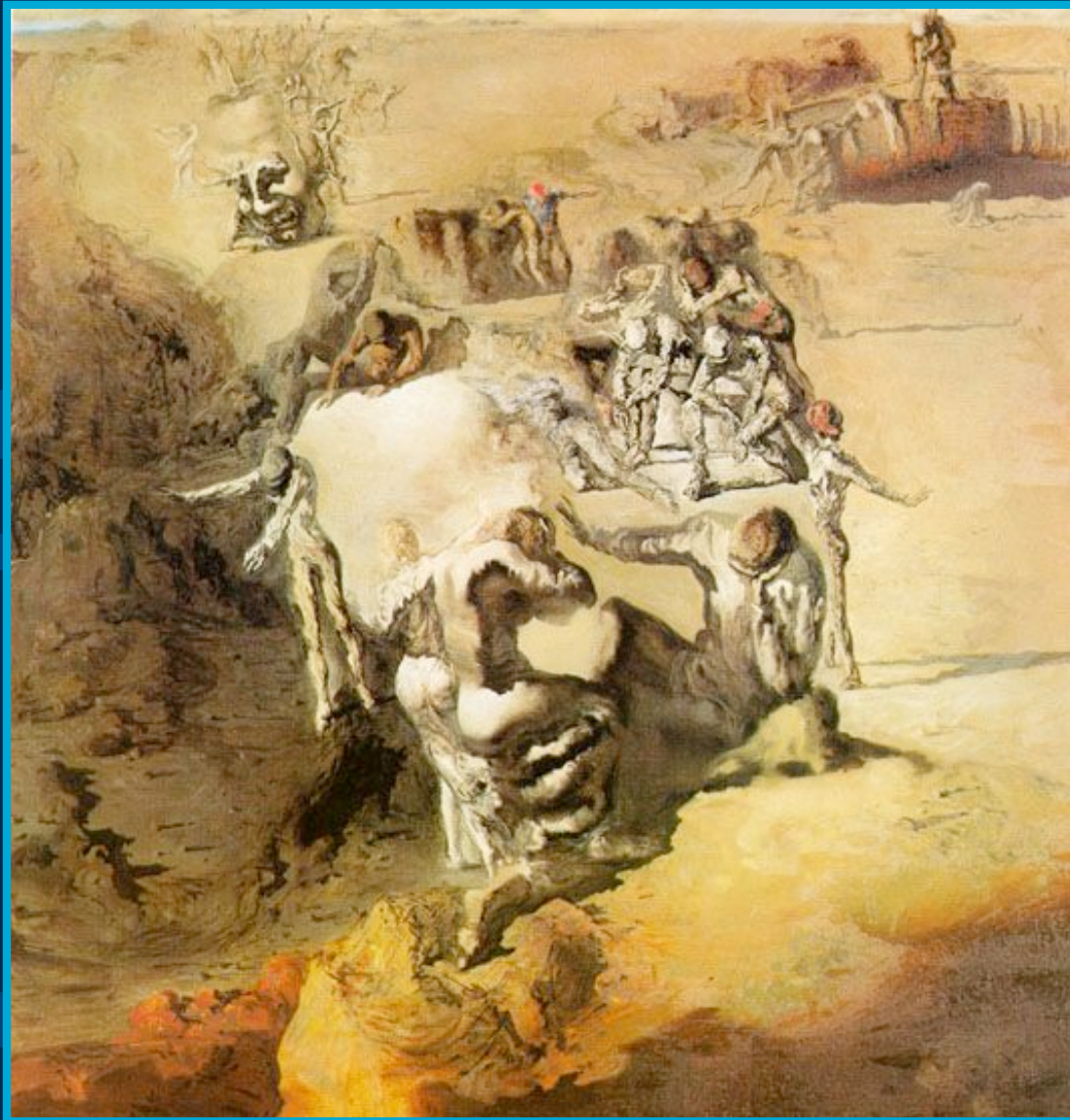
Dalí

Voir ce qui n'existe pas



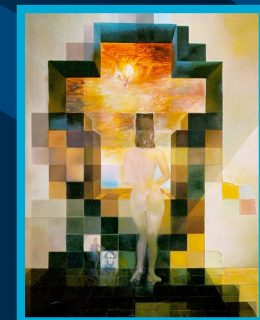
Dalí

Voir ce qui n'existe pas



Dalí

Voir ce qui n'existe pas



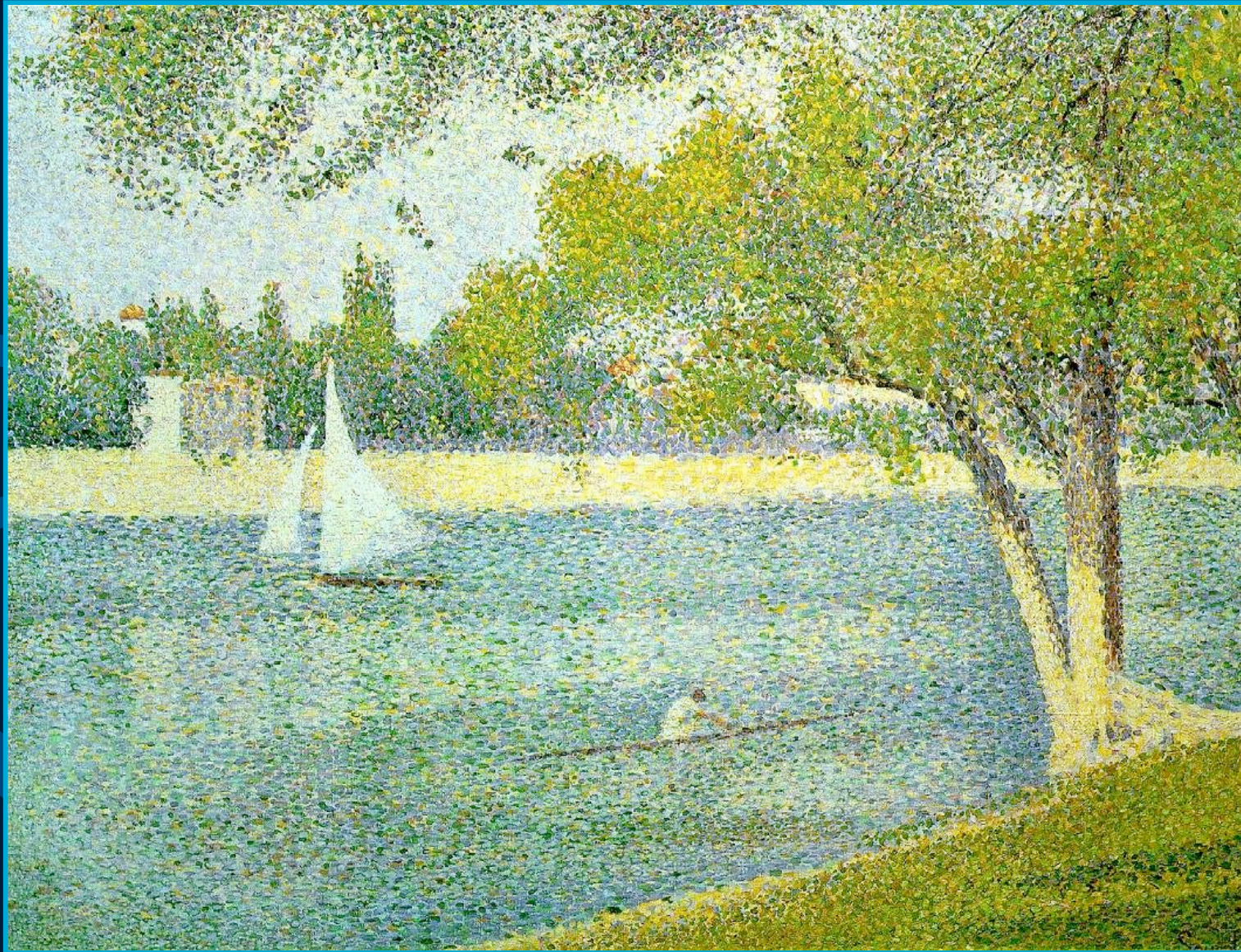
Claude Monet

L'impressionnisme



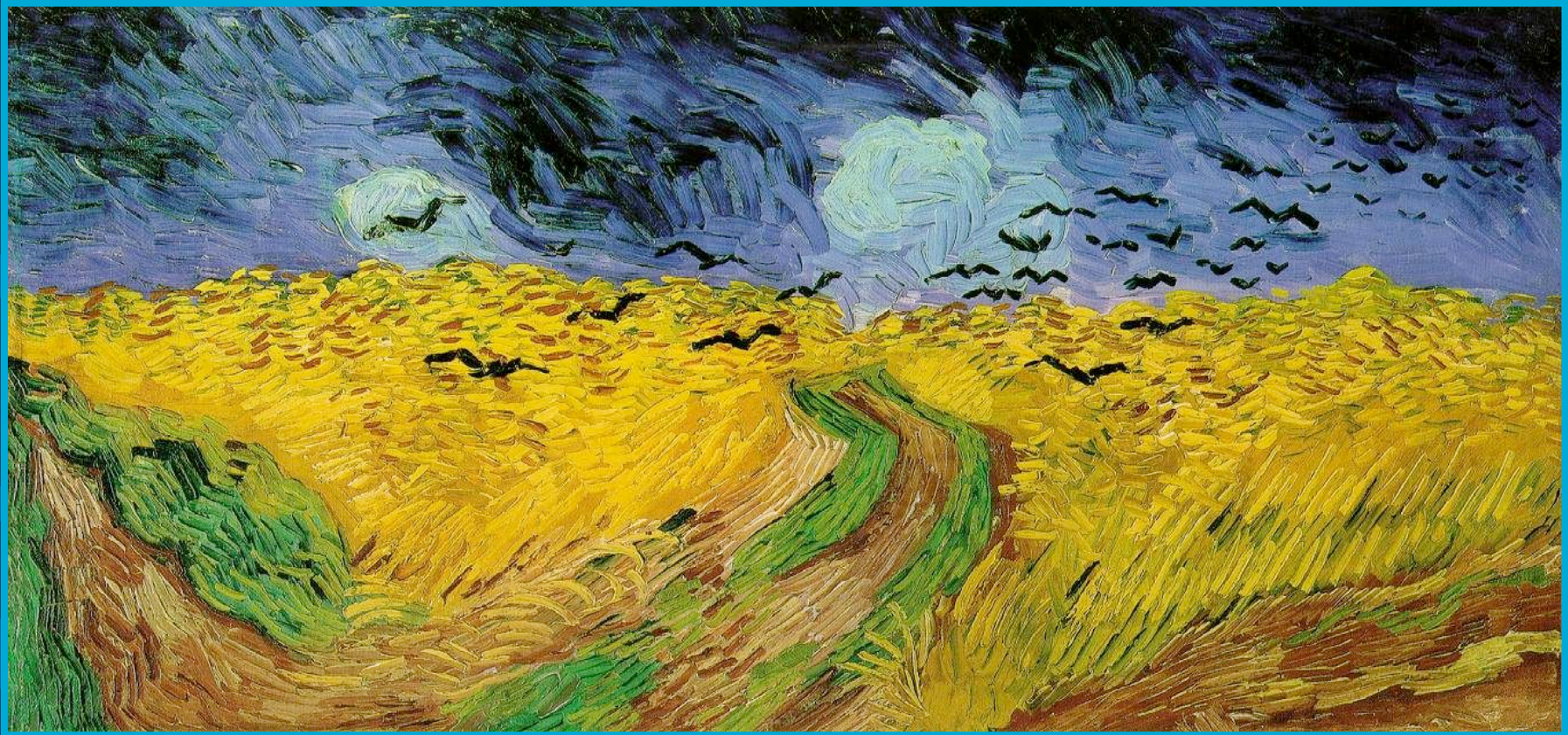
Georges-Pierre Seurat

Le divisionnisme ou pointillisme



Vincent Van Gogh

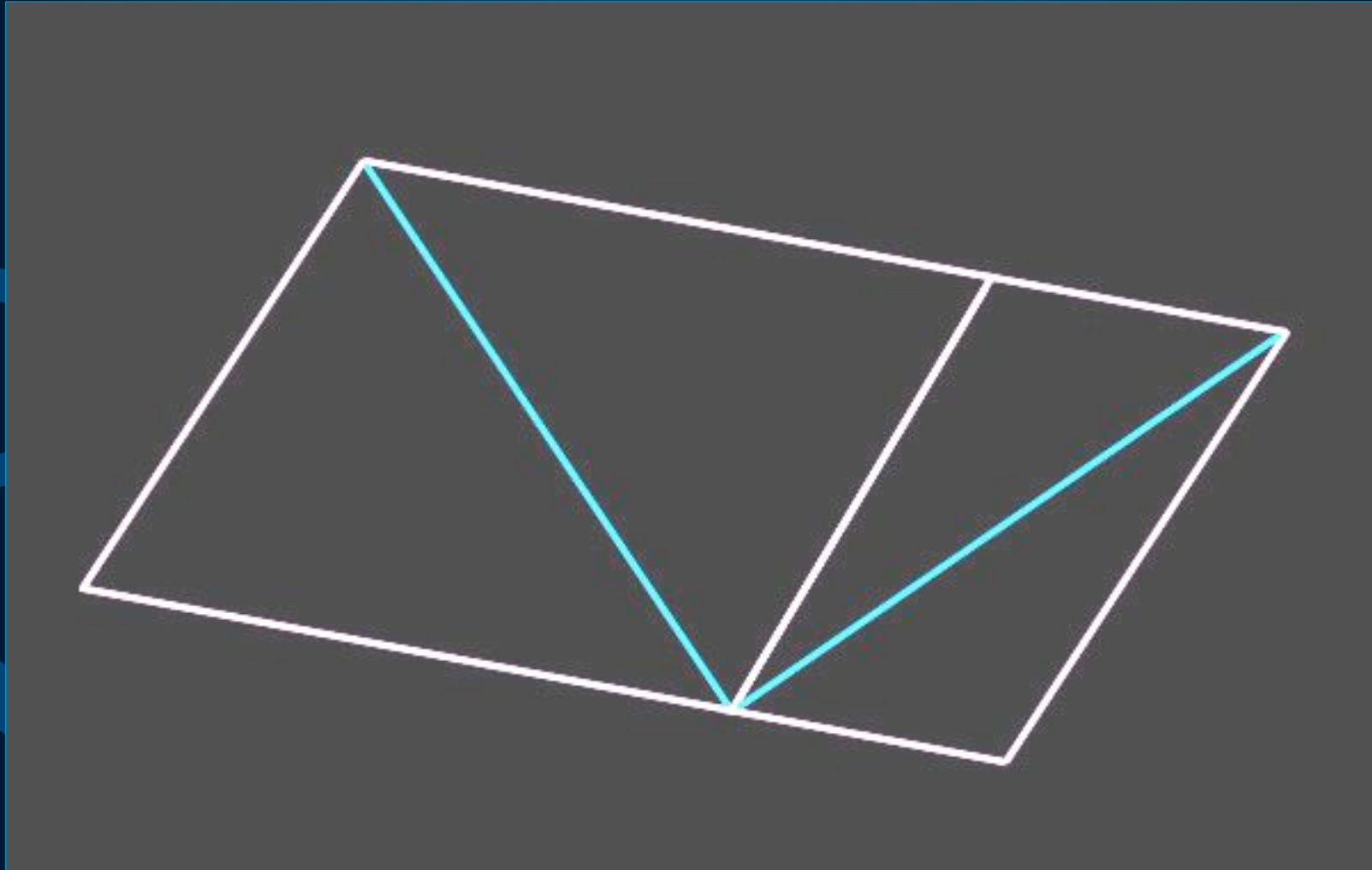
Le post-impressionnisme



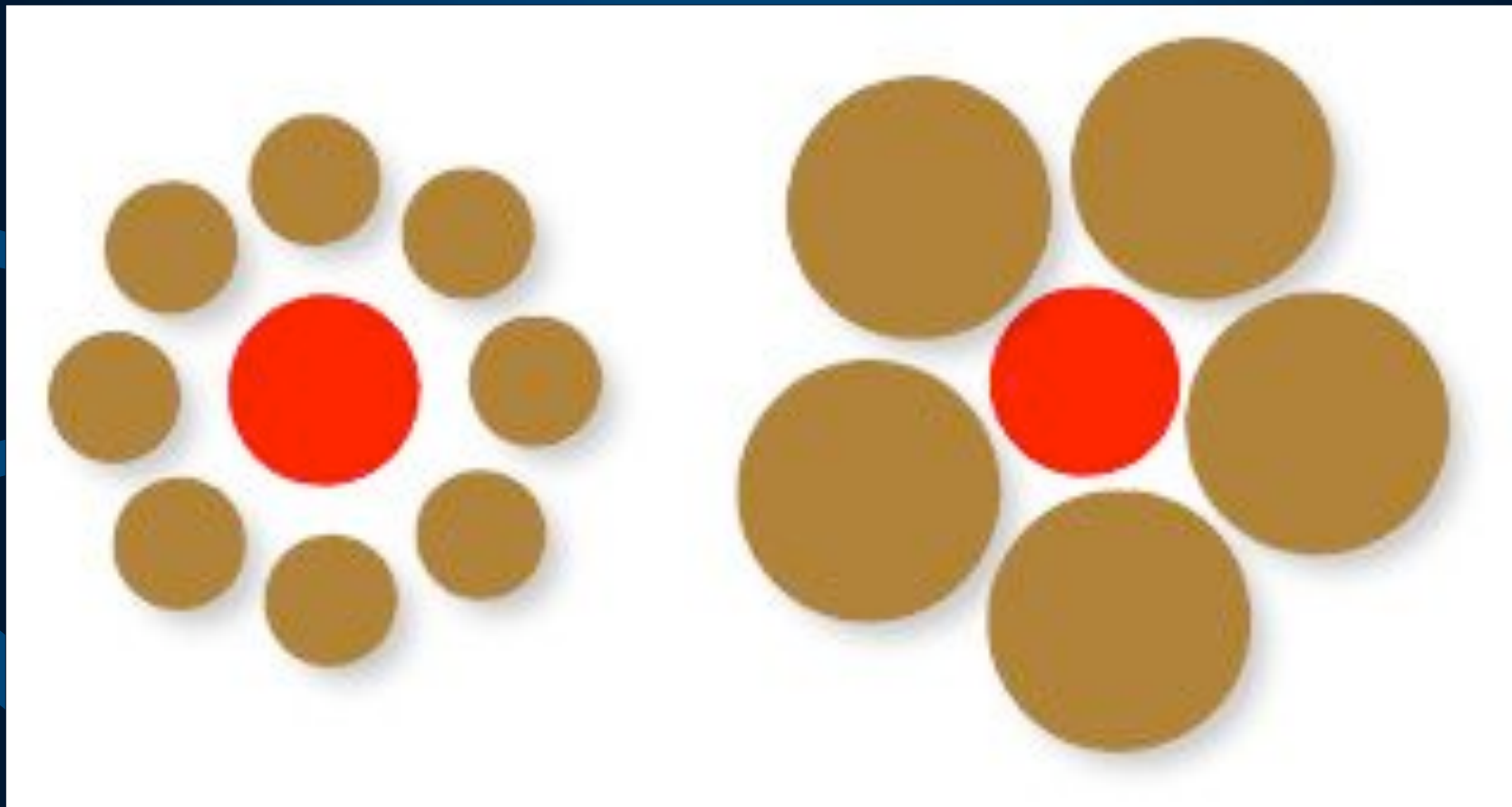
The background is a dark blue gradient with several lighter blue, wavy, horizontal lines that create a sense of movement. A small, bright cyan rectangle is positioned on the right edge, slightly above the center.

Comparaisons

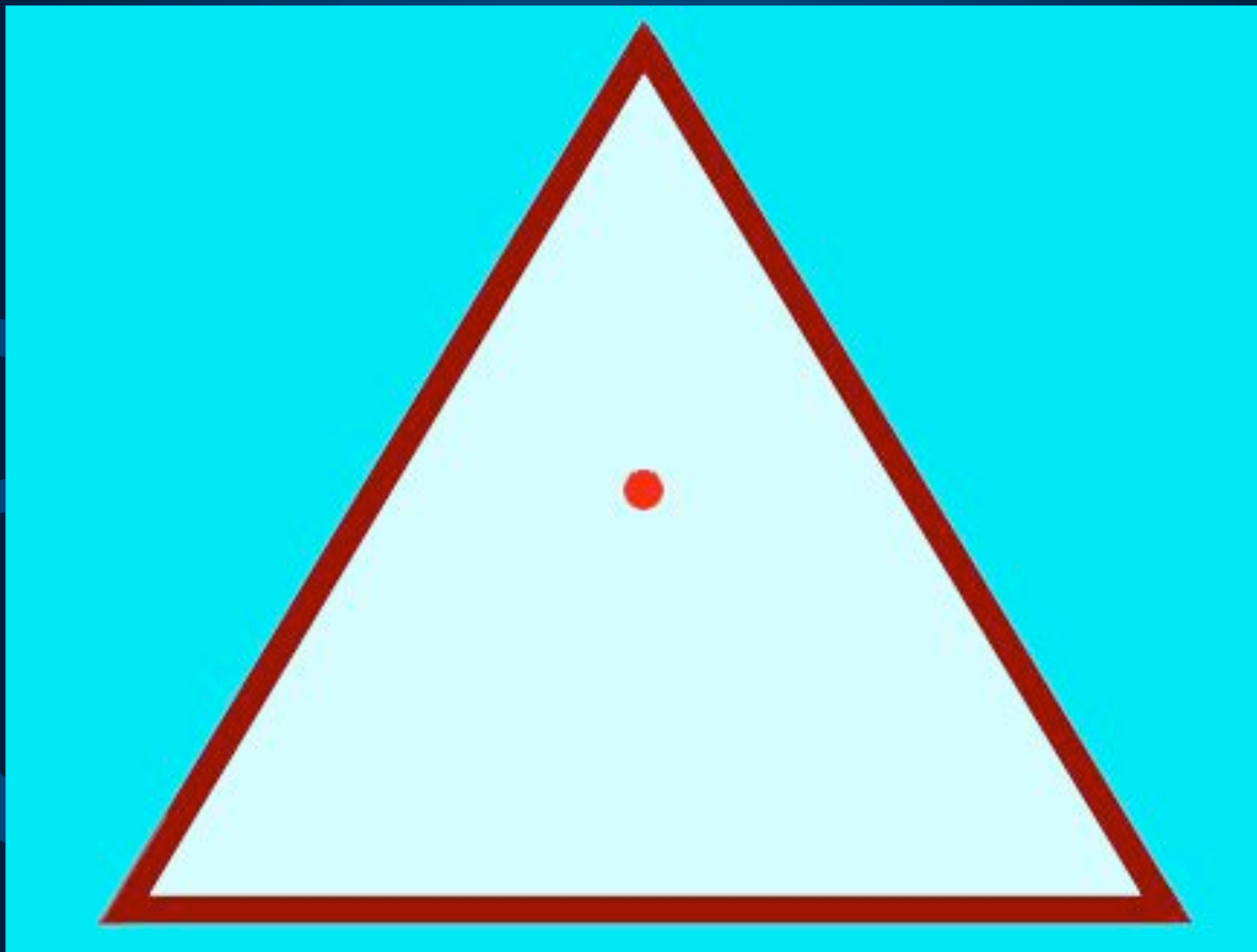
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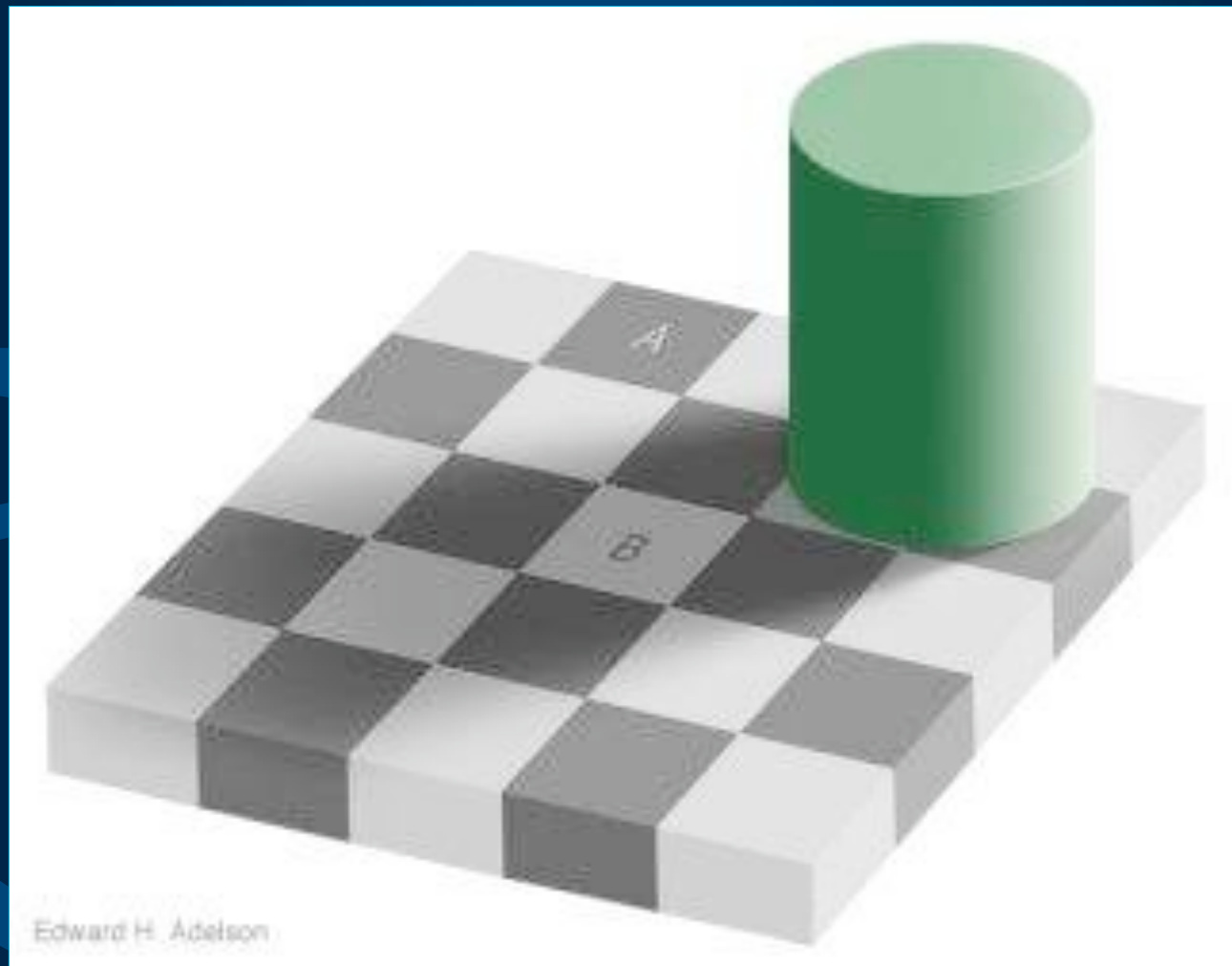
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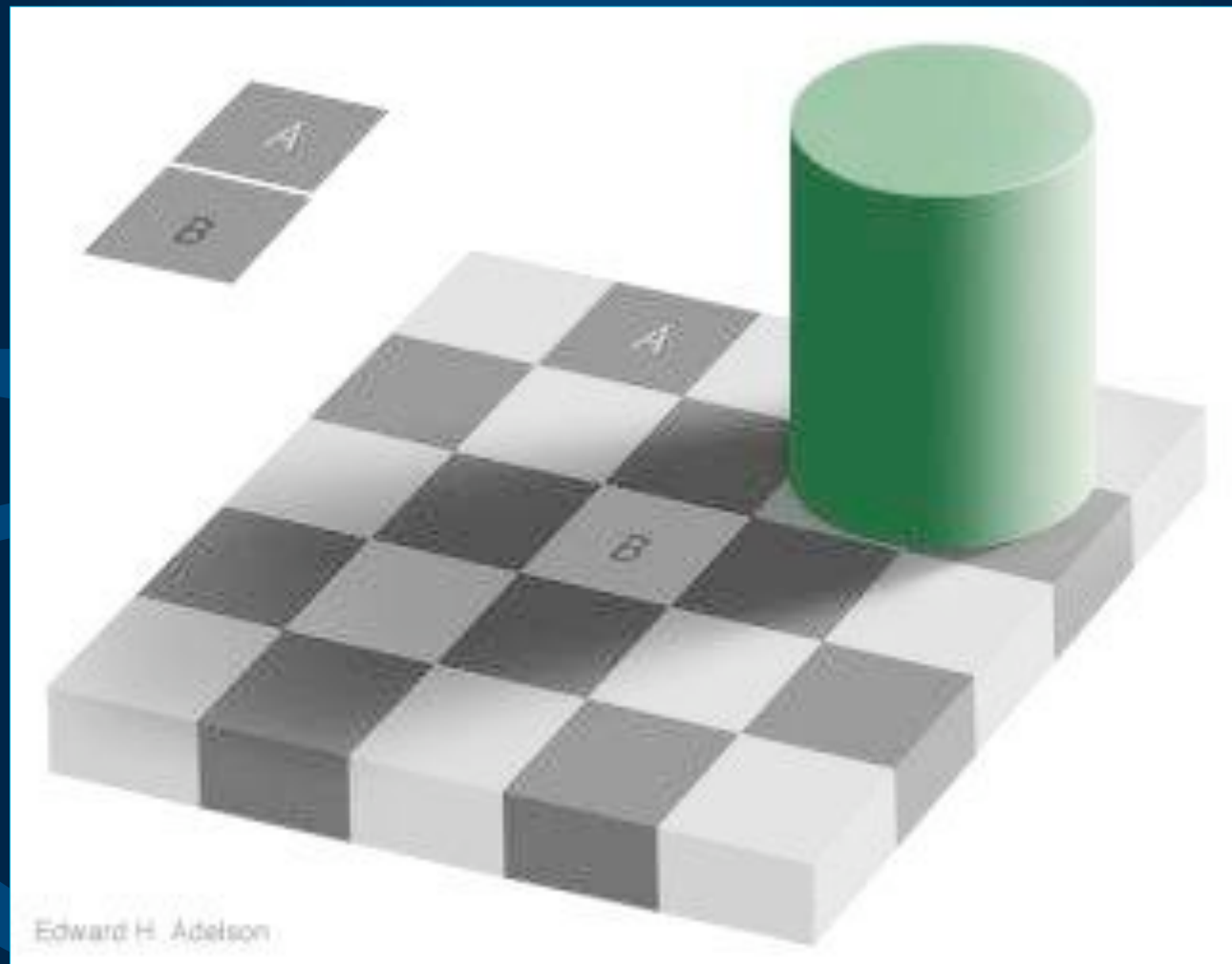


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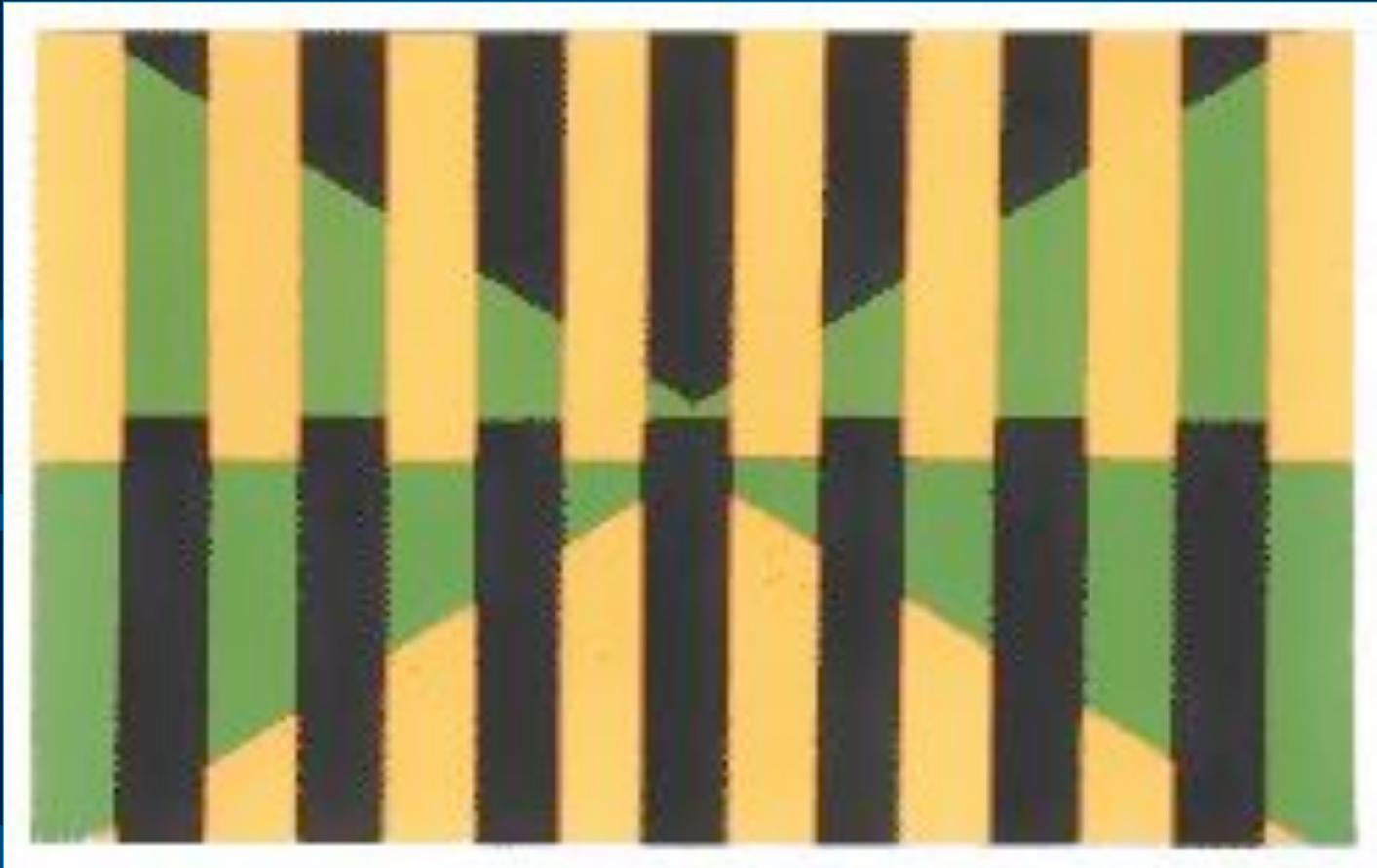


Edward H. Adelson

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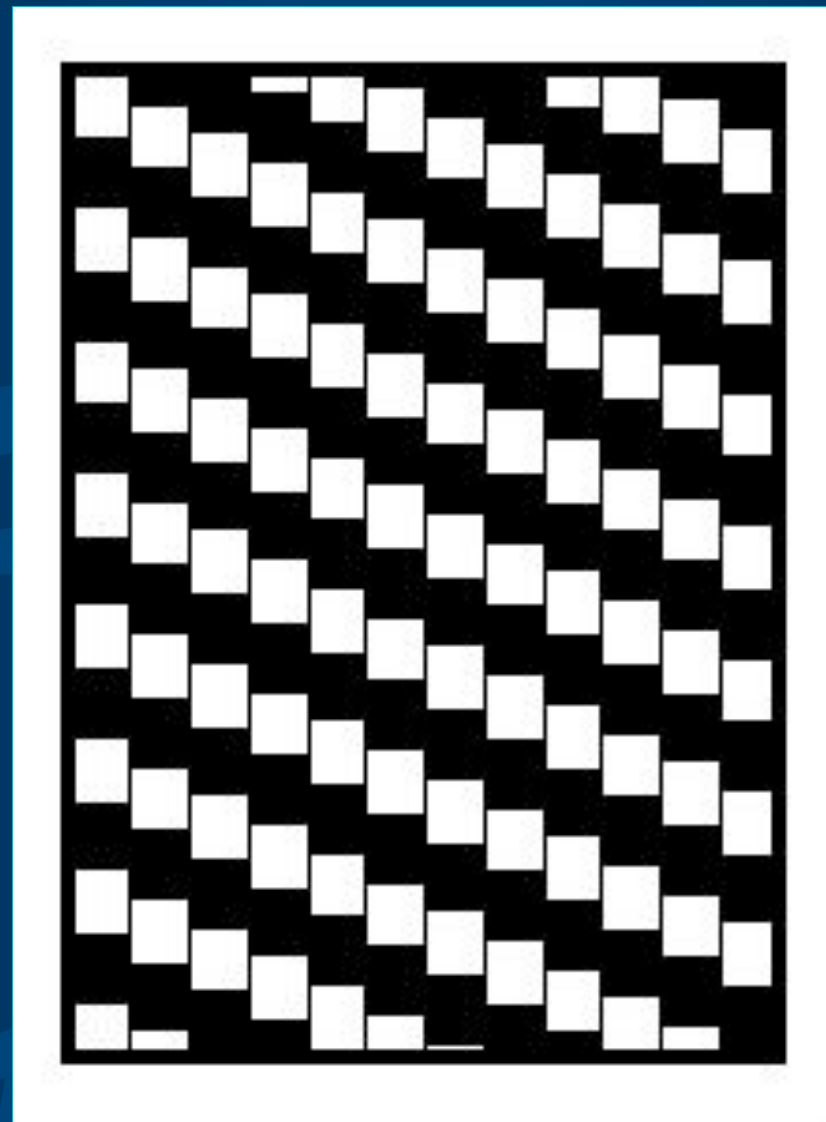
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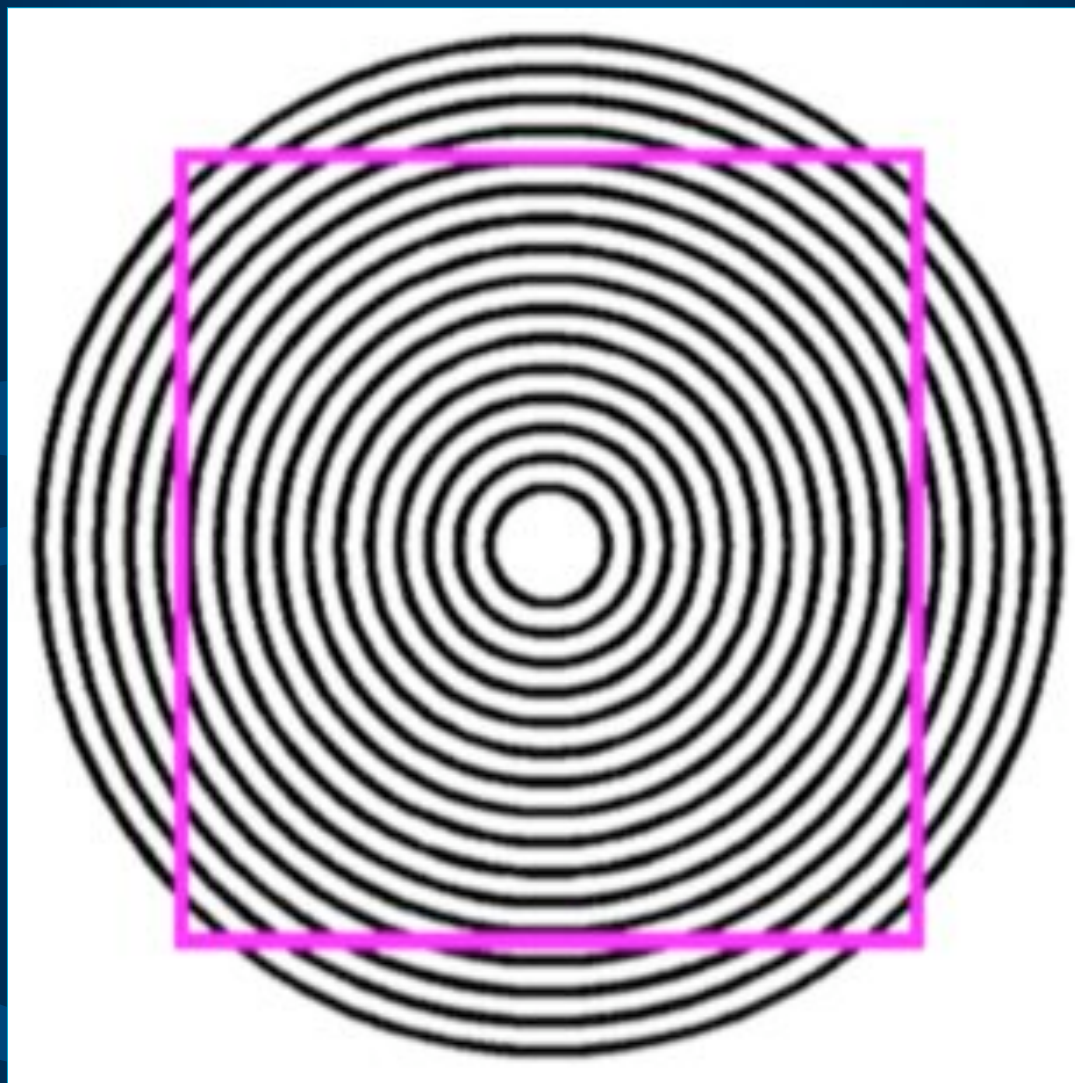
The background is a dark blue gradient with several lighter blue, wavy, horizontal lines that create a sense of movement. A small, bright cyan rectangle is positioned on the right edge, slightly above the center.

Rectitude

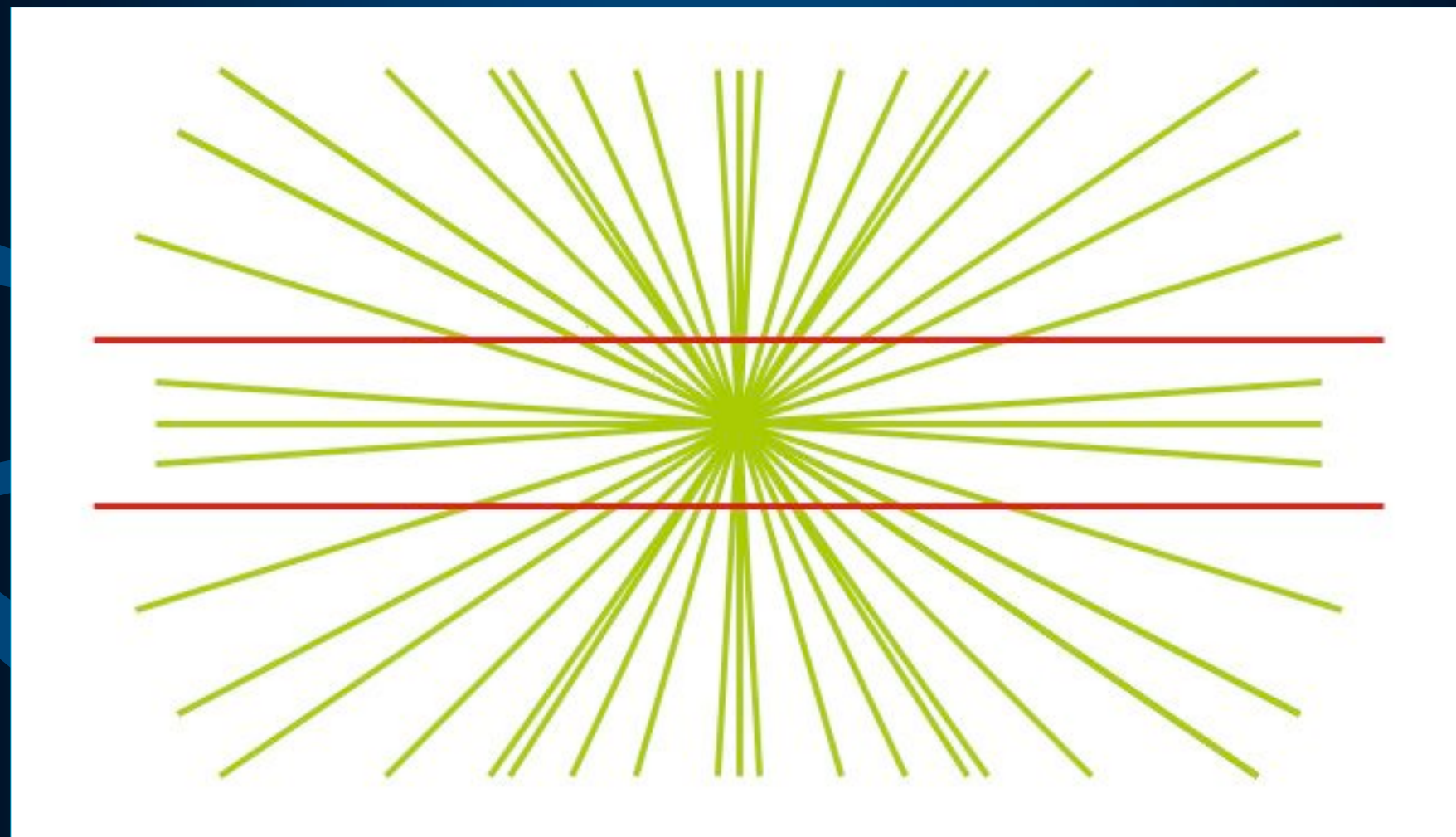
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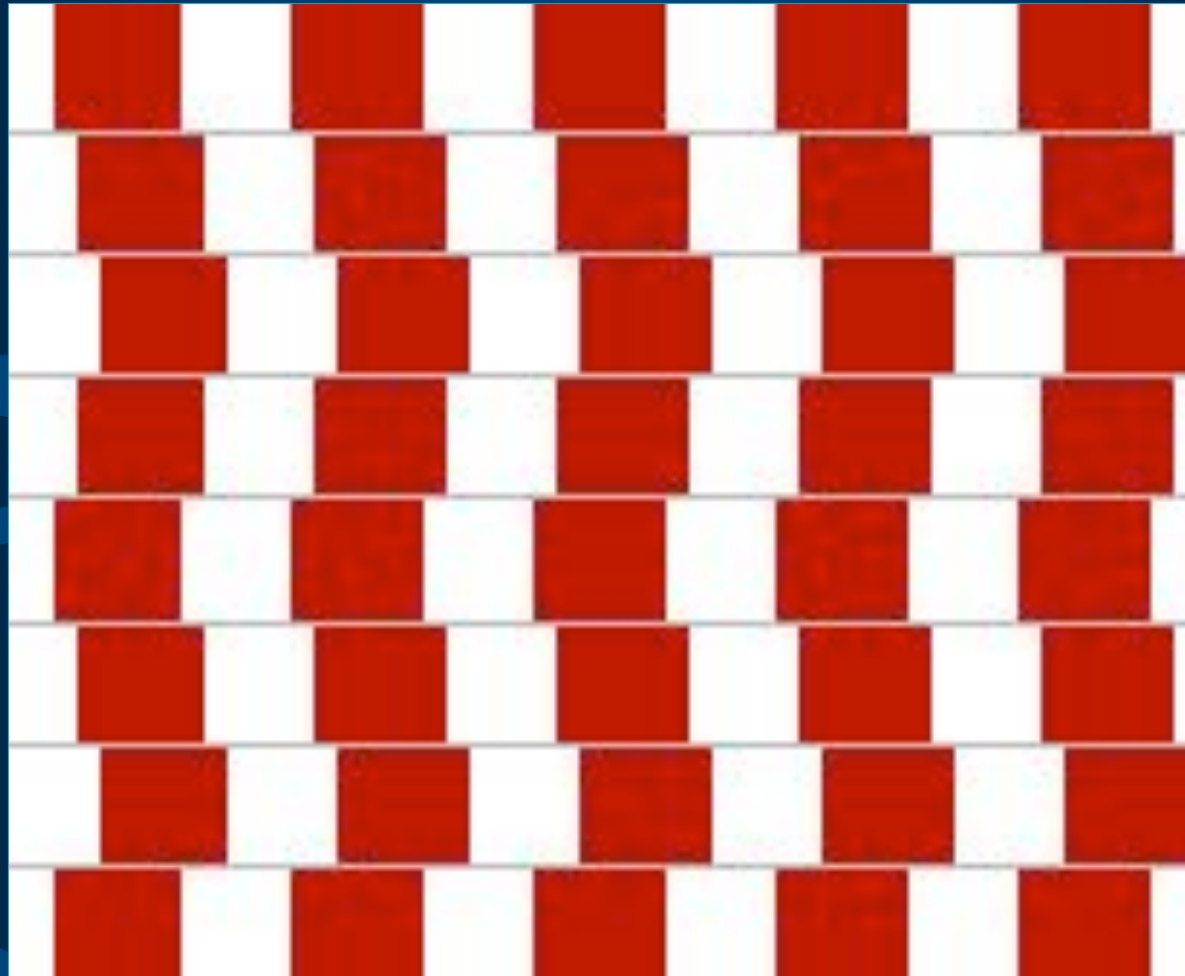
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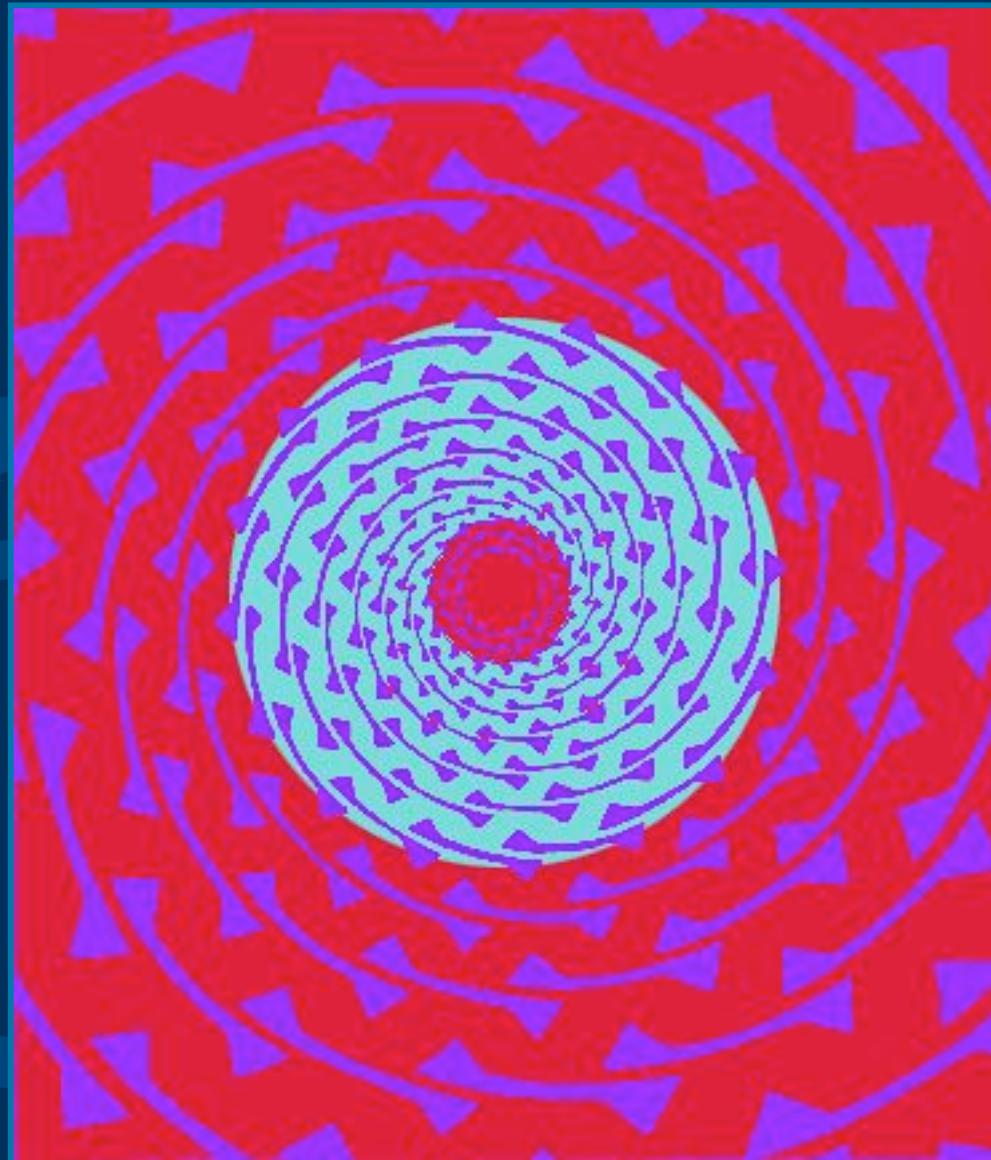
The background is a dark blue gradient with several lighter blue, wavy, and intersecting lines that create a sense of movement and depth. On the right side, there is a small, horizontal, metallic-looking ring or band.

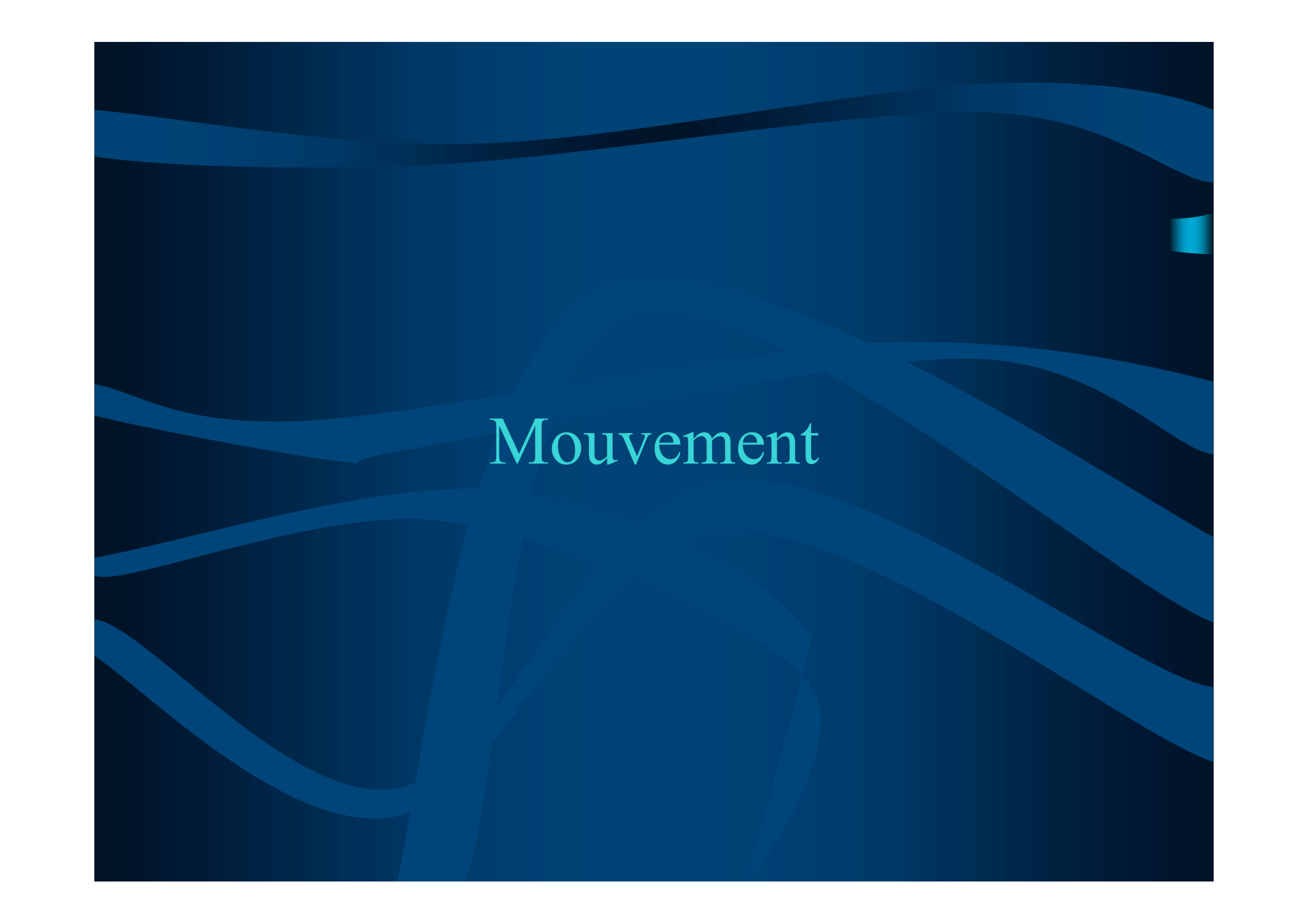
Circularité

???



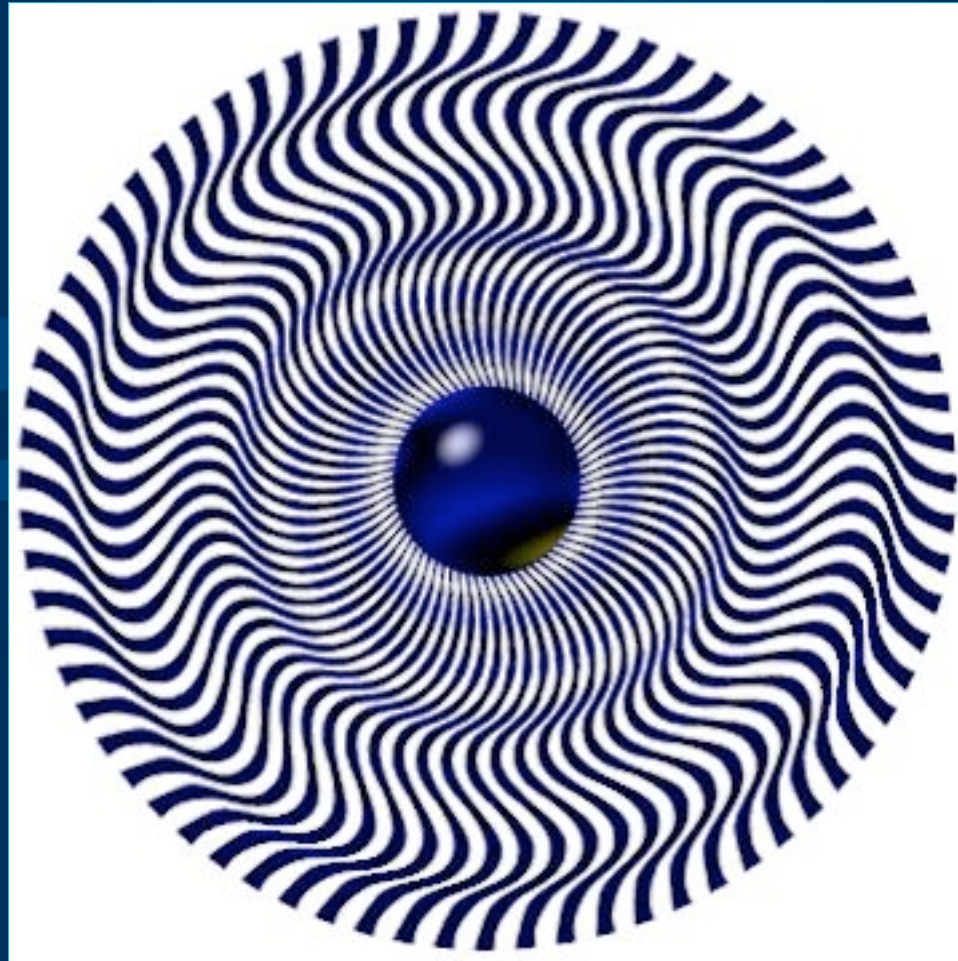
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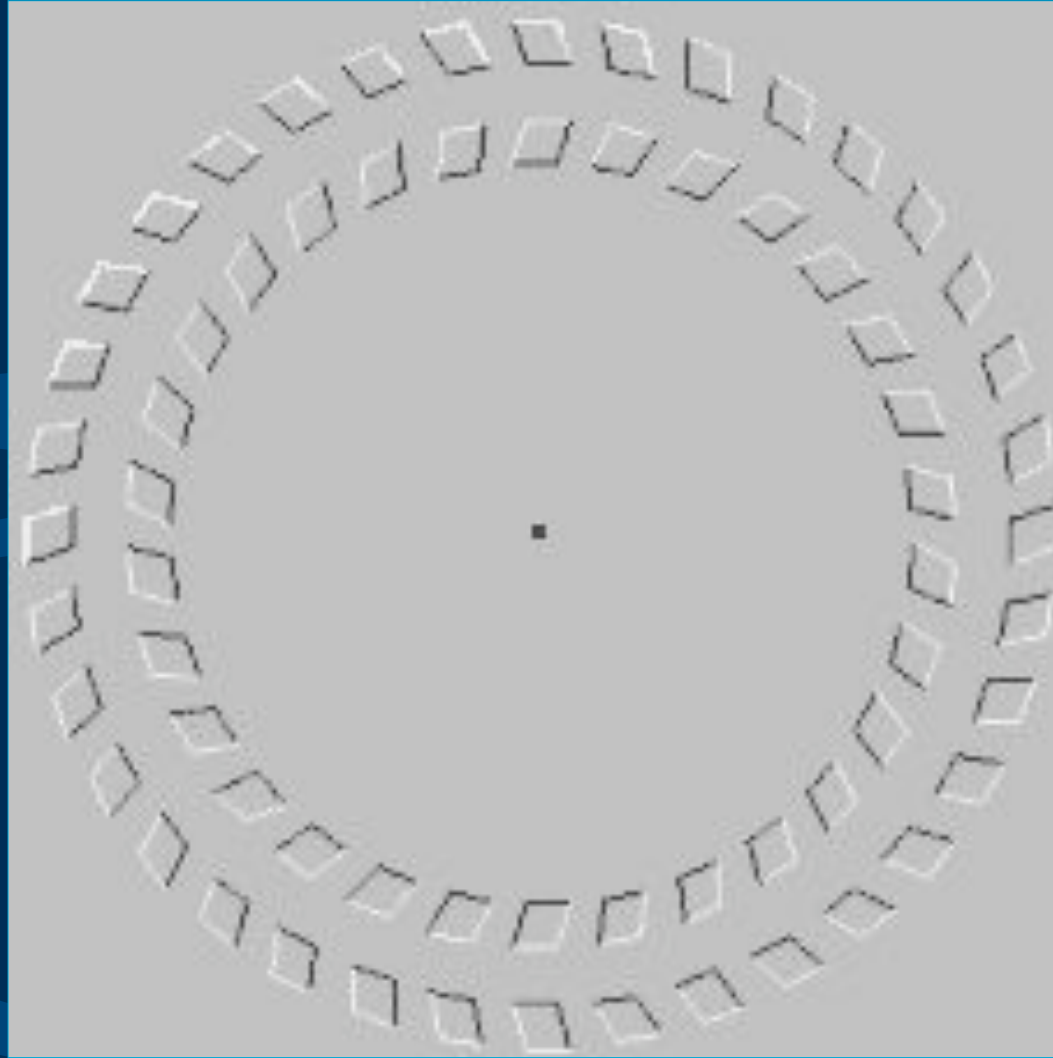
The background is a dark blue gradient with several thick, lighter blue, wavy lines that create a sense of movement and depth. On the right side, there is a small, horizontal, metallic-looking ring or band.

Mouvement

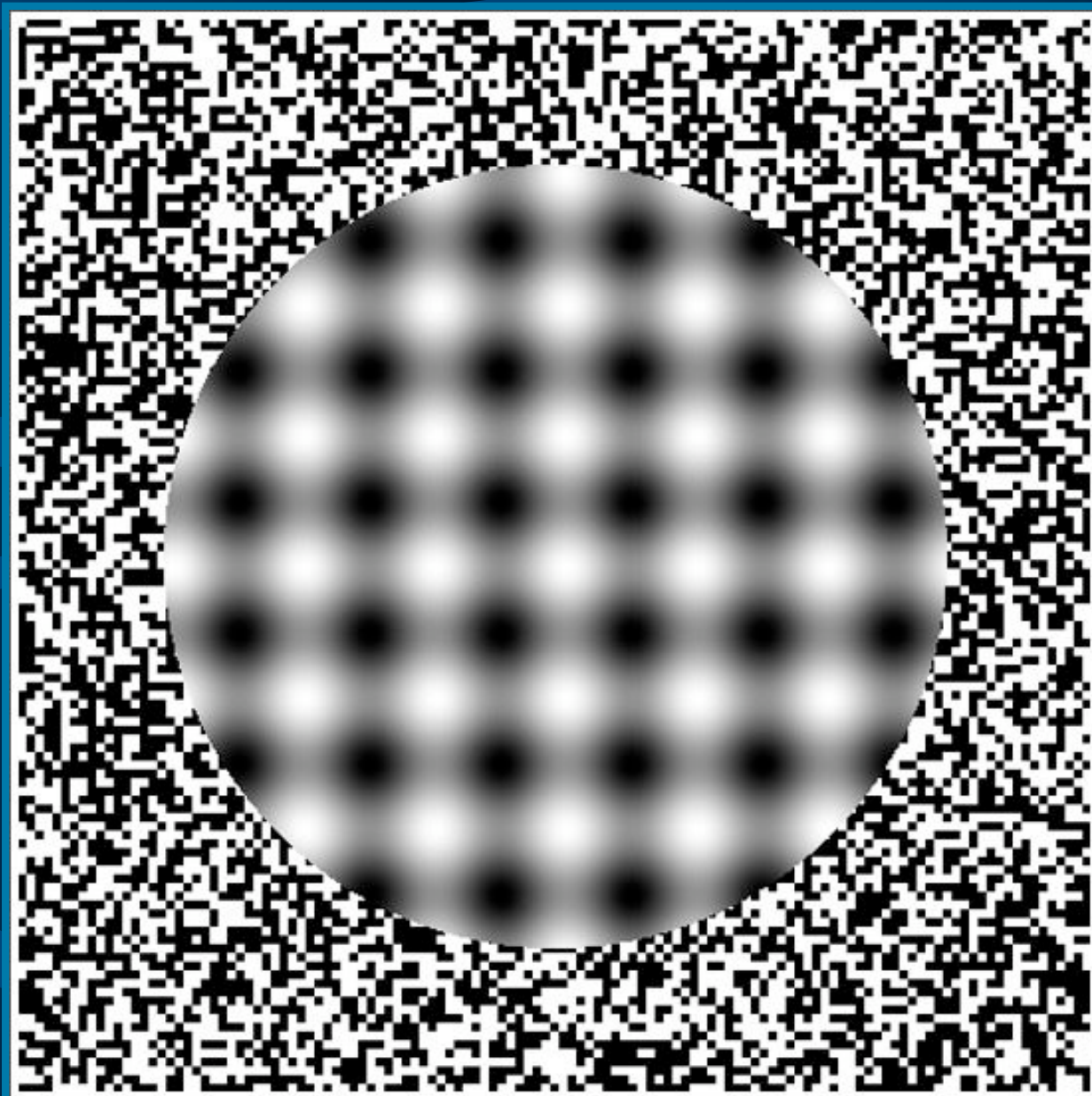
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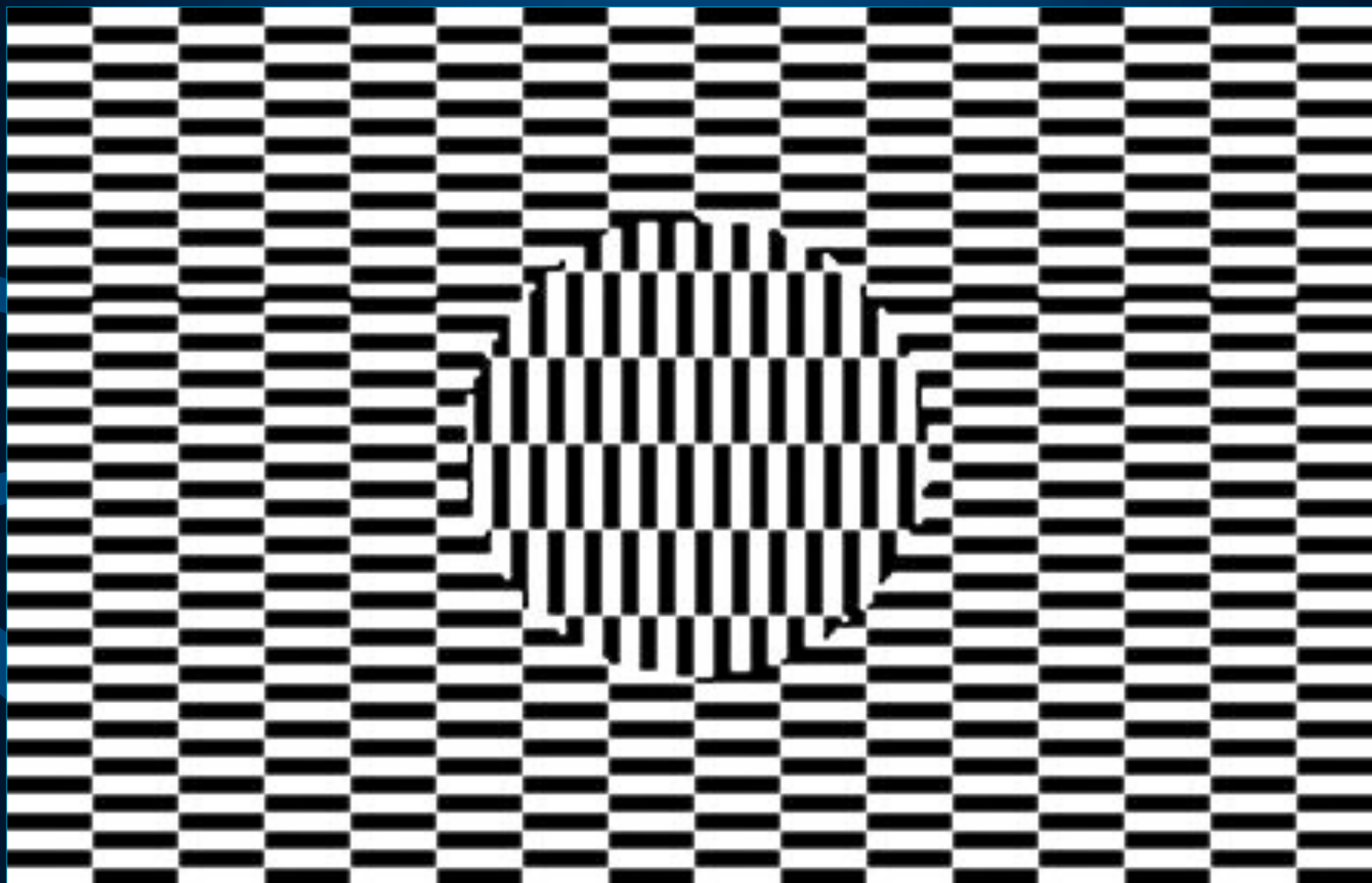
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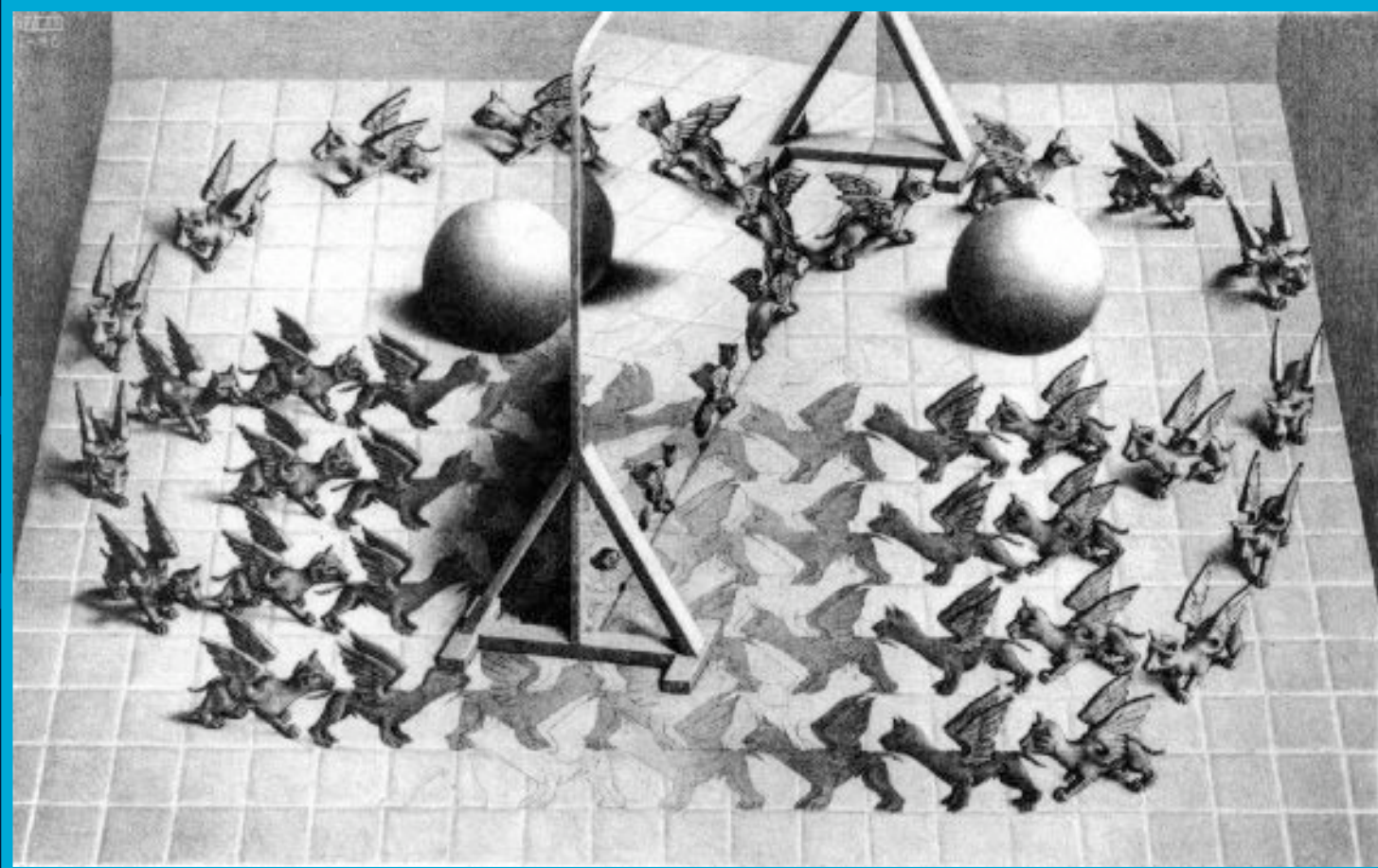
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The background is a dark blue gradient with several lighter blue, wavy, horizontal lines that create a sense of movement. A small, bright cyan rectangle is positioned on the right edge, slightly above the center.

La structure du plan et de l'espace

Maurits Cornelis Escher



« L 'étonnement est le sel de la terre »

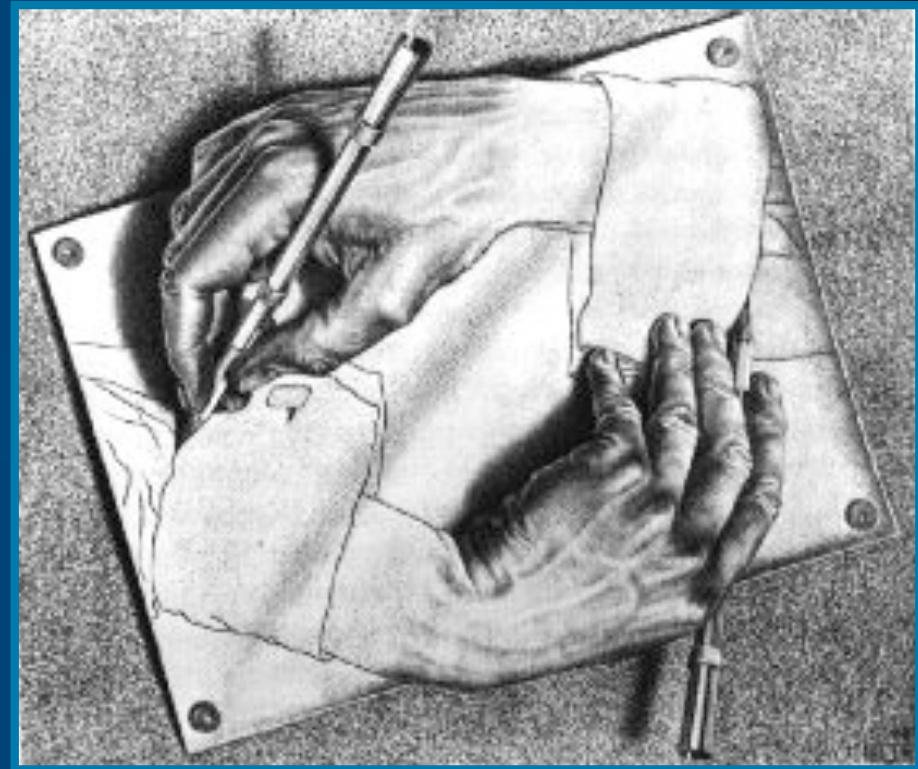
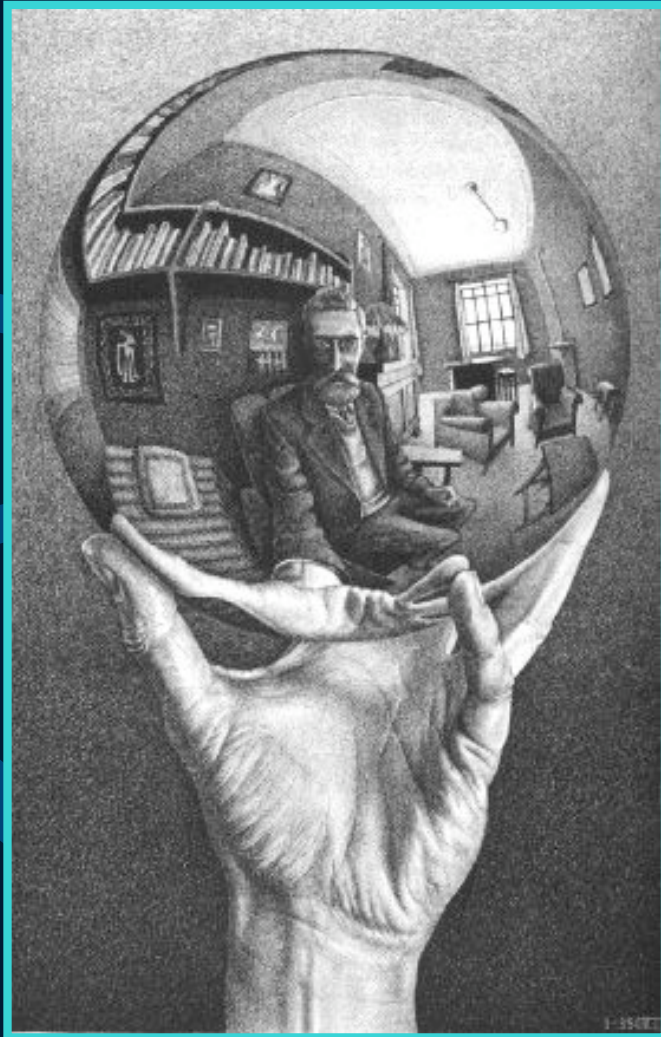
M.C. Escher

La sphère

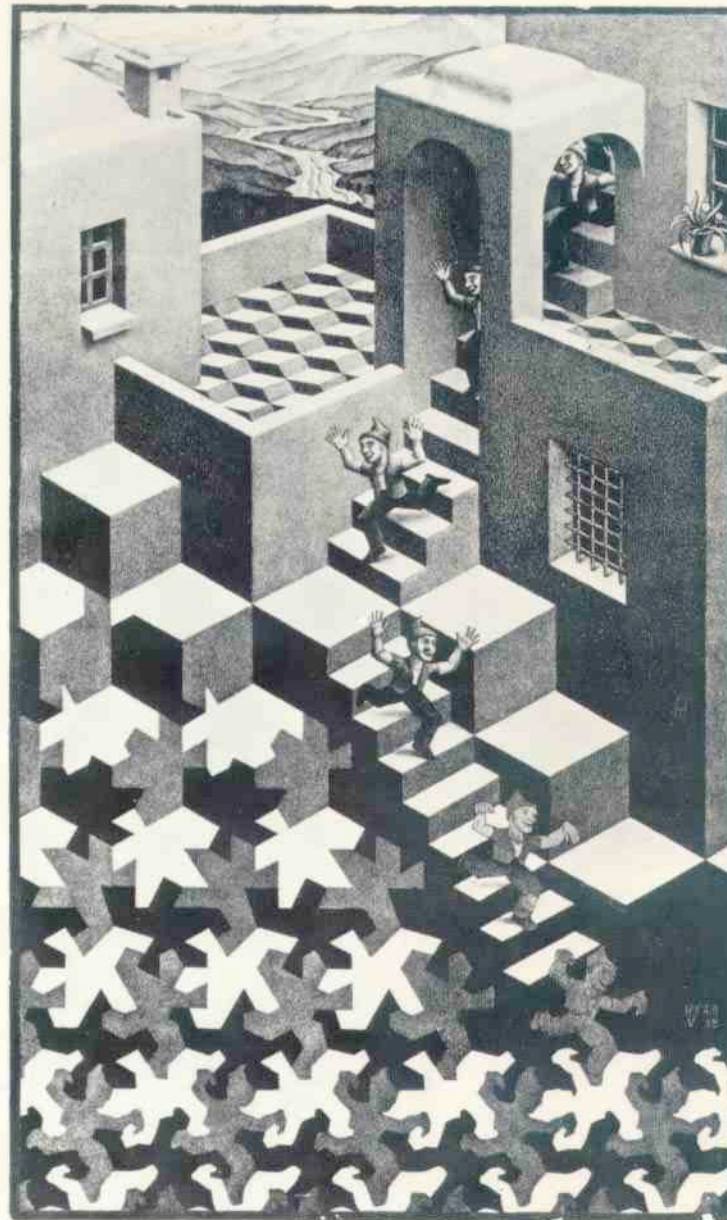


Maurits Cornelis Escher

Dessiner est tricher

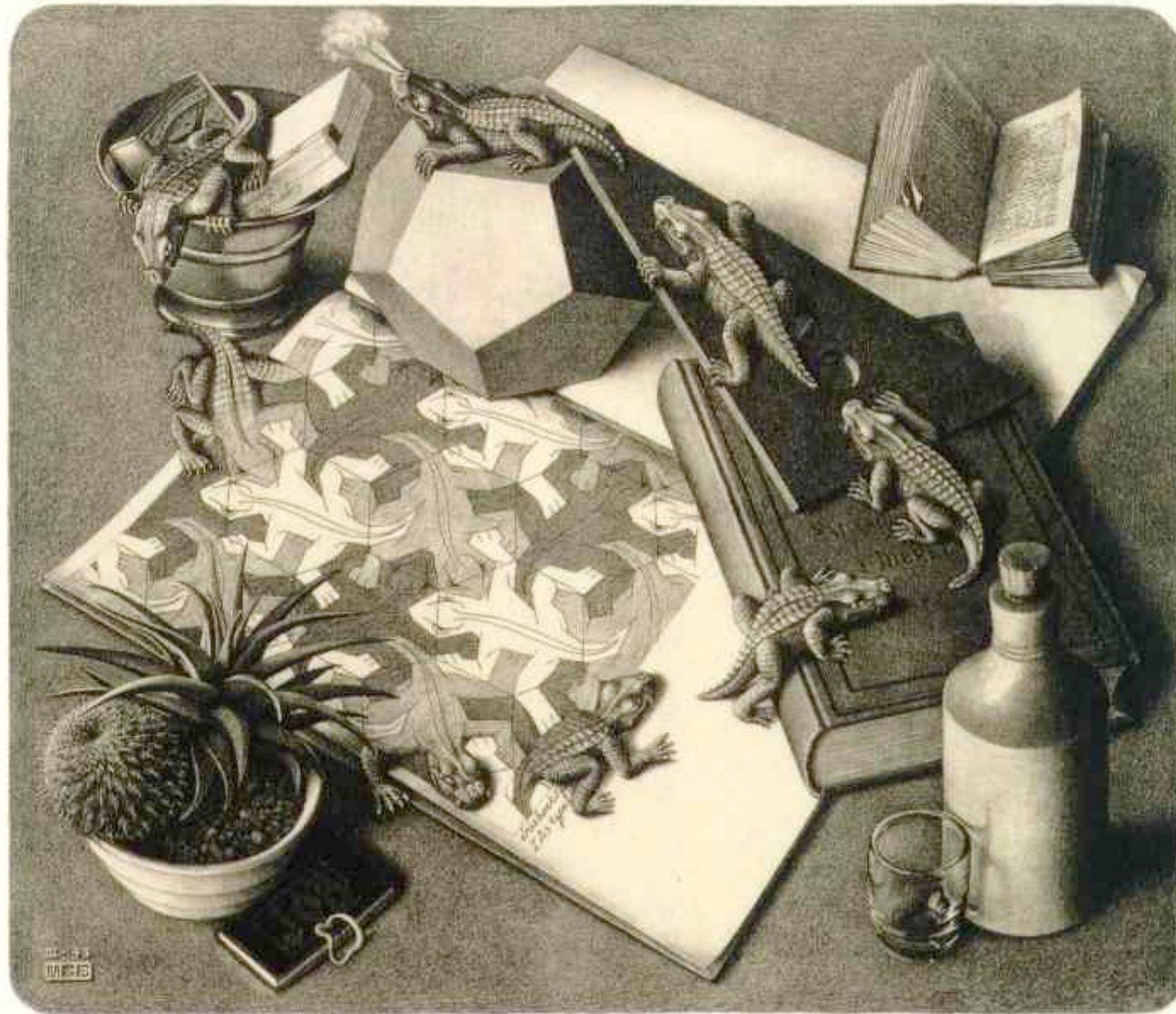


Escher



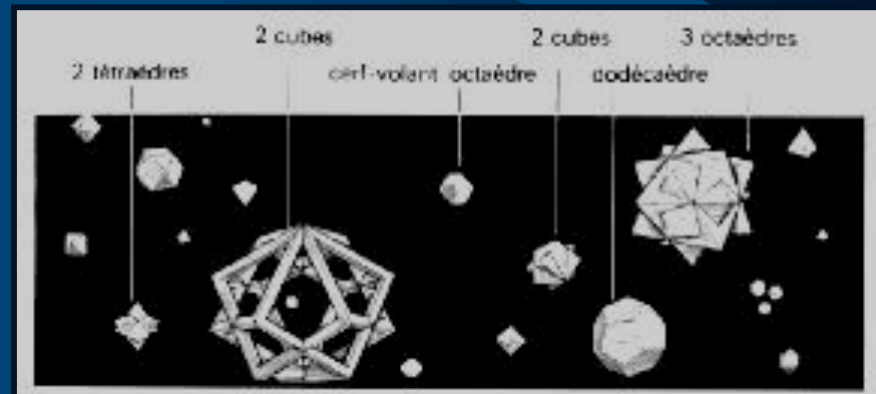
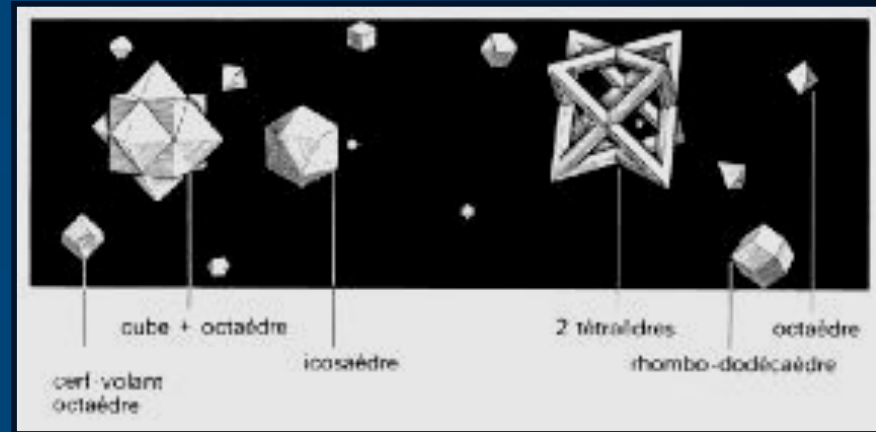
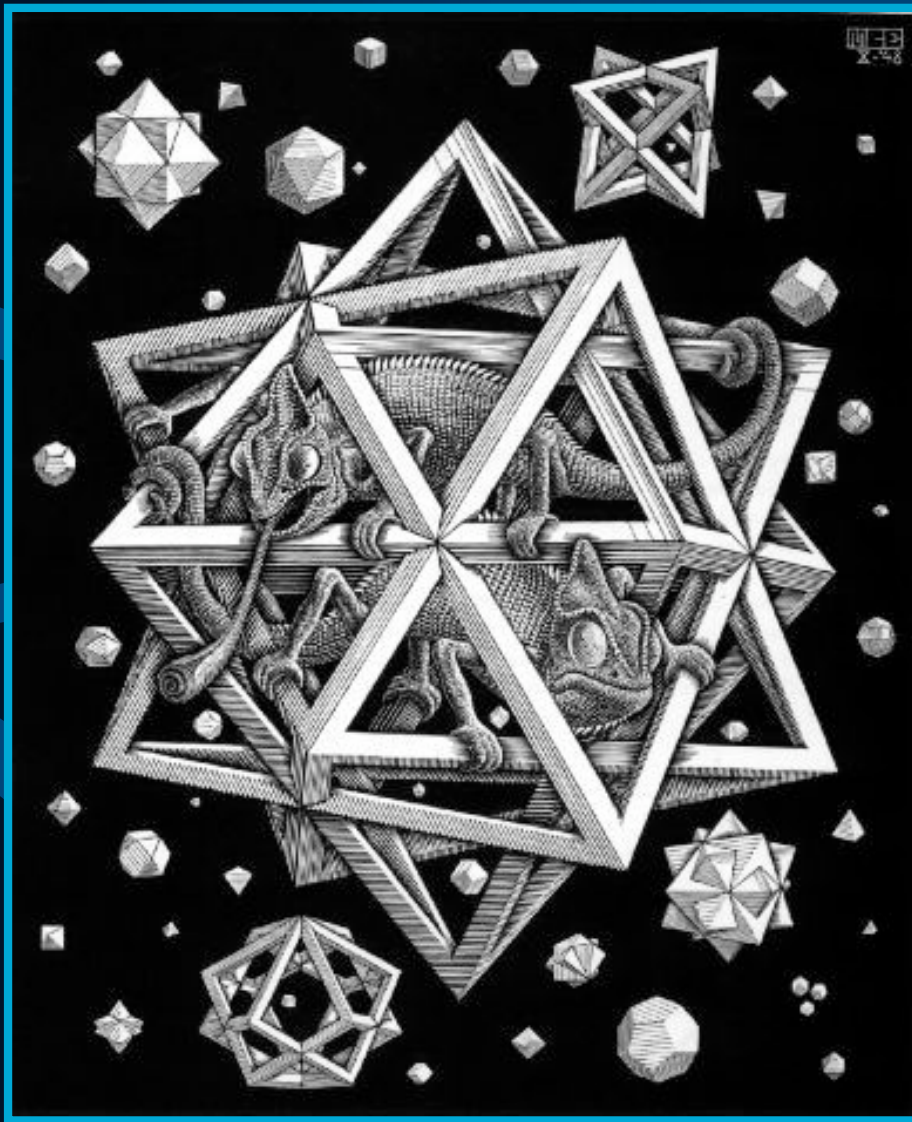
Escher

Attention au pavage !



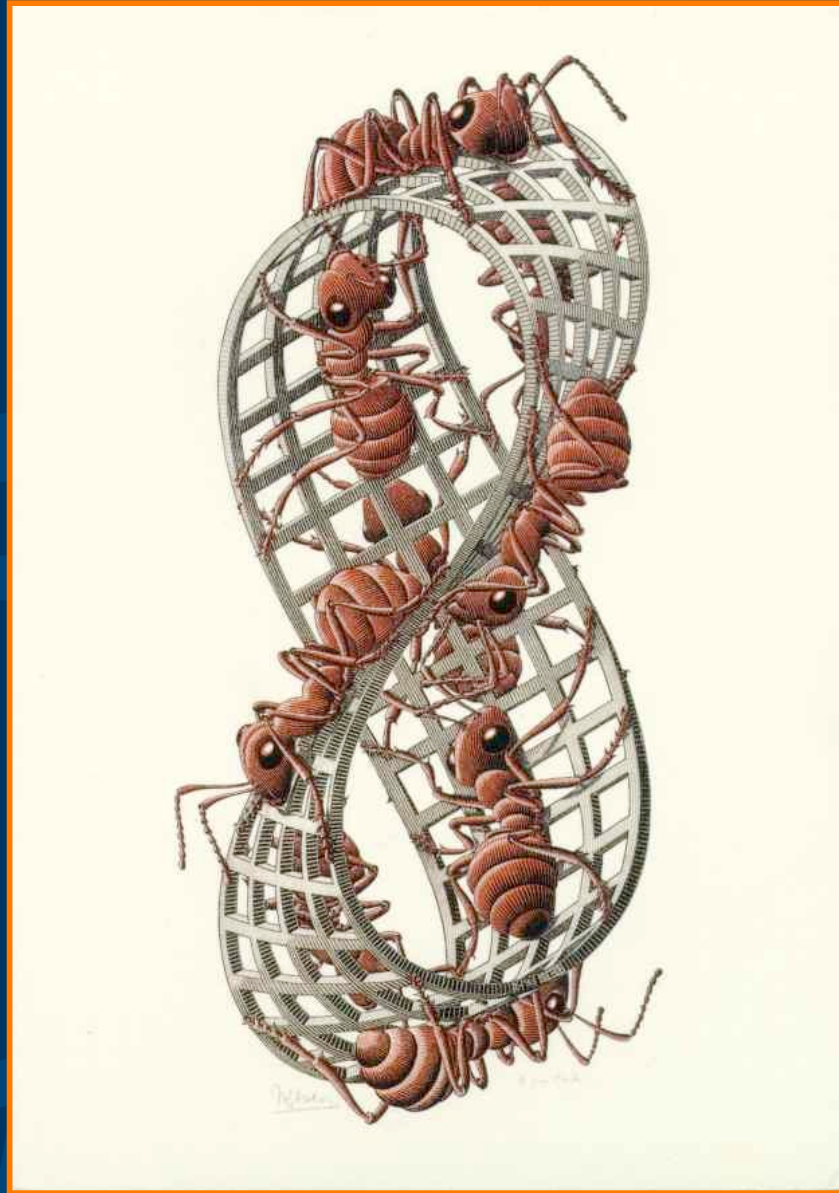
Maurits Cornelis Escher

La Structure de l'Espace



Escher

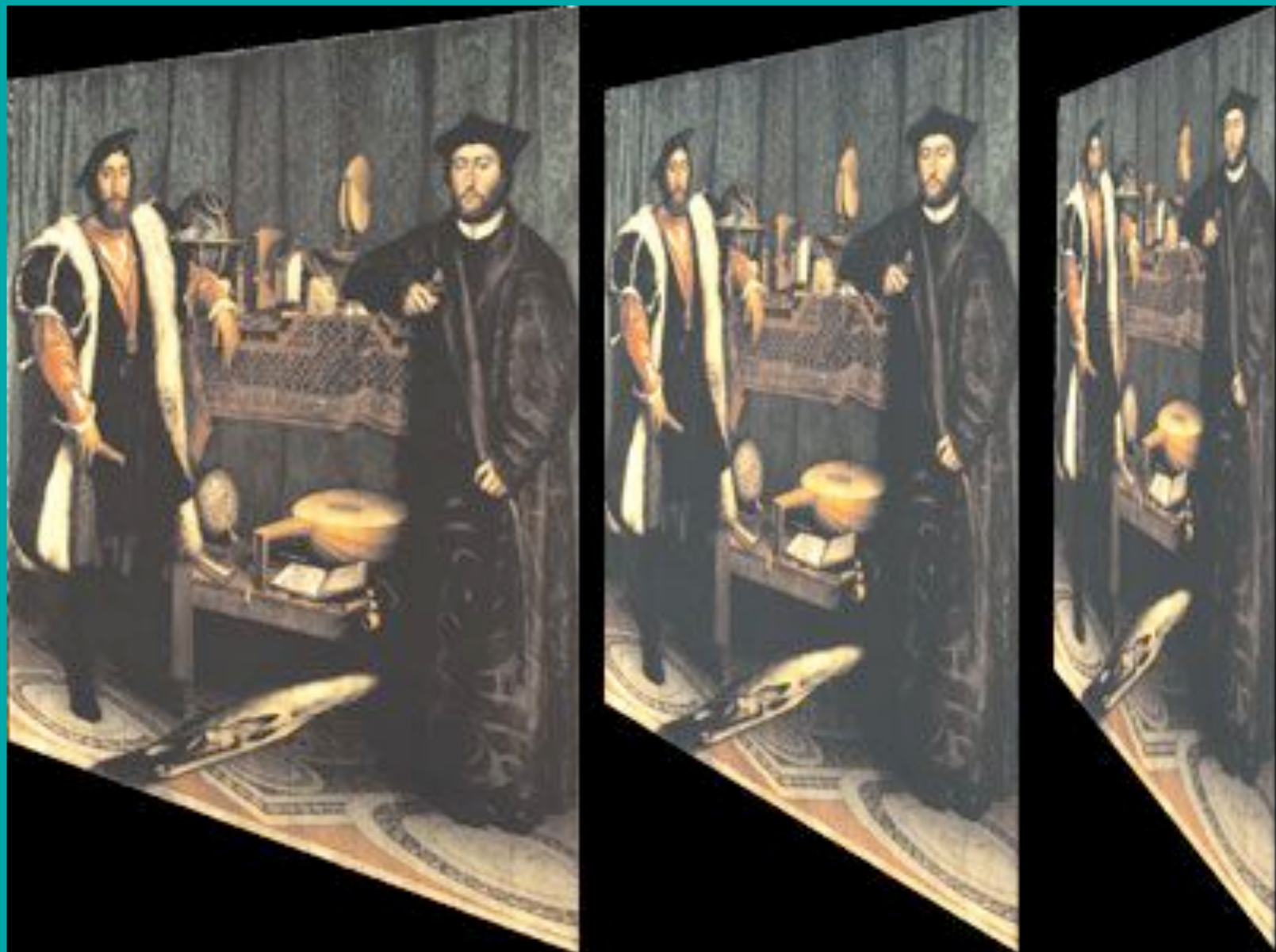
Le ruban de Möbius





Déformations

Holbein



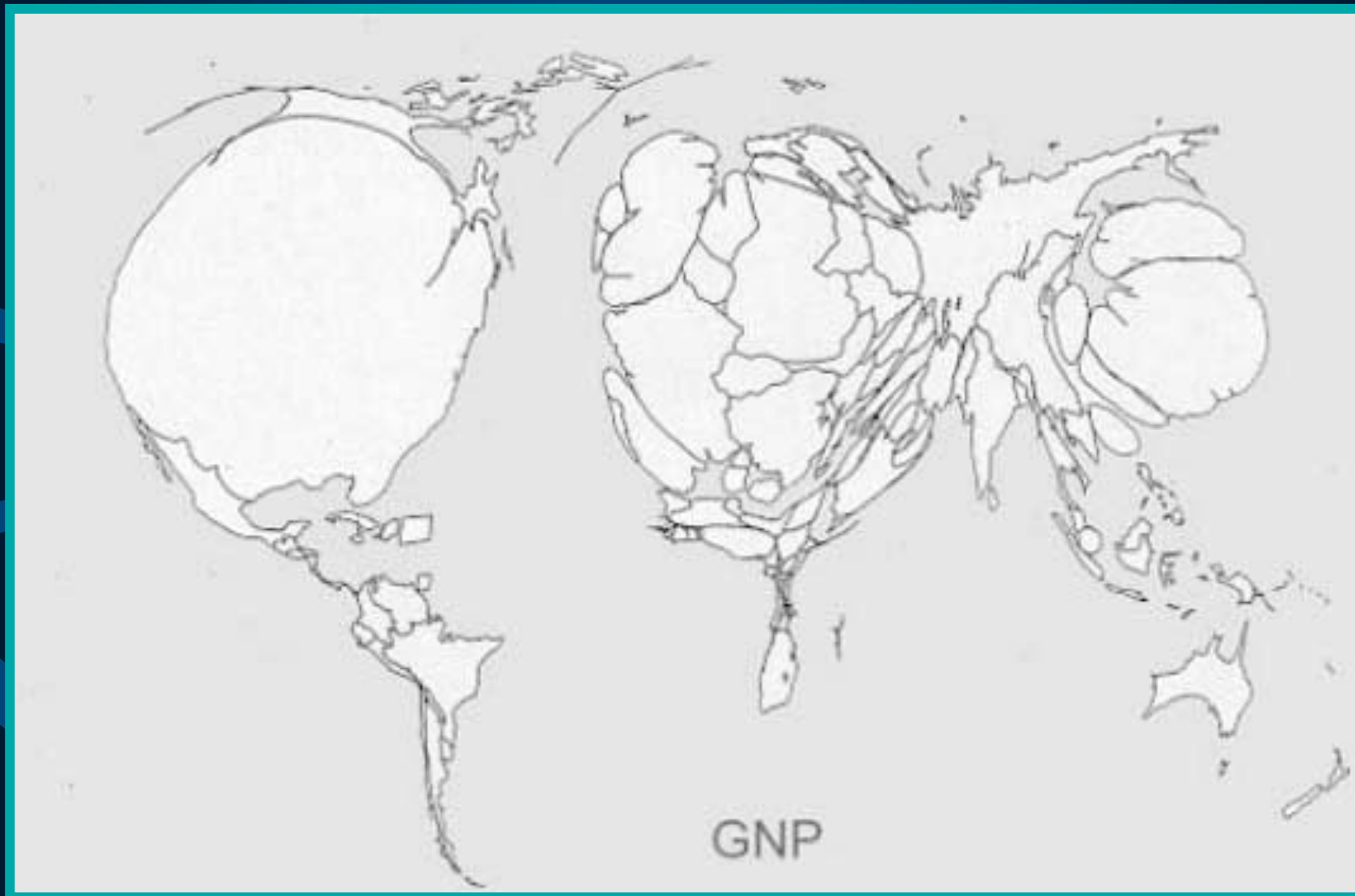
Anamorphose



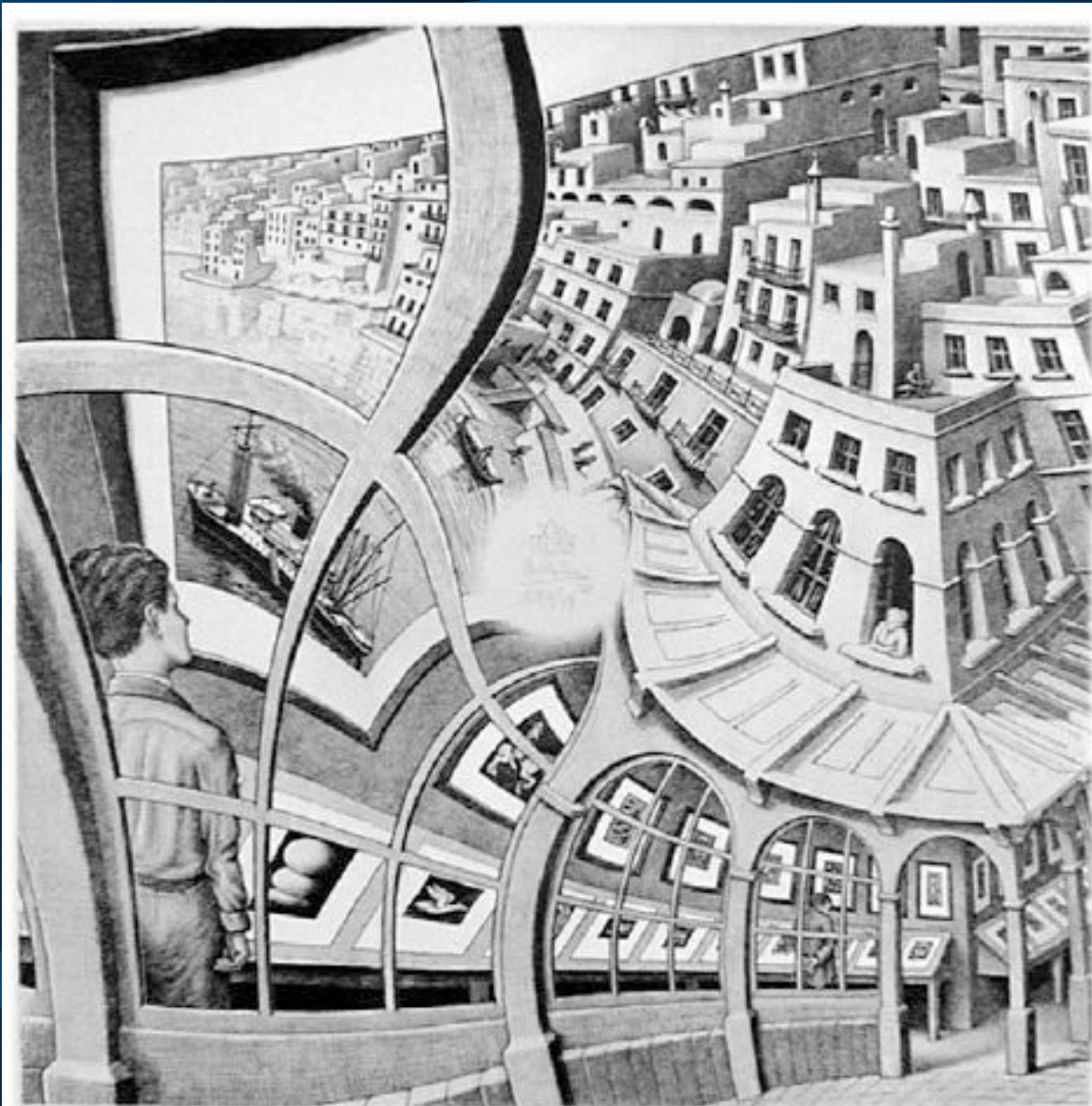
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Gross National Product

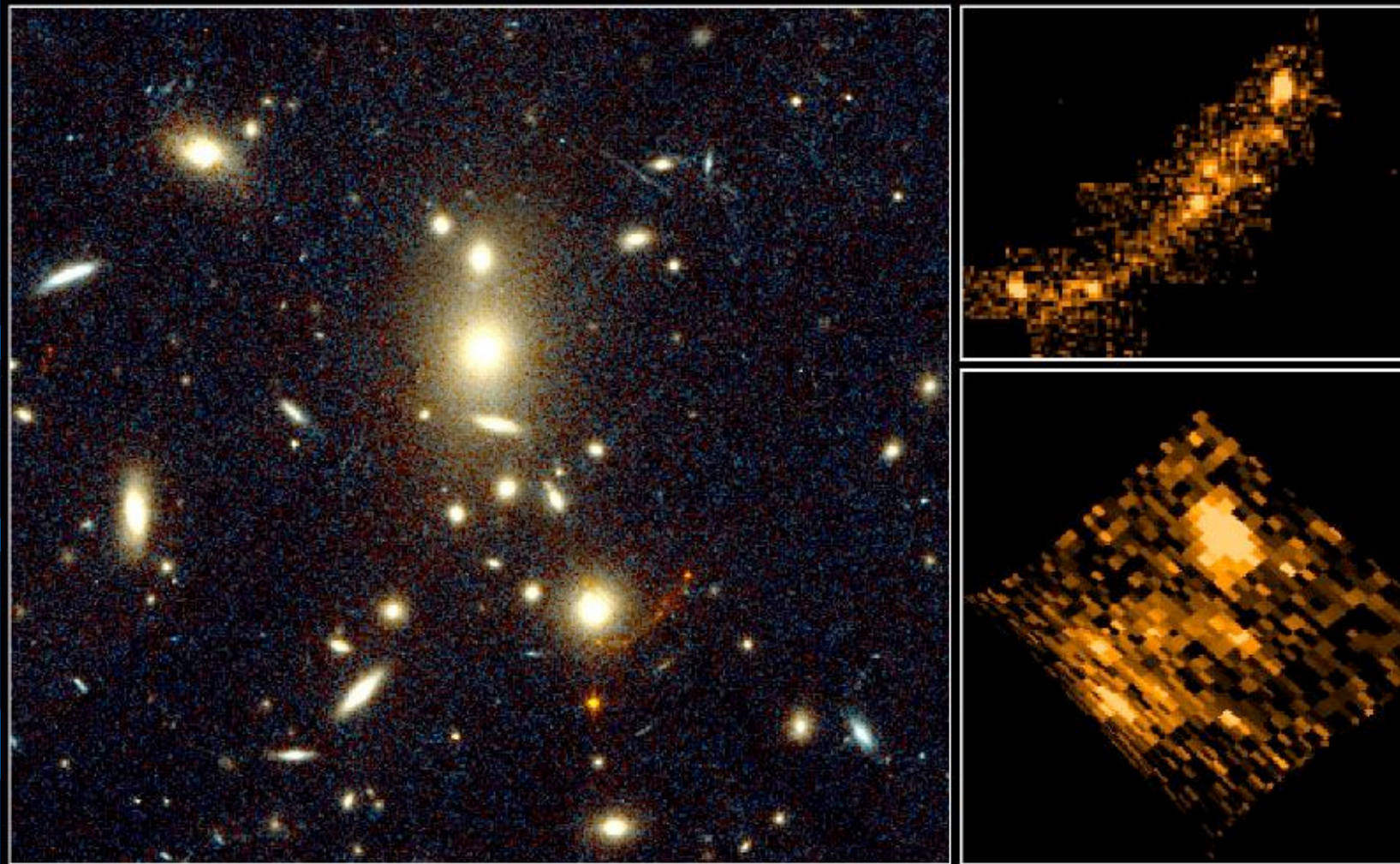


L'ensemble qui se contient lui-même



Lentille gravitationnelle

L'univers nous joue des tours

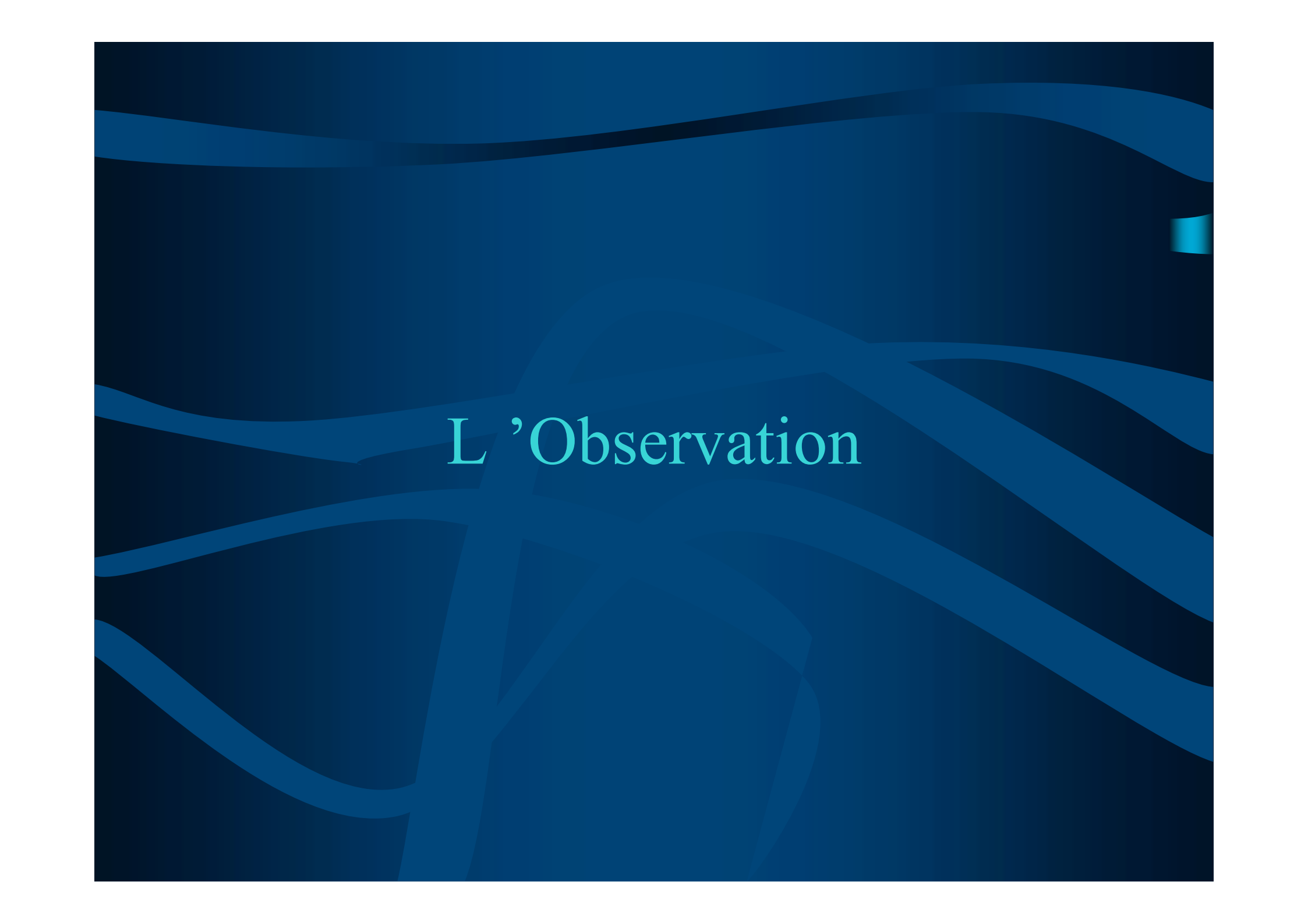


Gravitationally Lensed Image of Highest Redshift Galaxy

PRC97-25 • ST ScI OPO • July 30, 1997

M. Franx (Kapteyn Astronomical Institute), G. Illingworth (Lick Observatory) and NASA

HST
WFPC2

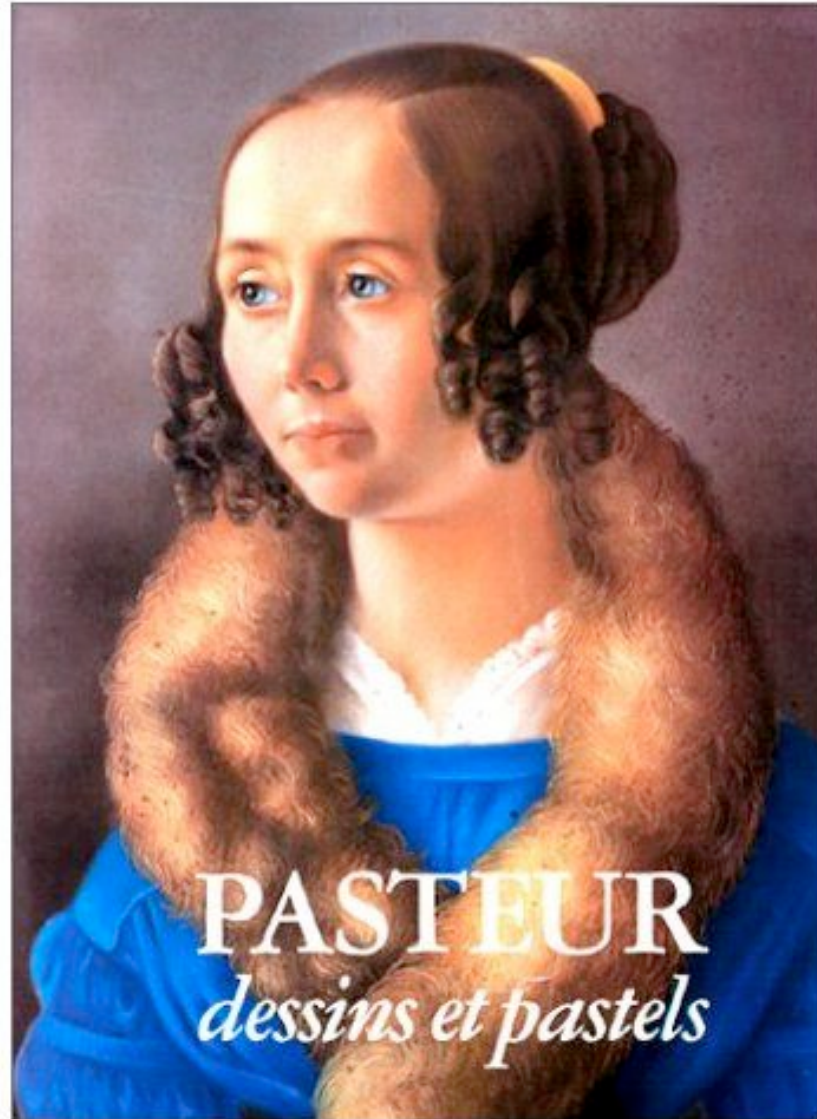


L'Observation

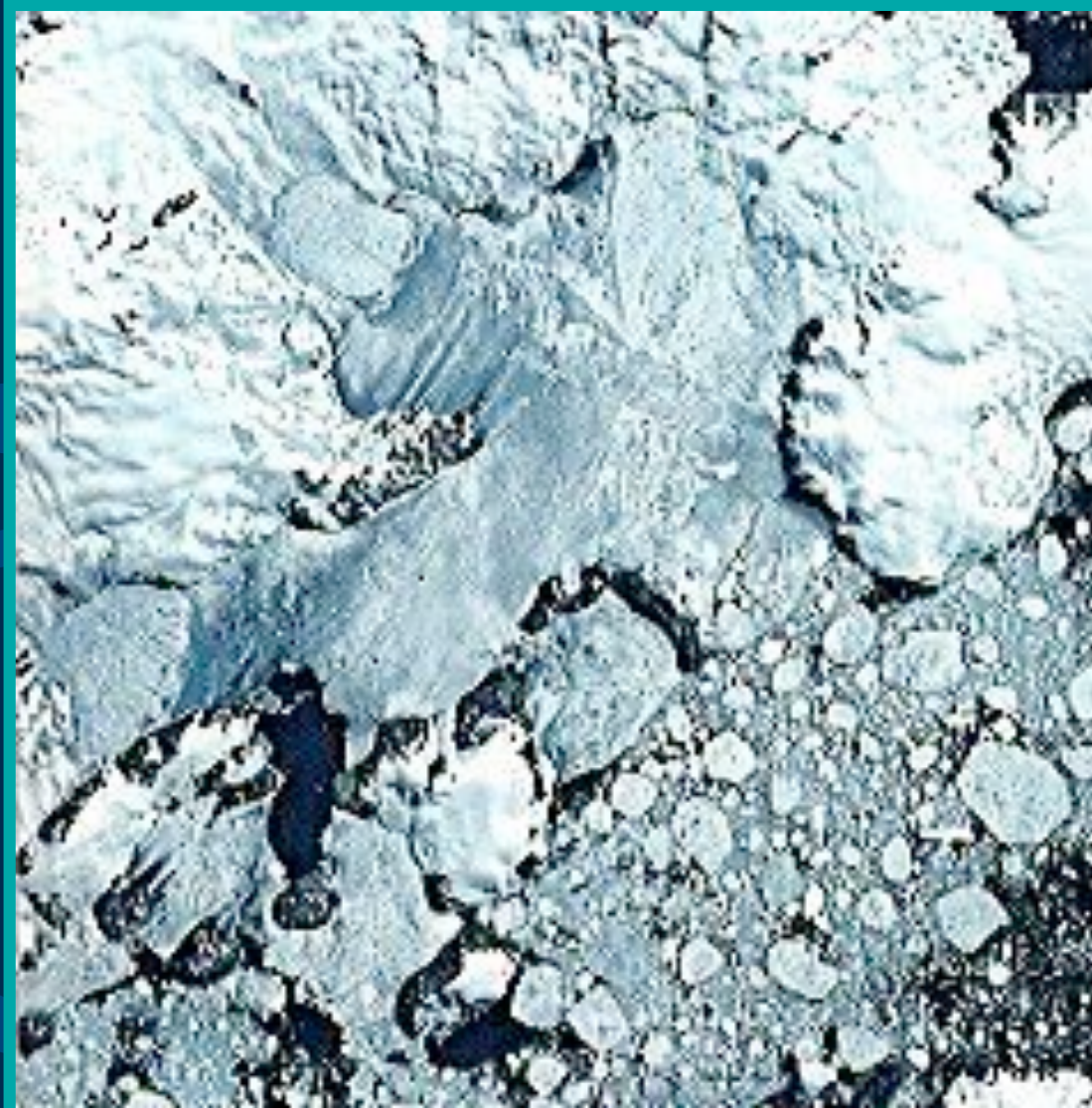
L 'observation

- L'observation est l'action de suivi attentif des phénomènes, sans volonté de les modifier, à l'aide de moyens d'enquête et d'étude appropriés.
- L'observation est une étape essentielle à la méthode scientifique : on l'a constaté dans la Grèce antique (avec Aristote et l'observation de la nature), puis avec la naissance de la science moderne (Galilée et sa lunette astronomique), enfin avec la science contemporaine (radiotélescopes et télescopes spatiaux).

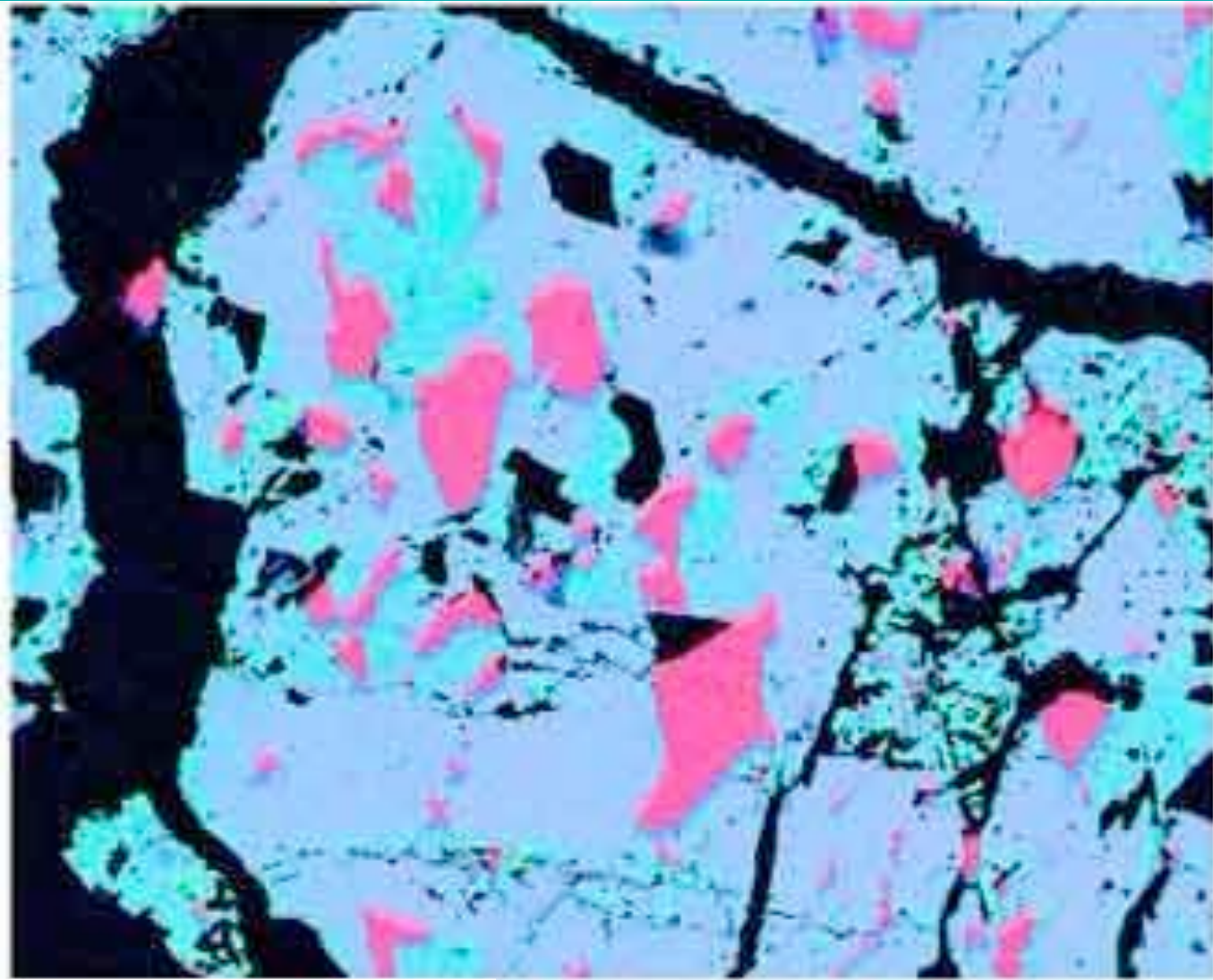
Louis Pasteur



Echantillon inconnu



Echantillon inconnu



L'intelligence n'arrive pas à définir l'intelligence



Dessin de Mix et Remix

Nos sens

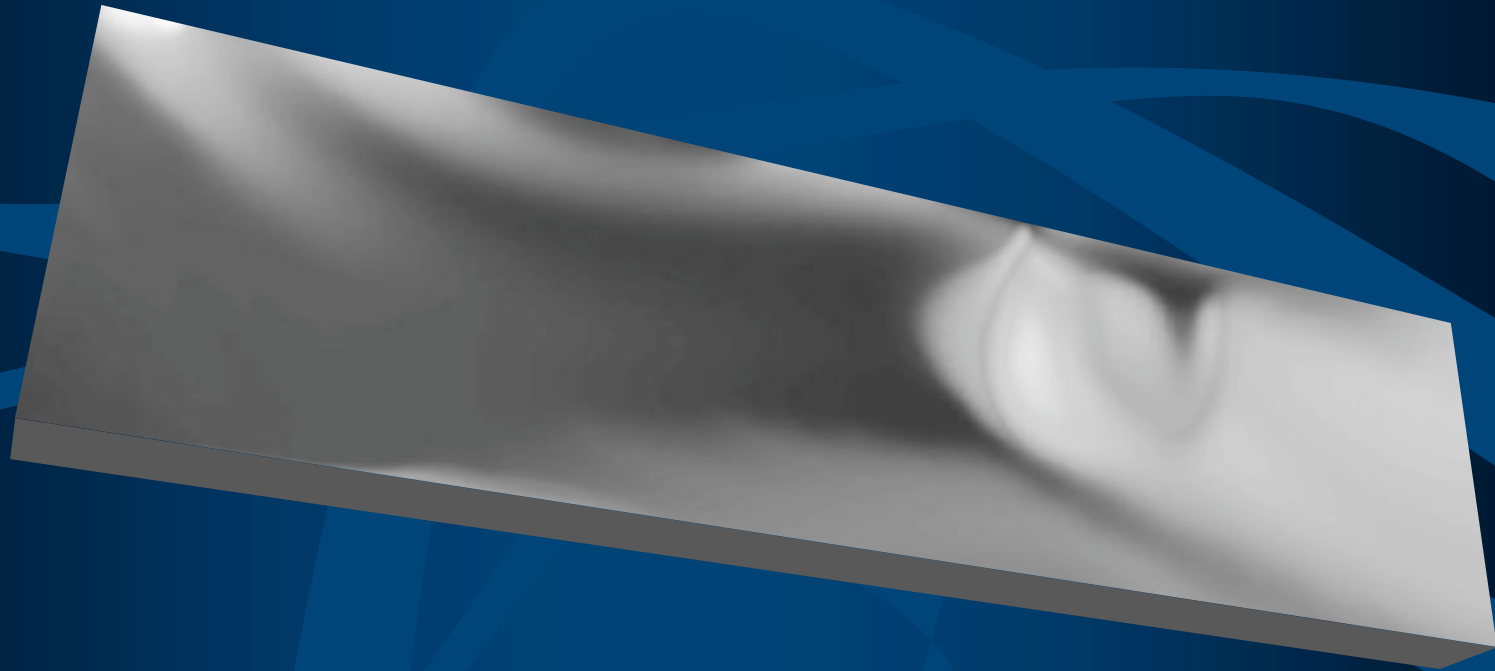
Nos sens et notre raisonnement nous permettent de nous adapter à notre environnement. Dans ce sens, ils sont des mécanismes extrêmement utiles pour notre survie. Néanmoins, malgré la confiance que nous leur faisons, ils peuvent être la source des nombreuses erreurs d'interprétation, ils peuvent conduire notre perception à voir ce qui n'existe pas et à nous faire établir des idées fausses. Nombreuses croyances et superstitions sont basées sur des phénomènes illusoire et paradoxaux qui peuvent tromper tout le monde, personne n'est sauve.

Nos sens

Une seule solution :

*Nos sens et notre raisonnement
sont nos meilleurs amis
apprenons à nous en méfier !*

Technique d'Analyse par Microscopie



À Suivre ...