



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Canolfan Sophia
The Sophia Centre

Sacred Skies

Nick Campion

Week 7

ADDITIONAL MATERIAL 2025

What do we see when we see the sky?

What can we see when we see the sky?



YouTube ^{GB}

aad guray nameh deva premal

X Q



Aad Guray - Deva Premal & Miten with Manose (Live in Concert ~ Zürich 2019)

Dev Premal & Miten

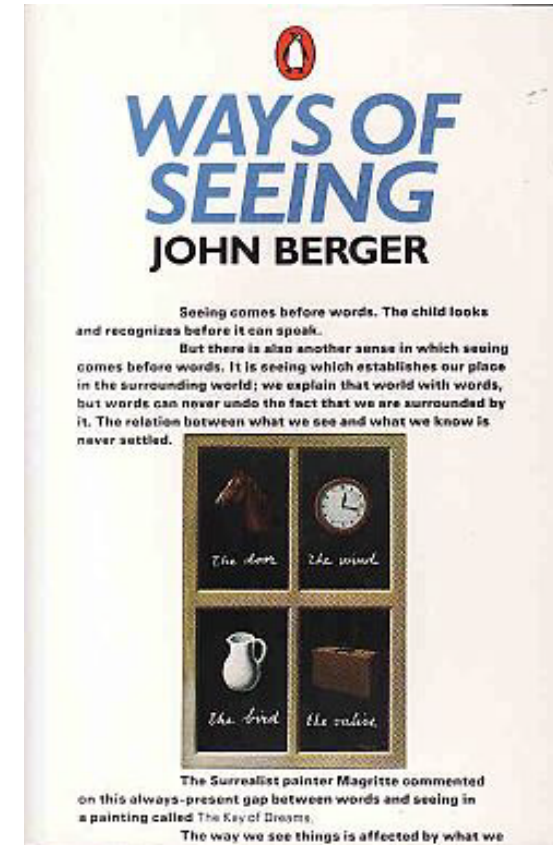


‘Seeing comes before words. The child looks and recognises before it can speak.

But there is also another sense in which seeing comes before words. It is seeing which establishes our place in the surrounding world; we explain that world with words, but words can never undo the fact that we are surrounded by it. The relation between what we see and what we know is never settled. Each evening we see the sunset. We know that the Earth is turning away from it. Yet the knowledge, the explanation, never quite fits the sight..’

Berger, John, *Ways of Seeing* (London: British Broadcasting Corporation and Penguin Books, 1972). p 7

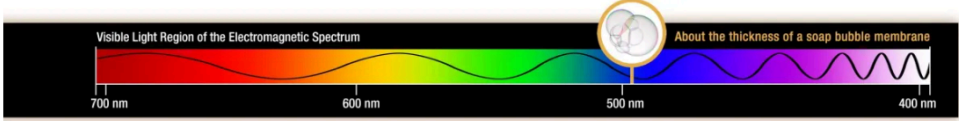
= The gap in the modern world between experience and knowledge



https://science.nasa.gov/ems/09_visiblelight/

science.nasa.gov/ems/09_visiblelight/

Visible Light



Visible Light Region of the Electromagnetic Spectrum

700 nm 600 nm 500 nm 400 nm

About the thickness of a soap bubble membrane

Tour of the EMS 05 - Visible Light Waves

Watch later Share

VISIBLE LIGHT WAVES

More videos

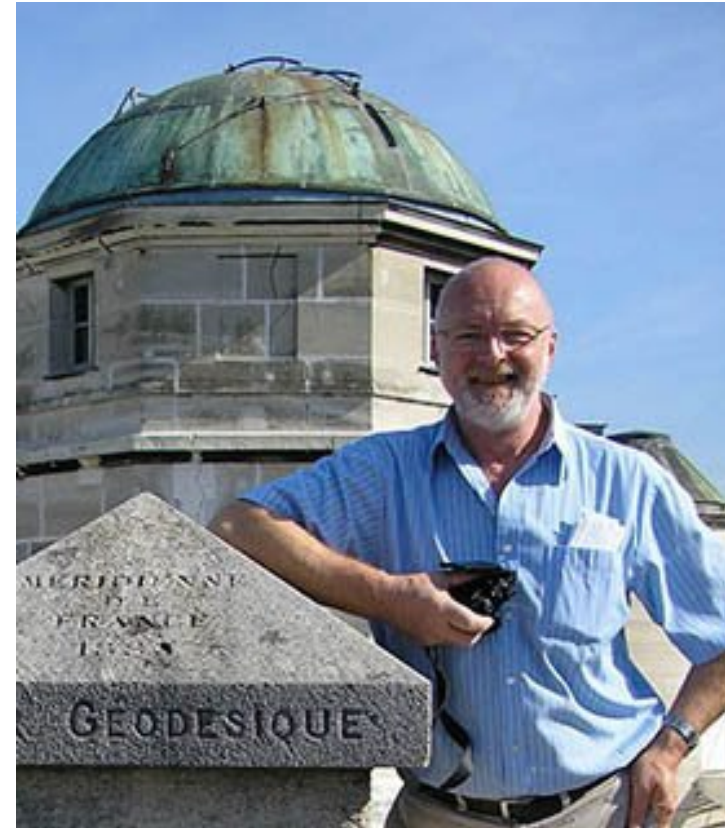
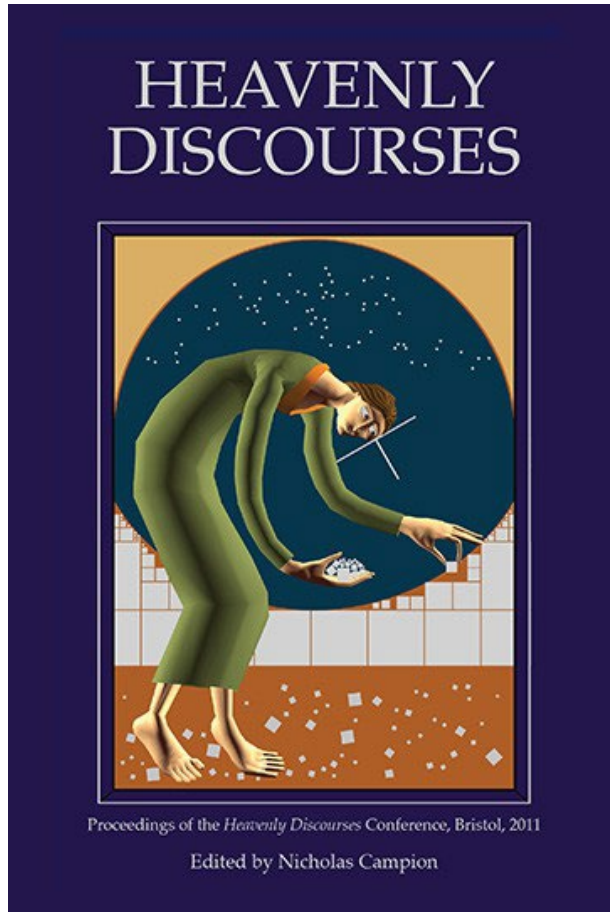
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CC YouTube

What is the visible light spectrum?

The visible light spectrum is the segment of the electromagnetic spectrum that the human eye can view. More simply, this range of wavelengths is called visible light. Typically, the human eye can detect wavelengths from 380 to 700 nanometers.

David Malin, 'Revealing a Universe of Colour, in Nicholas Campion (ed.), *Heavenly Discourses* (Lampeter: Sophia Centre Press, 2016) pp. 319-331.
Based on the exhibition organised by Darrelyn



David Malin

'He has been involved in scientific photography since the mid-1960s, initially using optical and electron microscopes and X-ray diffraction techniques to shed a new light on problems in pure and applied chemistry. Some of these images are featured on these pages.

In 1975, he joined the newly-created Anglo-Australian Observatory (AAO, now the [Australian Astronomical Observatory](#)) as its photographic scientist, and applied his imaging techniques to studying much larger and more distant objects, including [Malin 1](#), the first giant, low-surface-brightness galaxy discovered and still the largest known spiral system.

The AAO photographs...were made from glass negatives, mostly using plates from the Anglo-Australian and UK Schmidt telescopes. They were the first series of deep-sky astronomical images made using the now-universal additive, RGB color process designed to show telescopic objects in true colour.'

<https://www.davidmalin.com/>

See also Alasdair Foster, "David Malin: the Man who Coloured the Stars", Talking Pictures, 27 January 2024

<https://talking-pictures.online/2024/01/27/david-malin-the-man-who-coloured-the-stars/>



David Malin

‘It is rare nowadays to stand beneath the night sky and wonder about it in any profound way, at least when we see it in familiar surroundings. We may wonder why the sky is yellow at night and when the bus is due, but that is usually as far as it goes. The stars, if we can see them at all, are insignificant, though the Moon occasionally attracts the eye. However, wondering about the night sky has a long history and is probably what made us human.’

Malin, David, ‘Revealing a Universe of Colour, in Nicholas Campion (ed.), *Heavenly Discourses* (Lampeter: Sophia Centre Press, 2016) pp. 319-331 (p. 319).

Right: Flame and Horsehead Nubulae



- *Fig. 1: Star trails over the AAT dome. A long exposure shows that the stars seem to move on great circles around two points in the sky, the north and (in this case) south celestial poles. This property of the stars was well known in ancient times, and emphasised the impression that we are the centre of creation.*
- Malin, David, 'Revealing a Universe of Colour, in Nicholas Campion (ed.), *Heavenly Discourses* (Lampeter: Sophia Centre Press, 2016) pp. 319-331 (p. 321).



‘David Malin's astrophotography is characterized by its exquisite detail, vibrant colors, and the ability to capture faint celestial objects. He is best known for pioneering a technique called "**three-color photography**," which involves photographing the same astronomical object using three different filters - one for each of the primary colors (red, green, and blue). These images are then combined to produce stunning, full-color photographs of celestial objects that were previously invisible to the naked eye.

About Photography, ‘David Malin’,
<https://aboutphotography.blog/photographer/david-malin> [accessed 7 April 2025].



Fig. 4: The 'Hand of God' nebula. This small cloud of gas and dust is extremely faint and was not discovered until 1976. The true-colour image was made 15 years later, using special techniques to reveal the colours that tell of the complex chemistry and physics of interstellar dust clouds.

Malin, David, ‘Revealing a Universe of Colour, in Nicholas Campion (ed.), *Heavenly Discourses* (Lampeter: Sophia Centre Press, 2016) pp. 319-331 (p. 319).

"The sky is an infinite movie to me. I never get tired of looking at what's happening up there."

"Astrophotography is a perfect blend of art and science, where creativity meets technology."

"The universe is vast, and there is always something new to discover and capture."

"Astrophotography allows us to share the beauty and wonder of the cosmos with others."

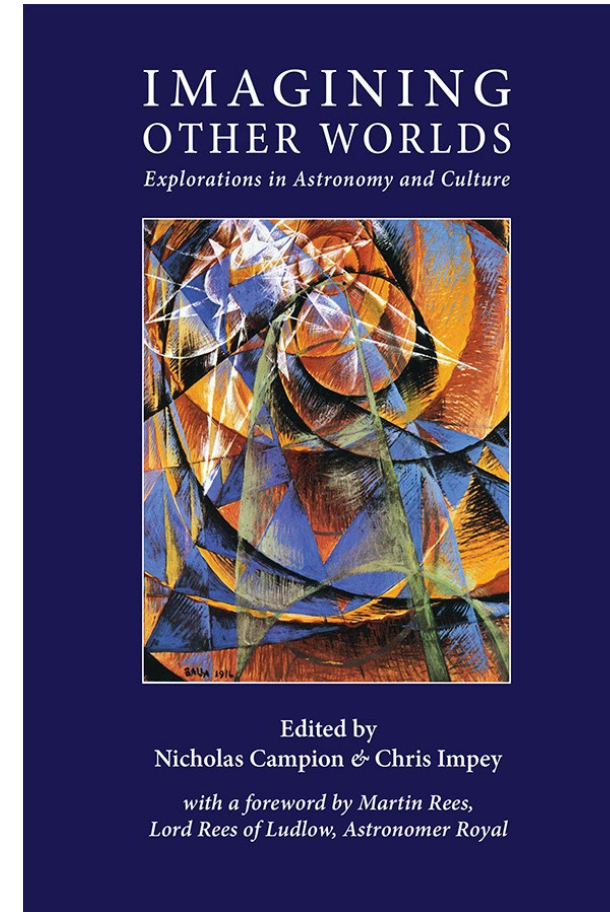
- *"To photograph the heavens is to explore the unknown and reveal the hidden beauty of the universe."*

About Photography, 'David Malin',
<https://aboutphotography.blog/photographer/david-malin> [accessed 7 April 2025].



- Fig. 3: The colours of the stars in Orion. This 30-minute exposure was made by de-focusing the lens of a fixed camera in a series of steps as the stars are carried across the sky by the Earth's rotation. As the images spread out the colours of the stars (and the red of the Orion nebula) become visible. (Malin, David, 'Revealing a Universe of Colour, in Nicholas Campion (ed.), *Heavenly Discourses* (Lampeter: Sophia Centre Press, 2016) pp. 319-331 (p. 327).

- Wells, Gary, 'Balla's "Mercury Passing before the Sun" and the Modernist Sun', in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333.



In November 1914, artist and astronomy enthusiast Giacomo Balla observed the transit of Mercury across the face of the sun. He then painted a series of canvases about the event in the abstract and dynamic style of the Italian Futurist movement, of which he was an important member. Balla's interest in this astronomical event was part of a **larger Modernist inclination toward the valorisation of new technologies and discoveries, and a celebration of the extended reach of human knowledge.** It was also a moment where art began to reimagine and revisit certain astronomical subjects with a new set of expressive and conceptual tools. This paper examines Balla's painting in the context of early twentieth century modern art, particularly in its focus upon the image of the sun. **Balla's interest in the developments of modern science was shared by many other artists who explored astronomical themes derived from the discoveries of the day, and were drawn to the long and rich history of the sun as a subject in art.**

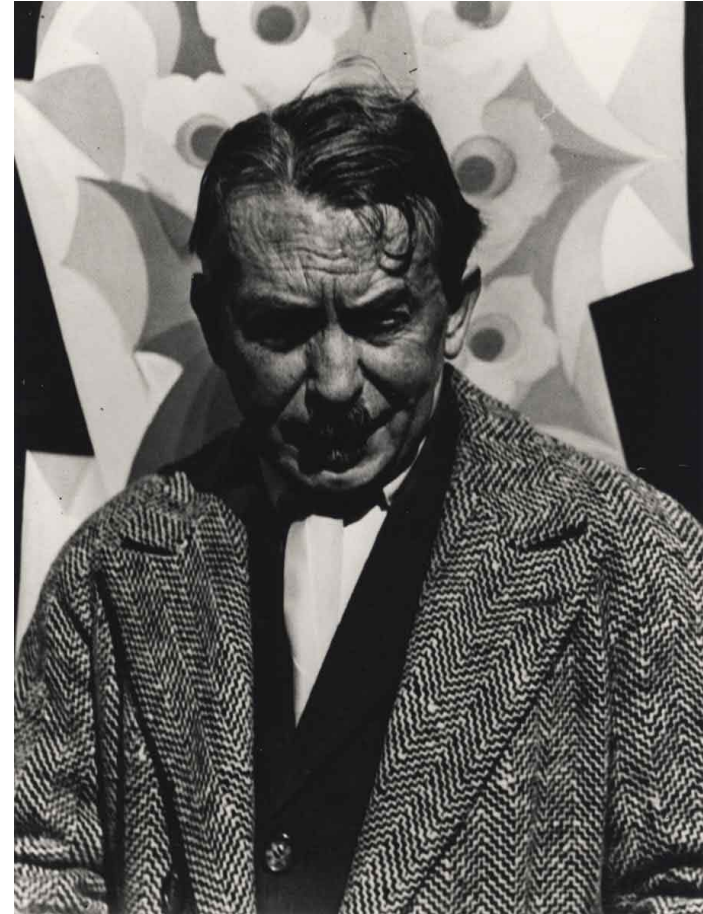


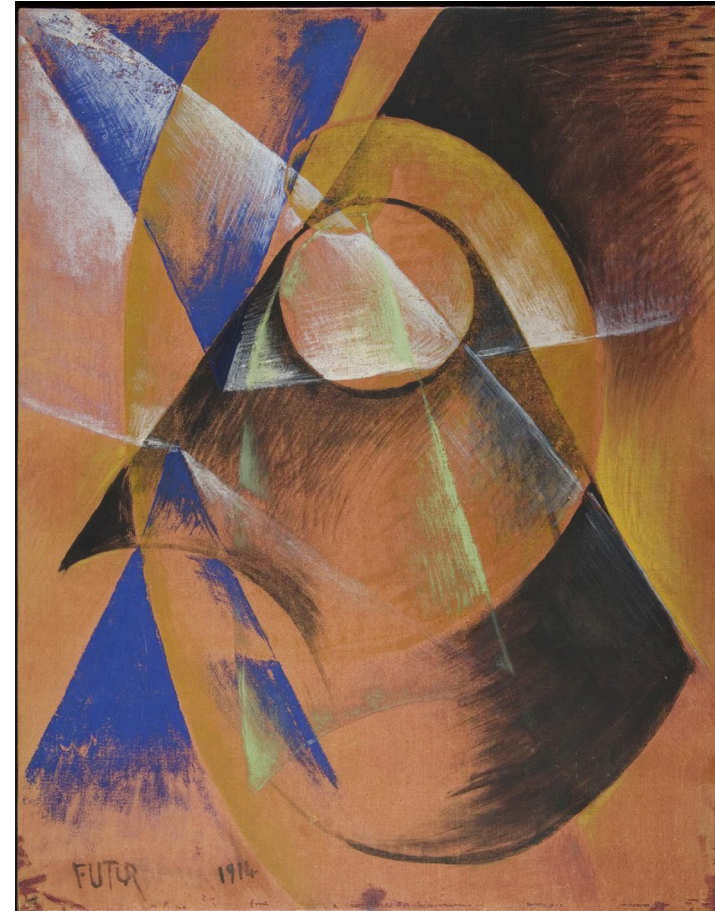
Fig. x.1: Giacomo Balla, Mercury Passing Before the Sun (Mercurio transita davanti al sole), 1914. Tempera on paper lined with canvas. Gianni Mattioli Collection. Long-term loan to the Peggy Guggenheim Collection, Venice. © Artists Rights Society (ARS).

Wells, Gary, 'Balla's "Mercury Passing before the Sun" and the Modernist Sun', in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333 (p. 316).



Fig. x.2: Giacomo Balla, Mercurio che passa davanti al sole (Mercury Passing before the Sun), 1914, opaque watercolor over graphite on textured wove paper adhered to canvas. Philadelphia Museum of Art. Gift of Sylvia and Joseph Slifka, 2004. © Artists Rights Society (ARS).

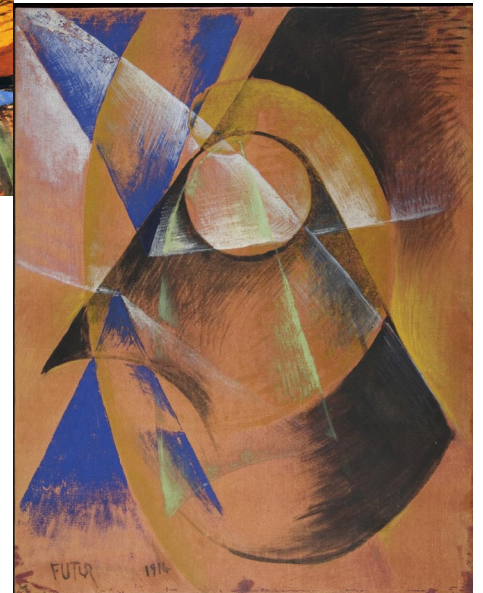
Wells, Gary, 'Balla's "Mercury Passing before the Sun" and the Modernist Sun', in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333 (p. 317).



Balla in 1915

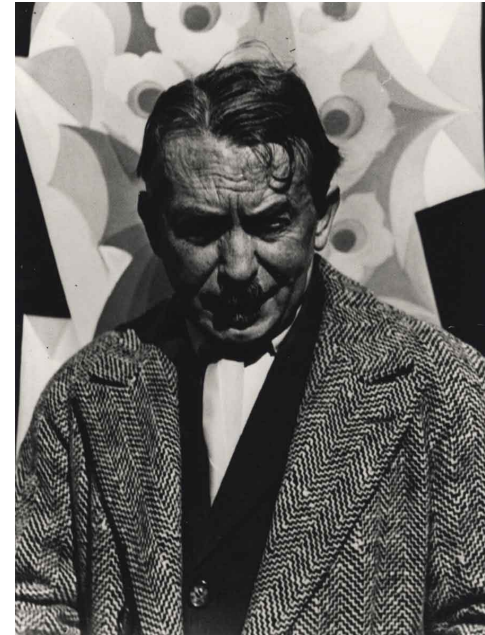
‘We will give skeleton and flesh to the invisible, the impalpable, the imponderable and the imperceptible. We will find abstract equivalents for every form and element in the universe, and then we will combine them according to the caprice of our inspiration, creating plastic complexes which we will set in motion’.

Apollonio, Umbro, ed. and trans. *Futurist Manifestos*. New York: Viking, 1970, p. 197, cited in Wells, Gary, ‘Balla’s “Mercury Passing before the Sun” and the Modernist Sun’, in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333 (p. 332).



‘Contemporary astronomical visualizations of the sky, the planets, and the sun are **data-driven rather than photographic**, and their arbitrary colors and formal structuring often resemble the abstractions of early modernism more than their black and white scientific predecessors. Seen in this light, Balla’s paintings are **perhaps closer to narrow band images of the sun than we might at first imagine**, with energetic arcing lines and **a graphic representation of otherwise invisible forces at work**. Of course, **Balla could only intuit the dynamism of the sun’s surface in order to make visible what was invisible to him**. Highly detailed spectroscopic imagery, on the other hand, spreads out the sun’s visible light and hints at the expressiveness of light as colour.’

Wells, Gary, ‘Balla’s “Mercury Passing before the Sun” and the Modernist Sun’, in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333 (pp. 332-3).



Robert Delaunay 1885 –1941

Robert Delaunay in his 1912 article 'Light':

'We see as far as the stars'.

Herschel B. Chipp, ed., *Theories of Modern Art: A Source Book by Artists and Critics* (Berkeley, CA: University of California Press, 1968), p. 319, cited in cited in Wells, Gary, 'Balla's "Mercury Passing before the Sun" and the Modernist Sun', in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333 (p. 332).



Neo-impressionism, cubism

Robert Delaunay, *Paysage au disque*, 1906–07, oil on canvas, 55 x 46 cm, Musée national d'art moderne (MNAM), Centre Georges Pompidou, Paris



Robert Delaunay, *Simultaneous Contrasts: Sun and Moon*, 1912–13, oil on canvas, 53 in. (134.5 cm) in diameter, [Museum of Modern Art](#)^l



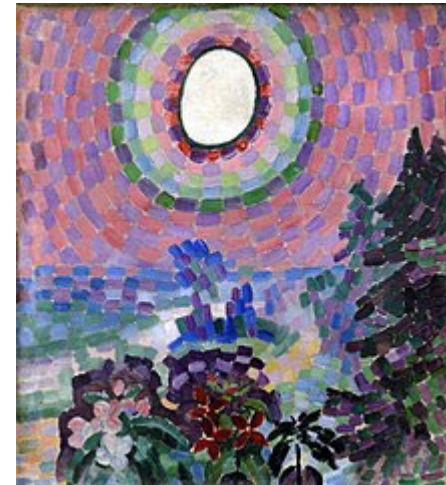
Robert Delaunay. *Le Premier Disque*, 1912–1913, oil on canvas.
134 x 52.7 inches (circular), Esther Grether Familensammlung (Foundation), Switzerland.



What do we see?

‘The relation between what we see and what we know is never settled’.

Berger, John, *Ways of Seeing* (London: British Broadcasting Corporation and Penguin Books, 1972). p 7



Pleasure and Seeing and Being Seen – and being in a relationship.



Laura Mulvey, 1973 ‘**Visual Pleasure and Narrative Cinema**’,: the ‘male gaze projects its fantasy onto the female figure, which is styled accordingly’.

(John Berger 1972: “One might simplify this by saying: *men act* and *women appear*.”)

The issue that Mulvey raises is the pleasure of looking.

‘Sigmund Freud had argued in his essays on infantile sexuality that looking conferred a voyeuristic pleasure, *Schaulust* ... These two ways of looking seemed in some senses at odds: in the former case, **the subject understands herself via the image reflected back at her**;* in the latter, she **takes pleasure objectifying whatever, or whomever, she sees**’.

See Lauren Michele Jackson, ‘The Invention of “the Male Gaze”’, *The New Yorker*, 14 July 2023, <https://www.newyorker.com/books/second-read/the-invention-of-the-male-gaze>

*‘Soon after we can see, we are aware that we can also be seen. The eye of the other combines with our own eye to make it fully credible that we are part of the visible world’. John Berger, p.9

* New Grange

Is the primary experience we have when looking at the sky – if we are engaged with it – pleasure?

Is this a better concept than ‘awe’ or ‘wonder’, which require an I tense level of engagement.

If I have pleasure in looking at the sky, how do I feel emotionally and physically?

Robert Delaunay in his 1912 article 'Light':

'We see as far as the stars'.

Quoted by Herschel B. Chipp, ed., *Theories of Modern Art: A Source Book by Artists and Critics* (Berkeley, CA: University of California Press, 1968), p. 319, cited in cited in Wells, Gary, 'Balla's "Mercury Passing before the Sun" and the Modernist Sun', in Nicholas Campion and Chris Impey (eds), *Imagining Other Worlds* (Lampeter: Sophia Centre Press 2018), pp. 315-333 (p. 332).



<https://eyes.nasa.gov/apps/orrery/#/home>

