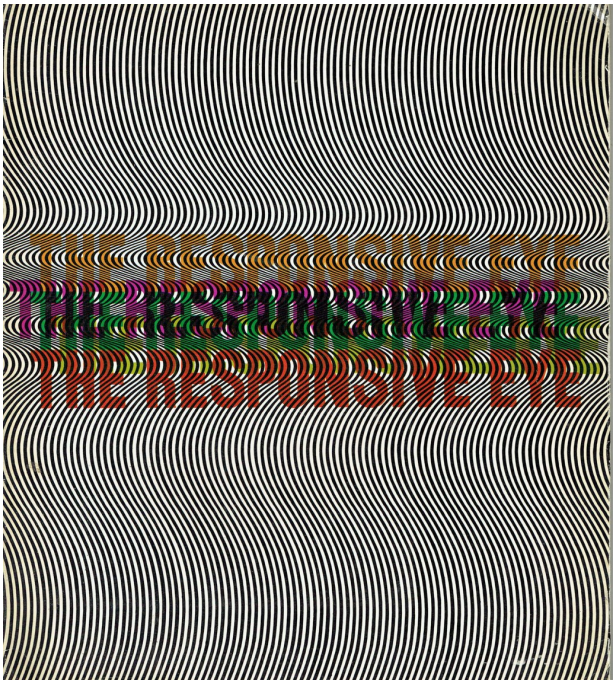
Colour in Op Art

Background Notes

Sarah Ciacci — 12 February 2025



Responsive Eye Catalogue Cover, 1965; using **Riley**, *Current*, 1964. (MoMA)

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In 1965 Op Art (short for Optical Art) hit the headlines with a survey exhibition at MoMA in New York, curated by William C. Seitz, called the *Responsive Eye*. **(Cover Image)** The exhibition showed around 120 abstract paintings and constructions by 99 artists from 15 countries. The artworks were composed of geometric shapes, complex patterns, undulating lines and vivid colours resulting in strange optical effects for the viewer which were described as "hypnotic" and "bewildering and upsetting" amongst other things. Seitz labelled these pieces as 'optical' or 'retinal' art, explaining that the "works exist less as objects to be examined, than as generators of perceptual responses in the eye and mind of the viewer."

Op Art was a major development of painting in the 1960s. The term was coined in 1964 in an article published in Time Magazine, and by the following year, in part thanks to the MoMA exhibition, it had become a household phrase. It refers to an art style that uses geometric forms and colour combinations to create stimulating optical effects in the eye and mind of the viewer. It drew on formal geometry, colour theory, psychology, and the physiology and psychology of perception as inspiration and drew the viewer's attention to the intensely subjective nature of human perception, creating visceral and often meditative responses.

The roots of Op Art were multiple. Artists developed explorations of early 20th century Abstract Art as well as avant-garde experiments with colour and colour theory by artists as diverse as Georges Seurat, Henri Matisse, Pierre Bonnard, Wassily Kandinsky and Joseph Albers, exploring how colour could be liberated from its traditionally descriptive or symbolic role in order to focus on the ways in which colours contrast with each other, as well as the potential of colour to suggest space and illusionary effects. Inspiration also came from Kinetic Art (or art that related to movement for its effects), such as Alexander Calder's mobiles or Naum Gabo's Kinetic Constructions, amongst others. Op Art's emphasis on geometric abstraction can be seen as a natural extension of Abstract art, of the rarefied 1950s Colour field painting,

or of the contemporary and austere geometric Minimalist movement. However, its stress on illusion and perception link it back to much older ancestors, to Renaissance and Baroque *trompe l'oeil,* or illusionistic tricks of the eye.

Certain artists are key to understanding Op Art. An important precursor is **Joseph Albers** (1888-1976), considered the 'Godfather of Op Art' and his work and ideas were a huge influence on the younger generation of Op Artists working in the 1960s **(1)**. He was a German born painter and also a teacher, first at the Bauhaus with its radical core objective to bring art back into contact with everyday life, and therefore architecture, performing arts, design and applied arts were given as much weight as fine art, in order to produce socially oriented and spiritually gratifying design. Then, after moving to the USA in the 1930s, Albers taught at the experimental art school, Black Mountain College, a liberal arts college in North Carolina, with an innovative and progressive multi-disciplinary curriculum, before he then moved on to Yale University. In 1963 his book '*Interaction of Colour*' was published, which set out his life-long interest in theories of colour interaction which he visually explored in his series of over 1000 paintings, *Homage to the Square*, which consisted of squares set within squares of subtly varied hues chosen from a narrow range of colour in order to investigate the effects of colour.

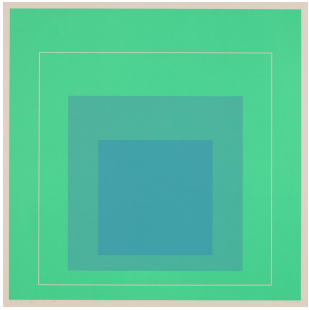

Figure 1: Albers, *White Line Square III*, 1966. (Tate)

Working largely in France, **Victor Vasarely** (1908-1997) was a Hungarian born painter who is considered the main originator and one of the leading practitioners of Op Art **(2).** He began working as a commercial artist, often designing posters, and was interested in visual tricks such as *trompe l'oeil* and spatial illusions. From 1943 he turned to painting and soon started making the geometric abstract works with optical effects and illusions that he is known for today. His abstract work explored ways to create a hallucinatory impression of movement and visual ambiguity using simple, repeated geometric patterns and forms to create a sort of universal alphabet that could be used and reused by different artists (quite a democratic idea that links to the Bauhaus ideals). This can be seen in paintings such as his 1960s Vega Series, which also illustrates his use of small-scale patterns arranged so as to suggest underlying, secondary shapes or warping or swelling surfaces, a common device in Op Art.

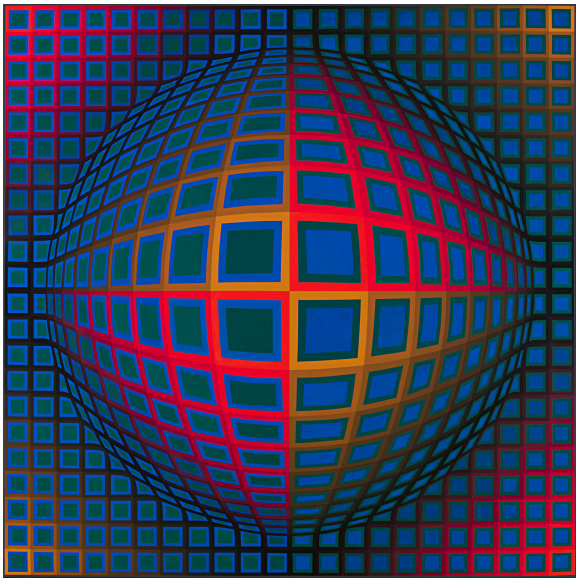

Figure 2: Vasarely, *Vega-Nor.* 1969. (Buffalo AKG Art Museum)

Bridget Riley (1931-) is the other major exponent of Op Art **(3).** Born in England, her interest in optical effects came about partly through her study of Seurat's *pointilliste* technique (see **Figure 3** below), along with many other Old Masters and Modernist artists. Her first optical paintings of the 1960s used only black and white. In these she played with subtle variations of the size, shape and placement of repeated units in an all over pattern to create a feeling of vibration, dazzle and movement, along with the same idea of warping or swelling surfaces that can be seen in Vasarely. In the later 1960s she started incorporating colour into her work, to explore how this further affected our perception. Of her work the art critic Robert Melville said in *New Statesman* in 1971 "No painter, dead or alive, has ever made us more aware of our eyes than Bridget Riley".

Figure 3: Riley, *Messengers*, Riley, 2019. (National Gallery)

Richard Anuszkiewicz, (1930-2020) was the leading American exponent of Op Art who studied under Joseph Albers who stimulated his interest in the effects of colour on perception **(4).** He was interested in the optical effects achieved by juxtaposing complementary colours, often using the simple geometric form of the square as well as radiating expanses of lines, resulting in a vibrating or floating effect on the picture surface.

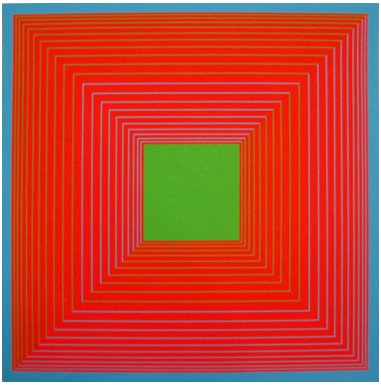

Figure 4: Anuszkiewicz, *Sol I,* 1965. (Private Collection)

Jesus Raphael Soto (1923-2005) was a Venezuelan artist, active mainly in Paris, who made works that relate to both Kinetic and Op Art **(5)**. His early works included geometrically patterned paintings and constructions using Perspex sheets marked with lines or designs over a patterned surface. When the viewer moved, it produced apparent movement in the work – an optical effect. Then, in the late 1950s, he incorporated real movement with his Vibration Structures in which flexible rods or wires were hung in front of closely meshed lines. He continued exploring the relationship between Optical Art and Kinetic Art with his Penetrables Series - constructions of coloured PVC tubes which the viewer could observe from afar as well as enter, touch, move through, engage with, and even hear as the tubes banged together, resulting in works in which perception, movement and experience all came together, creating illusions of weightlessness and of energetic movement, as well as more ethereal effects.

Figure 5: Jesus Rafael Soto, *Horizontal Movement,* 1963.
(Tate)

For many, Op Art was the perfect style for the 1960s, an age defined by dramatic advances of science, computing, aerospace and television. It had huge popular success and a considerable impact on fashion and design in the 1960s, which relates to the democratic ideals of the movement. It was a straightforward and easy-to-understand type of art, in contrast to the dense academic theories put forward in support of Abstract Expressionism and Colour field paintings. Politically it correlated with the radical 1960s, when students and others challenged the status quo and 'normal', accepted ways of doing things. In the same way, Op Art visually destabilised 'normal' vision and therefore challenged the audience to think about whether what they saw and understood was true, suggesting that society's normal modes of behaviour and language, both social and political, should be questioned. However, as a movement it has not aged well. Art critics such as Clement Greenberg, who championed the Abstract Expressionists and Colour-field painters, were not so supportive of Op Art, attacking it as vulgar and gimmicky, as too popular and easy, as mere 'visual entertainment', and still today it remains tainted by those dismissals. We shall weigh it up together!

Reading list: As Op Art has not been critically championed over the years, there are not many good general books on the subject, but here are a few to get started with:

Josef Albers, *Interaction of Colour,* 1963 (Yale University Press, New Haven, Connecticut) (Various editions printed)

John Gage, *Colour in Art* (World of Art), 2023 (Thames and Hudson, London)

Rene Parola, *Optical Art: Theory and Practice,* 1996 (Dover Publications, New York)

David S. Rubin, *Psychedelic: Optical and Visionary Art since the 1960s*, 2010 (MIT Press, Cambridge, Massachusetts)

Colin Wiggins, Michael Bracewell and Maria Prather, *Bridget Riley: Paintings and Related Work*, 2011 (National Gallery Company Ltd, London)