

JEFFREY STEELE  
*Harlequinade*

ERABOWSKI GALLERY, LONDON

## OP ART: PICTURES THAT ATTACK THE EYE

MAN'S eyes are not windows, although he has long regarded them as such. They can be baffled, boggled and balked. They often see things that are not there and fail to see things that are. In the eyes resides man's first sense, and it is fallible.

Preying and playing on the fallibility in vision is the new movement of "optical art" that has sprung up across the Western world. No less a break from abstract expressionism than pop art, op art is made tantalizing, eye-teasing, even eye-smarting by visual researchers using all the ingredients of an optometrist's nightmare. Manhattan's commercial galleries are beginning to find space on their walls for it, and the Museum of Modern Art is planning an op show titled "The Responsive Eye" early next year. Says the show's organizer, Curator William Seitz: "These works exist less as objects than as generators of perceptual responses."

**Pleasure in Precision.** "Optical art is this year's dress length," says Carl J. Weinhardt Jr., director of Manhattan's

Gallery of Modern Art, which will not show any. Some critics already are throwing their weight behind op in dubious battle with pop. Actually, they both share an everyman's land. If anything, they are opposite sides of the same coin, gambled on what art can become.

Scornful of the emotionalism and accident in abstract expressionism, op artists know where they stand. Precision is their pleasure. Their art instantly engages the beholder, yet does not demand his involvement or insist that he relate it to the world of objects, emotions or experiences. Op fascinates the way a kaleidoscope does a child. Its pitfall is that fascination often turns, by repetition, to boredom.

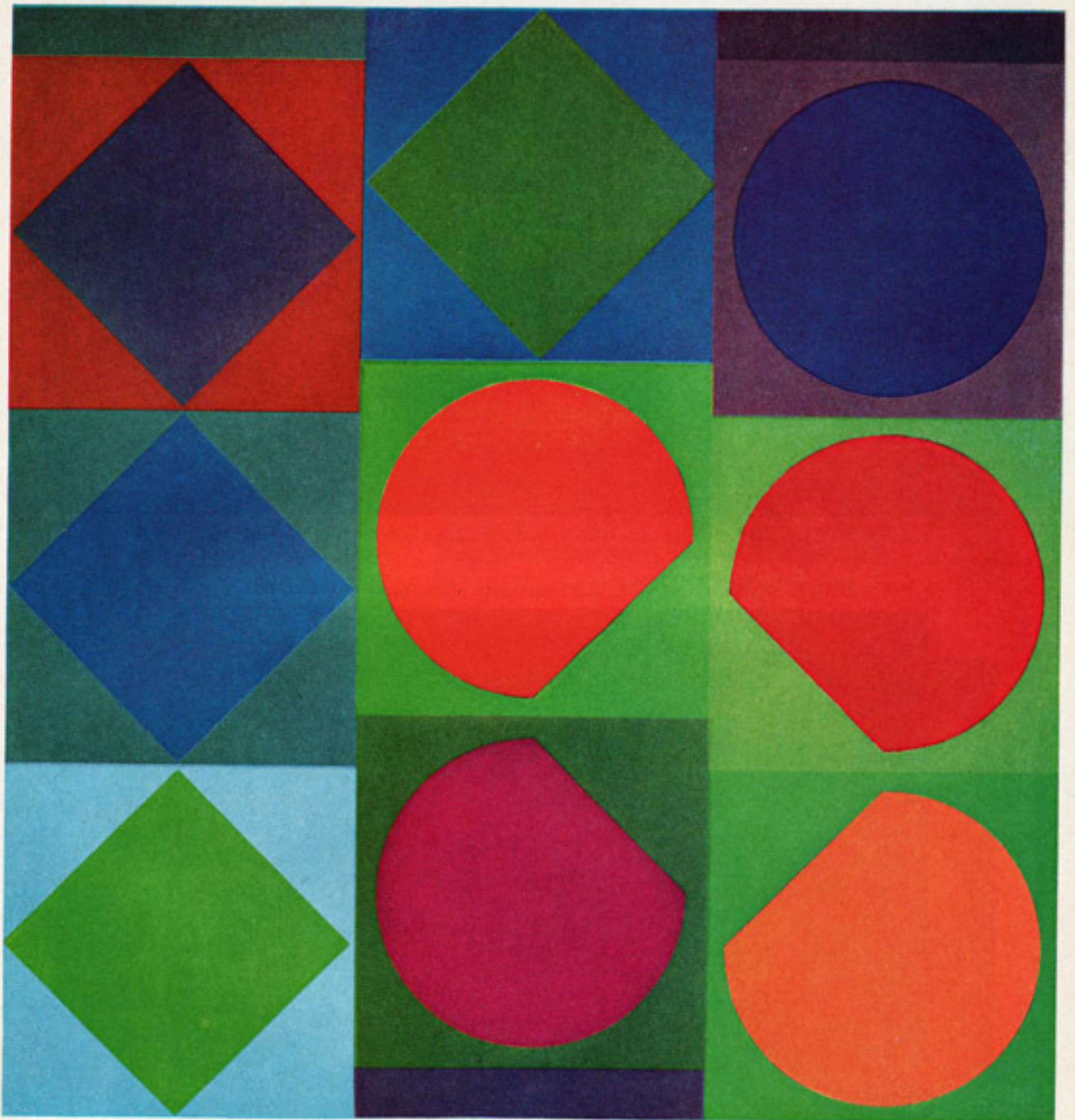
Op art has a legitimate ancestry. Cézanne, Seurat and Monet seized upon newly proposed theories of optics when they painted. In this century, such constructivists as Mondrian and Malevich were the forebears of op art's dry, highly controlled use of color, which sometimes—as in the work of Britain's labyrinth-making Jeffrey Steele, 33 (above)

—amounts to rejecting color. When they do use color, however, it is to stimulate the first sense directly rather than to enhance forms.

**Sleights of Art.** The immediate father figures of op art are Josef Albers, 76, that pioneer in the perception of color, and Victor Vasarely, 56 (see opposite page), a Hungarian who lives in Paris. Albers paints only colored squares. Vasarely dons the crafty lab coat instead of the smock and refers to his work as visual research. Their influence has given birth to optical artists in a dozen countries, from Israel's Yaacov Agam to remote Iceland's poet-painter Diter Rot. Last summer the pavilions at the Venice Biennale and the attics of Germany's *Dokumenta III* dickered and chattered with electrically driven, and even electronically musical, kinetic op.

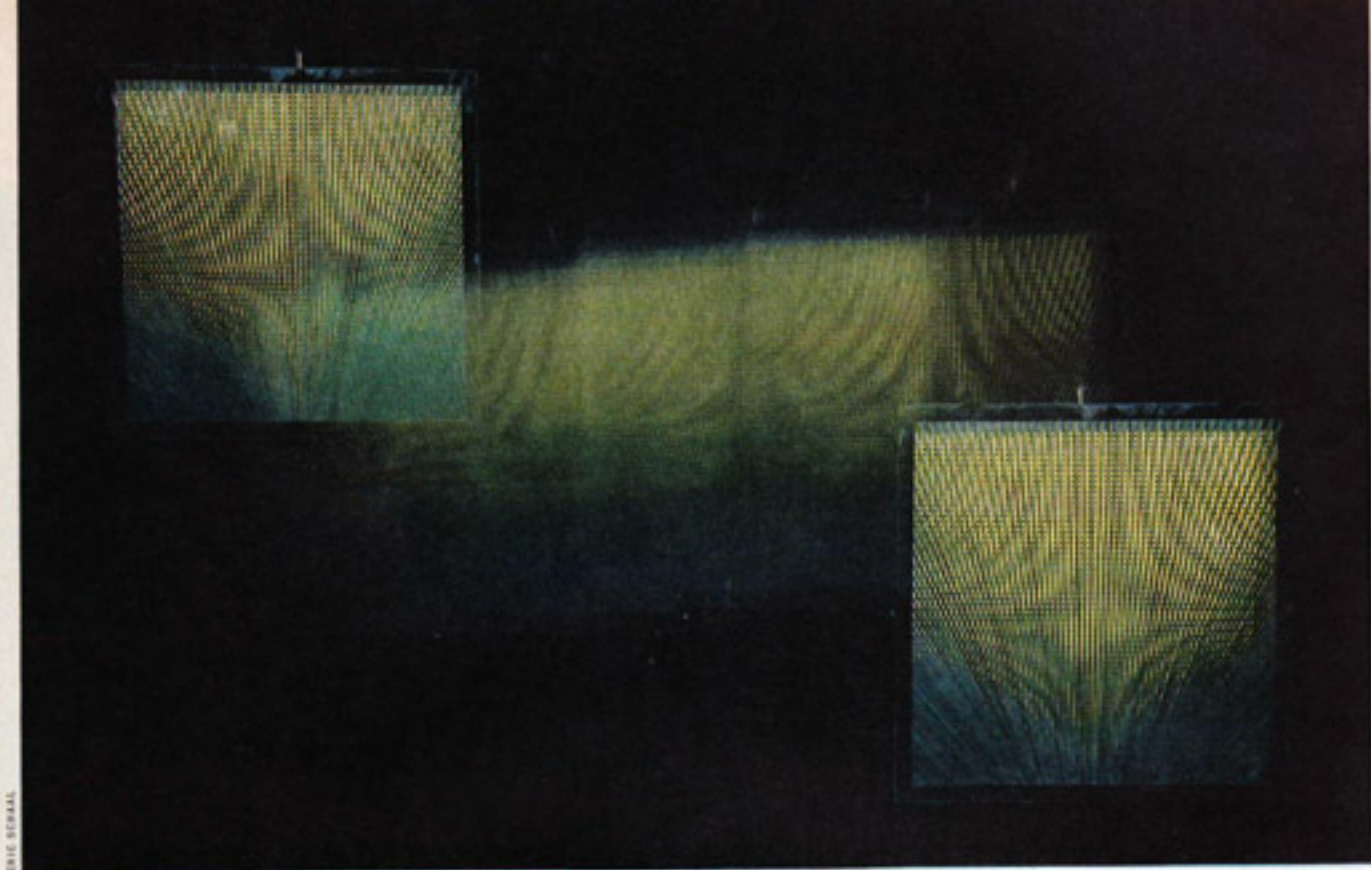
At the square root of op art are the essentially static visual phenomena that enslave and enthrall the eye. The op artist's job is to turn those illusions into sleights of art. Some examine the way a single color looks darker than it





VICTOR VASARELY  
*Beryll*

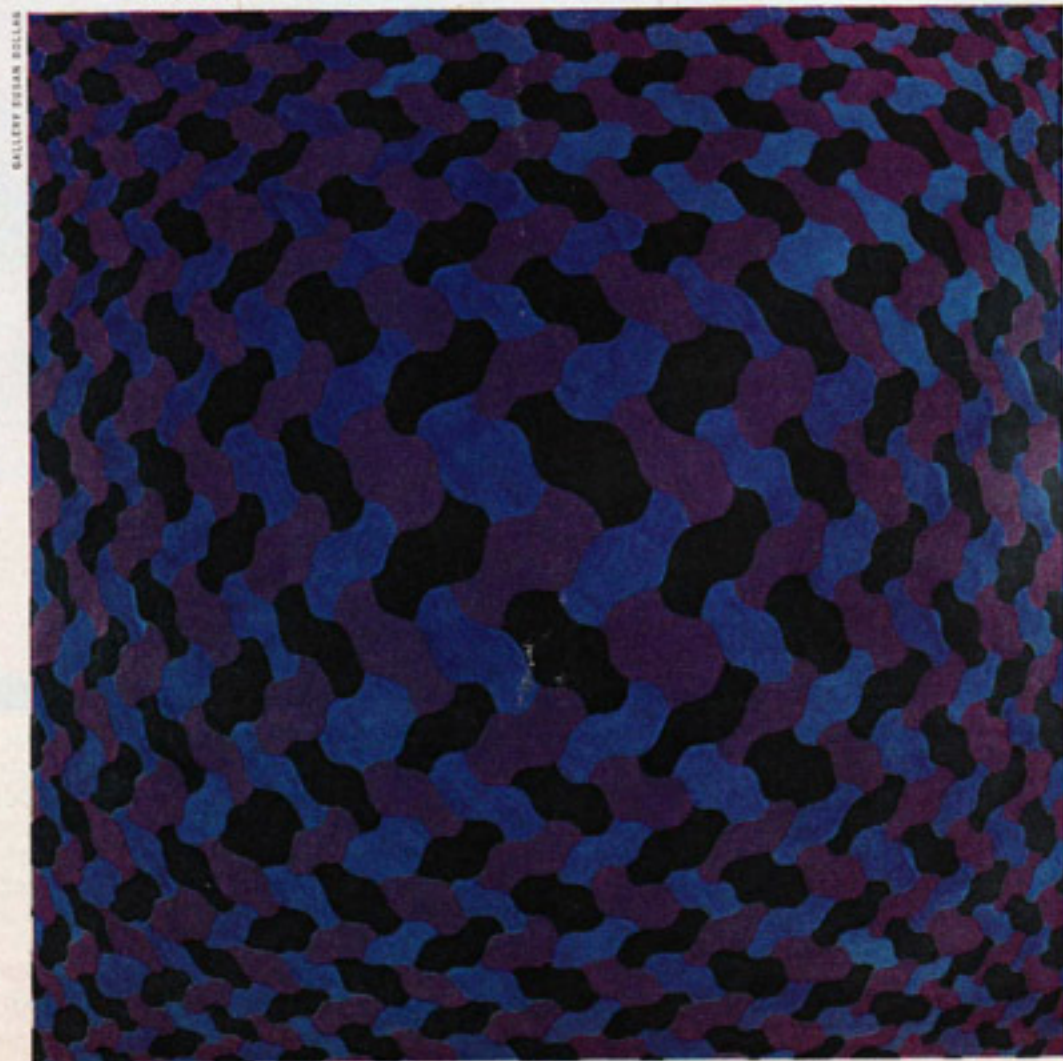




ERIC SERAAL

GRUPPO N's *Geometric Transformation*, 1960 was photographed in three-exposure swinging shot.

EQUIPO 57's *Development C12* is a cooperative effort, involving five artists.



GALLERY ESIAN BOLLAS



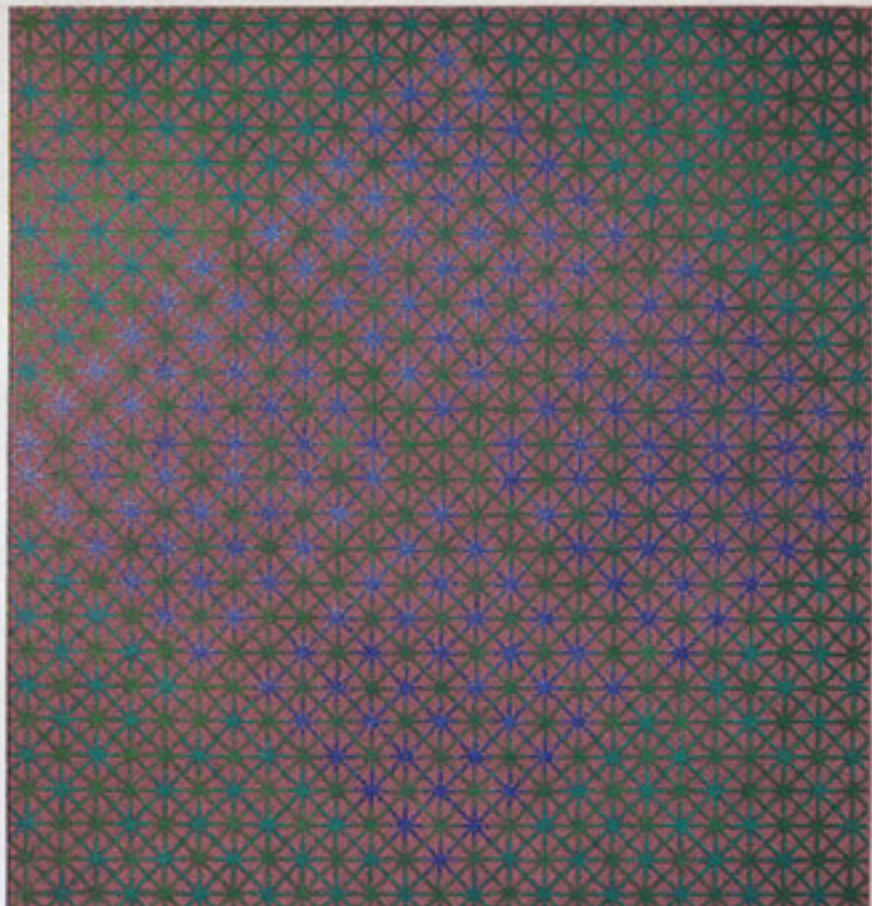
is against a lighter background. Some, like Steele, place contrasting shapes together, which cause the eye to perceive them alternately as figure and ground; the theory is that such shifts move between stimulation and repose, possibly to relieve eyestrain. Richard Anuszkiewicz, 34, plays with afterimages, or the way one color engenders the false sensation of its complement on the retina. In his *Union of the Four* (at right), the red pigment throughout the painting is the same hue, despite what the eye sees.

Another optical effect often exploited by op is the moiré pattern, familiar in the shimmer of watered silk fabrics. Fundamentally, these flashes of apparent reflection are created whenever two or more grids of parallel or periodic rulings—window screens, for example—are overlapped. When misaligned slightly, they produce ripples and curves not actually inherent in the grids. The smallest angle of change yields the greatest, most disturbed pattern displacements.

**AEC & Ph.D.** Op artists often work in teams. Vasarely's son, yclept Yvaral, has helped him start the *Groupe de Recherche d'Art Visuel* in Paris—six researchers who resemble the Atomic Energy Commission more than café-sitting artists. Germany boasts a group called Zero, begun in 1959 by three artists who hold Ph.D. degrees; they call for "new idealism" as opposed to the "new realism" of pop. The Italians have two op groups, the *Gruppo N* in Padua and the *Gruppo T* in Milan, which hopes to "codify visual phenomena, just as music was codified into notes."

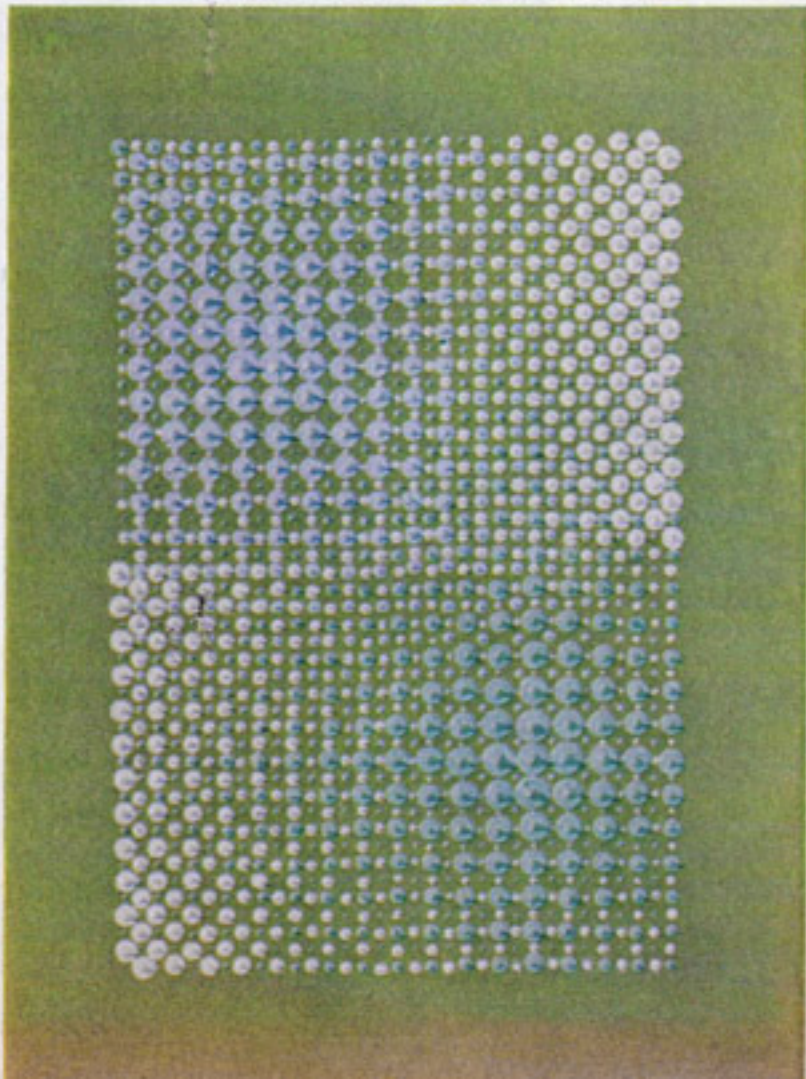
Dating from 1959, *Gruppo N* numbers five young artists more adept with pliers and power drills than brushes who meet for seminars once a week. Says N-Man Manfredo Massironi, 27, "We consider ourselves technicians, in the medieval sense, rather than artists." Going to the Nth degree, they use prisms and grids, often machine-driven, whose rippling moiré patterns look more vibrant through spotlighted darkness (at left, top). A similar splinter group is Spain's *Equipo 57*, who like others sign their work collectively (lower left). Their theory starts with "interactivity," in which any two planes in a painting are separated by an S-curve, and end up as mathematically interlocked—and complicated—as a Bucky Fuller dome.

One loner living in Germany, a tall Brazilian, Almir de Silva Mavignier, 39, is the prototype op artist (lower right). He works slowly, sells for little, and does not care for fame. "Think about the anonymous craftsmen who built that," he said recently, peering from behind gold-rimmed spectacles at the Ulm cathedral. "They have been depersonalized, yet might have died with satisfaction that they helped create something

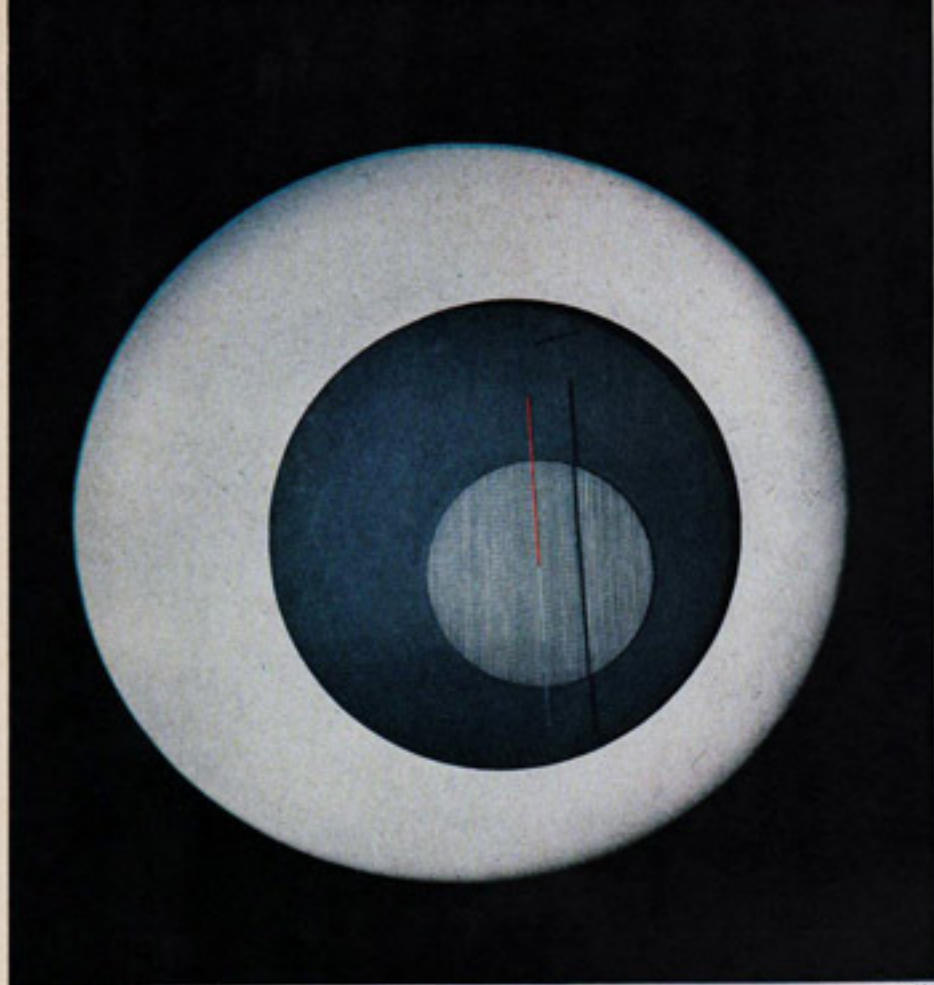


RICHARD ANUSZKIEWICZ' *Union of the Four*

ALMIR MAVIGNIER'S untitled "permutation"







J SUS RAPHAEL SOTO  
*The Ox Eye*

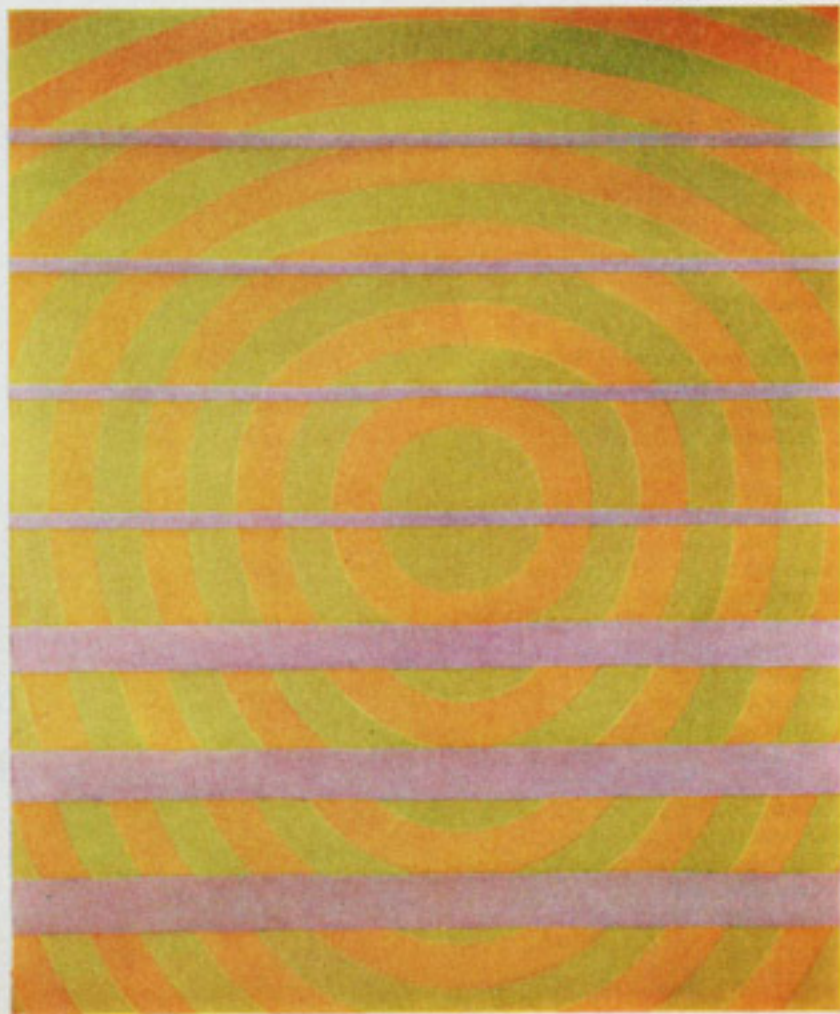
DAVID LEES

still pulsating 500 years later." His works, dotted with neat cones of oil, are uniformly produced in permutations of the spectrum: a painstaking topography that seems to prick the retina.

**British Coolth.** An unusual number of op artists come from Latin America. One is a Venezuelan named J sus Raphael Soto, 41, now working in Paris, who calls his work "vibrations" (*left*), though he states that he has never read a physics book. His colored aluminum bars, suspended from fine nylon threads in shadow boxes, sway in front of lined backgrounds and dematerialize. "See how the stiff bars become fluid and luminous," says Soto. Like conductors' batons summoning music from strings, they do assume a sonorous life.

The British have already scored with Bridget Riley, 32 (*TIME*, May 1), whose stark black-and-white patterns have made viewers physically sick. She generally lets craftsmen execute her designs, has a standoffishness and coolth matched by her countryman, Steele. "These pictures are not necessarily meant to be looked at," says Steele. Another Englishman is Cambridge-educated Michael Kidner (*below*), at 46 one of the oldest of the flicker boys. Years ago he bashed away at abstract expressionism, but, says he, "never con-

GRABOWSKI GALLERY, LONDON



MICHAEL KIDNER  
*Yellow, Green and Pink*



vinced myself that the gesture I was making had much significance." Then he learned that he could make people see colors that, in fact, he did not paint. "I use optics," says he, "as a means to an end that is bigger—in short, a good painting. Optics is a tool, as perspective once was."

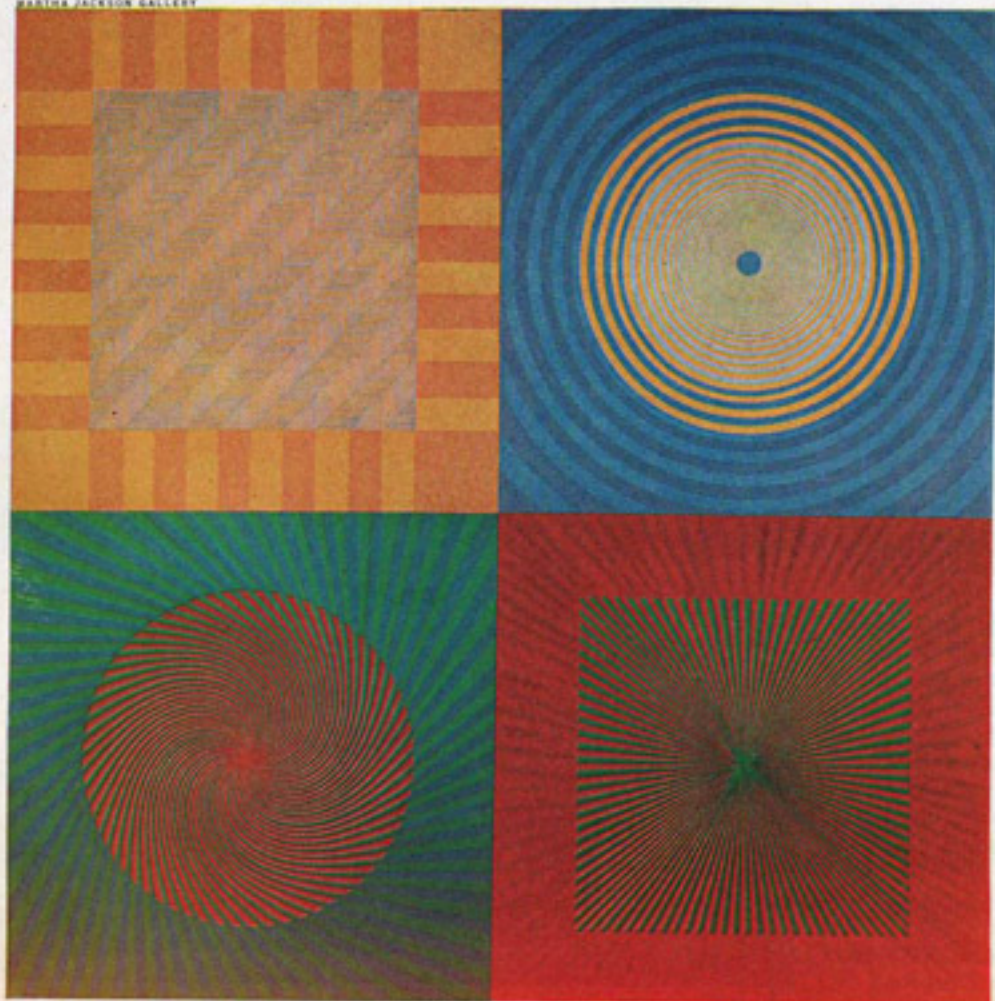
**American Impersonality.** The Americans, such as Julian Stanczak, 35, who roomed with Anuszkiewicz while studying under Albers at Yale, try not to imitate nature. "I use visual activities," says Stanczak, "to run parallel to it" (*right*). There is even a U.S. group, impersonally called Anonima. Composed of three young men, Francis Hewitt (*below*), Edwin Mieczkowski (*next page*) and Ernst Benkert, who met at the Carnegie Institute of Technology and Oberlin College in 1958 and '59, they believe that the rule and the compass are proper artist's tools. Like other op artists, they dislike artistic preciousness, the expression of the prima donna personality on canvas, and psychic plumbing into the meaning of art. They also hold, says Hewitt, that "if people find our art dull, that doesn't really bother us that much. The quality and depth of the experience depend on the willingness to perceive and persistence to overcome certain levels of frustration. We don't



MARTHA JACKSON GALLERY

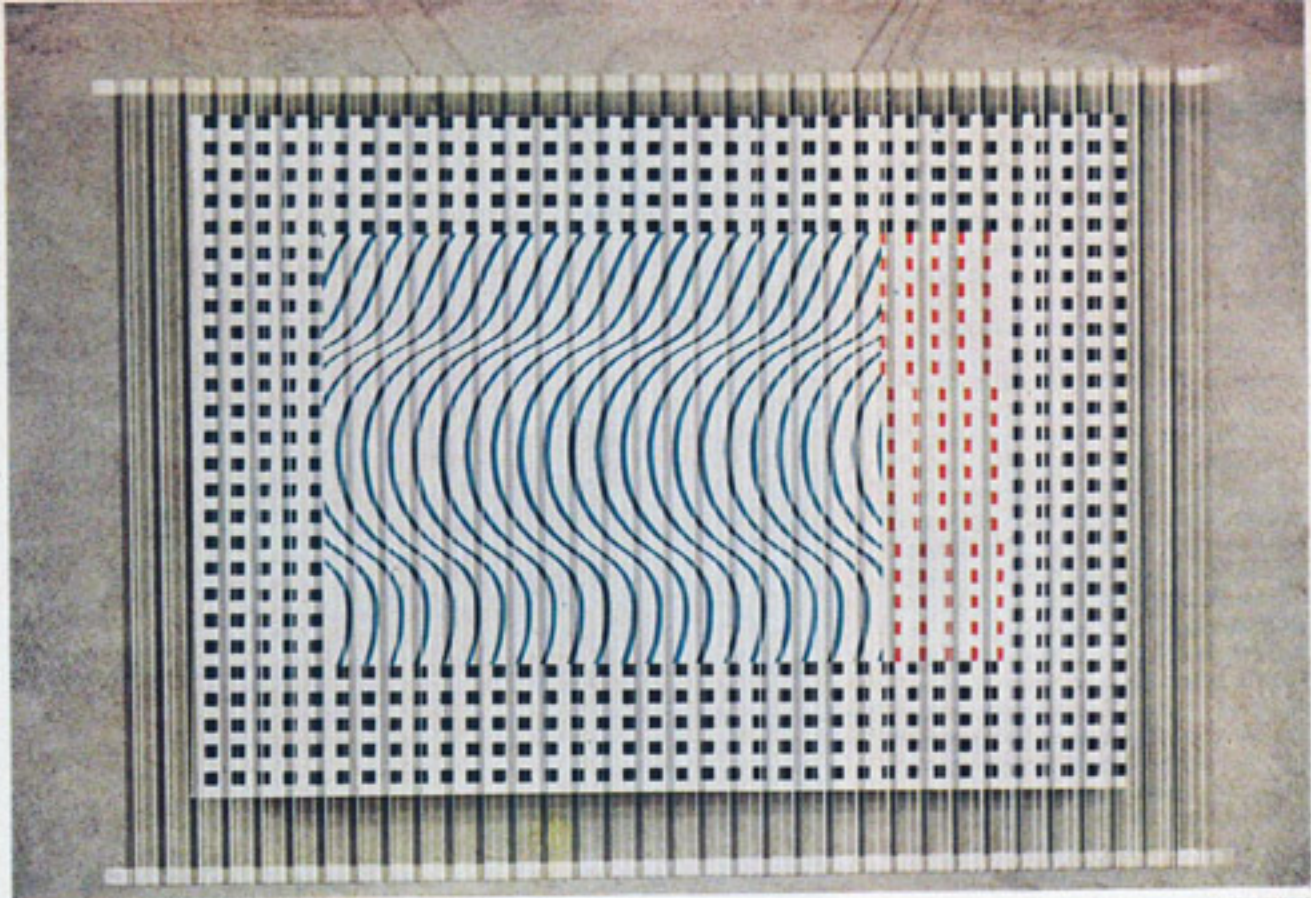
JULIAN STANCZAK  
*Localized Sound*

MARTHA JACKSON GALLERY



FRANCIS HEWITT  
*Four One-Eyed Sandwiches*





JOHN GOODYEAR  
*Shifting Reds*

ERIC SCHARL

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want to make our paintings popular."

Much op art is removed from the artist's subjective discovery. It is the result of a mechanical muse, and the artist becomes a computer programmer churning out visual experiences. Some, like moiré patterns, suddenly reveal new sensations that man never knew were within his visible province. But is it therefore science and not art?

Perhaps. By analyzing wave lengths of visible light, scientists might well make the paintings on these pages. But they have not bothered, and if they had tried, the man-hours would have far outnumbered the time spent by artists using intuition. Still, what makes the end product not the same as waves on an oscilloscope? One artist has an answer. He is John Goodyear, 34, an associate professor of art at Rutgers University, whose work consists of gently moving colored lattices (*above*). Not as chilly an artist as most oppers, he lets his eight-year-old daughter pick his colors. Says Goodyear: "I want to include real space in my paintings, to squeeze it, negate it, play in it." From all that caprice, come surprises, and there is always the possibility of more. Says he, "These realities in some sense not conceived by man give us insight into a world which was certainly not conceived by man."

EDWIN MIECZKOWSKI  
*Adele's Class Ring*





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THE WEEKLY NEWSMAGAZINE



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VOL. 84 NO. 17  
(REG. U.S. PAT. OFF.)