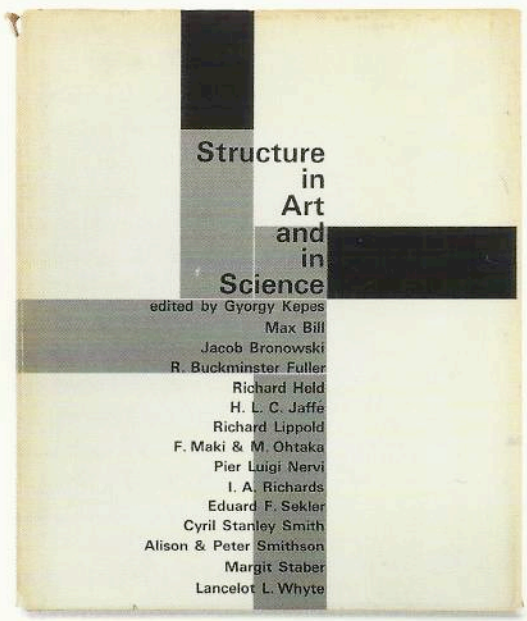
Redux
Rediscovered Books and Writings



In these classic volumes, art and science became one.

The *Vision + Value* Series

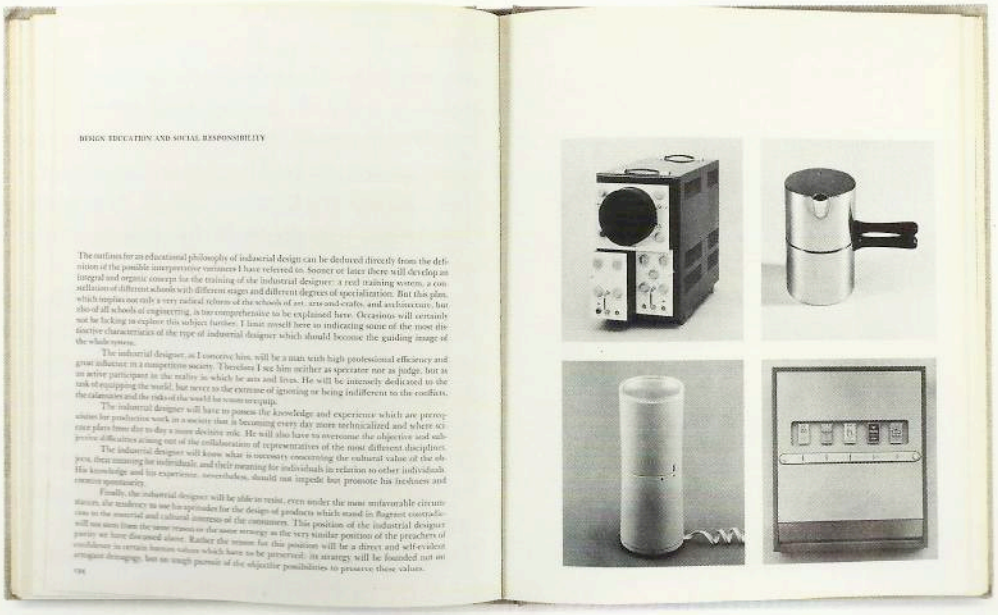
Jimena Canales

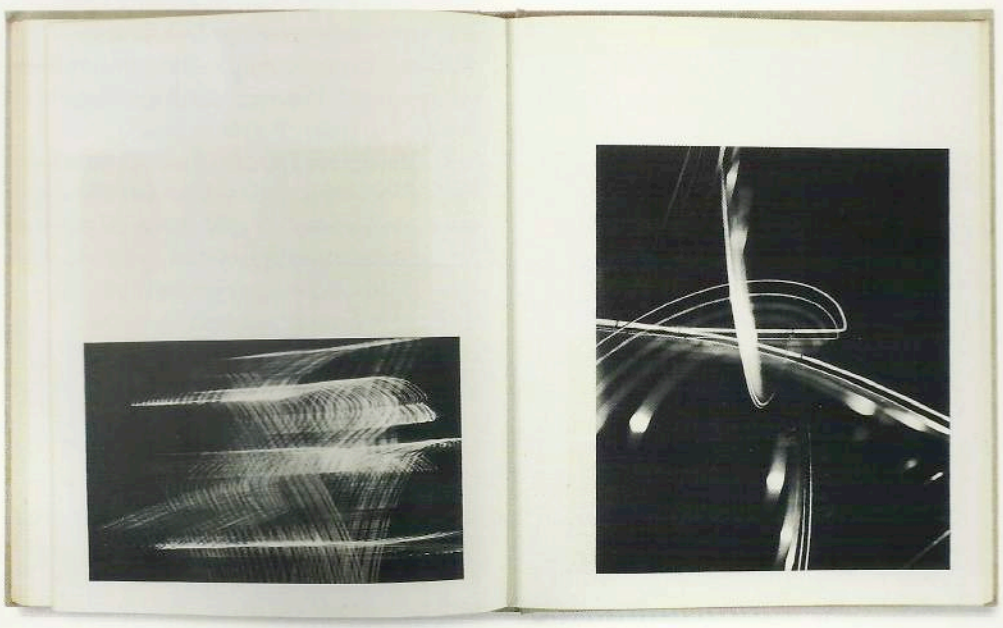
An electron micrograph of a virus. Ansel Adams's photograph of magnetic core memory. A photograph of a thirteenth-century mosaic in Ravenna. What do these three images have in common? All of them look uncannily alike, and resemble patterns or graphs that emerge from mathematical exercises. And all are found in the *Vision + Value* series (1965–66), edited by Hungarian artist, photographer, designer, and theorist Gyorgy Kepes. In six beautifully illustrated volumes he sought to compile "the best knowledge of a given time."

Kepes explained how he admired the vast advances in the creation and circulation of knowledge that had taken place in the previous several decades, yet he lamented the separation between the eye, heart, and brain. His solution was a new term that he coined, *interseeing*. The series was an ambitious endeavor, "a kind of laboratory experiment," undertaken to "remake our vision" in its entirety. The books combined scholarly texts with images and photo-essays by a star-studded cast of artists, architects, philosophers, and scientists, including Paul Rand, Ad Reinhardt, Buckminster Fuller, Marcel Breuer, Marshall McLuhan, and Rudolf Arnheim, among others. One could find an essay on mathematics, such as the contribution by Stanislaw Ulam (who had worked on the Manhattan Project and was then designing thermonuclear weapons at the Los Alamos National Laboratory), in the same volume that presented composer John Cage's seminal article "Rhythm Etc."

The series appeared a decade after Kepes's revolutionary *New Landscape in Art and Science* (1956) changed the way art books were experienced and produced. Filled with stunning photographs of things that made a splash or a boom (or looked like they did) and featuring images that had previously been published only in scientific journals, his books were meant to be "looked at" rather than read. Kepes's innovative designs, which were delineating a new American avant-garde style, caught the eye of James Killian, president of the Massachusetts Institute of Technology and, later, the first presidential assistant for science and technology. Killian invited Kepes to MIT: if he could sell science with the same artistic flair with which he sold cardboard for the Container Corporation, one of his graphic design clients, then MIT's enrollment might benefit. Since World War II, science and engineering were struggling, as Killian recollected in 1969, associated "not so much with their socially constructive effects as with terrifying military technology and with the degradation of the environment." Killian believed that bringing together science and the humanities would be beneficial to both disciplines. He implemented this strategy to great success with Harold Edgerton's Strobe Alley lab, where students learned how to produce visually compelling images with technologies developed to analyze bombs and bullets. Engineering products could migrate from arsenals and factories to art museums, and back.

Cover of *Structure in Art and in Science* (New York: George Braziller, 1965)





Spreads from *Education of Vision* (New York: George Braziller, 1965)

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Kepes made a career out of reconciling science with art: at the Light Workshops of the Institute of Design in Chicago, he taught students to bend reality with slits, filters, prisms, and mirrors. His light modulators, used to produce cameraless photograms à la Man Ray, delivered an important lesson: light organizes space. Working with his mentor, László Moholy-Nagy (who had moved to Chicago in 1937), Kepes rejected traditional lens-based perspectival images in favor of cut-ups, montage, and abstract geometric shapes. When the Art Institute of Chicago invited Kepes to display his design ads in 1943, he titled his first solo museum exhibition *Photographs without a Camera*.

Kepes found that Old World ideology for getting to the bottom of things (including Nazi blood-and-soil propaganda and Marxist materialism) could be easily dismissed in the New Continent. Spearheaded by Kepes and Moholy-Nagy, the "New Bauhaus" movement had a winning strategy: change the world by changing its appearance. By the mid-1950s, the Hungarian émigré had dropped the umlaut in *György* and abandoned his belief in physical space as a fundamental bedrock of reality. Why cling to things in themselves and long for the existence of a real-world independent of us when none could be found? At MIT, Kepes had plenty of support for his work: hired as professor of visual design in 1946, he founded the Center for Advanced Visual Studies in 1968, and remained there until he retired in 1974. The *Vision + Value* series served as a manifesto for this program.

Ultimately, Kepes's concept of interseeing revealed certain connections only by obscuring others: nowhere to be found in the *Vision + Value* series were explicit discussions about the movement's links to military and corporate interests. *New Landscape in Art and Science* had been sponsored by the defense industry (Ballistic Research, Aberdeen Proving Ground, Brookhaven National Laboratory, and the UC Radiation Laboratory, Armour Research, among others), Big Pharma (Abbott, Eli Lilly, etc.), and Big Industry (General Motors, U.S. Steel Corp., Standard Oil, etc.), and *Vision + Value* featured the work of some of their top researchers. By publishing images from scientific journals next to ones created by artists, Kepes taught us a new way to appreciate both. Images of nonlinear transformations, created by Los Alamos computers designed to simulate atomic explosions, looked just like Jackson Pollock paintings. With Kepes, it became impossible to see either as *just* art or just science. Side by side, they obtained a new meaning. Kepes sought to collect the "living fabric of the best knowledge of a given time" in beautifully illustrated books—that was all that mattered then. And today? Perhaps it is time to reconsider if the knowledge Kepes believed to be the "best" remains so for us.

Jimena Canales is the author of *The Physicist and the Philosopher: Einstein, Bergson, and the Debate That Changed Our Understanding of Time* (2015) and *A Tenth of a Second: A History* (2009).