Scientific data transformed into stunning 3-dimensional images will be displayed in "Science in Depth," an exhibition at The Computer Museum beginning March 1, 1991. The digitized, full-color photographic works, called phscolograms, show subjects that cannot be seen by the human eye, ranging from thunderstorms to viruses.

The pieces were created by (Art)\textsuperscript{n}, a group of artists and scientists at the Illinois Institute of Technology, who have done ground-breaking work in the integration of art, science and mathematics. They coined the term phscologram (pronounced skol-o-gram) because their work combines elements of photography, holography, sculpture, and computer graphics.

Captured in a lightbox, the phscologram's kinetic three-dimensional imagery takes on a life of its own. The reason is that most phscolograms interleave a series of 13 images onto one photograph mounted behind a laminated line screen in the lightbox. The line screen filters the images so that each eye sees only one image at a time from any one angle. Since our eyes are at different angles from the phscologram, each eye sees a different image which the brain then condenses into one three-dimensional image. As we move, the picture changes, creating a feeling of depth and motion.

"The results are not only visually compelling, but have serious applications in mathematics, medicine, chemistry and physics," says Museum Executive Director Dr. Oliver Strimpel. (Art)\textsuperscript{n} has collaborated with scientists from corporations, universities and government institutions nationwide.

One phscologram that (Art)\textsuperscript{n} created in conjunction with NASA shows a computer rendered view of the planet Mars using surface data of Mount Olympus and the Valley of the Mariners. Other phscolograms offer three-dimensional X-ray views of viruses from data gained by microscopic analysis.

Originally, sculptor Ellen Sandor, director and founder of (Art)\textsuperscript{n}, and her colleagues photographed their phscolograms with a huge camera and a complex system of multiple exposures. But in 1988 they developed the computer generated "stealth negative" phscologram, an image produced from a negative that exists only in digitized form so that both photographic and computer generated imagery are produced via computer.

The images are conceptualized at the (Art)\textsuperscript{n} Laboratory and then compiled at the University of Illinois's Electronic Visualization Laboratory (EVL), in Chicago, where the computer graphics for the first Star Wars were created. (Art)\textsuperscript{n}'s network of artists includes mathematician Stephan Meyers and EVL co-founders Tom DeFanti and Dan Sandin, among others.

(Art)\textsuperscript{n} is now trying to figure out a way to mass-produce phscolograms and 3-D imaging that could be used in hospitals. Sandor has predicted that within a decade people will be able to create their own phscolograms on desktop computers.