

ELECTRONIC EXPRESSIONS.2

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(Art)ⁿ

Copper Giloth

Paul Glabicki

John Grimes

Craig Hickman

David Rokeby

March 3 - April 3, 1992

Bowman, Penelec & Megahan Galleries,
ALLEGHENY COLLEGE
Meadville, Pennsylvania

Electronic Expressions.2

"Technology does not mean, it is means" — Robert Rauschenberg

"The medium is the message"— Marshall McLuhan

Human beings have a love-hate relationship with technology. We are fascinated by technological developments which allow us to travel to outer space and walk upon the surface of the moon, to journey to the Titanic lying on the ocean floor, or to see inside a living human heart. At the same time, we are mindful that technology's marvels do not come without a host of very worrying consequences. The possibility of global annihilation, the destruction of the ecosystem, the threat of losing our jobs to machines, or our oft-noted sense of dehumanization within a culture increasingly managed by computer databanks all loom large in our awareness.

Since art is a part of culture, it is neither immune to the impact of technological developments, nor to the struggle to come to terms with them. The increasing use of computers by visual artists is but one of the latest examples of the enduring interest in technical innovations which have had an impact on artistic practice and theory.

For many of us, the use of computers in art seems alien. This alienness may stem from the belief, still widespread, that works of art are unique, hand-made objects resulting from the artist's talent and technical skill. The removal of the artist's hand and the intrusion of a mechanical device between the artist and the artwork cause some doubt that computers have a place in art. But is this an adequate basis for doubt?

Many very old artistic processes — forging, casting and printing come readily to mind — are dependent on special technologies. Like the products of much computer art, they can produce unique objects, but are inherently reproductive processes. It is also important to recognize that artists have always used technology and have been quick to adopt new tools, techniques and materials when they became available. From the incorporation of woodcut illustrations into printed books, making both mass production items in the fifteenth century, to the widespread availability of factory-made oil colors and the invention of photography in the nineteenth century, to the development of film, video and computer technologies, artists have ever sought to explore and express themselves with whatever new or labor-saving tools were available to them.

The threat to entrenched values harbored in the use of new technologies by artists is perhaps best illustrated by the reception of photography. At its invention, there were dire predictions that, as Baudelaire said, "If photography is allowed to stand in for art...it will soon supplant or corrupt it completely." Predictions that photography would spell the death of painting were clearly exaggerated. Painters realized the value of photographs as source material and used them as visual references. Photographs provided a record of how things looked and sometimes revealed new insights into the visible world. For example, Muybridge's studies of human and animal motion showed painters, for the first time, how a horse's legs were held at full gallop. Some painters recognized that photography's representations of light, space and volume were fundamentally different from those painters were trained to produce and responded to this new kind of vision in their paintings.

Fairly early on, disputes began as to whether photographs could aspire to the status of works of art or whether they were mere soulless "recordings" of reality. The practical benefits of photography were applauded but recognition as art was slow in coming.

This perspective, of embrace and rejection, enthusiasm and hostility, may be helpful in explaining the slow acceptance of computer art. Many of the arguments raised against photography — that it is impersonal, that it is the product of a machine, that its use requires no skills — are applied now to computer art. The very term computer art is problematic. We don't talk about "oil paint art" or "chisel and marble art." Artwork produced by computer, if it is to enter the mainstream, must ultimately transcend the adjective "computer" and be evaluated for its worth as art, but, as the example of

photography shows, that day may be some time in arriving. Computer art is still new and its products rapidly evolving. Questions it poses, such as whether there is a computer aesthetic requiring different criteria for evaluation from other media, are tough to answer.

Is the computer a tool or a medium? Some argue that it can be either. Others hold that computers mimic but ultimately transcend the capabilities of traditional media, that they are a meta-medium wherein texts, images, sounds, motions and processes can be unified in a common digital symbol system and used in entirely new ways. Most of the artists in this exhibition use the computer in this latter, richer sense. Individuals new to a medium naturally tend to work their way into it through those habits of understanding with which they are familiar. A photographer might be drawn to computers initially as a new tool for taking pictures. Soon, however, realization that the computer is not just another sort of camera, but a device that represents images as numerical data, not chemicals and silver, will push the thoughtful artist further, as seen in the work of several artists in this show. The same deeper exploration might follow initial consideration of the computer as painter's sketchbook or musician's note editor.

Electronic Expressions.2 is Allegheny College's second exhibition focusing on electronic media in the arts. It presents work with a diverse range of subject matter, processes and concepts by five individuals and one collaborative team. The work it contains challenges popular notions of computer art as flying logos, geometric "designs" and fractals, offering little more than the desire merely to wow the viewer with "gee whiz" technical razzle-dazzle. All the artists represented here are keenly aware of the difficulties computer generated work presents to the viewer. They have produced thought-provoking work, deserving of attentions on its artistic merits as well as its technical innovativeness.

Canadian David Rokeby's *Very Nervous System* is an interactive work of art, certainly one of the most innovative, important and exciting directions to emerge from computer-based explorations in the arts. Rokeby incorporates the viewer as an active participant in the creation of the work. The viewer is transformed from a passive receptor of art objects into an activator, a co-creator, of the artwork. Through video cameras, the system senses the viewer's presence in the exhibition (performance) space. As the spectator moves and gestures in the room, the system senses the movement through edge-detection and responds to the dynamics of the movement by producing sounds. Thus the viewer dances and moves to a musical accompaniment provided by the system. The speed of digital processing is quick enough to make the two seem simultaneous. The viewer explores a new environment, where body, movement and space become a musical instrument, learning how to interact with the system and to play it.

Movement and choreography of a different order are found in the work of Paul Glabicki, who lives and works in Pittsburgh. Glabicki began as a painter with an intense interest in film and animation. After finishing his M.F.A. in painting, he obtained another in film and worked with animation, doing the thousands of drawings for his abstract films by hand. He began to explore computers as an alternative means of creating animations and made rapid progress in adapting his ideas to this new medium. His animations are based on the computer's ability to mimic traditional cel animation by page-flipping virtual pictures rapidly enough to create the sense of motion. Pure geometric shapes, bits of text and organic forms combine in Glabicki's animations, creating a multi-layered, complex realm which moves with seamless perfection.

Collage, the combining of multiple elements from disparate sources into a single artwork, has been a powerful artistic form in our century, reflecting as it does the disjunctive, multi-faceted and fragmented nature of our lives. It finds a uniquely adept vehicle in the computer, where all media become unified as digital information. Several of the artists represented in *Electronic Expressions.2* utilize this aspect of the computer, combining separate images, texts or photographs — a virtual collage — as a fundamental part of their work.

(Art)", a Chicago-based group directed by Ellen Sandor and co-directed by Stephen Myers, collaborates with scientists and engineers, not functioning directly as artists, who

provide the images which appear in the "PHSColograms" (Art)ⁿ produces. In a PHSCologram, a number of slightly different views of the subject, which may be hand made, photographic or computer generated, are sliced into several thousand vertical sections which are interleaved. These are laminated onto one side of a sheet of plexiglas. On the other side is laminated a "barrier" screen, composed of clear vertical openings alternating with black strips. The barrier screen causes the viewer's eyes to see slightly different angular views of the subject, which the brain combines into a startling illusion of three-dimensionality, (Art)ⁿ's recent work re-presents in an art context images originally produced as scientific visualizations. These images might therefore be likened to the Dadaists' readymades — objects intended for practical uses suddenly transported into a context laden with other expectations. While it might be tempting to dismiss such images as non-art, their positioning in a gallery context refocuses our attention on their aesthetic and expressive potential. The hypnotic visual appeal of some images, such as *HIV Reconstruction*, is immediately undermined by the horror of its subject. (Art)ⁿ frequently adds to this expressive potential by juxtaposing two or more images in one PHSCologram, or by assembling several PHSColograms into a sculpture, the form of which becomes a sign of itself.

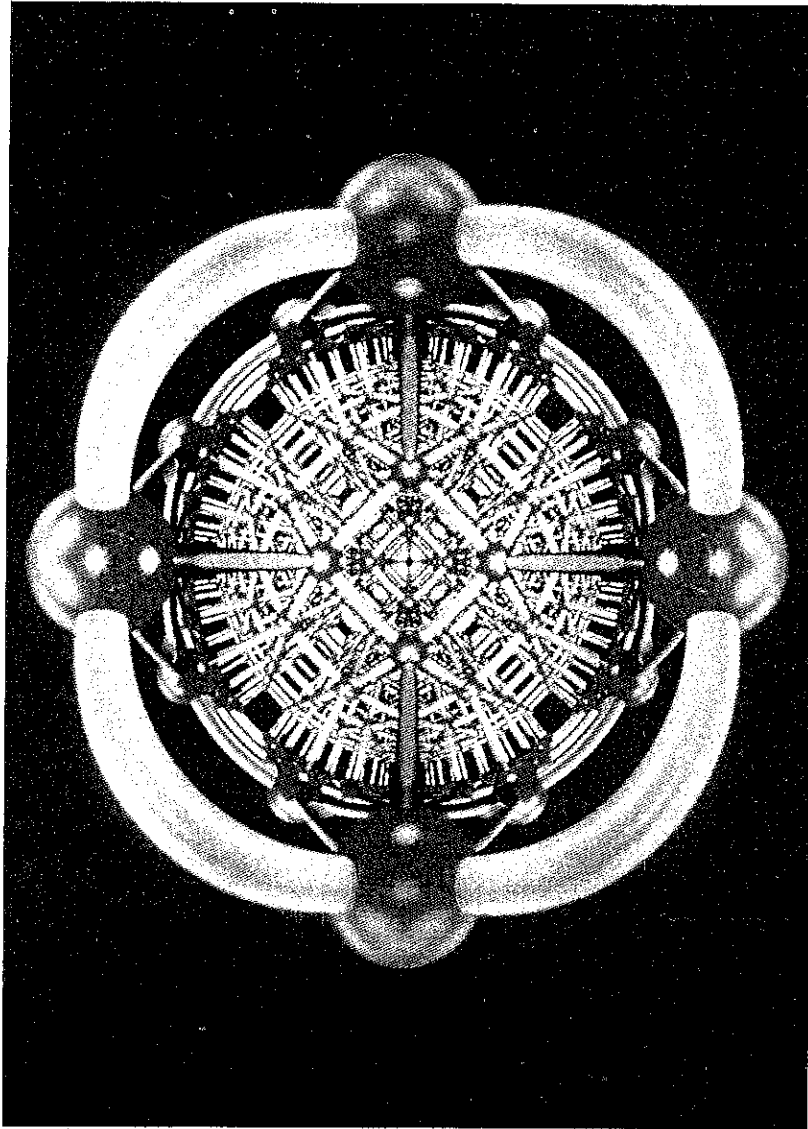
Trained originally as a photographer, Craig Hickman, who lives in Eugene, Oregon, uses commercial desktop publishing software, as well as software he has developed himself, to produce his work. Such software is used in the graphic arts field for designing publications for print. It combines on a desktop functions formerly performed by such specialists as copy editors, typesetters, page layout artists and printers. This makes it possible for a single individual to publish a book, as Craig Hickman has done with his artist's book *Signal to Noise*. Hickman's work has the look of professionally produced publications, resembling advertisements or corporate reports. Looking "really dry...very factual," it is only on closer examination that these works reveal their true nature. The text may be unreadable, absurd or function more as a visual texture or word-game than to convey information in a conventional manner. The content of images and texts may be whimsical or personal, even autobiographical, unsettling our expectations. The possibility for new meanings to arise from the interference between the elements he uses makes Hickman's work especially engaging.

His own color photographs serve as raw material for the prints of Indiana artist John Grimes. Finding photography limited by the color available in the subject and in the film stock itself, he recognized the potential of the computer as a means to transcend those limitations. Using software he created expressly for the purpose, Grimes layers and combines his imagery. Moving beyond the cut-and-paste boundaries of traditional collage, he employs computer image processing techniques which effect their own transformations on the combined source materials. The resulting images, dominated by the human visage, are haunting configurations. Dreamlike, lovely and menacing in turn, they suggest the fragmentation, simultaneity and awe of our video-mediated reality.

Copper Giloth, who lives in Massachusetts, uses the computer as a video and animation medium, and as a vehicle for drawing and collage. A principle subject for the latter body of work is landscape. Beginning with a variety of source materials, handmade drawings, still video images or conventional photographs, imported into the computer, "a place to gather information," she combines and transforms them with paint and image processing software into layered, constructed landscapes. These computer images are printed, collaged together and often drawn over by hand, resulting in a rich and complex composition. The layers of processing seem a formal reflection of Giloth's conception of landscape as a series of layers — historical, personal, cultural, political, natural — rather than as a single spatial-temporal instant.

Electronic Expression.2 provides a glimpse of some of the exciting, innovative work being done by artists involved with computer technology today. We are proud to be able to present this exhibition.

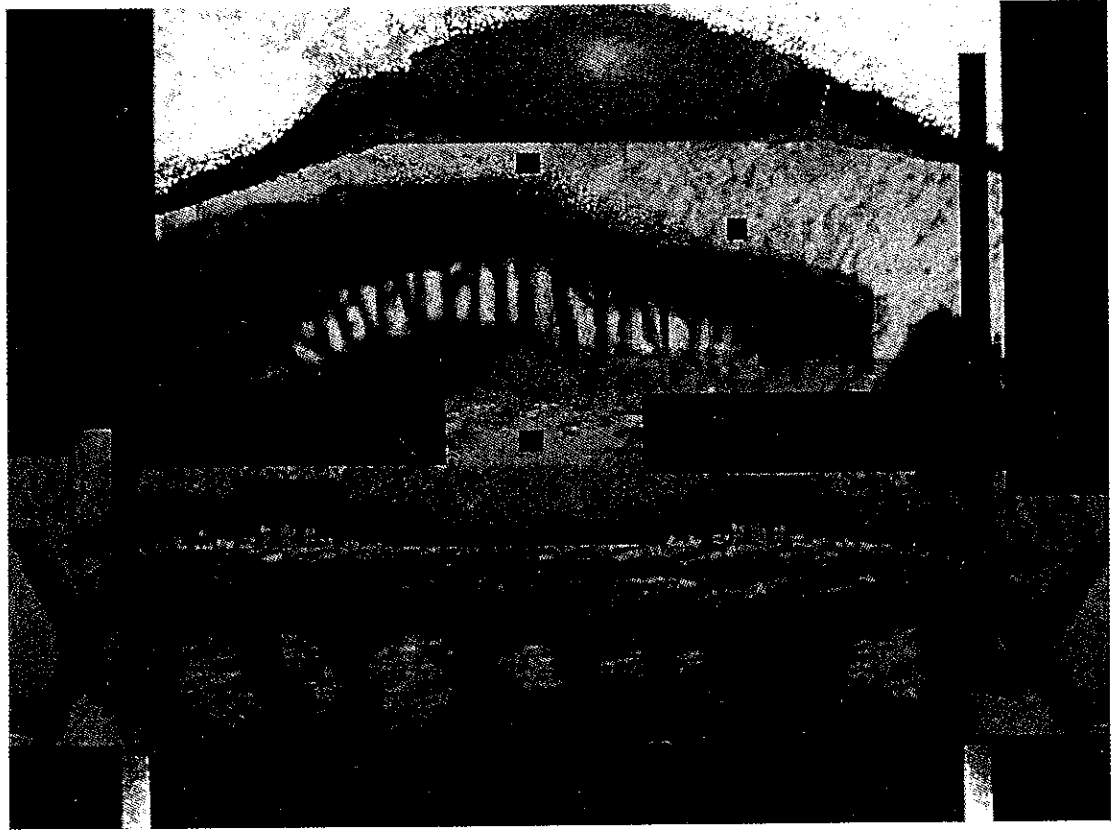
— George S. Roland



Spacetime Visualization, 1990, Stealth Negative PHSCologram, 20" x 24".

(Art)ⁿ is a collaborative comprised of artists, computer technicians, mathematicians, and scientists who have developed PHSColograms, which mimic the effects of holography by using photographic or computer generated imagery. Founded in 1983 by Ellen Sandor who continues to serve as Director, (Art)ⁿ has involved the contributions of many individuals including Associate Director Stephan Meyers, and Dan Sandin and Tom DeFanti, Codirectors of the Electronic Visualization Laboratory at the University of Illinois at Chicago where the computer graphics for (Art)ⁿ are produced. (Art)ⁿ works have been exhibited at the New Museum of Contemporary Art, New York; Carnegie Mellon Art Gallery, Pittsburgh; The Bronx Museum of Art; Feature, New York; and Museum of Science and Industry, Chicago. (Art)ⁿ is based at the Illinois Institute of Technology.

COPPER GILOTH



Religion, from *Settignano Series*, 1990-91, mixed media, 16" x 20".

Copper Giloth has had solo exhibitions at Zone Art Center in Springfield, Massachusetts, Herter Art Gallery at the University of Massachusetts, Amherst, and the National Academy of Sciences in Washington, DC. Her work has also been included in SIGGRAPH Traveling Exhibitions, and the *Chicago International Film Festival* and *AUSGRAPH '90 Film and Video* in Melbourne, Australia. Her work has been reviewed in *Computer Graphics World*, *The Independent*, *Chicago Tribune*, and *Art New England*, and she has lectured throughout the United States and Europe. She is currently Associate Professor at the University of Massachusetts, Amherst, and also designs computer graphic sequences for educational and industrial videotapes and software for interactive programs.

PAUL GLABICKI

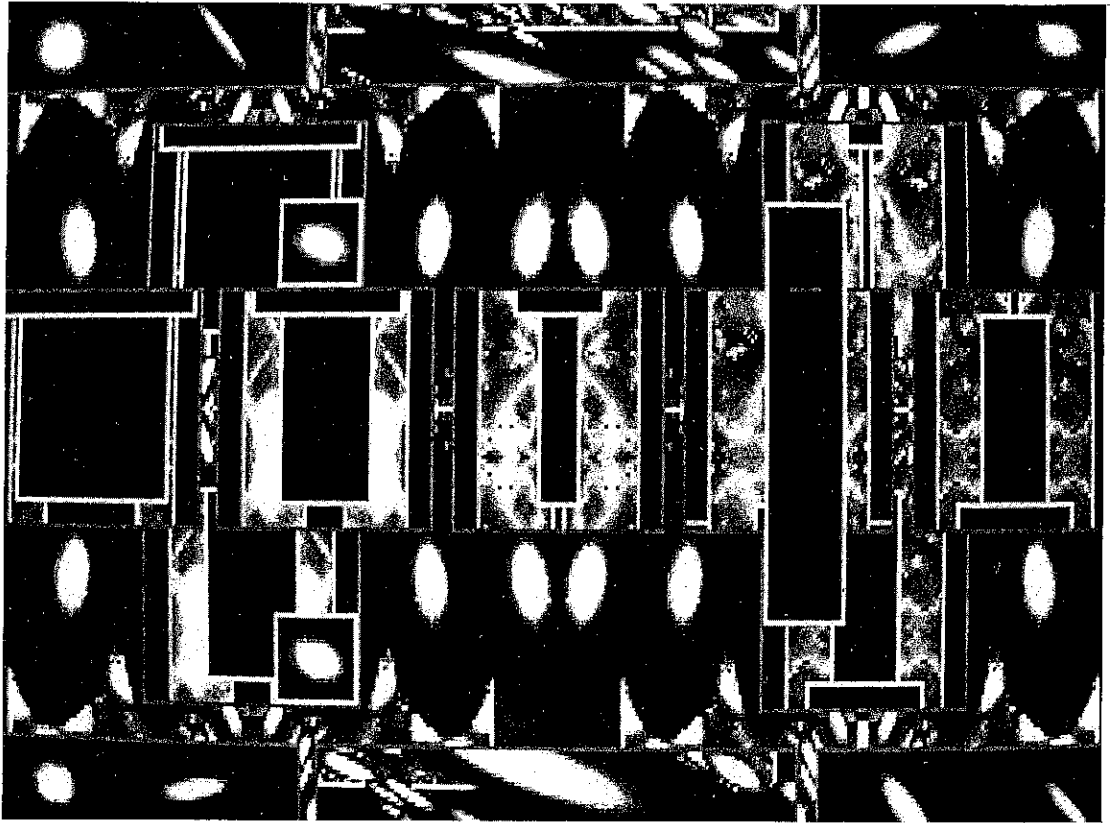
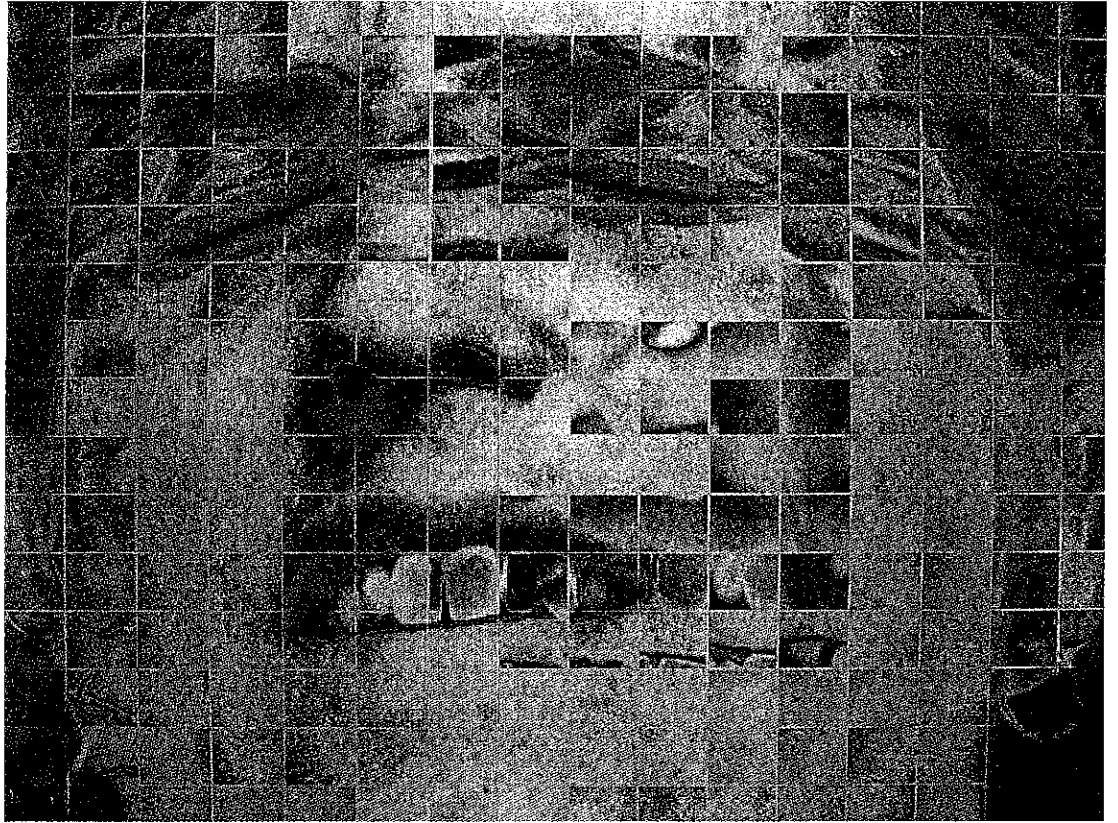


Image from the *Computer Animation Studies*, 1991, dimensions variable.

Paul Glabicki is Professor of Art at the University of Pittsburgh. He has been awarded fellowships by the Pennsylvania Council on the Arts, the American Film Institute, the National Endowment for the Arts, and the Guggenheim Foundation. His work has been widely exhibited, including the Venice Biennale; the Whitney Museum, New York; Carnegie Museum of Art, Pittsburgh; Hirshhorn Museum, Washington, DC; and the American Museum of the Moving Image, Astoria, New York. He has presented his work as a visiting artist/lecturer at the Museum of Modern Art, New York; the Art Institute of Chicago; Los Angeles Filmforum, and The Carpenter Center at Harvard University. Publications and reviews of his work include *Experimental Animation: Origins of a New Art* (New York: Da Capo Press), *Los Angeles Times*, and *Image Forum Magazine of Film and Video Criticism* (Tokyo).

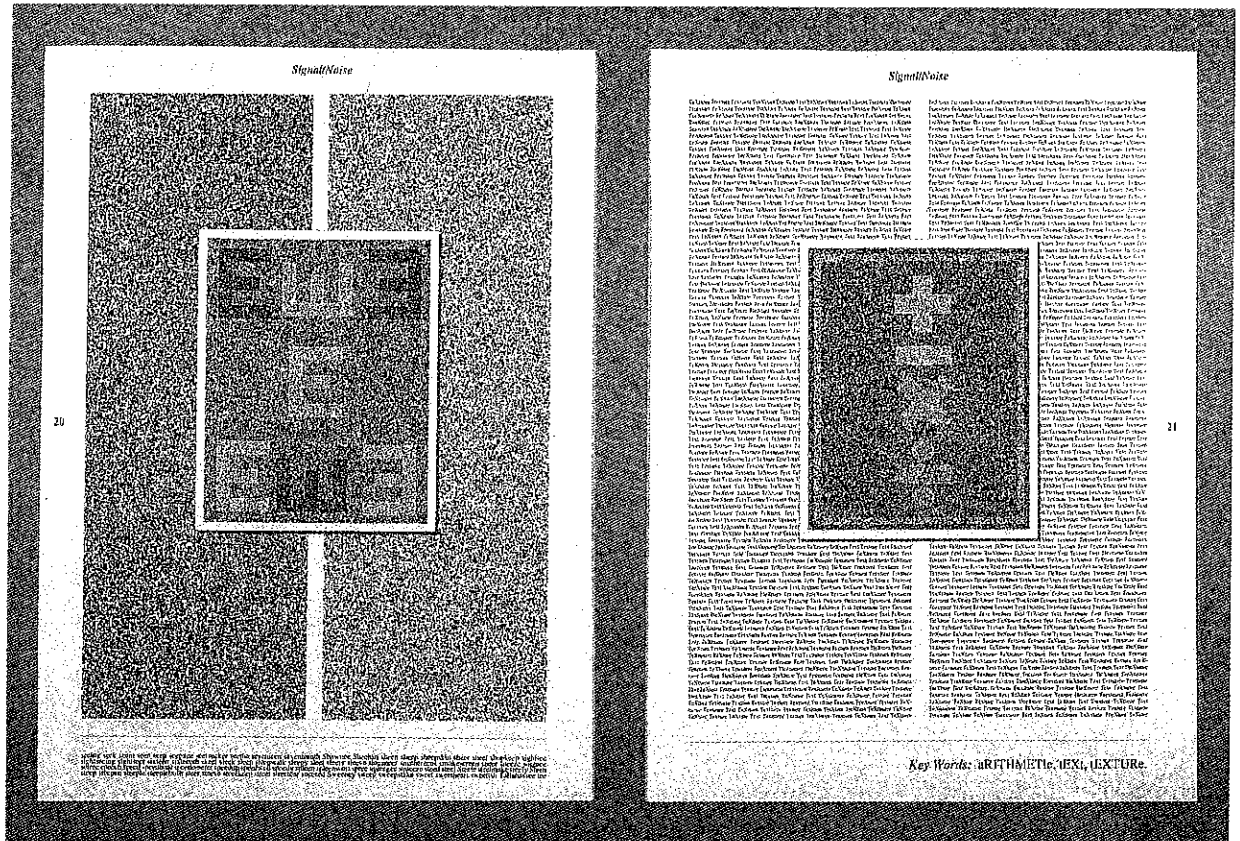
JOHN GRIMES



Bar_mask, 1987, Cibachrome, 13" x 18".

John Grimes has exhibited his work at Boston Computer Museum; Friends of Photography, San Francisco; The Smithsonian Institution; University of Kentucky; and has been included in SIGGRAPH Exhibitions. He has presented lectures at the Art Institute of Chicago, Ohio State University, the Museum of Contemporary Photography, and the Society for Photographic Education. His art and writing have been published in *Aperture*, *Personal Computing*, and *The New Vision: Forty Years of Photography at the Institute of Design* (New York: Aperture). His commercial photography clients have included *Newsweek*, Honda, and Skidmore, Owings, and Merrill Architects. He is currently Associate Professor at the Institute of Design, Illinois Institute of Technology.

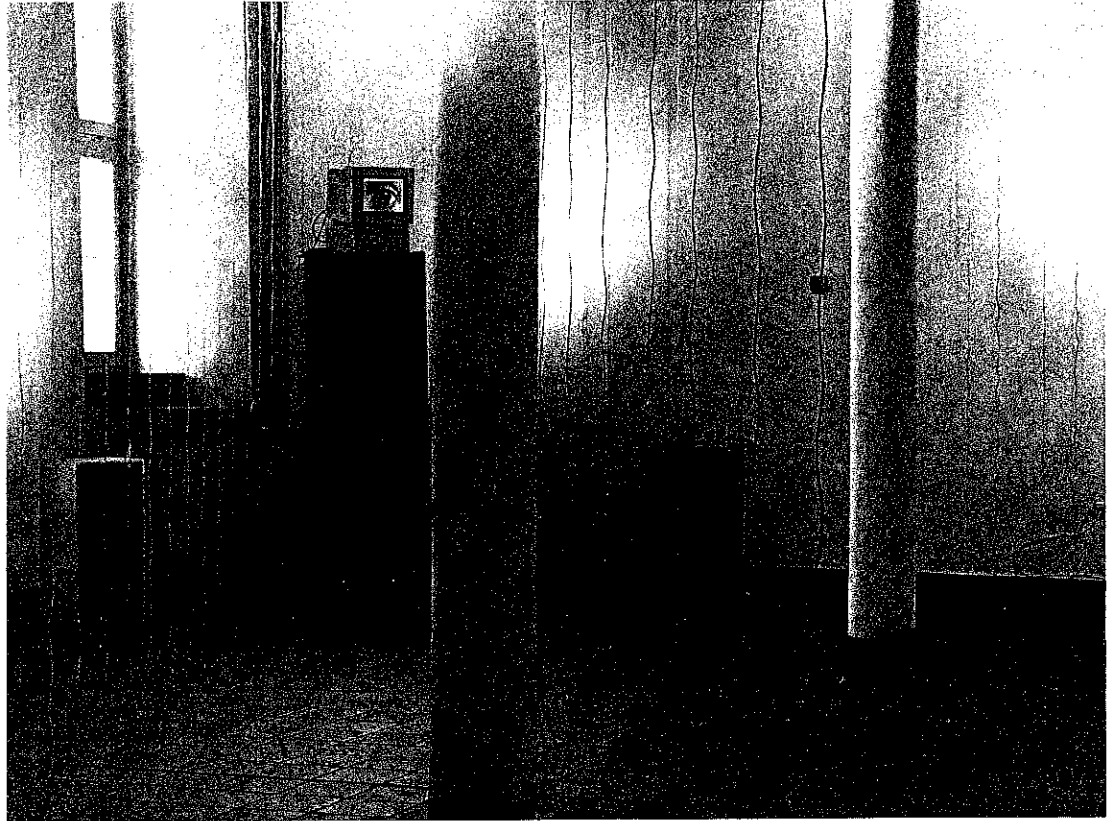
CRAIG HICKMAN



Text/Texture from *Signal to Noise*, 1988, Inkjet Print, 19" x 26".

Craig Hickman resides in Eugene, Oregon, where he is Assistant Professor at the University of Oregon. His work has been exhibited at UCLA's Go Gallery, Boston Computer Museum, Blue Sky Gallery in Portland, Oregon, and the University of Oregon Museum of Art. His work has appeared in *Art Journal* and *Leonardo*, and he has also produced the artist's books *From Signal to Noise* (1988) and *Dry Reading* (1991). He has presented lectures and workshops at The Evergreen State College, University of Oregon, College Art Association, National Computer Graphics Conference, and the Society for Photographic Education.

DAVID ROKEBY



(Perception Is) The Master of Space [version of *Very Nervous System* at European Media Arts Festival, Osnabruck, Germany, 1990], electronics installation, dimensions variable.

David Rokeby resides in Toronto, Canada. He has had solo exhibitions at Galerie Atelier E, Zurich, Switzerland; National Museum of Science and Technology, Ottawa, Canada; A Space, Toronto; and the Justina M. Barnicke Gallery, University of Toronto, and he has done collaborative exhibitions with Paul Gerrin at Amerika Haus in Berlin, Germany, and The Clocktower in New York City. He has been included in group exhibitions at Galerie Christiane Chassay, Montreal; *artware: Kunst und Elektronik* in Hannover, Germany; *New Music America*, Montreal; and *Recontres Internationales Art Film/Art Video/Art Ordinateur*, Paris. He has received grants from the Ontario Arts Council and the Canada Council and is the recipient of the PetroCanada Award for Media Arts.

Works in Exhibition

All dimensions in inches

(Art)ⁿ

Courtesy of Feature, New York

F-18, 1990, Stealth Negative
PHSCologram, 20 x 24; Workstation
Applications Office, NASA Ames Research
Center/Sterling Software in collaboration
with (Art)ⁿ artists Stephan Meyers
and Ellen Sandor

Fourplay, 1990, Stealth Negative
PHSCologram, 20 x 24; John Hart of the
University of Illinois at Chicago in
collaboration with (Art)ⁿ artists Stephan
Meyers and Ellen Sandor

Spacetime Visualization, 1990, Stealth
Negative PHSCologram, 20 x 24; Ping-
Kang Hsiung of Carnegie Mellon
University in collaboration with (Art)ⁿ artists
Stephan Meyers and Ellen Sandor

Fractal Forest, 1991, Stealth Negative
PHSCologram, 20 x 24; John Hart of the
University of Illinois at Chicago in
collaboration with (Art)ⁿ artists Stephan
Meyers and Ellen Sandor

Human Renin with Inhibitor, 1991, Stealth
Negative PHSCologram, 20 x 24; Dr.
Henry Dayringer, Dr. Louis Lim, and Dr.
Neena Summers of Monsanto Corporation
in collaboration with (Art)ⁿ artists Stephan
Meyers and Ellen Sandor

HIV Reconstruction, 1991, Stealth
Negative PHSCologram, 20 x 24; Arthur
Olson and David Goodsell of The Scripps
Clinic and Research Foundation in
collaboration with (Art)ⁿ artists Stephan
Meyers and Ellen Sandor

Copper Giloth

Settignano Series, 1990-91, mixed media,
16 x 20 each

Religion
Geometric Seapines
Through the Olive Trees
Landscape
Windows

Ossabaw Fragments, 1991-92, mixed
media, 16 x 20 each

Mud Banks
Indian Pots
China—>England—>America
The Plantations Are Gone
Silence in the Mud

Landscape, 1990, video documentation of
a seven-channel video installation, 20
minutes

Paul Glabicki

Computer Animation Studies, 1991,
dimensions variable

John Grimes

Bar__mask, 1987, Cibachrome, 13 x 18

Clock__1, 1986, Cibachrome, 13 x 18

Ruby__blue, 1987, Cibachrome, 13 x 18

Gen__head, 1987, Cibachrome, 13 x 18

LA__3, 1990, Cibachrome, 16 x 22

Bar__cee, 1989, Cibachrome, 16 x 22

B__head, 1990, Cibachrome, 16 x 22

Str__dec, 1990, Cibachrome, 16 x 22

Tur__eye, 1988, Cibachrome, 16 x 22

New__tor, 1989, Cibachrome, 16 x 22

McDvar, 1989, Iris Print, 28 x 37

ArStreet, 1988, Iris Print, 28 x 37

Craig Hickman

Breathing Thoughtful Breath, 1989, Inkjet Print, 19 x 26
Class Struggle, 1989, Linotronic Print, 19 x 26
Thinking About the Great Red Spot, 1990, Inkjet Print, 19 x 26
Transformational Grammar, 1990, Inkjet Print, 19 x 26
Beatnik/Beamsplitter, 1989, Linotronic Print, 19 x 26
from *Signal to Noise* (pages 20 and 21), 1988, Linotronic Print, 19 x 26
Mumbo Jumbo, 1990, Inkjet Print, 19 x 26
Garble/Gargle, 1989, Inkjet Print, 19 x 26
Variations on a Theme, 1990, Inkjet Print, 19 x 26
Appropriate Technology, 1990, Inkjet Print, 19 x 26

David Rokeby

Very Nervous System, electronics installation, dimensions variable

Cover: Paul Glabicki, detail from *Computer Animation Studies*, 1991

Electronic Expressions.2 was organized by George S. Roland, Associate Professor, and Robert Raczka, Assistant Professor and Gallery Director, Allegheny College.

This exhibition and catalog are supported in part by a grant from the Commonwealth of Pennsylvania Council on the Arts.

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Gallery Hours: Tuesday-Friday 12:30-5:00,
Saturday 1:30-5:00, Sunday 2:00-4:00

Printing: Commercial Printing, Inc., New Castle, PA
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