

# Computer in the Studio

The Computer Museum

DeCordova Museum and Sculpture Park

# Principal Sponsor

# AT&T

Sponsors

Chromacopy, Inc.

Howtek, Inc.

Iris Graphics, Inc.

Nimrod Press

Scitex America

This project is funded in part by the Massachusetts Cultural Council, a state agency which also receives support from the National Endowment for the Humanities.

Funded in part by the New England Foundation for the Arts, with additional support from the National Endowment for the Arts and the Massachusetts Cultural Council.



#### Organized by

Nicholas Capasso, Associate Curator DeCordova Museum and Sculpture Park

Brian Wallace, Media Arts Exhibit Developer
The Computer Museum

with special assistance from George Fifield, *Curator* VideoSpace at DeCordova

# **Foreword**

The collaborative nature and the interdisciplinary theme of The Computer in the Studio underscore the exhibition's main message: technology and art do not exist in isolation. Rather, they exert both direct and subtle influences upon one another through the culture they inhabit. Illustrating this point is the fact that The Computer in the Studio has provided both museums' staff and friends with an opportunity for contact with groups and individuals they might otherwise never have come across in a professional context. Visitors to the exhibition and participants in the educational programs at both museums will benefit from the fruits of this institutional collaboration as they encounter powerful challenges to familiar ways of thinking about art and computing.

Thanks are due to the exhibition's co-curators, DeCordova Museum Associate Curator Nicholas Capasso and Computer Museum Media Arts Exhibit Developer Brian Wallace. Nick and Brian conceived the idea for the exhibit, proposed the idea of a collaboration between our institutions, and executed this impressive show and catalog. In the face of many difficult practical, conceptual, and æsthetic hurdles, they have produced an exhibition that includes a rich array of contemporary art and a thoughtful survey of artistic uses of contemporary computing technology. We are proud of this accomplishment, and we hope that the collaborative as well as the creative aspects of The Computer in the Studio serve as an inspiring example to other cultural institutions.

A project of this scope would not have been possible without a generous financial contribution from AT&T, and financial support and guidance from Chromacopy, Inc., Iris Graphics, Inc., the Massachusetts Cultural Council, the New England Foundation for the Arts, Nimrod Press, Howard Salwen, and Scitex America. We are grateful to them for their continued support.

Paul Master-Karnik, *Director*DeCordova Museum and Sculpture Park

Oliver Strimpel, *Executive Director* The Computer Museum

# Acknowledgments

We would like to extend our deepest gratitude to all the artists in the exhibition. We also wish to thank the artists, galleries, collectors, and museums that loaned works to the exhibition.

This collaborative project has benefitted greatly from the support and encouragement of many staff members at both museums. We are particularly grateful to the following people at The Computer Museum: Executive Director Oliver Strimpel, Founding President Gwen Bell, Director of Exhibits David Greschler, Director of Design Ted Groves, Director of Public Relations Gail Jennes, Director of Development Betsy Riggs, Director, West Coast Office Carol Welsh, Design Assistant James Mandolini, Foreman Don Greene, Facilities Marketing Manager Martha Ballard, Clubhouse Project Manager Sam Christy, Controller Don Collins, Director of Education Marilyn Gardner, Historical Collection advisor Simson Garfinkel, Exhibit Kits Manager Kevin Kelly, Development Assistant Julie Rackliffe, Public Relations Coordinator Geoff Sellers, and Interactive Technologies Developer William Tremblay. Special thanks are due to Katherine Phelan, Media Arts Program Intern.

At DeCordova: Director Paul Master-Karnik, Senior Curator Rachel Rosenfield Lafo, Associate Director for Development Denise Trapani, Associate Director for Development Kathleen Callahan Phelps, Curatorial Staff Assistant Susan Atwater, Preparator Brad Gonyer, Photographer Marc Teatum, Public Relations Director Michael Sockol, DeCordova Museum School Director Eleanor Lazarus, Curatorial Intern Carrie Trippe, and VideoSpace at DeCordova Intern Jed Speare. Extra thanks to George Fifield, VideoSpace at DeCordova Curator, and a particularly big thank-you to Sarah Rehm Roberts, NEA Curatorial Intern. Howard Salwen, active in the guidance of both museums, was an early supporter of the exhibition.

Many, many other people have given generously of their time and expertise: thank you to Isabel Campbell (Chromacopy, Inc.), Jon Cone (Cone Editions Press), Robert Evans (Danforth Museum of Art), ERG Engineering, Inc., George Hagerty, Jennifer Hall and Do While Studio, Lisa Kirt (AT&T), BJ Larson (New England Foundation for the Arts), Gallery NAGA, Boston, Sip Siperstein, Willard Traub, Mark Winetrout (Massachusetts Cultural Council), and to Ernie Barbee, Boston Computer Society, Jim Buni, Lowry Burgess, Christopher Burnett, Michael Dashkin, Lia Gangitano, Kathy Jones Garmil, Judy Haberl, Jay Jaroslav, Gus Kayafas, Hugh Kennedy, Doug Kornfeld, Dorothy Simpson Krause, Leo Landry, Joanne Lukitsh, Matt McMakin, Tom Norton (School of the Museum of Fine Arts), Sue Pekock, Simon Penny, Lucy White, Howard Yezerski (Howard Yezerski Gallery, Boston), and Joanne Zitek.

For Douglas Kornfeld's *Who are You?*, software and hardware courtesy of Adobe Systems Incorporated, Macromedia Incorporated, Passport Design, Specular International, Project Triange, and SuperMac Technologies, Inc. Robin Marlowe wishes to thank Bob and Holly Doyle, Peaco Todd, and John Bradley. Olivia Parker wishes to thank Crimson Tech, Cambridge, MA.

In connection with this publication, we are happy to extend our warm gratitude to Peter Alpers for his generous assistance and unflagging optimism, Mary Landry for design grace under pressure, and Kelly Spencer for sound, fast editorial work. Jean Vosler, Ken Moreau (Howtek, Inc.), Ted Groves, and Seth Tower (Nimrod Press) also shepherded the catalog through several critical phases. The cover photograph was taken in the studio of Douglas Kornfeld by Willard Traub.

Nicholas Capasso Brian Wallace

# Who's Got the Box?

by Nicholas Capasso

During the early 1990s, a quiet revolution began to take place in the world of contemporary art. The domain of computer-assisted art, a once benighted province populated by utopian artist-technologists, academics, and hardware junkies, was thrown open to admit a host of new enthusiasts. Artists of all stripes and persuasions began to take up the tools of computer technology. In the process, "computer art" changed.

When computer art first emerged in the mid-1960s, its products were for the most part highly technological and experimental. Artists explored the boundaries and possibilities of new and rapidly developing computer tools with self-reflexive works, with their content circumscribed by the conditions of the machine. The best examples of this high-tech art-about-art were thoughtful explorations of the technology and its uses and abuses. The worst were uncritical celebrations of the gee-whiz wonders of the latest and greatest hardware and software. Today, computer-assisted art is not necessarily about computers. Owing to increased artist access to computers and their technological kin, art made with the help of computers is about anything and everything deemed viable in the aesthetic climate of pluralism that has prevailed since the early 1970s.

These are the core ideas underlying The Computer in the Studio. Now that the computer is truly in the studio, and not locked away on military installations, in university labs, or in the halls of commerce, thousands of artists are adopting the tools, bending them to their own ends, transforming traditional art media, inventing new ones, and expressing the vast range of thoughts and feelings that emerge from the human mind and heart. The Computer in the Studio has a special focus on New England artists—not because computer-assisted art is any more advanced or widespread here than in other regions of the country, but to represent in microcosm a national phenomenon, and to reveal to regional audiences the types of artwork being created with the help of computers in their own backyard.

Artists in droves finally got their hands on computers because, quite simply, personal computers and related technologies became better and cheaper. An artist who, for example, might spend a few thousand dollars per annum on equipment and materials can now spend an equivalent amount to purchase or rent very sophisticated, very fast, and very versatile image-processing hardware and software.

Access to computer technology is also available outside of artists' homes and studios. Due primarily to student demand, educational institutions have recently added computer-assisted art courses to their curricula. Moreover, these schools have made major investments in computers, monitors, printers, scanners, digital cameras, non-linear video editing systems, modems, software, and a host of other tools and materials unavailable to art students just a few years ago.

The proliferation of service bureaus—businesses that provide access to very expensive machines on a per-job basis—has also enabled artists to work with previously inaccessible technologies. Ambitious projects of great magnitude and complexity are now within the financial reach of many artists.

Recently, an art historical institution, the atelier, has been adapted to meet the needs of the new generation of computer-literate artists. These shared studios or workshops traditionally provided tools, training, and services under the direction of master artists or craftspeople. Today, certain artists, well-versed in computer technology, run facilities stocked with hardware and software rather than easels, etching presses, or stone-carving tools.

The relative ease with which artists can now gain access to powerful digital tools has resulted in a wide spectrum of aesthetic applications. Some artists work with familiar media, but in new ways. Douglas Kornfeld, Tom Krepcio, and Ron Rizzi use computers to reinvigorate traditional art forms such as mosaic, stained glass, and oil painting, respectively. David Brody, Susan LeVan, and Hugh O'Donnell draw or paint, but not directly with material substances applied to surfaces. Rather, they choose to work with pure color, line, and light that is arranged and edited with software on monitors and output with computer printers to paper. Richard Benson, Greg O'Brien, and Deanne Sokolin all use digital tools to stretch the boundaries of the art of photography, and the motion in Janet Zweig's kinetic sculptures is provided by computer printers.

Over one-third of the artists included in The Computer in the Studio use a combination of scanning technology and image-processing software. Scanners allow images of drawings, photographs, objects—virtually any visual material—to be transferred into computers, where they appear on monitors and are subject to manipulation with software. The software allows artists to radically alter the original images by changing their size, orientation, color,

edges, and surfaces. Other changes are possible through the use of filters, digital processes which can twist, compress, explode, attenuate, geometricize, and distort forms in many other ways. Images may also be combined and layered in virtually endless configurations. Scanners and image-processing software have thus made the art of collage seamless. Also, when cutting and pasting are performed in the computer, pesky problems of scale and position are problems no more. Computer-assisted collage, also known as digital collage, digital montage, digital media, digital images, electronic imaging, and other monikers (because no consistent terminology has developed, due to the youth of this new medium), forms the basis of work by Emily Cheng, Steve Gildea, Stephen Golding, Dorothy Simpson Krause, Frank Ladd, Renée LeWinter, Olivia Parker, Richard Rosenblum, Anne Morgan Spalter, and Michele Turre. Other artists, such as Deborah Klotz Paris and Angela Perkins, use scanners and software to transmogrify single images rather than to arrange multiple visual elements. And Cheng, Klotz Paris, Krause, and Cathy Cone combine their computer-printed images with handapplied traditional art materials: oil paint, watercolor, wax, metallic powders, etc. The large proportion of scanned and manipulated images in The Computer in the Studio represents the fastest growing and most widespread trend in the realm of current computer-assisted art, made possible entirely by convenient artist access to personal computers.

The computer's capacity for seamless collage is taken into another dimension, quite literally, by computer video editing and animation programs. Video and animation artists Dena Gwin, Thomas E. Janzen and Sergio F. Guerra, Robin Marlowe, Joan Shafran, Karl Sims, and Jed Speare use recently available technologies to create, combine, layer, and sequence images, text, and sound. Sharon Daniel relies on somewhat different programs—random number generators—to help compose her work. The computer thus increases the aesthetic control of artists working in these time-based media. It also affords them a complexity once restricted to the high-budget products of Hollywood and Madison Avenue.

All the media discussed above existed, and continue to exist for many artists, without the involvement of computer technology. Computer-assisted interactive art, in which time-based works are created and presented with computers, and which allow active viewer participation, would be inconceivable without sophisticated digital tools. In pieces by The Boston Computer Society Virtual Reality Group, Greg Garvey, Douglas Kornfeld, and Daniel Spikol and

Hazen Reed, viewers engage in intellectual and aesthetic dialogues with artworks. In certain works, their responses are recorded and folded into the matrix of the work. Subsequent viewers may then interact with the contributions of a prior community of participants.

The next logical steps in this technological progression from oil painting through interactives is for artists to become involved with even more advanced interactive technologies provided by virtual reality, a new field whose goal is total sensory immersion in an orchestrated experience, and the Internet, a digital communications network that links millions of users worldwide. The Computer in the Studio does not include art produced with these technologies because artists do not yet have wide access to virtual reality and the Internet, and the few works produced so far tend to be experimental or self-reflexive, not unlike the "computer art" of the 1960s and 1970s. This too, however, will change, and soon, as the tools become cheaper, easier to use, and accessible to the artist population at large. Virtual reality and the Internet may represent the state of the technology, but in 1994 they are not vet the state of the art.

Computer-assisted art has met resistance from certain quarters. Many artists, art historians, and critics, entrenched in tradition, feel threatened or alienated by the new technologies in a scenario akin to the introduction of photography as an art form in the nineteenth and early twentieth centuries. But to believe that contemporary and future artists will not, or should not, happily use the tools of their times, is naive in the extreme. Computers will continue to develop, costs will continue to plummet, and those engaged in the business of creativity will avail themselves of ever-increasing opportunities for expression. Very shortly, the oft-stated concern that computers will suck the humanity out of art will seem as culturally anachronistic as fears that a photograph will steal your soul or that a graven image will bring down the wrath of a jealous god.

# What's in the Box?

by Brian Wallace

The coach on the blackboard did scrawl His trickiest play of the fall Though his simulation Drew quite an ovation The quarterback fumbled the ball!

> Definition of simulation, in *Cybernetic Serendipity, the computer and the arts*, Institute for Contemporary Arts, London, 1968

In order to discern how computing technology influences contemporary artists who choose to use the computer, it is necessary to examine the ideas about computers—and technology in general—that artists encounter throughout contemporary culture. Unfortunately, the rigorous and extensive anthropological study of computing needed to determine the full range of these perceptions is well beyond the scope of this short essay, as is an examination of each of the works in the exhibition in light of the ideas set out here. A brief discussion of the computer as a means of representation does, however, shed some light on the impact of the technology on artists and the culture they inhabit.

The history of computing is often summarized as the machine's journey from scientific instrument to general-purpose tool. Often, this history focuses solely on the utility of the computer to military, scientific, and financial and industrial projects, and, more recently, educational and entertainment activities. This method of tracing history masks the similarities between the role of the computer in these activities. It overlooks the similarities between the activities themselves.

For example, a major building block of computing, Blaise Pascal's 17th-century mechanical calculator, the Pascaline, is usually presented as the fruit of scientific contemplation. Less known is the machine's genesis as a tool developed by the philosopher to aid his father's collection of taxes levied on the French populace to pay for the suppression of a peasant revolt. Thus, the Pascaline is simultaneously a scientific apparatus, a military machine, and a financial device. The similarity between these areas resides in the political role of the Pascaline as an instrument of state: through the multipurpose machine, individuals were subjected to statistical representation and remote control.

Subsequent breakthroughs in computing followed times of great social anxiety, political instability, or economic change. For example, beginning with the 1890 census, the census returns were tabulated with punched card systems. This development coincided with an explosion in immi-

gration to and migration within the United States, and gave rise to the identification, description, and categorization of the populace according to composite statistical portraits.

The automation of ballistics calculations achieved by U.S. military scientists during World War II resulted in the development of simulated targets that tested the ballistics of simulated weapons. These virtual targets replaced persons with numerically described agents. And, as so-called general purpose computers were built and incorporated into systems that maintained control over increasing amounts of information in post-war mathematics, insurance, banking, and industrial production and accounting, representations of human agency became ever more dependent upon statistical abstractions, such as "information."

While aspects of a person's cultural context are certainly subject to quantification and analysis, the notion of the mind as a disembodied information-processing engine seems so hopelessly inadequate to the task of describing the range of human endeavor as to beg the question, Why have the intuitive, associative aspects of the mind been so neglected? Is there a cultural anxiety driving our need to preserve an unknowable section of the mind?

In *Bodies and Machines*, his penetrating 1992 study of images of bodies and mechanical devices in late 19th and early 20th-century American literature, Mark Seltzer argues that definitions of these two concepts are deeply dependent upon one another. Seltzer traces the projection onto machines of cultural anxieties about the changing role of the individual person in a society increasingly organized around the distribution of wealth.

As technology achieved the sophistication necessary to mimic and adopt functions previously reserved for the body—and with the erosion of distinctions between beings and things brought on by the acceptance of thermodynamics—"the human organism [came to be considered primarily as a] productive machine, stripped of all social and cultural relations and reduced to 'performance,' which could also be measured in terms of energy and output." In order to enrich a parallel I would draw to today's uneasy codependence of minds and machines, it is necessary to follow Seltzer's analysis two steps further. He sees it as typical of the period in question that:

Linking together anxieties about the male natural body and the body of the nation—linking together, that is, body-building and nation-building—[boy scouting movement co-founder Ernest Thompson] Seton's [and Theodore] Roosevelt's programs for the making of men posit not merely that the individual is

something that can be made but that the male natural body and national geography are surrogate terms.

According to Seltzer, this relationship, which activated connections between the life cycle of the person and the development of the nation, led to the widespread connection of the idea of adolescence to the image of the young American nation.

At the end of the 20th century, the contemporary popular obsession with the computing activities of young males—cyberfiction heroes and antiheroes, hackers and crackers, writers of destructive computer code—links the individual adolescent to the culturally adolescent realm of cyberspace, an intra- and inter-computer construct often described as a frontier. But wild cyberspace, a place that tests the mettle of young minds and acts as a site for the expansive capitalism of a nation nostalgic for its own lost youth, is already showing signs of its limits. The military funding that generated the landscape dwindles, revealing the edges of the "endless" terrain, and the service sector encroaches upon the remaining, diminished frontier. Thus, American anxieties about diminishing military and business power are projected onto cyberspace and its young male denizens.

While computers and computing systems invisibly maintain and operate much of the world, computing technology is encountered most often through the use of computer graphics—another aspect of computing spawned by military and commercial forces—in education, the electronic and print media, and the advertising and entertainment industries. A recent Industry Week article by Polly LaBarre on youth-oriented projects in cyberspace describes "schools locked into a 'command and control' mode that forfeits experience and relevance for grades and departments." The conventions of virtual reality technology, propelled to maturity by the need for a more cost-effective way train soldiers in high-technology warfare, determine the look and feel of today's media. Sport events feature images of athletes competing against precision instruments as part of a montage of on-screen information. Newscasters and weather presenters direct, interact with, and project their own images onto informational collages. A Marine Corps television commercial portrays a metaphorical battle as high-resolution chess match, with the winner bloodlessly evaporating the vanquished foe. The scene is reminiscent of Susan Faludi's recent description of the campus of The Citadel, an institution conceived in response to post-Civil War anxiety about the state of male youth and Southern culture, in The New Yorker:

The campus has a dreamy, flattened quality, with its primary colors, checkerboard courtyards, and story-

book-castle barracks. It feels more like an architect's rendering of a campus—almost preternaturally clean, orderly, antiseptic—than the messy real thing.

Whether artists use computers in ways that involve complex programming or the call-and-response of graphical interactivity, the computer structures the flow of artistic work into discrete acts that recall the binary nature of the machine, and, by extension, the scientific description of the mind as rational, apprehending the world through measurable sensory input, and subject to functional description. Sooner or later, the machine demands an unambiguous yes or no from its user.

This is why all the artists in The Computer in the Studio, in order to express personal or critical positions, invoke the tradition of art as an expression of their deepest feelings. They blend computers with other technologies and bend their tool to explore such subjects as landscape, past art, and the body. As a whole, the works of art in the exhibition argue for a definition of computing broader than that based on scientific description of the mind. If an intellectual war game such as chess is a fit subject for computing, why not the thorny issues of spirituality, commerce, and the embodied intelligence-artificial or otherwise—explored by Greg Garvey's Automatic Confession Machine? Or the rhetorical representations of commercial gain undermined by Janet Zweig's use of informationsoaked printer paper as a simple mechanical device in Making Progress?

Of course, computers remain prohibitively expensive for many, and a hierarchy of production values guarantees the prominence of information and formats promulgated by wealthy, powerful groups. When they attempt to evade these conventions, do these artists distort the medium or broaden the notion of mind that the computer emulates? If the computer is to serve as a site for analysis and expression of the anxious relationship between mind, representation, and culture, it must accommodate a richer model of humanity. •

# The Artists

#### RICHARD BENSON

With the help of computer technology, Richard Benson has invented a method of using photographic data to create paintings. He uses photographs of his chosen subjects as the basis for a series of color separations, some derived digitally with computer programs. These separations are used to create gelatin stencils through which Benson applies hand-mixed acrylic paints to aluminum panels. For any given painting, the artist might use up to twelve separate stencils to lay down as many as forty alternating layers of paint and varnish. The final paintings are rich in color, over which Benson has complete control, and are immensely precise in visual detail.

For his images, the artist chooses places that reveal relationships between manufactured things and natural forces. Once-pristine industrial objects bear the traces of weather and wear-and-tear. Benson captures the beauty of the progression of time as it leaves its inexorable marks on the landscape. He states: "My whole life has been about the making of things-from crude bits of furniture or machinery, to very complex and refined pictures, prints, and books. It is because of this personal history that my paintings are about the issues of things produced by humanity and how they manage to maintain themselves against the multiple onslaughts of use, time, and neglect." N.C.

# THE BOSTON COMPUTER SOCIETY VIRTUAL REALITY GROUP

For the interactive computer installation North Water World, the Boston Computer Society Virtual Reality Group used sophisticated computer hardware and software to create a virtual world of vision and sound. Participants enter this world by assuming the persona and body of a wolf. The participant/wolf is then free to roam through and interact with an abstracted, animated, arctic environment. After two minutes, the wolf transmogrifies into a seal, which can swim at will for two more minutes under the ice until it is unavoidably con-

sumed by a killer whale. A third entity, an animal spirit, is then released to fly through a spiritualized realm of floating geometric shapes and patterns. The goal of *North Water World* is not to faithfully reproduce the sensory details of a particular place, but to elicit empathic and emotional responses from viewers as they inhabit the bodies and souls of other beings.

The purpose of the Boston Computer Society Virtual Reality Group is to provide an ongoing forum to bring scientists and developers together with virtual reality enthusiasts and potential users, such as artists, who do not normally attend virtual reality industry gatherings. By exploring both the technology and its cultural implications, and by sharing ideas and information, the Group hopes to help to shape the future of the medium. The primary project team responsible for the creation of North Water World are Project Leader and Lead Artist Amatul Hannan, Artist and 3D Modeler Ann Powers, Virtual Interface Developer and 3D Audio Designer Brenden Maher, and Virtual Reality Consultant Eben Gay of ERG Engineering, Inc. N.C.

#### DAVID BRODY

David Brody, best known as a painter, uses the computer to create drawings. Using software, he draws directly on the computer screen. Occasionally, he scans his drawings on paper into the computer and combines them with imagery created on the screen. Brody feels that the computer is an especially powerful tool for drawing because of its capability to instantly add and subtract visual elements, and to merge areas of separate drawings into new yet related compositions.

Brody's images are bizarre psychosexual narratives of frustrated desire, voyeurism, and male insecurities. Sketchy landscapes provide surreal settings for the confrontations of monstrous cartoon-like figures enacting dramas fraught with sadness, fear, and dark humor. Brody explains, "My subject is the human tragicomedy." N.C.

#### **EMILY CHENG**

Emily Cheng is a painter and printmaker who appropriates and combines images from the early histories of Byzantine, Renaissance, and Chinese art to explore the ways different cultures represent the visual world.

Using a personal computer, a scanner, and graphics software, Cheng converts selected photographs from art history books into digital images, then creates montages from the scanned images. After she outputs the montages with an ink jet printer onto archival paper, Cheng applies water-based colors to the image in the shape of decorative motifs influenced by the history of art and architecture, a process that further alters the images by obscuring and disrupting the watersoluble print colors. The delicate works in the Bodhissatva Series blur the lines between several sets of polar oppositesoriginal and copy, painting and printmaking, and Eastern and Western artistic traditions. B.W.

#### CATHY CONE

Cathy Cone's works on paper contain mysterious, ephemeral abstract images. Shapes shift, drip, and coalesce in an ambiguous space where image, object, symbol, and material fleetingly coexist. Vaguely biological, the images seem to indicate a state of growth, becoming, or evolution.

To achieve these visual qualities, Cone combines new technologies with traditional painting techniques. Using a scanner, she loads images of animal bones into computer software. There, the images are manipulated digitally and then transferred to paper with a computer ink jet printer. Cone then overlays portions of the printed ground with pastels, oil paint, and watercolor. The watercolor provides an interesting creative opportunity, because it disturbs and, in effect, paints with the water-based dyes from the ink jet printer. Using centuries-old painting tools, Cone manages to bend a new technological tool to her unique aesthetic ends. N.C.

#### SHARON DANIEL

With *Narrative Contingencies*, Sharon Daniel attempts to subvert the languages that make up the video medium: image, sound, and text. As a feminist, Daniel believes that the linear, unified and organic structure of language, as constructed by the patriarchy, is limited and limiting. She offers an alternative, a subtle loose narrative in which meaning is created through juxtaposition rather than linear sequencing of image, sound, and text. This newly ordered language stresses the subjective over the objective, values emotional nuance over plot or script, and admits of chance and open-ended interpretation.

Daniel composed her sequences of image, sound, and text with the help of random number generators—computer programs designed to break down linearity and introduce chance to systems. Stated succinctly by the artist, "Narrative Contingencies disengages the production of image and language from its ideological matrix by forcing it through filters of random and chance operations." N.C.

#### GREGORY GARVEY

In 1993 Gregory Garvey built the *Automatic Confession Machine* (*ACM*), a computer-equipped kiosk that acts as an electronic confessional. The viewer/user kneels at a computer to enter the frequency and severity of his or her sins into a computer program scripted by the artist. After calculating the magnitude of the user's sins, the *ACM* prints an absolution onto a paper receipt.

While he is aware that the similarities between the ACM and an ATM raise questions about the similarities between spiritual and financial accounting, Garvey hopes his work is seen not as an antichurch statement, but rather as a warning against what he sees as a "redefinition of spiritual needs as yet another commodity to be researched, marketed, and packaged." The notion of an artificial confessor also recalls the Turing Test, proposed by English mathematician Alan Turing in 1950, which holds that if a computer can convince (via remote terminal-to-terminal interaction) a human questioner that he or she is communicating with another human, that computer is, by definition, artificially intelligent. Garvey's interactive anticipates some of the ethical issues connected with the creation, use, and disposal of artificial intellects, disembodied or otherwise. B.W.

#### STEVE GILDEA

Steve Gildea, a painter and multimedia designer and artist, explores extraterrestrial space in his works. Gildea creates these prints by using personal computer software to wrap scanned images of human skin onto three-dimensional digital models of lunar topography. He prints the resulting montages with an in jet printer.

Gildea's reconstituted celestial bodies, as well as the impossible perspectives from which the scenes are viewed, project human identities and desires onto the cosmos. Though smaller in scale—but, curiously, similar in size to the affordable prints with which these paintings were originally popularized—his *South Ray Crater with Skin* series harkens back to the expansive works of Albert Bierstadt and Fredric E. Church, 19th-century European and North American painters who created immense landscapes of South and Central America and the American West. B.W.

#### STEPHEN GOLDING

In the series A View from the Back of the Bus, Stephen Golding explores the psychological toll of racism in America. His images of slavery, lynchings, discrimination, and racist misperceptions trace a rough history of the experience of African-Americans in this country. This history is not presented in traditional documentary style, but in an expressionist format that stresses the visceral, emotional qualities of 500 years of terror. According to the artist, he is "intrigued by the irony of a world steeped in religious belief but lacking in spiritual substance. Primarily, this seems to manifest itself in the depths of human hatred."

Golding creates his seamless collaged images and distorted Boschian figures with an involved multimedia process. After planning a rough design, he scans black-and-white photographs into computer software where he selects, arranges, and manipulates each picture. The images are then output as photographic negatives, which are then processed as black-andwhite photographic prints. Onto these prints Golding applies color with oil paint, pencil, airbrush, and other media, and then scans the image back into the computer for further manipulation. Finally, the pictures are output as color transparencies and printed on Cibachrome material. N.C.

#### DENA GWIN

Dena Gwin's video *IDONTWANTTO* is based on the following text:

#### IDONTWANTTOEATCATFOOD IDONTWANTTOGOTOPRISON IDONTWANTTOGETCANCER

This string of phrases scrolls continuously across the screen at a very rapid rate, while a distorted, slowed-down voice repeatedly intones the same words. The non-stop loop of these messages, combined with the contrasting visual and audio rates of presentation, is both deeply disturbing and profoundly irritating. *IDONTWANTTO* is a technologically delivered mantra of fear, paranoia, and obsession. Gwin taps into a leitmotif, a constant mental buzz, that plagues many members of urban American society.

Gwin designed the appearance of the text and the scrolling effect with computer animation software. The vocal portion is her own voice, considerably slowed with an editing machine. N.C.

# THOMAS E. JANZEN

Dilettante is the disarmingly honest tale of Thomas E. Janzen's life in the contemporary art world. The video, a straightforward narrative autobiography, chronicles the artist's involvement with avant-garde music, performance art, computer art, and video. Janzen tells his tale of the struggles and frustrations of the artist's life with a wit aimed both at himself and the marginalized world he inhabits.

Computer technology played many different roles in the creation of *Dilettante*. The imagery consists of scanned photographs and drawings, as well as drawings and three-dimensional renderings produced with software. Janzen also used computers to compose the music and design the titles for the video. He is also quick to point out that the script was written with word-processing software. N.C.

#### DOUGLAS KORNFELD

With the help of a computer, Douglas Kornfeld has created twenty-four distinct body types—ranging from tall and thin to short and portly—from internationally recognized male and female symbols. These mutated symbols allow the artist to address a wide range of issues surrounding body perception and individual identity in a variety of formats. In his shimmering mosaic installation, 101, 24,000 bodies coalesce into singular, unified images, and stimulate thinking about the particular vs. the universal, the individual vs. the group, and the real vs. the ideal.

In contrast to the religious aura of the mosaics, the interactive computer installation Who are You? is linked to the worlds of technology and popular culture. An amusing, animated music video featuring interactions between the twenty-four body types introduces a large menu of shorter videos keyed to each body type. Viewers choose one or more of Kornfeld's body symbols to play short documentary clips in which real people discuss their personal body images. Viewers become active participants in the artwork as they are offered the option to record, via text, their own body image perceptions. This group portrait reveals the individuals behind the symbols, and offers a glimpse of the myriad personal concerns surrounding an American cultural obsession. N.C.

#### DOROTHY SIMPSON KRAUSE

Dorothy Simpson Krause, a self-described "painter at heart," chose to use an ink jet printer to print her digital collages directly on canvas. This canvas ground gives the work a material richness, provides a sturdy support for surface additions of small objects, gold leaf, and metallic powders, and links the new computer-assisted art form to the 500-year-old art historical tradition of painting on canvas.

Krause also uses the computer to create her collages. Images and objects are scanned into programs where they can be arranged, altered in terms of color and scale, and seamlessly blended. In this body of work, the artist combines images of women from many cultures with related books. The images and title pages resonate to provide catalysts for the contemplation of ethical, historical, and political issues related to the history of women, methods of cultural representation, and abuses of power. N.C.

#### TOM KREPCIO

Tom Krepcio, a filmmaker, animator, and stained glass artist, uses personal computers, software, and peripherals in two ways when making his stained glass: as a desktop publishing tool—for scanning, altering, combining, pasting up, and color-separating—and as a platform for artificial life programs, which he uses to generate some of the elaborate borders and patterns that appear in his work.

Krepcio's works draw on the parallels between medieval pilgrimages to churches featuring stained glass, the hot medium of the day, and on tourism, an overpowering agent of cultural interchange. Despite the subject matter of works such as *Red Angel*, Krepcio does not think of his works as religious. However, he does acknowledge that the drawing powers of stained glass, and, more generally, light itself, are matters of spirituality and metaphysics. B.W.

#### FRANK LADD

The starting point of each of Frank Ladd's works—and the source of the title of each work—is a book that, through its influence or as an emblem, embodies an assumption of modern Western thought. Using a computer with a scanner and graphics software, Ladd combines the covers of books such as *The Common Sense of Science* or *How to be a Transformed Person* with photographic and graphic images appropriated from the same optimistic, confident history as the books themselves.

The resulting montages are printed onto large rolls of paper that, with their laconic surfaces and graphic monumentality, resemble billboards; the size of the work parallels the absolute confidence of Ladd's collaged ideas. He states, "Like 20th century philosophy itself, my work is more a commentary on, rather than an explanation of. From start to finish, the art is untouched by human hands, but [it is] touched throughout by the varied intentions of human thinking." B.W.

#### SUSAN LEVAN

Drawing her works directly on the personal computer with a digitizing tablet and stylus, Susan LeVan creates what appear at first glance to be simple everyday scenes. But her studied use of hot colors and distorted figures sets up an unsettling tension between the intimate nature of subjects such as *man in bluegreen shirt*. She believes that the immediacy and flexibility of the medium have enabled her to re-connect—after a decade of making art about nature and the animal world—with some of her own earliest and most deeply felt influences and feelings.

Like a *New Yorker* magazine "frozen moment" cartoon, LeVan's diminutive pictures imply an entire universe behind the depicted moment. Like Van Gogh, LeVan often invokes the charm—in the richly magical sense of the word—of the moment when one life connects with another. B.W.

#### RENÉE LEWINTER

The searing colors, swirling forms, and odd deformations of space in Renée LeWinter's landscapes describe an imaginary universe where states of solid, liquid, and gas are by no means fixed. This beautiful world of violent evolutionary forces, where the organic collides with the crystalline, is a product of the artist's interests in planetary exploration, remote sensing, and science fiction. LeWinter invites viewers to participate imaginatively in places where known physical laws are confused, where a physical human presence would be unthinkable.

The artist builds this world by scanning an unusual set of objects-glass marbles, fish eyes, reptile skins-into various computer programs where the images are colored, composed, and distorted. The finished images are then output with an ink jet printer to canvas. The canvas and the rich saturated colors give these works a feeling of having been hand painted. LeWinter's acknowledgment and aesthetic use of pixels (the primary color information units in the computer that appear in passages of the prints as small squares), however, stresses her use of computer technology and also links the images to the look of data transmitted via satellite. N.C.

#### ROBIN MARLOWE

Robin Marlowe's video *Paris Tarot* is a multi-layered narrative of a brief human encounter in Paris that has parallels to a well-crafted short story. The brief tale is told with a multi-layered and sequenced combination of text, images, and music. The text, partly by Marlowe and partly by the Sufi poet Rumi, accompanies images of human figures, mannikins, tarot cards, and Parisian buildings and places, to the tune of composer Erik Satie's *Quatrieme Gnossienne*.

Marlowe achieved the linear video collage quality of *Paris Tarot* by composing and manipulating disparate visual materials—raw video footage, still photographs, and text graphics—with compositing and special effects software. Satie's musical passage was arranged and performed by Chris Florio. N.C.

#### GREG O'BRIEN

Greg O'Brien captures visual incidents in the real world that carry compelling abstract imagery. While traveling through cities, the artist isolates portions of walls, graffiti, and outdoor paintings, not to provide documents of these phenomena, but to reveal their visual energies and their potential for eliciting complex, ambiguous emotional response.

O'Brien photographs the abstract subjects and makes Cibachrome prints, which are then scanned into computer programs. In the computer, with techniques more versatile than those available in conventional photographic darkrooms, he subtly manipulates the colors and compositions of the images. The computer is, in effect, used as a visual editing tool. The artist then outputs the work with an electrostatic plotter originally developed for architectural drawings. This plotter allows for the large dimensions of the final prints. N.C.

#### **HUGH O'DONNELL**

Hugh O'Donnell, a painter, was attracted to computer technology because of the opportunities it provides for spontaneity and immediacy. Using software, he "draws" and "paints" with a stylus and drawing tablet that allows images to appear directly on the computer screen. Owing to the speed at which he works, the images appear in very low resolution, revealing the pixels—the computer's informational building blocks—which make up each image. Rather than decrying the lack of resolution, O'Donnell works with it, using the pixels to blur edges and create illusions of motions.

For The Computer in the Studio, O'Donnell created *Cascade*, an abstract, gestural, computer-assisted image output as a set of ink jet prints. The prints are pieced together to form an artwork ten feet tall and thirty-five feet wide. This computer print, on the scale of the grandest of oil paintings or tapestries, lines the wall of a semi circular gallery. Viewers standing in the center of the gallery become entirely immersed in O'Donnell's visual environment. The artwork takes up 180 degrees of visual perception, leaving no space in peripheral vision for other competing visual data. N.C.

#### DEBORAH KLOTZ PARIS

For Deborah Klotz Paris, the computer is a tool in an alchemical process in which the artist seeks to elevate the base and lowly to a sacred, spiritual level. Klotz Paris makes photographs of fungus, an elementary life form, and scans them into computer programs where the images are manipulated and greatly enlarged. She then outputs the images to a series of paper sheets with a computer printer. The ink on the sheets is then transferred to wooden objects that recall spineboards, tools of rescue used by lifeguards and emergency workers. Once the fungus images are transferred, Klotz Paris overpaints the images and waxes the surfaces to create rich, radiant organic forms that retain their fungal roots while also suggesting macrocosmic energies. Base matter is suffused with spiritual light, and a metaphorical alchemical process is complete. The spineboards, resting on the floor and leaning against the wall, suggest the potential for rescue from impending catastrophe. Bearing their glowing images of transcendence, they imply the unities of body and soul, matter and spirit, needed for heightened awareness.

The Fungus on Spineboard works have been excerpted from Klotz Paris's larger multimedia installation, SUB/MERGE, in which the themes of transcendence and rescue are further elaborated. N.C.

#### OLIVIA PARKER

For many years, photographer Olivia Parker constructed her subject matter in her studio by setting up and photographing vignettes or still lifes composed of images and objects, light and shadow. In some recent bodies of work, Parker has turned to constructing her subjects in cyberspace. She scans objects and her own photographs into computer programs where she can compose images without the restrictions that the physical world imposes on matter. In the computer, size, scale, light, and color are infinitely manipulable, and the laws of gravity need not apply. After the creative work is done on the computer screen, the artist outputs her images as ink jet prints on paper.

In the Toys and Games series, Parker combines animals, toys, and playing pieces to create games somehow gone awry. According to the artist: "Games are a manifestation of mental models or metaphors of life situations. My fictional games have an obvious relationship to the structures of a real game, but usually something has gone wrong...the mental guidelines of the way things are meant to be break down, and the games get as messy as life. Sometimes toys become more real than they are supposed to and emotions waver between fiction and nonfiction. Occasionally my toys may seem bizarre, but when compared to what is available in real toy stores for real children, they are not very strange at all." N.C.

#### ANGELA PERKINS

In the *Interiors* series, Angela Perkins explores the inner dimensions of fruits and vegetables. She lays open these commonplace foods, accentuates their softness and sweetness, and imbues them with light. In this way she stresses the many cultural functions of fruits and vegetables: as food, as symbols of sexuality, growth, and regeneration, and as objects of beauty. The illuminated interiors also suggest a spiritual presence, and act as metaphors for human emotions and enlightenment. Perkins seeks to reveal the presence of the sacred in the mundane.

To create these images, Perkins scans directly from ripe fruit and fresh vegetables. Using computer software, she manipulates the images extensively (despite their simple appearance) and outputs them as ink jet prints on paper. N.C.

#### RON RIZZI

Ron Rizzi's large *Tibet Series* paintings bear witness to tragedy in the same way that Samuel Beckett's plays, in the playwright's words, acted as a "stain on the silence of the world" in the face of violence and cruelty.

Rizzi begins with news media and art images from the history of the Chinese oppression of the Tibetan people, and, in particular, of the forced exile of the Dalai Lama and the destruction of over six thousand Tibetan monasteries. Rizzi repeatedly enlarges and distorts the images with a personal computer, graphics software, scanner, printer, and photocopier, and hangs the results on the studio walls. Then he paints, first on the prints themselves, and finally, using the painted prints as studies, on canvas.

Rizzi's mixture of seemingly distinct processes—the physical act of making a painting or forcing a half-finished print from a printer; the disembodied selection of video frames or software options—stresses the unpredictable consequences that can result from even the smallest decision to act, or not to act. B.W.

#### RICHARD ROSENBLUM

Richard Rosenblum, a prominent sculptor for many years, began using the personal computer three years ago to help him plan the enormous human-like sculptures he hews from tree trunks, roots, sculpted metal, and other materials. When he began working with scanned photographs of sections of his own sculptures, he realized that his computer gave him the control over his own images that would enable him to express his visions of imaginary landscapes.

He builds his images by reworking scanned National Geographic photographs into surreal, epic compositions that seem to come from some obscure corner of the history of art and yet contain unmistakably contemporary references to warfare. In Sarajevo, in particular, it seems that Goya and Manet have been transported to the late 20th century. Rosenblum's borrowings from yard-sale National Geographicsmagazine whose staff electronically "moved" one of the Great Pyramids to fit a magazine cover in the 1980s-also call into question the nature of originality: does the artist, or the computer, create new forms or rework existing themes? Is one of these models of artistic production superior to the other? B.W.

### JOAN SHAFRAN

Joan Shafran's Sometimes Never Could is a portable poem on a laptop computer. Referred to by the artist as a "presentation poem," this piece works both with and against the software on which it was written. Shafran used a standard program developed for business presentations that allows for variable text, limited motion, and simple graphics that display data (such as bar graphs). Within this framework, the artist composed a poem about emotional rather than economic relationships. The software, developed for the display of quantities, is ironically twisted to chart such qualities as intimacy, dialogue, and love. Sometimes Never Could also acts as a metaphor for our attempts to somehow make sense of and give order to our deep feelings. N.C.

#### KARL SIMS

Karl Sims produced all the animation and wrote all the software for the creation of his video *Liquid Selves*. The sophisticated software allows images to dissolve and reassemble, take on various surfaces, and seamlessly change shape. The figures and faces in *Liquid Selves* are truly liquid as they shift from human to mask to pattern to landscape and back again.

Sims explains that "this piece depicts the upcoming struggle between the virtual and physical sides of ourselves. As technology brings us the age of virtual worlds, our existence as individuals becomes less and less dependent on our physical being. Our virtual identities become more powerful and flexible, but also unstable and difficult to define. Our consistent recognizable faces are left behind and all faces become masks." The music for *Liquid Selves* is by Peter Gabriel and John Paul Jones. N.C.

#### DEANNE SOKOLIN

The *Covering Series* is Deanne Sokolin's response to personal tragedy in the tradition of the Jewish mourning ritual of sitting Shiva. The haunting wrapped forms imply the presence as well as the absence of the body. They evoke the aspects of sitting Shiva that include the denial of vision through a veiling of the mourner's head and the wrapping of certain possessions of the dead and of the bereaved.

Sokolin uses a traditional camera with an attached component that encodes the light and passes the information on to a computer. She heightens the monumentality of the images by selectively surpressing details of the image with image-manipulation software, and then prints the final image with a dye sublimation printer. B.W.

#### ANNE MORGAN SPALTER

Anne Morgan Spalter likes to be seen in the context of the history of landscape painting and photography. Working in both black-and-white and color, she creates imaginary places that she refers to as "modern landscapes." These landscapes are highly technological, and deal with present-day transportation, particularly automobile and airplane travel. Not only do her pictures include roadways, airplanes, and symbols of technology—radio towers and smokestacks—they also are presented from the perspective of a viewer in transit, along highways, through car windows. The artist seeks to capture the essence of a truly contemporary American landscape in imaginative and emotional terms.

Spalter sees computer technology as a particularly appropriate tool for the creation of her technological visions. She scans her own photographs into computer software, arranges the compositions and in some cases adds color, and then outputs them as ink jet prints on paper. N.C.

#### JED SPEARE

Jed Speare uses a personal computer and multimedia software to combine his interests in visual and sound art. In *Piano Rolls*, he takes full advantage of the multimedia program's power and versatility to incorporate video images of antique player piano rolls into what he terms "desultory scrolls" that contrast the rolling figure with a text that flows in contrary motion. Adding to the player piano motif, Speare "steps" the computer through the piece with a pulsing motion that implies the motion and rhythm of a pair of feet pumping a player piano. B.W.

#### DANIEL SPIKOL AND HAZEN REED

Daniel Spikol and Hazen Reed's computer interactive *Dream Wheel* installation operates simultaneously in real space, cyberspace, and the mental space of its viewer/participants. Within a museum gallery transformed by lights and sculp-

tural elements, a computer stores and records dreams. By following simple instructions, viewers can access hundreds of short videos in which real people describe the content of a particular personal dream. Viewers may then record, on video, the stories of their own dreams, which are instantly stored in a computer program and made available for viewing by the next participant.

According to the artists, "A dream is an imaginative expression. Sharing one's dreams might be seen as a democratic form of personal expression. A wheel can be a representation of the spokes of a community. *Dream Wheel* is a synthesis of personal nocturnal imaginings with the circular nature of communication." Spikol and Reed attempt to collect, and to communicate, the contents of the collective unconscious. N.C.

#### GREG A. STEPHENS AND SERGIO F. GUERRA

Computer animation and an electronic soundtrack composed by the artist are the basic technical elements of Greg A. Stephens's video *Death is the Seed*. Using images of demons, angels, saints, and martyrs from the history of Western art, as well as other macabre images, Stephens creates shifting visual patterns. Symbols of death come alive, as it were, in a pulsating fabric of mortality. The sampled vocal line "When I become death, death is the seed from which I grow," ironic in its sinister delivery, is spoken by poet William S. Burroughs.

In Stephens's video collaboration with Sergio F. Guerra, *Fragments of a Vicarious Childhood*, animations, computer-processed video footage, and Super-8 film combine in a collage of memory. Fleeting layers of dancing pictographs, landscape imagery, and nostalgia-tinged "home movies" blur together in an exploration of time's effects on remembered and imagined events. N.C.

#### MICHELE TURRE

Michele Turre exploits the computer's potential for creating convincing fictions of time, space, and scale. In Me, My Girl, and My Mom at Three, for example, the artist scanned photographs of herself, her daughter, and her mother-all taken at age three-into the computer. Her software allowed her to equalize the scale of the figures and set them in the same space so that they all seem to exist at the same time. This timeless anachronism is emotionally and conceptually jarring, and also calls into serious question photography's assumed role as an objective record of visual information. Using similar strategies, the artist also explores gender roles, identity, and the cultural implications of art history—all within the framework of family issues.

Turre uses a variety of computer printing methods to output her collages onto different materials. N.C.

#### JANET ZWEIG

Janet Zweig incorporates personal computers, desktop publishing software, and printers into kinetic sculptures that borrow as much from Rube Goldberg as from Archimedes. In her works, which are simultaneously mechanical and theatrical, she arranges printers to print randomized versions of appropriated texts. The printer feed themselves and, in some cases, one another with the same sheet of paper, recycling the medium and the information at the same time. In Making Progress, a belt of printer paper drives a wooden wheel. The Liar Paradox (Oliver North Mobius) joins two printers with a long band of paper upon which is printed the transcript from North's testimony.

Zweig believes that our increasingly digital society makes excessive demands on the physical world. She also holds that we place too much authority in the printed word. In her pieces, the circular paths of paper and information question whether progress in the information age is, in fact, linear. B.W.

# The Computer in the Studio

Checklist of works at The Computer Museum and the DeCordova Museum and Sculpture Park

All works lent by the artist unless otherwise noted. All dimensions in inches unless otherwise noted; height precedes width precedes depth.

#### RICHARD BENSON

New Orleans, 1992 acrylic on aluminum, 22 x 25 3/4 (framed)

Ohio, 1992 acrylic on aluminum, 19 1/2 x 15 (framed)

Providence, Rhode Island, 1992 acrylic on aluminum, 22 x 25 3/4 (framed)

# BOSTON COMPUTER SOCIETY VIRTUAL REALITY GROUP

North Water World, 1994 interactive digital installation, dimensions variable

#### DAVID BRODY

Untitled, 1989 computer drawing, 11 x 8 1/2 Courtesy of Gallery NAGA, Boston, MA

Untitled, 1989 computer drawing, 11 x 8 1/2 Courtesy of Gallery NAGA, Boston, MA

Untitled, 1989 computer drawing, 11 x 8 1/2 Courtesy of Gallery NAGA, Boston, MA

Untitled, 1989 computer drawing, 11 x 8 1/2 Courtesy of Gallery NAGA, Boston, MA

Untitled, 1989 computer drawing, 11 x 8 1/2 Courtesy of Gallery NAGA, Boston, MA

Untitled, 1989 computer drawing, 11 x 8 1/2 Courtesy of Gallery NAGA, Boston, MA

#### **EMILY CHENG**

Untitled (EC0006 from the Bodhissatva Series), 1993 monoprint, 20 x 17 Iris print courtesy of Cone Editions Press

Untitled (EC0012 from the Bodhissatva Series), 1993 monoprint, 30 x 20 Iris print courtesy of Cone Editions Press

Untitled (EC0017 from the Bodhissatva Series), 1993 monoprint, 22 x 15 1/2 Iris print courtesy of Cone Editions Press

Untitled (EC0029 from the Bodhissatva Series), 1993 monoprint, 16 x 22 Courtesy of Permanent Press, NY Iris print courtesy of Cone Editions Press

#### CATHY CONE

Bone Series #2, 1994 Iris print, watercolor, 44 x 30 Iris print courtesy of Cone Editions Press, East Topsham, VT

Bone Series #4, 1994 Iris print, watercolor, oil, 44 x 30 Iris print courtesy of Cone Editions Press, East Topsham, VT

Bone Series #5, 1994 Iris print, pastel, watercolor, 44 x 30 Iris print courtesy of Cone Editions Press, East Topsham, VT

#### SHARON DANIEL

Narrative Contingencies, 1993-1994 video, running time: 9:20

#### **GREGORY GARVEY**

The Automatic Confession Machine, 1993 interactive digital installation,  $60 \times 30 \times 24$ 

#### STEVE GILDEA

South Ray Crater with Skin, View from Above, 1994 ink jet print, 7 x 9 Iris print courtesy of Today's Graphics, Inc., Philadelphia, PA

South Ray Crater with Skin, View from Inside #1, 1994

ink jet print,  $7 \times 9$ Iris print courtesy of Today's Graphics, Inc., Philadelphia, PA

South Ray Crater with Skin, View from Inside #2, 1994

ink jet print, 7 x 9 Iris print courtesy of Today's Graphics, Inc., Philadelphia, PA

South Ray Crater with Skin, View from Rim #1, 1994 ink jet print, 7 x 9

Iris print, 7 x 9
Iris print courtesy of Today's Graphics, Inc.,
Philadelphia, PA

South Ray Crater with Skin, View from Rim #2, 1994 ink jet print,  $7 \times 9$  Iris print courtesy of Today's Graphics, Inc., Philadelphia, PA

#### STEPHEN GOLDING

A View from the Back of the Bus, 1992 10 Cibachromes, all 20 x 24 (22 x 28 framed)

#### DENA GWIN

IDONTWANTTO, 1994 video, running time: 2:00

#### THOMAS E. JANZEN

Dilettante, 1994 video, running time: 6:30

#### **DOUGLAS KORNFELD**

101, 1992-199424,000 hand-made mosaic pieces,3 components: 96 x 48, 96 x 48, 96 x 96

Sentinel, 1992 digital image, ink on vellum, 80 x 36

Who are You?, 1994 interactive digital installation, dimensions variable

#### DOROTHY SIMPSON KRAUSE

Biography, 1994 digital collage, ink jet print on canvas with mixed media, 30 x 40 Courtesy of Mary Lou Bock, The Williams Gallery, Princeton, NJ

Indian Anecdotes, 1994 digital collage, ink jet print on canvas with mixed media, 28 x 42 Courtesy of Mary Lou Bock, The Williams Gallery, Princeton, NJ

Wonderland, 1994 digital collage, ink jet print on canvas with mixed media, 30 x 36 Courtesy of Mary Lou Bock, The Williams Gallery, Princeton, NJ

#### TOM KREPCIO

Drawn Face, 1994 stained glass, 9 1/2 x 8 1/2

Pink Angel, 1993 stained glass, 9 1/2 x 8 1/2

Red Angel, 1993 stained glass, 9 1/2 x 8 1/2

The Speaker, 1993 stained glass, 9 1/2 x 8 1/2

Tourist, 1992-1993 stained glass, 9 1/2 x 8 1/2 Courtesy of Sip Siperstein

#### FRANK LADD

The Age of Reason + The Age of Ideology, 1993 electrostatic print,  $39 \times 62$ 

An Autobiographical Study of Sigmund Freud, 1994 electrostatic print, 43 x 53 (framed)

The Common Sense of Science, 1994 electrostatic print, 47 x 53 (framed)

How to be a Transformed Person, 1993 electrostatic print, 42 x 58

The Last Days of Socrates, 1994 electrostatic print, 25 x 28 (framed)

Love in the Western World, 1994 electrostatic print, 23 x 31 (framed)

An Outline of Abnormal Psychology Vol. 1, 1993 electrostatic print, 39 x 78

An Outline of Abnormal Psychology Vol. 2, 1993 electrostatic print, 39 x 78

The Psychoanalytic Theory of Neurosis, 1993 electrostatic print, 39 x 60

#### SUSAN LEVAN, LEVAN/BARBEE STUDIO

Because I say so, 1994 dye sublimation print, 3 x 4

The Dinner Hour, 1994 dye sublimation print, 5 3/4 x 5 1/4

dream room, 1994 dye sublimation print, 4 1/4 x 5

He walks the dog, 1994 dye sublimation print, 4 x 3 1/4

man in bluegreen shirt, 1994 dye sublimation print, 3 x 3 1/2

nerd, 1994 dye sublimation print, 3  $3/4 \times 3 1/2$ 

Night Hare, 1994 dye sublimation print, 4 1/2 x 5 Poem text from "Dreams," in Dream Work by Mary Oliver

TAXI, 1994 dye sublimation print, 4 1/2 x 6

# RENÉE LEWINTER

Pages from the Primordial Soup: Pond, 1992 ink jet on canvas, 28 x 42

Pages from the Primordial Soup: Segments, 1993 ink jet on canvas, 28 x 42

Pages from the Primordial Soup: Terrata One, 1992 ink jet on canvas, 28 x 42

Pages from the Primordial Soup: Terrata Three, 1992 ink jet on canvas,  $28 \times 39$ 

#### ROBIN MARLOWE

Paris Tarot, 1994 video, running time: 2:45

#### GREG O'BRIEN

Jamaica Plain #16, 1993 Cactus print, 48 x 48

Jamaica Plain #17, 1993 Cactus print, 48 x 48

Jamaica Plain #20, 1994 Cactus print, 48 x 48

London, 1993 Cactus print, 48 x 48

South End #3, 1994 Cactus print, 40 x 40

#### HUGH O'DONNELL

Cascade, 1994 tiled Iris print, 10 x 30 feet Iris prints courtesy of Cone Editions Press, East Topsham, VT

#### DEBORAH KLOTZ PARIS

Fungus on Spineboard #1, 1993 computer print, wood, wax, oil, 3 panels, each 80 x 20

Fungus on Spineboard #2, 1993 computer print, wood, wax, oil, 3 panels, each 80 x 20

Fungus on Spineboard #3, 1993 computer print, wood, wax, oil, 3 panels, each 80 x 20

Fungus on Spineboard #4, 1993 computer print, wood, wax, oil. 3 panels, each 80 x 20

#### OLIVIA PARKER

Action Toy, 1994 digital image, Nash ink jet print, 30 x 22 1/2 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

A Book of Broken Rules, 1994 digital image, Nash ink jet print, 19 1/2 x 27 3/8 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY Chicken Roulette, 1993 digital image, Nash ink jet print, 24 x 20 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

A History of Barbie, 1993 digital image, Nash ink jet print, 26 x 20 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

Horseplay, 1993 digital image, Nash ink jet print, 24 x 20 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

Missing Piece - Anhinga, 1993 digital image, Nash ink jet print, 30 x 22 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

Missing Piece - Ibis, 1993 digital image, Nash ink jet print, 15 x 13 1/2 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

Mr. Johnston's Pull Toy, 1994 digital image, Nash ink jet print, 26 x 20 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

Path, 1993 digital image, Nash ink jet print, 30 x 24 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

Roots and Tubers, 1994 digital image, Nash ink jet print, 20 1/8 x 16 Courtesy of Robert Klein Gallery, Boston, MA, and Brent Sikkema - Wooster Gardens, New York, NY

#### ANGELA PERKINS

cantaloupe, 1993 electronic imaging on paper, 24 x 18

jalapeno, 1993 electronic imaging on paper, 24 x 18

pea pod, 1993 electronic imaging on paper, 24 x 18

red pepper, 1993 electronic imaging on paper, 24 x 18

strawberry, 1993 electronic imaging on paper, 24 x 18

#### RON RIZZI

The Buddha's Tooth, 1993 oil on panel, 46 x 96

The Interrogation, 1993 oil on panel, 48 x 72

*Tibet,* 1993 oil on panel, 72 x 96

#### RICHARD ROSENBLUM

Black Ryder, 1994 ink jet print, 53 x 74

River Crab, 1993 ink jet print, 34 x 51 Courtesy of the Danforth Museum of Art

Sarajevo, 1994 ink jet print, 74 x 53

#### JOAN SHAFRAN

Sometimes Never Could, 1994 presentation poem, 50 x 16 x 16

#### KARL SIMS

Liquid Selves, 1992 video, running time: 2:15

#### DEANNE SOKOLIN

Enrobed Heads and Bodies, numbers 1-9 from The Covering Series, 1993-1994 dye sublimation prints, each print 11 x 11

Gold Grid, numbers 1-4 from The Covering Series, 1994 dye sublimation prints, each print 11 x 11

#### ANNE MORGAN SPALTER

Beacon, 1992 digital image, 43 x 43 (framed)

Buildings by the Runway, 1994 digital image, 33 x 43 (framed)

Leaving, 1994 digital image, 33 x 43 (framed)

Smokestack Spirits, 1993 digital image, 43 x 33 (framed)

#### JED SPEARE

Piano Rolls, 1994 animation, running time: 1:30

#### DANIEL SPIKOL AND HAZEN REED

Dream Wheel, 1994 interactive digital installation, dimensions variable

#### GREG A. STEPHENS

Death is the Seed, 1992 video, running time: 3:00

# Greg A. Stephens and Sergio F. Guerra

Fragments of a Vicarious Childhood, 1993 video, running time: 7:10

#### MICHELLE TURRE

Full House, 1992-1993 ink jet print on paper, 39 x 26

*Me, My Girl, and My Mom at Three,* 1993 Imagesetter output to silverprint, 20 x 25

My Niece in Her Grandmother's Costumes with My Dolls, 1994 ink jet print on Translite, 13 x 47

Rosie's House, 1994 ink jet print on paper, 40 x 29 1/2

The Spanish Dance, 1993 ink jet print on paper, 9 1/2 x 43

# JANET ZWEIG

The Liar Paradox (Oliver North Mobius), 1991 kinetic sculpture, 6 x 18 x 2 feet

Making Progress, 1992 kinetic sculpture, 50 x 18 x 26

Splitting the Vicious Circle, 1994 Sculpture, 2 x 6 x 3 feet

Thanks a Million, 1993 sculpture, 4 x 6 x 3 feet



# BOSTON COMPUTER SOCIETY VIRTUAL REALITY GROUP

North Water World (detail), 1994 interactive digital installation



# DAVID BRODY

Untitled, 1989 computer drawing, 11 x 8 1/2 inches Courtesy of Gallery NAGA



**EMILY CHENG** 

Untitled (EC0029 from the Bodhissatva Series), 1993 monoprint, 16 x 22 inches Iris print courtesy of Cone Editions Press



# CATHY CONE

Bone Series #2, 1994 Iris print, watercolor, 44 x 30 inches Iris print courtesy of Cone Editions Press



SHARON DANIEL

Narrative Contingencies (video still), 1993-1994 video



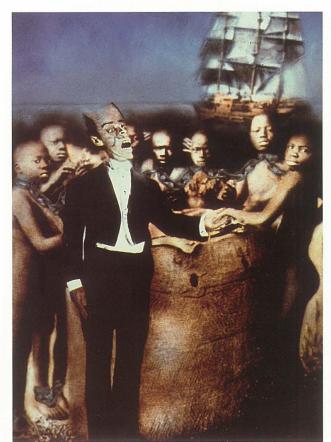
GREGORY GARVEY

The Automatic Confession Machine, 1993 interactive digital installation



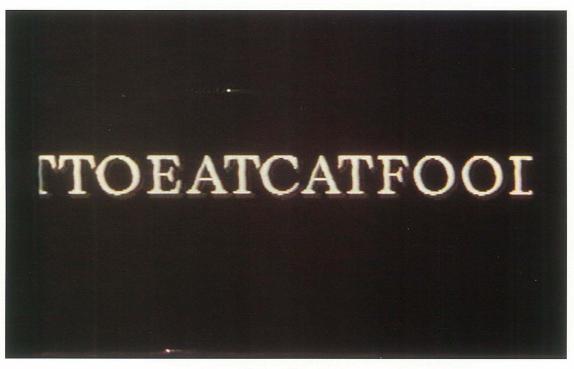
STEVE GILDEA

South Ray Crater with Skin, View from Rim #1, 1991 ink jet print, 7 x 9 inches Iris print courtesy of Today's Graphics, Inc.



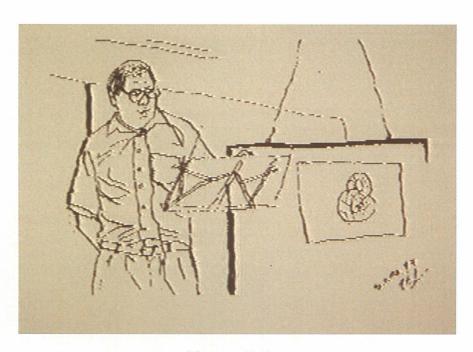
# STEPHEN GOLDING

from A View from the Back of the Bus, 1992 Cibachrome, 20 x 24 inches



DENA GWIN

IDONTWANTTO (video still), 1994 video



THOMAS E. JANZEN

Dilettante (video still), 1994 video

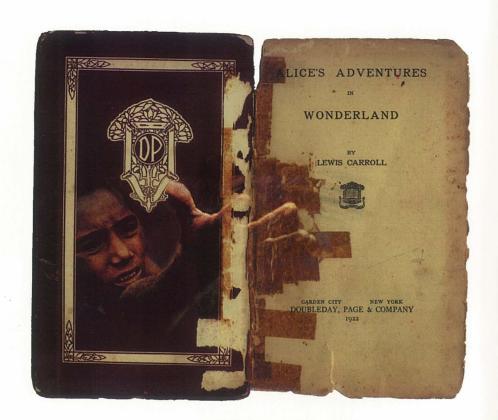


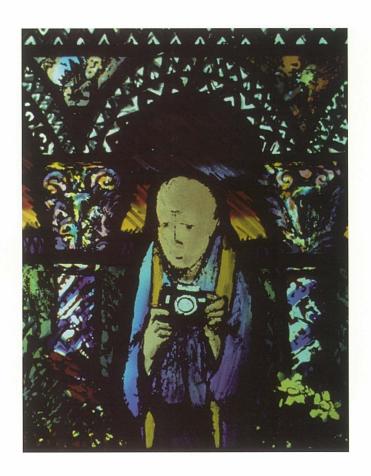
# Douglas Kornfeld

101 (detail), 1992-1994 mosaic, 96 x 192 inches

# DOROTHY SIMPSON KRAUSE

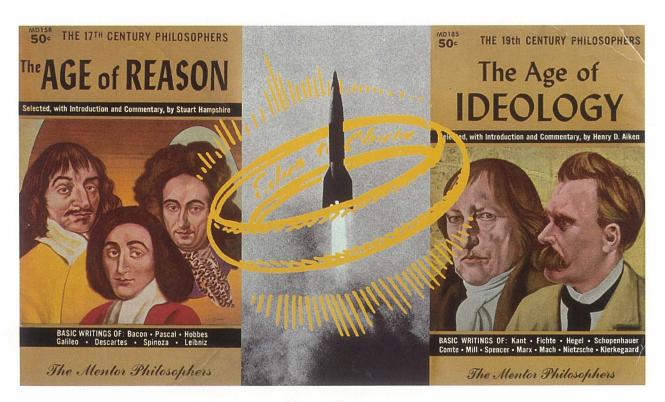
Wonderland, 1994
digital collage, ink jet print on canvas
with mixed media, 30 x 36 inches
Courtesy of Mary Lou Bock, The Williams Gallery





# TOM KREPCIO

Tourist, 1992-1993 stained glass, 9 1/2 x 8 1/2 inches Courtesy of Sip Siperstein

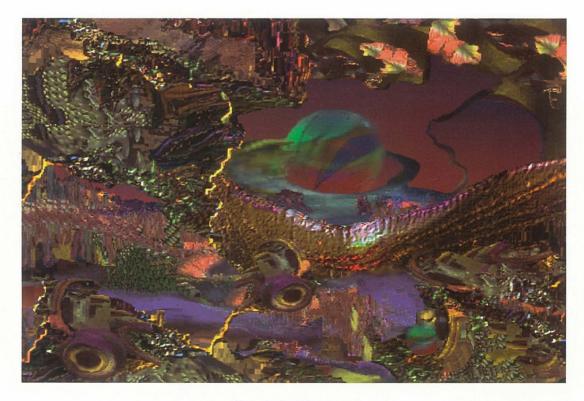


FRANK LADD



# Susan LeVan LeVan/Barbee studio

man in bluegreen shirt, 1994 dye sublimation print,  $3 1/2 \times 3$  inches



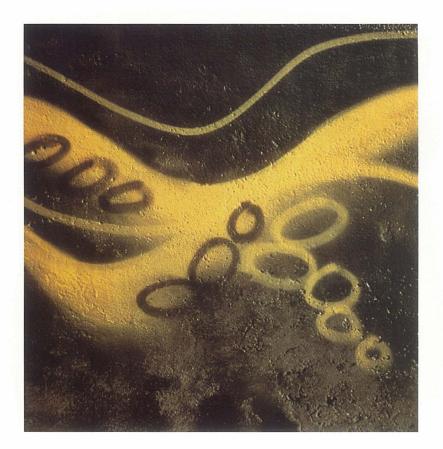
RENÉE LEWINTER

Pages from the Primordial Soup: Segments, 1993 ink jet on canvas, 28 x 42 inches



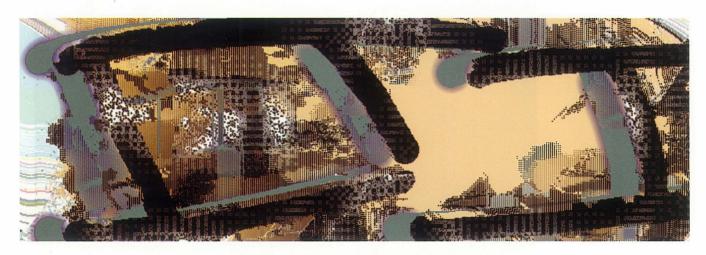
ROBIN MARLOWE

Paris Tarot (video still), 1994 video



# GREG O'BRIEN

Jamaica Plain #16, 1993 Cactus print, 48 x 48 inches



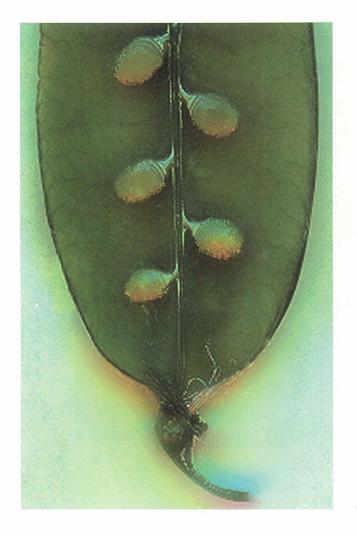
HUGH O'DONNELL

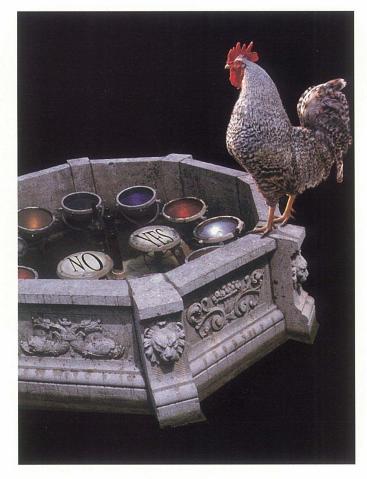
Cascade, 1994 tiled Iris print, 10 x 30 feet Iris prints courtesy of Cone Editions Press



# DEBORAH KLOTZ PARIS

Fungus on Spineboard #2, 1993 computer print, wood, wax, oil 3 panels, each 80 x 20 inches





# OLIVIA PARKER

Chicken Roulette, 1993 digital image, Nash ink jet print, 24 x 20 inches Courtesy of Robert Klein Gallery, and Brent Sikkema - Wooster Gardens

# ANGELA PERKINS

pea pod, 1993 electronic imaging on paper, 24 x 18 inches



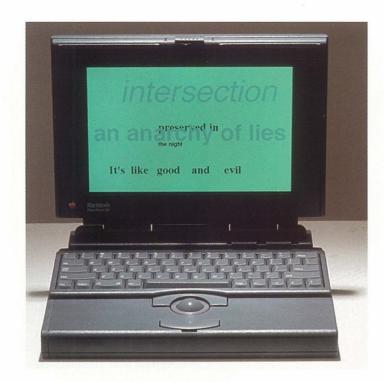
RON RIZZI

The Buddha's Tooth, 1993 oil on panel, 46 x 96 inches



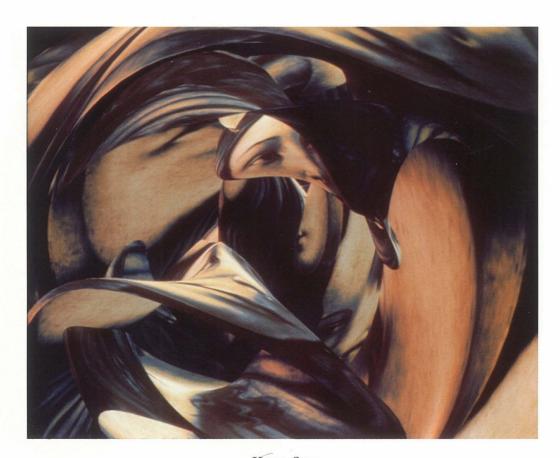
RICHARD ROSENBLUM

Black Ryder, 1994 ink jet print, 53 x 74 inches



Joan Shafran

Sometimes Never Could (detail), 1994 presentation poem, 50 x 16 x 16 inches



KARL SIMS

Liquid Selves (video still), 1992 video

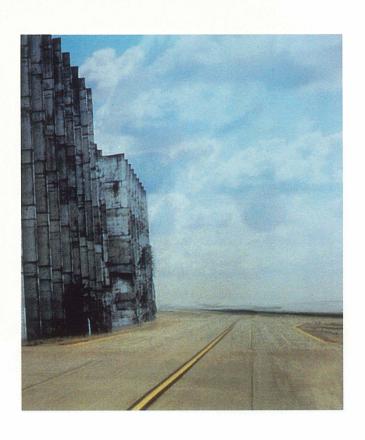


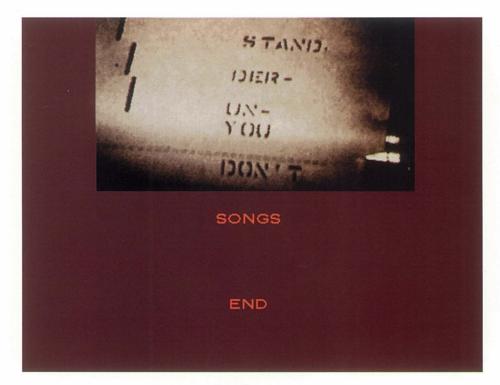
DEANNE SOKOLIN

Enrobed Heads and Bodies, from the Covering Series, 1993-1994 9 dye sublimation prints, each 11 x 11 inches



Buildings by the Runway, 1994 digital image, 33 x 43 inches (framed)





JED SPEARE

Piano Rolls (animation still), 1994 animation



DANIEL SPIKOL AND HAZEN REED

Dream Wheel (detail), 1994 interactive digital installation



GREG A. STEPHENS

Death is the Seed (video still), 1992 video



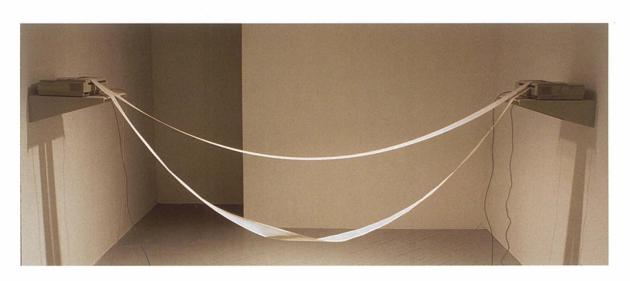
GREG A. STEPHENS AND SERGIO F. GUERRA

Fragments of a Vicarious Childhood (video still), 1993 video



MICHELE TURRE

Me, My Girl, and My Mom at Three, 1993 Imagesetter output to silverprint, 13 x 16 inches



JANET ZWEIG

The Liar Paradox (Oliver North Mobius), 1991 kinetic sculpture, 6 x 18 x 2 feet