Electronic Artists Working With Ideas
Ancient Greek artists worked with marble. Impressionists painted with oils. And many of today's artists, like Ed Paschke (PASH-kee), use technology to create their art. Paschke's figures, such as Mattinee (cover), reflect his interest in electronic media. But the tools he uses to create his "high-tech" images are old-fashioned—brush, paint, and canvas.

In his works, the artist explores the interaction between humanity and technology. The cover suggests that Elvis Presley may have begun as a real person. But the media have turned his face into an electronic image. The distorted forms and garish neon colors in Electralady (right) suggest a person transformed by the constant bombardment of media messages. Electralady's face, framed by multicolored horizontal bands, has become a negative image masking the positive shapes of her mouth and eyes. Even her red hair appears to glow. This face stares blankly at the viewer through empty eyes created by modern technology.

Forty years ago, most American households were lucky to have one television set. Even so, Korean-American artist Nam June Paik (pake) recognized TV's potential for making art. Often called the "father of video art," Paik began his career as a performance artist. When television was introduced in the 1950s, he started working with it. Paik has created installations, videotapes, global television productions, and digital performances, but his first video sculptures (above) were simple and basic. When early television sets were first turned on, a single horizontal line of light would appear in the picture area. The line would expand and images would seem to magically fill the screen. The active diagonal line on this sculpture's screen captures the excitement of seeing TV for the first time. The receiver, covered with circular rings, resembles handcrafted folk art. The fake, plastic pearls might be a comment on the quality of the programs that will appear on the screen.

Another early electronic artist, who was one of the first to work with video, is American Bruce Nauman. Nauman is more concerned with concepts than the way in which he presents them. To involve viewers, the artist seeks to arouse their emotions in a negative way. His works are designed to provoke a response. In Double Poke in the Eye (right), he uses the repetition of constantly blinking neon tubes to get his message across. Two linear, highly stylized flashing neuron figures endlessly do to each other just what the title suggests. The bright, clashing colors, overlapping lines, and feeling of aggressive movement suggest the futility, menace, and discord often found in modern life.
"My work is about societal dissonance."
—Ed Paschke

Ed Paschke b. 1939
Zeckendorf 1995 01 pm
Image 24 "x 32" Courtesy of the artist & Marie Petisky Gallery, Chicago Bldg.

"I want to turn the video screen into an electric canvas and use a brush made of light."—Nam June Paik
Digital
Visions

One of the most important tools used by electronic artists is the computer. Artists work with this rapidly changing technology in many ways. Some, like Jenny Holzer, use computers to control the sequencing of their final products. Throughout her career, the artist has been putting short but provocative messages in public places—on billboards, on T-shirts, computer-driven message boards, and now on the Web site http://adata.web.walkera.org/project/holzer/cgi/pch.cgi.

When such Holzer phrases as ABUSE OF POWER COMES AS NO SURPRISE, MONEY CREATES TASTE, and YOUR OLDEST FEARS ARE YOUR WORST ONES were flashed from the Spectacular board above Times Square in New York City (right), they fit right into the blinking maze of words. Holzer’s strategy—

“I love working with things I don’t understand and that fascinate me—like the computer.” —Jenny Holzer

placing surprising texts where normal advertisements are expected—allows her to reach people that might not pay attention to “art.” The artist is also able to point out forms of power and control that often go unnoticed. If any single viewpoint emerges in Holzer's messages, it is that truth is relative and that each viewer must decide what is valid and what is not. Her sayings compel the reader to question the messages we see around us every day.

Other artists, like Nancy Burson, use computers to digitally alter photographs. Over the years, the artist developed a technology that allowed her to scan individual features into a computer, and mix them to create images of the same person, but changed in certain ways. Imagine seeing a picture of yourself as you might look in the year 2222; or looking at an image of your face as a member of a different race. Burson's Human Race Machine includes an interactive photo booth that lets you, the visitor, scan a digital image of your face into a computer. Click on coordinates and see what you would look like if you were white, or African-American, Asian, Native American, or Hispanic (far right). Each “you” is different, but much the same. Burson began this project after she learned that the DNA of any two humans is 99.97 percent identical—that there is no gene for race. The artist says, “We are all related, all connected, all one.”

Probably the ultimate goal of most artists is to be able to have the viewer participate in the work of art. British audio-visual artist and Web designer Jake Tilson began his artistic career working with traditional materials. Looking for something more interactive, in the early 1990s, Tilson began working with internet based art. The artist started his Web site, The Cooker www.thecooker.com/, in 1994 when the Internet was just developing.

One of the first universal browsers to link the expanding worldwide network of computers, The Cooker (near right) combined innovative design features, as well as being a showcase for the artist's past work. Long interested in exploring the qualities of randomness and fragmentation, Tilson has used every new technological advance to add another layer to his Web site. For example, you can log on to the Cooker, “order” a meal in a restaurant somewhere in the world, gaze around the room, and hear the sounds of the diners in “real time.”
"We are all related, all connected, all one. My work is all about sameness and not about difference." — Nancy Burson


"Video and television artworks pale in comparison to the artistic potential of Web sites." — Jake Tilson

Creating Video Productions

You've seen how Nam June Paik transformed television receivers into sculptures (page 2). Before videotape came into use, Paik invented ways to make the TV screen into a digital painting. Instead of paint, the artist used pixels, the tiny units of visual information broadcast over air waves to form a TV image. By modifying a set's electronic system, Paik created unexpected effects in the images being received. In Butterfly (above), he has rearranged the pixels to fragment and distort the original image. The "butterfly" shape intersects the diagonal lines to produce an abstract painting that moves.

Paik's elaborate installation Electronic Superhighway (pages 8-9) is made up of a neon outline of the United States, with 313 video monitors mounted inside. Every program—broadcast, cable, or videotape—relates to the state in which the monitor is located. New York—where the piece was exhibited—is a closed-circuit surveillance monitor reflecting visitors' images back to them. In some cases, images are synthesized; they fill several screens, move from monitor to monitor, or work together in some way. In all his works, Paik transforms video images into works of art which comment on American technoculture.

Early in his career, artist Bruce Nauman communicated his provocative messages using stylized images made of neon tubing (page 3). Today, the artist deals with the same themes—the aggressive feelings and miscommunications encountered in modern society. But the technology he uses is more sophisticated. In creating his video installation Arhmo/Socio (above, right), the artist used videodisc players, monitors, and video projectors. To experience this work, the viewer stands in a dark room where a giant face chants two messages, "Help me, hurt me sociology; feed
"I really like the idea of the art just being there so that you can go back and visit whenever you want to." —Bruce Nauman

"Art should embrace all the technologies of the information society." —Nam June Paik

me, eat me anthropology." Sociologists study the ways in which people interact; anthropologists study the progression of human existence. This piece may be dealing with modern fears. Asking for help can make one psychologically vulnerable, while feeding or giving to someone can put one at risk physically. Gigantic heads repeating these messages force the viewer to acknowledge the contradictory inner voices that run through everyone's mind.

For more than 30 years, African-American artist Adrian Piper has created politically and socially motivated art. Her performances, installations, and videos deal with stereotyping, racism, and exclusion. Often confrontational, many of Piper's conceptual works (concerned more with ideas than appearance) challenge viewers' prejudices. As a light-skinned black woman, Piper examines the tension felt by people not easily defined by race, gender, or class.

In Piper's video installation Cornered (right), chairs, an overturned table, and a video monitor sit in a corner of a white room. The artist speaks to the viewer from the screen. She announces, "I'm black." She then explains that if you, the viewer, have a problem with a person who appears not to be black saying she is, then you must be a racist no matter how you see yourself. "I really would prefer not to disturb you, but I have no choice. I'm cornered...." Piper says.

► "I want to heighten viewer awareness of certain issues." —Adrian Piper
Yuns-June Park, b. 1932
Electronic Supereleganza: Continuity of S.S., 1985
Fifteen-channel and closed-circuit video installation with S.S. mixture, news and stock directional
Photos, Holly Solomon, Gallery, New York, N.Y.
Electronic Superhighway

By Nam June Paik

"'Television' is the language that is perhaps the most widely spoken in the world."

-Nam June Paik
Projected Images

"The effect I want to create is of all these ghostly beings above you, around you." — Tony Oursler

Imagine walking into a dark and apparently empty room. A voice comes from one direction, then another from the other side. The voices complain, scream, scold, and babble. One voice comes from a giant red, swollen eye floating in a corner. Most of the eyes gape out unblinking, but one is overcome by tears. When you get closer, you can see the flickering image of a TV screen reflected in each eye.

This fantastic installation Glimmer (left) was created by American conceptualist Tony Oursler. By projecting videotaped faces onto the blank heads of cloth dolls (far left), Oursler presents haunting dramas that act out problems the artist feels have been brought on by the effects of modern media. In Oursler’s works, the viewer becomes an observer of the intimate details of other peoples’

► “Making art is how people sort through chaos, through life.”
— Tony Oursler


► “Being aware. That’s what the video camera has taught me.”
— Bill Viola

lives, which the artist feels is the essence of television. The contrast between the limp bodies of the dolls and the aggressive language of his "talking heads" adds to the dramatic power of Oursler's works.

Since the early 1970s, Bill Viola has used video to explore universal human experiences—birth, death, the passage of time, the power of nature, and the essence of human spirituality. His installations and video projections are total environments that envelop the viewer in image and sound. In many of his video pieces like Passage (opposite page, bottom left), Viola slows the action to contrast

real time and the world of dreams. Viewers enter the work through a narrow hallway opening into a shallow space which restricts one's view of the wall-to-wall, floor-to-ceiling image. The giant projection is a videotape of a child's birthday party shown at one-tenth normal speed. The action is so slow and the jarring movements of the handheld camera so exaggerated, the viewer loses all sense of time and perspective. The slightest gesture seems overwhelming; small details become symbolic. Viola uses these effects to suggest the passage of time and the tensions of age within youth; death within life.

The projections of Polish installation artist Krzysztof Wodiczko (CHRIS-tow VOD-gee-koh) are even larger in scale than Viola's, since they are placed on huge buildings and public monuments. Wodiczko projects his politically charged images outside, so they can only be seen after sunset. A political activist, the artist combines slide projection and sound to call attention to issues that concern him. One of Wodiczko's major areas of activity is the plight of homelessness in modern society. He has done a number of projects devoted to this subject, the most recent (above) having taken place in Boston on New Year's eve. It is believed that a number of people that are now homeless have at one time served in the armed forces. So Wodiczko chose a war memorial originally built to honor soldiers and sailors on which to project his affecting images of homeless people.
Tim Dunigan made Digital Self-Portrait during his senior year at Lahser High School in Bloomfield Hills, Michigan. He enjoys working with computers so much that he's now a freshman at the School of Visual Arts in New York City, majoring in computer art. He dreams of having his own company and using computers to develop ideas for other people. Or he'd like to work on an animation team. "I love creating a character and making it come to life," Dunigan says. "With computers, you can build new images as well as manipulate existing ones. They can do so much."

**How did you first get involved with art?**
I've been making art ever since I was a little kid. Then when I got to middle school, I took every art class I could get my hands on. My older brother also taught me a lot.

**How did you create this award winning piece?**
I did it for an independent study art class. I wanted the self-portrait to show how music and my interest in digital media feeds into my art. The turntable, keyboard, drum machine, headphones, and a list of songs illustrate my interest in music. I wanted the visual layers to overlap and react to
Computer Images

each other, just like different musical instruments would play off one another. The portrait is a record of all the different computer techniques and styles I had worked with. I wanted to combine a variety of elements that might not normally work together.

How did you get your idea?
I'm interested in contrasting natural and mechanical. For instance, my right arm is robotic while my left one isn't. The right side of my face is digital, the left is real. I wanted the portrait to suggest the creative process, going from reality on the right to imagination on the left. As you reach the left side, I've almost become a digital element myself.

What digital effects did you use and why?
I used a combination of Adobe Photoshop tools to dodge and burn in spots, add shadow and depth, and give blur and layer effects. I used most of the tools in the tool bar.

How did you go about creating this piece?
First, I drew sketches of the elements I wanted to use to represent who I am. There are at least 23 different elements that had to be built in separate Adobe Photoshop computer files. The turntable, top right, was built using the line tool and geometric selections. For the palm on the right, I scanned in my hand, then used the pen tool to trace its contours. I wanted my right hand, which I use to draw, to be the focus of the picture. So I created a mechanical circuitry effect. I didn't use a photo, but went into the computer and created it with Photoshop tools. I wanted my drawing arm to look robotic, but also real and believable. It was the most challenging part of the piece, using computer tools to create human anatomy.

When you finished building your pieces, what was next?
I put them together in one file and arranged them, experimenting with different variations and locations. When I had an arrangement that worked, I went through and eliminated the seams, so it all looked like one image. I adjusted the color, more toward the reds and yellows since I liked the way they contrasted with the green grid in the background.

Were you satisfied when you were done?
Yes and no. I was happy with the overall effect. I would have liked more detail in the robotic arm—more wires and cables so it looked more believable. Since I've been in college, I've learned more ways to manipulate the image that I didn't know about when I did this piece.

What's the biggest challenge creating computer art?
I think it's learning how to use the software so you can achieve the effect you're looking for. Having a concept and being able to control the computer to create exactly what you want is difficult. Let's say you want to change the hue of one part of an image. It's very hard to be able to do that and not lose the overall image quality.

What's the greatest reward?
Being able to make your idea look real. With computer art, it's very frustrating to have an idea in your head and not be able to render it. But when you're able to manipulate the image exactly the way you originally envisioned it, that's the most exciting and rewarding part of computer art.

What advice do you have for aspiring artists like yourself?
Do what you love. Find whatever drives you to create, and go with it. Also, don't let the work of others intimidate and discourage you from your own work. Don't give up. Many times I wanted to give up. The creative process may not be easy at times, but it's certainly worth it.
Artists have always used whatever materials they feel will best express the ideas and feelings they want to communicate. Since we are a very technologically oriented society, many contemporary artists consider every technological development as a way of creating their art.

In this workshop, you'll combine traditional and electronic materials to construct an environment that is both real and unreal.

**Materials**
- Visually interesting mechanical and organic objects
- Variety of transparent, opaque, solid and printed fabric
- Old clothing (thrift store)
- Magazines
- Styrofoam packaging material
- Newspapers
- Family, art history slides and/or old discarded slides
- Balloons, white translucent, white opaque
- Slide projector or overhead projector/overhead transparencies
- Access to photocopier to make overhead transparencies
- Medium-size cardboard boxes, 3’x3’ or smaller
- Acrylic or student-grade tempera paint (primary, secondary, black, brown and white)
- Variety of smaller (1/4”—1/2”) flat/round brushes
- White spray paint
- Used clean panty-hose
- Latex gloves (can be inflated)
- Seven watt night lights
- Extension cords

**Step 1**
Two weeks before assignment, start bringing in visually interesting clothing and objects. Develop a theme you would like to explore visually, or use some of the objects brought in to inspire ideas. Bring in slide projectors, small lamps; to these electric components you could add mirrors, foil, colored tissue, flashlights.

**Step 2**
Begin arranging to see how objects work with each other. Everything should relate to your theme. You can use figures with projected faces, images can be projected on background, floor, or other objects.

**Step 3**
Location will determine installation's shape and size. Sites might be in school (foyer, display cases, library, stairs, corners) or community (grocery, library, bank, civic center). Look at work from all angles. Combine objects—white/hot glue, wire, double-face tape, double-fom tape, Velcro, nails, straight pins. A professional-looking installation is important. Tape electrical cords to floor.
Some Solutions

In this project, the idea or theme is the most important element. In the solutions above, a group portrait in which some of the family members are stuffed animals is humorous and ironic. To communicate this theme, the artist overlaps two- and three-dimensional images, contrasts textures, and uses repetition. The symmetrical composition (nearly the same on both sides) emphasizes the differences between "family" members. Another artist links past and present by connecting a 3-D birthday party still life with an old 2-D family photo. The two birthday cakes provide a visual link. An eerie, surreal quality is captured by the two figures sitting in a dark room. Images of human faces are projected on the figures’ heads, the works’ focal points. Also surreal is the woman in blue, holding a “real” map with floating, mechanical hands. The sharp-focus foreground contrasts with her blurred, ghostlike image. A figure stands in a spotlight, before a painting of a night café filled with isolated strangers. The cast shadow echoes those in the painting, adding to the loneliness and isolation.
Electronic Expressions

How many of these faces and patterns can you identify?

All of the artists whose works are shown here have incorporated some aspect of technology. Below are details of pieces featured in the issue. At the bottom of the page, you'll see a list of descriptions, phrases, materials, and artists' names. Next to each item, write in the letter of the visual (or visuals) that seems most appropriate.

1. Active diagonal line
2. Father of video art
3. Ed Pashke
4. Interactive art
5. Neon
6. Talking heads
7. Human Race Machine
8. Political activist
9. Nam June Paik
10. Total environment
11. Sociology
12. Anthropology
13. Negative/positive shapes
14. Nancy Burson
15. Intersecting diagonals
16. Repetition
17. Adrian Piper
18. Painting
19. Tony Oursler
20. Projection art
21. Linear
22. Pixels
23. Butterfly
24. Social criticism
25. Criticism of the media
26. Confrontational art
27. Bill Viola
28. Conceptual art
29. Bruce Nauman
30. DNA
31. Television
32. Slide
33. Krzysztof Wodiczko