

Origins celebrates interactive technologies in the arts by giving a glimpse of their roots. Video artists pioneered interactive electronic media in the early 1970's by building and using real-time devices to create their art. Before the proliferation of desk-top computers and digital video editing software, video artists relied on the resources of television centers like the Experimental Television Workshop at WGBH in Boston; the Experimental Television Center in Binghamton/Owego, New York; and WNET in New York City, for access to the tools of production. These centers, and venues such as the media theater The Kitchen in New York, were crucibles of electronic video art.

Nam June Paik was the first artist to perceive the creative possibilities of video. A trained composer and member of Fluxus, he drew upon his knowledge of electronic music and performance when he began working with the television set in the mid 1960's. First, Paik manipulated the image on the television screen by changing the circuitry, and adding various electronic inputs. Next, he set out to create an entirely new art form, video, and to make it an active experience. The arrival of the Sony Portapak camera in 1968 made video accessible to artists, and enabled them to record visual images instantly. Processing the recorded video, however, required the expensive resources of a production studio. Paik decided to create an accessible, interactive video instrument for artists to use in live performance. He liberated the tools of video production from the television studio with direct help from WGBH in Boston.

Paik and Shuya Abe built the first Paik-Abe Video Synthesizer in 1970 at WGBH with the assistance of producer/director, Fred Barzyk. Having proclaimed that the television would replace the canvas, Paik created the synthesizer to make the video image as malleable as paint. He colorized and modulated inputs from up to seven black and white cameras, and distorted the images in a psychedelic fashion. WGBH broadcast Paik's Video Commune, the first experimental video on television. Two other Paik-Abe Synthesizers were built and made available to artists at the New York Public Television station, WNET, and at the Experimental Television Center. Soon more hand-made video synthesizers were constructed by artists/engineers, including devices by Steve Rutt and Bill Etra, Eric Seigel, Stephen Beck,

David Jones with Rich Brewster and Walter Wright, and Woody Vasulka and Jeffery Scheir.

These early video instruments created new images on the television screen by using a variety of means to modifiv the images. Jones created unique modules including voltage-controlled kevers, sequencers, colorizers (on view) and the first programmable frame buffers. Vasulka and Scheir developed a hybrid analog/digital device. Steve Rutt and Bill Etra built a scan modulation system. Each of these tools and those on view in Origins have intrinsic properties which permeate the resulting video. Some of these same tools are still in use at the Experimental Television Center, and are appreciated by a new generation of artists who astutely combine the power of digital video with the amazing properties of the hand-built analog devices. The unique imprint from these devices resonates in the installations by Ben Piper, Benton-C Bainbridge, Steina and Walter Wright; as well as in the videotapes by artists Nam June Paik, Pere Bode, Steina, Jud Yalkut, Ron Hays, Carol Goss and a collection of others that are screened in the gallery. These revolutionaries make it clear that today's interactive multi-media is informed by the history of electronic video. Origins acknowledges the artists that trailblazed the path of invention which cyber artists travel still further. Like the ghosts in Ben Piper's Palimpsest, these video artists and their discoveries are just beneath the surface of new interactive electronic art.



-Mary Ann Kearns, Origins Curator

Shuya Abs, Robert Diamond, Nam June Palik, and Ralph Hocking with the Video Cello, Everson Museum, Syracuse, NY, 1972.

Photo credit: The Experimental Television Center





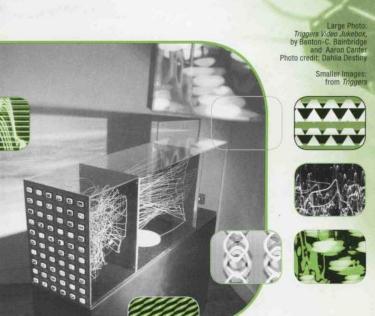


Benton-C Bainbridge has performed, screened, and installed video in international museums including the Wien Moderne in Austria, and at The Museum of Modern Art, The American Museum of the Moving Image, and The Kitchen in New York.

When Benton-C began to experiment with live video in the 1990's, he knew little about his predecessors. Stymied by the post-modern perception that video art is about the TV set, Benton-C looked for others like hime who believed that video could be performed.

His first residency at the Experimental Television Center confirmed his idea that video, like music, was meant to be played. The Television Center's loft and equipment allowed him to use video in real-time, interactive collaborations. When he interviewed Carol Goss and Walter Wright, Benton-C realized that their early experiences with live video on stage had presaged his own.

During the '90s, Benton-C co-founded numerous groups to perform composed and improvised live video on stage. He currently performs in Europe and the Americas, and co-designs real-time movie-making systems. He created the *Triggers* video jukebox in collaboration with Aaron Cantor. Gallery visitors can punch 60 buttons to project digitally delivered samples of video made with old analog tools.



Steina, born in Iceland, studied violin and music theory, and attended the State Music Conservatory in Prague. She married Woody Vasulka, a film student, and the two moved to New York City. They began working with video in 1969. Steina has received funding from the National Endowment for the Arts, and the Guggenheim Foundation. She has been awarded the American Film Institute Maya Deren Award, and the Siemens Media Art Prize. Her videos and installations have been exhibited worldwide at venues including the Whitney Museum of American Art.

In 1971, the Vasulkas co-founded The Kitchen to serve as a laboratory for artists. Its popularity and their multimedia sensibilities transformed it into a theater for video performance, dance and music. They organized the first-ever annual video festival in The Kitchen's opening year. The Vasulkas moved to Buffalo, NY in 1974 to join the faculty of the Center for Media Study. They experimented with the *Rutt/Etra Scan Processor* (a "prototype" is on view in *Origins*), and on the *Digital Image Articulator*. Developed by Woody in collaboration with several others, it transformed the video image in real-time, pixel by pixel. Steina and Woody have collaborated extensively on their investigations into the inherent properties of electronic video.

Steina's work explores music, video installation, and media performance. In the 1970s she performed *Violin Power*, 1970-78. Created around the same time as Paik's *Video Cello*, 1971, Steina's specially wired violin modulated the video image as she played. Her new version of *Violin Power* uses a MIDI violin as the "machine" that controls the video on videodisk players. Steina developed her *Machine Vision* series to explore the camera as an autonomous visual instrument and mechanical organizer of time and space. *Allvision*, 1976, from this series, uses low-tech means to place visitors to *Origins* in a "prototype" virtual space.

Backround Image: Allvision, 1976 by Steina Photo Credit, Kevin Noble

> Below: Sherry Miller and Ken Dominick in Shirley Clarke's Video Ferris Wheel, 1971









Photo Credits: The Experimental Television Center Walter Wright is a video artist and member of VideoSpace. Trained as an architect, he has a Master of Applied Science in Systems Design from the University of Waterloo, Ontario. Wright's wide range of experience includes work as a video animator, software engineer, and professor of film, video and computer graphics. His videos have been exhibited in Canada and the United States.

Wright worked in New York City in the 1970's as one of the first video animators. At Computer Image Corporation, he assisted Ed Emshwiller on the first computer graphic animation to be nominated for an Emmy Award, Scapemates (screened in Origins). Wright's videotapes were shown regularly at The Kitchen, where he was an associate director.

As artist-in-residence at the Experimental Television Center from 1973-76, Wright helped to design and construct several hand-built video tools. He also pioneered video performance, touring public access centers, colleges and galleries with the *Paik-Abe Video Synthesizer*. In 1976, Wright and video artist Carol Goss made two live music videos of the pianist Sun Ra. Made with the *David Jones Colorizer*, they were the first music videos to be released with an album.

Wright developed his own performance video system, the *Video Shredder*, after working as a software engineer at the video hardware company Truevision in the 1990's. The *Shredder* uses a Targa2000 video adapter and the artist's own software to deconstruct and reconstruct the image in real-time. Wright performs with the *Shredder*, musicians and dancers throughout the Boston area. Installed in *Origins* it "shreds" and projects images of visitors to create an impromptu



Ben Piper is an architect, engineer, designer, and videographer. His work has been exhibited in the Ars Electronica Festival in Austria, and in the annual SIGGRAPGH Computer Graphics Conference. Piper has Architecture degrees Cambridge Universtiy and M.I.T., and has held fellowships at the Media Lab Europe, Intel, and MIT/Cambridge Architecture Exchange. His interest in designing unique architectural spaces includes interactive environments.

Piper's interactive video installation Palimpsest was inspired by walking through the empty and quiet environment of the 825-foot M.I.T. hallway known as the "Infinite Corridor." A recycled manuscript on which a later writing is superimposed on an earlier one, the word palimsest describes Piper's superimposing of many layers of video as a single image. Seeking to make viewers aware of the social history of a particular place, *Palimpsest* allows them to witness the human crowd that has just passed by.

Conceived as an interactive device using the timedelayed looping of videotape between a recording deck and projector, Piper first realized *Palimpsest* as a digital-video installation. For *Origins* he has created a new version that uses a TiVo digital video recorder and video mixer to facilitate chance encounters between different viewers and moments in time.



Nam June Paik and Ralph Hocking, Soho, c.1972. Photo credit: The Experimental Television Center

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