Runaway, Las Vegas, by the author.

flicking a switch. "Keyers" created high-contrast effects similar to Kodaliths.

Colorizers added color to black and white negatives or changed the original color of slides or prints. Mixers let me superimpose images from one or more TV cameras or videotapes. The effects of video image processing were cumulative. I could manipulate images electronically and see the effect of each change on the TV screen as it occurred.
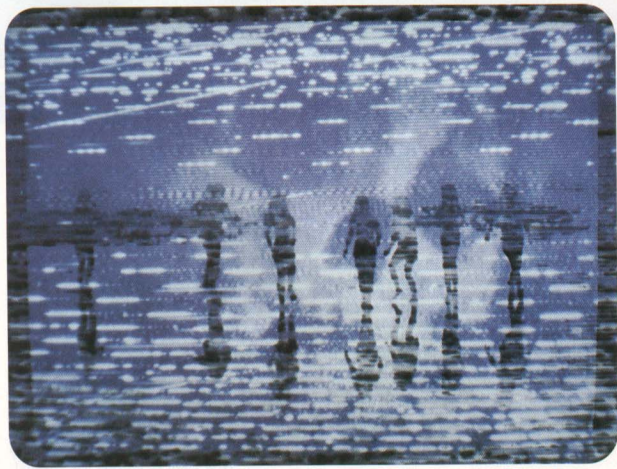
In their purest forms, computer and video imagery are virtual media. They exist as binary numbers or electronic waveforms displayed on monitors or TV sets. Printers that are common today were non-existent, crude, extremely expensive or likely to be in the hands of government, science or industry. Photography provided a practical and economical way to document, promote and exhibit early forms of electronic art. I would photograph the results from the TV screen on to color or black and white film, either accepting the image as is or manipulating it further in the darkroom. Combining creative camera and darkroom techniques with the unique characteristics of video appealed to my imagination.

In "Runaway, Las Vegas," the woman's face was photographed on slide film from a black and white videotape. The light from the TV screen and lack of resolution in the video image produced a pale, artificial, impersonal quality. To make the final image, I juxtaposed the face with a slide of the Las Vegas strip at night taken through a prism (See Image 1).

Since it first began, TV signals have been stored in analog format. Until very recently, broadcast, professional and consumer video equipment were all analog format. Analog video represents images and sound by continuously varying electrical voltages rather than discrete digital numbers. Just as expo-sure, processing temperature and other variables affect photographic images, all kinds of phenomena impact and degrade the quality of analog video signals. If you've ever had to adjust a TV antenna to improve reception or noticed that videotape copies aren't as good as originals, you've experienced a disadvantage of analog video.

Early video equipment was incapable of producing a clear, paused image from videotape. I'd exploit distortion, feedback and "noise" to create movement, texture and visual excitement.

"Danse Macabre" is an interpretation of a traditional theme in art. Using daylight balanced color film, I photographed the skull from a paused black and white videotape, creating white "noise" in the image. Unfiltered, a bluish cast resulted. I then placed an enlarged Kodalith high contrast negative of the dancers on the front of the TV screen. I rewound blank videotape, creating video "snow" behind the clear areas of the Kodalith. I photographed this result on black and white film and "sandwiched" the negative with the color slide of the skull for the final image (see Image 2).

By the late 1970's, some hand-built digital video prototypes and a Z-80 computer were added to the video image processing system at the Experimental Television Center. Collaboration with technicians was especially important for artists working with computers during the 1970's. While simple computers could be assembled from kits (see Image 4), powerful mainframes were still in the hands of government, academic and research institutions. It wasn't until 1984, with the introduction of the Apple Macintosh, that computers became affordable and accessible, with enough graphic power to make them more useful as art making tools.

More than 25 years later, artists still bring source material (videotapes, photographs, drawings, sculpture, live models, etc.) to the Experimental Television Center for image processing. A younger generation brought up with personal computers and digital technology seem to find the unique and unpredictable quirks of analog video fascinating. The fact that these vintage synthesizers and digital prototypes can be combined with contemporary media and technology makes them still viable for creative work.

Though I've been processing photographs electronically and digitally for almost 30 years, and they both serve me well, those making the transition from traditional to all digital are still very much concerned with getting high quality equipment at affordable prices. But Adams spoke early on with true insight about the use of the digital medium.

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Danse Macabre.