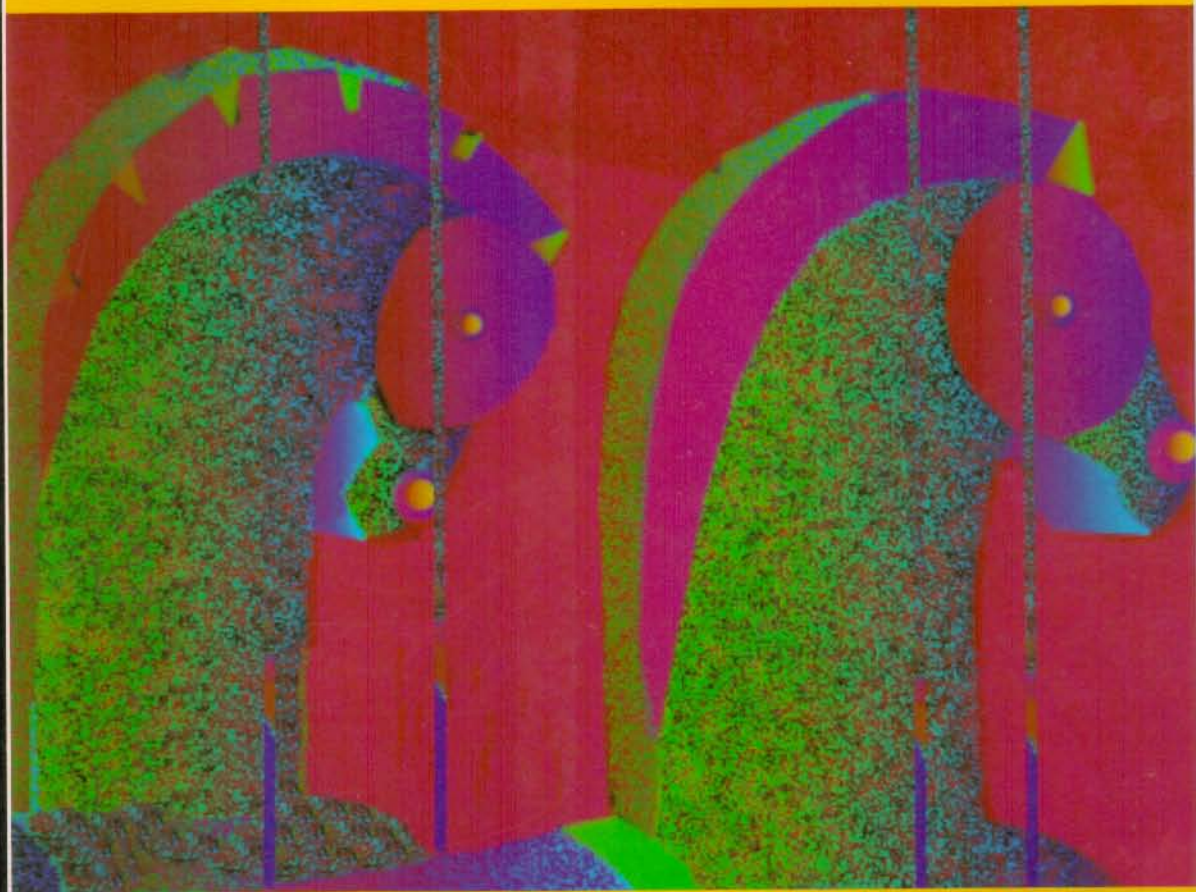
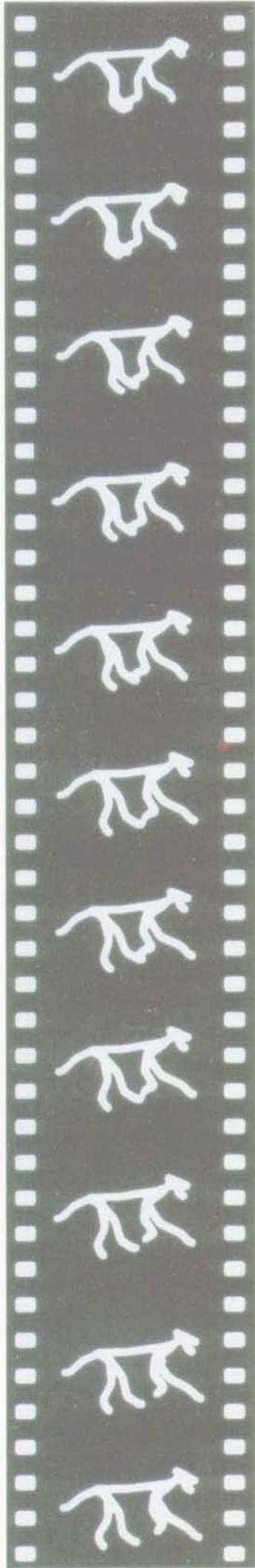
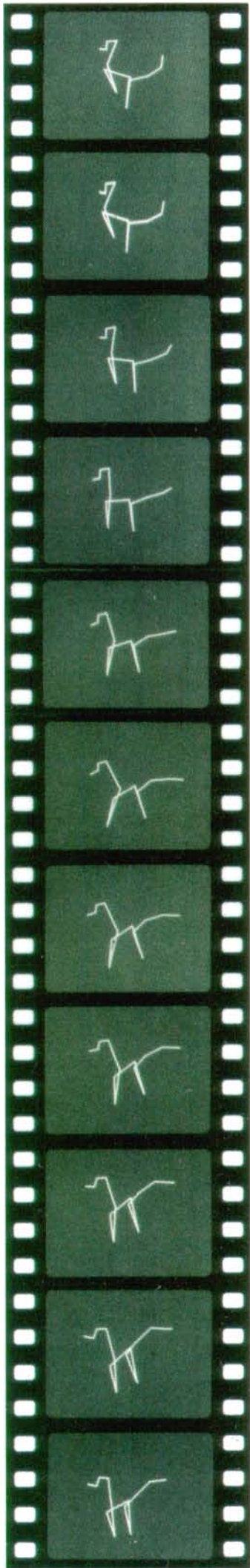


The Computer Artist's Handbook

CONCEPTS, TECHNIQUES,
AND APPLICATIONS



Lillian F. Schwartz
with Laurens R. Schwartz



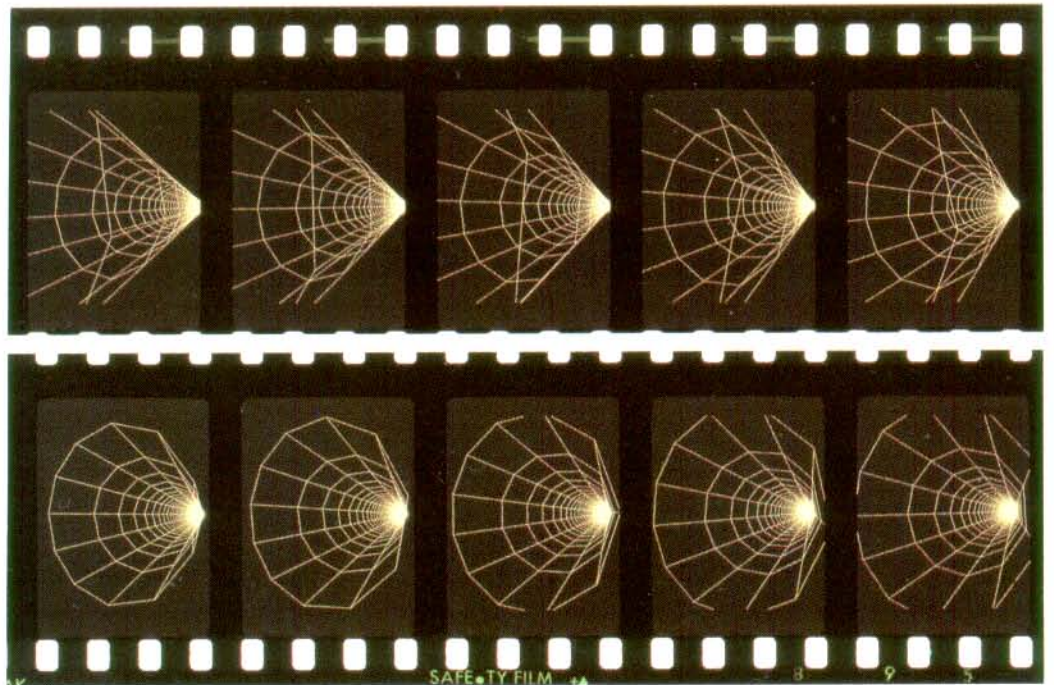
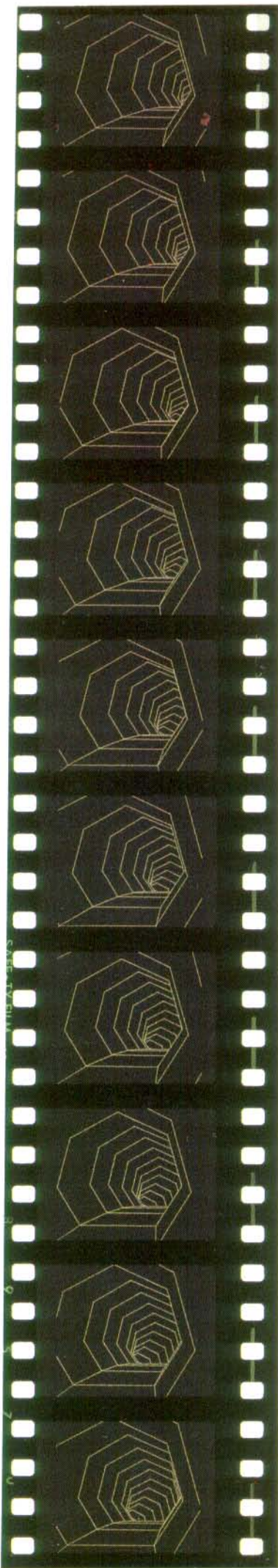
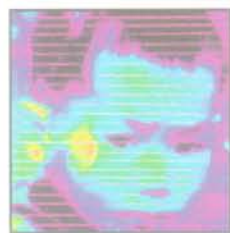


FIG. 115(a), A POET OF HIS PEOPLE (1978), enhanced version of Gilbert Comparetti tunnel. The spiral rotates and is seen from different points of view as it moves up and down on the screen.

FIG. 115(b), A POET OF HIS PEOPLE (1978), enhanced version of Gilbert Comparetti spiral. The viewer is pulled into the tunnel as it weaves back and forth on the screen.

These excerpts illustrate the enhancements done to the segments produced by Gilbert Comparetti. A wonderful (and beneficial) side effect of working with computers is that you can collaborate with people around the world. The language of computers and images overcomes all obstacles to communication.

reshot the sequences as a single, color-corrected film.



The Corporation for Public Broadcasting later granted me \$15,000 to videotape the final year of the multinational UNESCO-sponsored excavations of Carthage in Tunisia. The earliest professional videotape standard was a 2-inch quad, which was replaced almost twenty years after its introduction by 1-inch type C and B tapes. Even at that size, the equipment necessary for handling the tape was too bulky for work outside of a studio. The real break in portability while maintaining broadcast quality occurred with the introduction of Sony's 3/4-inch U-matic® tape.



The stage setting was built at New Jersey public television. Charlie Rubinstein, a psychologist who had written one of the specialized programs for my computer-video setup, collected the bottles and other props.

I scanned and digitized the photographs and stock footage and manipulated them by means of techniques I had refined from *PICTURES FROM A GALLERY* while integrating Charlie's new programs. I then choreographed the dancers and introduced them to the cordoned-off area in which they would perform.

My system now used two monitors, one showing the live action and the other showing the same action ready for manipulation by the computer. It had that unique video scanning camera and the keyboard console that let me capture frames, abstract and recolor images, and fuse multiple images prior to storage in the computer and on 1-inch videotape. This kind of setup is standard in today's post-production houses.

To enhance the sense of Neruda's difficulties in Chile, I worked with two effects sequences sent to me by the French programmer Gilbert Comparetti. Gilbert had approached me in 1977 after one of my lectures in Paris to discuss various programs and how they could be applied. His previous work had involved shooting line drawings onto 35mm black-and-white microfilm. I sketched out some patterns to serve as key frames, leaving the interpolation to him. During the year, we communicated by exchanging drawings of his work and my further ideas. The film sequences he produced were of a twisting tunnel, giving the effect of high-speed travel through a treacherous course, and of flat images that would suddenly spring up toward the top of the frame. I reshot the film on an optical bench to add color and to alternate and skip frames (Fig. 115).

The video output of the dancers and the narrator in the stage setting was transferred to film so that everything was in a compatible medium. I edited the pieces together and