A TWO DIMENSIONAL ARTIFICIAL REALITY

Myron W. Krueger
Artificial Reality
Vernon, Connecticut

The current presumption is that is necessary to don goggles, gloves and a data suit to experience artificial reality. However, there is another technology that offers an alternative or complement to the encumbering techniques associated with NASA. In VIDEOPLACE, your image appears in a 2D graphic world created by a computer. The VIDEOPLACE computer can analyze a person's image in 1/30 second and can detect when an object is touched (Fig. 1). Thus, it can generate a graphic or auditory response to an illusory contact.

VIDEOPLACE technology exists in two formats: the VIDEODESK and the VIDEOPLACE. In the VIDEODESK environment, the image of your hands can be used to perform the normal mouse functions, such as menuing and drawing (Fig. 2). In addition, you have the advantage of multippoint control. For instance, you can use the thumbs and forefingers of each hand as control points for a spline curve (Fig. 3). Perhaps most important, the image of your hands can be compressed and transmitted to a colleague over an ISDN voice channel to appear on the remote screen superimposed over identical information. Likewise, the image of your colleague's hands can appear on both screens. The result is that the two of you can use your hands to point to features on your respective screens as you speak, exactly as you would if you were sitting together (Fig. 4).

In the VIDEOPLACE environment, you can interact with graphic creatures and the images of other people in other locations in a graphic world. Your whole body can be moved, scaled and rotated in real-time without regard to the laws of physics. Thus, VIDEOPLACE can be used to create a fantasy world in which the laws of cause and effect are composed by an artist (Fig. 5) (Fig. 6).

REFERENCES

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Krueger, M. W. VIDEOPLACE—An Artificial Reality, SIGCHI 85 Proceedings, April 1985, 35-40.
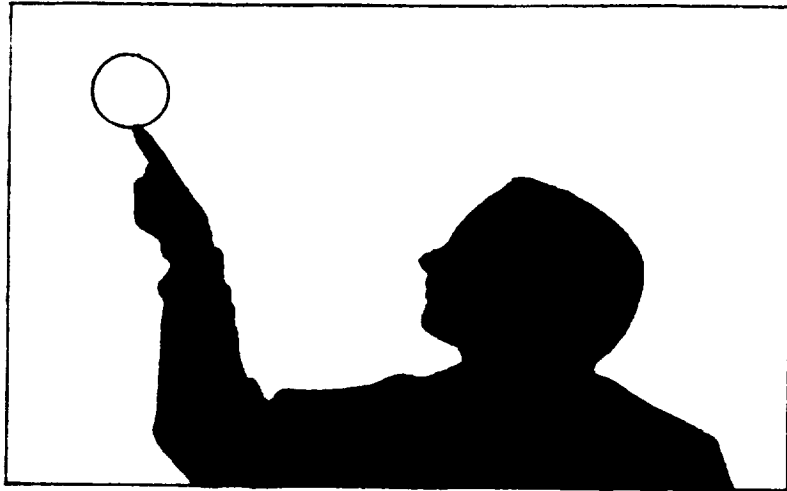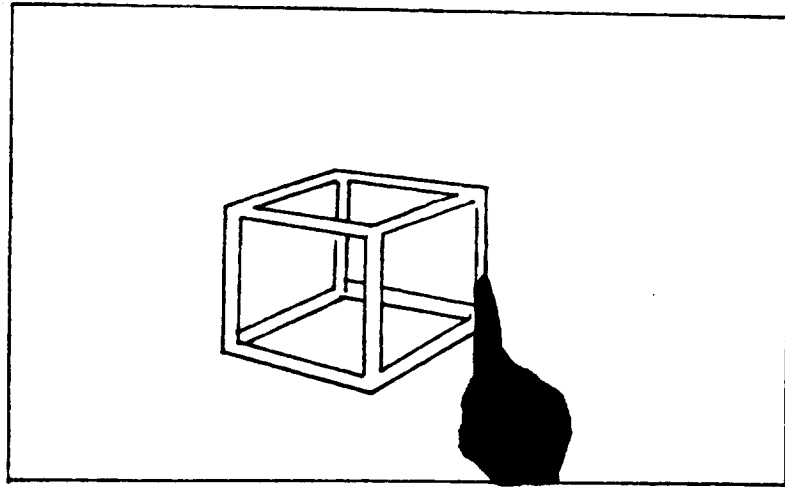
Figure 1. Video touch.

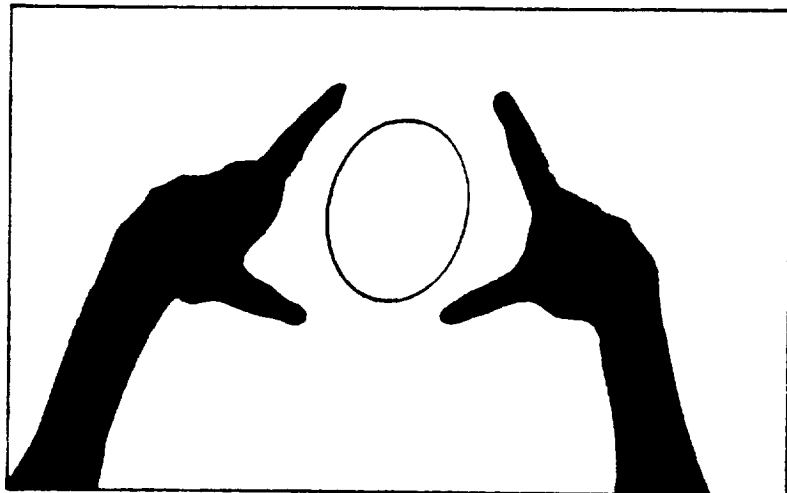Figure 2. Videodesk drawing.

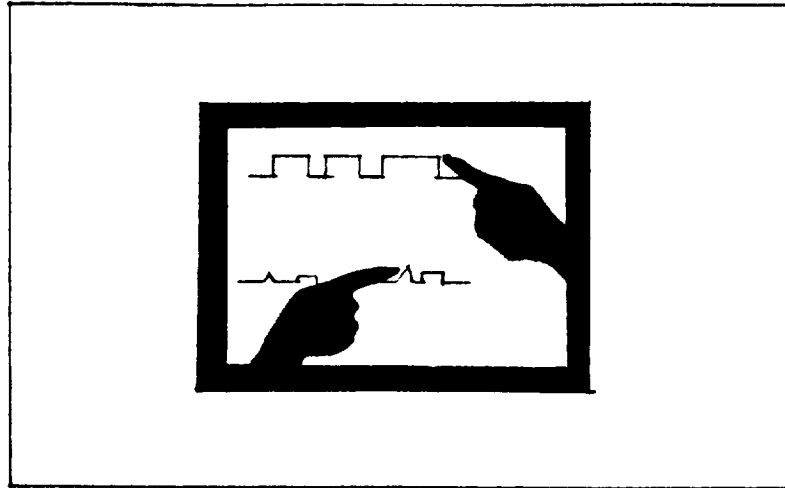Figure 3. Multipoint control.
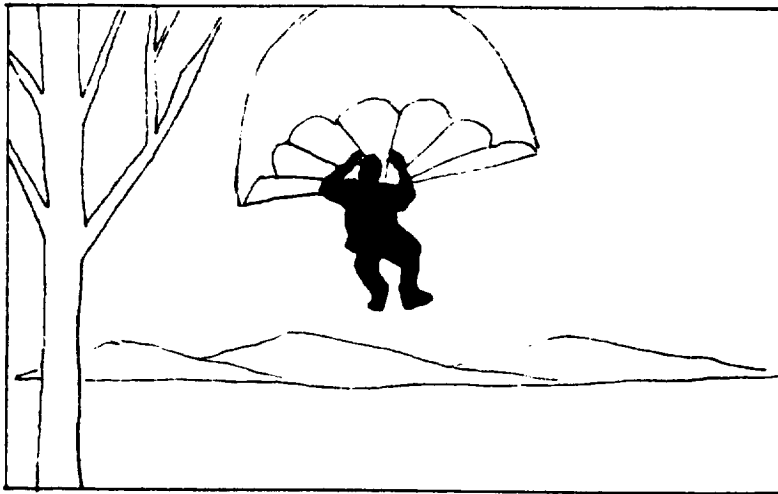
Figure 4. Telecommunication.

Figure 5. Landing in an artificial reality.

Figure 6. Parent and child size reversal.

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