

# IMAGES

John Wyver asks who will control the new ways of seeing

## Altered Sight

Our contemporary culture of images is experiencing fundamental changes. These are at least as significant for the ways in which we see and make sense of the world as those initiated by the development of photography in the mid-19th century. As then, it is a new technology - in our case, computer or digital imaging - that is the primary stimulus. But as in the 1830s and 1840s, the technology is not the determining factor. Just as advertising has become the most prominent use of photography, and Hollywood's output the most influential form of film, so it is certain that the corporate world will seek to use digital imaging for its particular purposes. As with the languages of advertising and of the commercial cinema, the developing digital languages of the mainstream are likely to offer little to stimulate or to provoke us, or to challenge accepted ways of thinking about the world.

There are, however, many artists and theorists who are working to create alternatives to those dominant languages, and to envisage and to demonstrate what might be called the enabling potentials of the technology. And these enabling possibilities are among the most exciting aspects of culture today.

Until quite recently, technology in general, and specifically the creative potential of computers, was regarded with suspicion, even hostility, by the majority of those involved in artistic endeavour. Technology was viewed as alien to the creative process, as intractable and as controlled by corporate culture whose developers continued to produce ever more startling innovations. But a handful of artists have begun to explore what the new technologies might offer. Their work has prompted a stimulating critical debate which raises basic questions about our cultural expectations and hopes, and this month the Institute of Contemporary Art in London is mounting a related conference.

Of the many current trans-

formations in our culture, digital imaging is by far the most fundamental. The essential idea underlying all digital technologies (including, for example, the storage system on compact discs) is that sounds and images can be converted into and represented as numbers, and specifically as (admittedly quite lengthy) strings of 0s and 1s. Once they are expressed in this form, they can be manipulated in myriad ways within a computer. Digital effects used to roll, squeeze and turn television pictures are one of the more familiar manifestations. For instance the cows in the Anchor butter commercial which are digitally manipulated to dance. And digital imaging in the production, enhancement and alteration of still pictures, is widely used in many other fields, including magazine layout, crime detection, fashion and scientific modelling.

Images can not only be changed within a computer, they can also be created out of nothing more than numbers. Computer animations, like Channel Four's logo, are produced in exactly this way. Digitally-created sequences have been important in many 80s movies, including the science-fiction fantasies *Tron* and *The Last Starfighter*, where computer animation created futuristic worlds inside a computer and in outer space. More recently, the title sequence of *Honey, I Shrunk the Kids* had real-life children being chased through a maze of gigantic computer-generated objects and words.

Many such images and animations are clearly the stuff of fantasy, but computer animators are constantly searching for ways of making their images more 'natural' or 'life-like'. All the conventions that we accept as typical of documentary photography, whether in stills or moving pictures, can also be simulated digitally, although at present there remain problems about achieving this with lengthy sequences of images. Consequently, there is no longer any necessary relationship



between what appears to be a photograph or a film or video sequence and any event in the real world from which this was supposedly 'taken'.

One of the earliest and by now best-known examples of a digital alteration to an image from the real world was the way the Giza pyramid was 'moved' on a 1982 *National Geographic* magazine cover so as to fit the composition better. Another documented example is a joint publicity portrait in *Newsweek* of Dustin Hoffman and Tom Cruise, who starred together in *Rain Man*. Hoffman was photographed in New York, and Cruise shot by the same photographer, Douglas Kirkland, in Miami. Kirkland then used a computer compositing process to make the

single shot. 'With this, just about everything or anyone can be put anywhere,' Kirkland later commented, 'making photography more and more dishonest - the probable direction of the 90s.'

Such 'improvements on reality' are far more sophisticated and wide-ranging than anything that could be done previously with collage or photo-montage techniques, and they are also completely undetectable. The faking of news photographs of events that never occurred is one immediately worrying possibility. One right-wing politician in the United States was recently shown a demonstration of these imaging techniques. 'Does this mean,' he asked, 'that you could make a convincing photograph of me kissing Colonel Gaddafi?'



'We could put your tongue in his ear,' was the reply.

Digital image-making therefore poses a profound challenge to traditional ideas about documentary photography and film. These are still thought to offer in some sense an unmediated reflection of reality or, in that outdated phrase, 'a window on the world'. Recent pictures from the Gulf, for example, were granted an acknowledged authority, even if there was dispute as to their interpretation. Yet it was only because of the Pentagon's claims, that the celebrated videos of 'pin-point accurate' bombing were accepted as such. Once the possibility of digital manipulation or creation is recognised, any and every image becomes suspect, and

the viewer is prompted to ask the central, critical questions about who made it, under what circumstances, and for what purposes.

The naturalism of film and video, which invariably offers implicit support to dominant political, social or economic understandings of the world, is exposed by the implications of digital imaging for the construction that it is. As David Hockney acknowledged in a recent interview, 'We had this belief in photography, but that is about to disappear because of the computer. It can recreate something that looks like the photographs we've known. But it's unreal. What's that going to do to all photographs? Eh? It's going to make people say: that's not real - that's just another im-

vention. And I can see there's a side of it that's disturbing for us all. It's like the ground being pulled out from underneath us.'

Hockney is one of the artists beginning to explore the creative challenges of digital imaging, and some of his current work complements his formally radical experiments deconstructing single-point perspective using multiple photographs. A more explicitly political practice is that of New York photographer Nancy Burson, who has created composite digital portraits in which a single face is made up of those of world leaders, each of whom is represented proportionately by the number of nuclear missiles deployable by their respective countries. So a 1982 image, 'Warhead 1', made by her in collaboration with Richard Carling and David Kramlich, has 55% of Reagan, 45% Brezhnev, and less than 1% each of Deng, Mitterand and Thatcher.

Artists are also working with digital techniques and moving images, although the cost of time on the most sophisticated computers restricts access to these. The most elaborate animations are invariably created within large corporations, as for example is the startling work of Karl Sims, whose short works are produced with the massive parallel processing power of Thinking Machines, Inc of Boston. One series of his short animations caused the waters in drawings by Leonardo da Vinci to swirl and flow. And the low-tech animations *World Peace Through Free Trade* and *Leisure Society*, by the British artist John Butler, satirise Tory political ambitions in the 1980s.

Digital techniques, however, suggest a fundamental break with the traditions of our image culture not solely because of these manipulation and simulation capabilities. For once a particular configuration is set up, these capabilities can be controlled by any user, so offering the possibility for fully interactive systems. Interactive videos are already used in training and in edu-

cation, and have proved how valuable they can be as complements to more traditional methods. Few of these systems are as yet fully digital, but within two to three years electronic giants Philips and Sony aim to have digital interactive systems, based on compact disc technology, widely available for use in the home. Their intention is that these CD-I systems will soon be as familiar and as essential as VCRs.

It seems unlikely that Philips and Sony will market explicitly radical or subversive software, but the system will be available for others to use, and to produce for, in a wide variety of ways. British artists like Simon Biggs and the group IE are already exploiting other forms of interactive technologies to open up new imaginative possibilities. And an installation work like *An Imaginary Museum Of The Revolution* created by Jeffrey Shaw and Tjebbe van Tijen as a celebration of the bicentennial of the French Revolution, is a further impressive demonstration of the creative potential of interactivity. Users were offered access to a database of photographs and films, speeches and songs, all produced in 20th-century revolutions, and were encouraged to explore this material and to create for other users and viewers a sequence of projections which reflected their individual response. Another example is the installation *Machine Dreams* by the Australian artist Jill Scott, which employs video to trigger zones of individual sound samples. A critical response to ideas of a technological Utopia, the work is developed from women's relations with the sewing-machine, the typewriter, the food-mixer and the telephone switchboard.

At present access to such technologies is obviously limited, yet they will soon be available for others to create with. The potential exists to open up imaginative worlds with boundaries which need not, and should not be circumscribed by the restricted and restrictive visions on offer from the corporations.\*