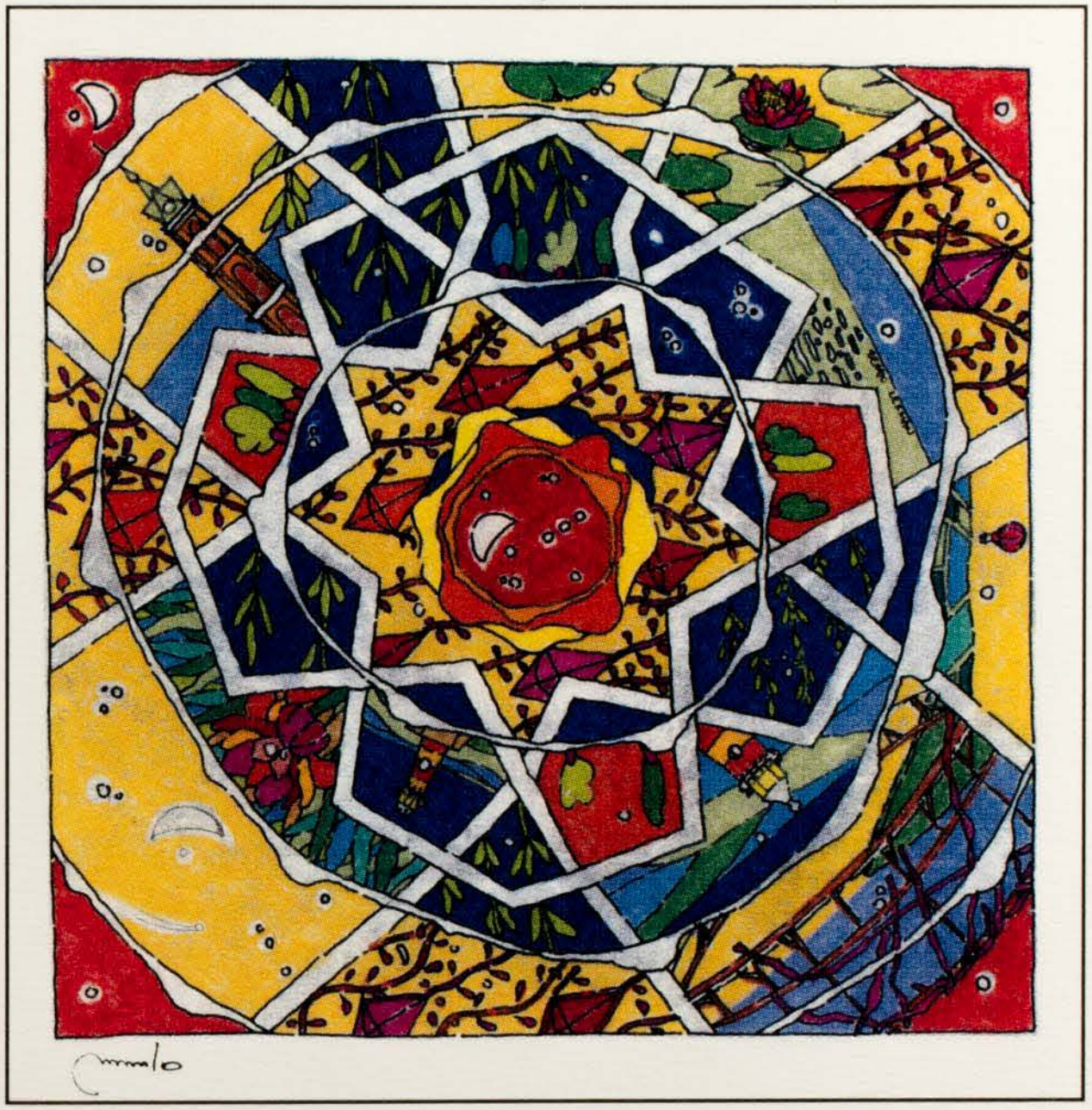
Nouvelles technologies, financement
et éducation artistique : questions d'actualité

L'ART ET LA SOCIÉTÉ



ART AND SOCIETY

Topical questions: the « new technologies »,
funding and artistic education

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INTERACTIVE COMPUTER GRAPHICS A MEETING BETWEEN ARTISTS AND SCIENTISTS

by **Jeffrey Shaw** [15]

When one considers the visions which accompanied the development of contemporary art over the last 30 years - the kinetic art of the 1950s, the « open artwork » of the 1960s (happenings, environments, performances, land art, etc.), the conceptual and social art forms of the 1970s - one finds that these visions have interesting and astonishing parallels in the technological developments of the 1990s. Interactivity creates an intimate relation between the artwork and the viewer, telecommunications permit radical social interactions, simulation gives direct form to conceptual propositions. Of course, we cannot foresee whether technology will bring about a fulfillment or finale of these utopian artistic movements, but certainly there is an awakened desire to embody ourselves within these new dimensions of discovery and experience.

Interactive computer graphics has become a shared language in many fields of research and, as a consequence, a great diversity of information coexists that can be correlated in the digital environment. This is a unique situation historically and culturally, one which artists and scientists can take advantage of to forge a new discourse. Institutions such as the ZKM (Center for Art and Media in Karlsruhe, Germany) have been established to facilitate this new meeting ground between artists and scientists. Furthermore, the recent worldwide proliferation of media events, exhibitions and festivals present the most pragmatic evidence that art and science are experiencing a vigorous renaissance of creative interrelationships.

The activity of both art and science has always been the interpretation and recreation of reality. It is an exercise of the human imagination, creating virtual realities which embody tentative structures of meaning. The world appears to us in the light of these fictions that we project onto its surface and art arbitrates this discourse between reality and illusion. The traditional activity of art has been the representation of reality - the manipulation of materials to create tangible mirrors of our experience and desire. Today the simulational effectiveness of the multimedia and televirtual technologies offers us a new medium of expression and also the cosmography of a new space of visions and visualization. Using the mechanisms of the new digital technologies, the artwork can become an immaterial digital structure encompassing synthetic spaces which we can literally enter. Here the viewers are no longer consumers in a mausoleum of objects, rather they are travellers and discoverers in a latent space of sensual information, whose aesthetics are embodied both in the coordinates of its immaterial form and in the scenarios of its interactively manifest form. In this temporal dimension, the interactive artwork is each time re-structured and re-embodied by the activity of its viewers.

Some characteristics of the new technologies are particularly significant. The new modalities of Interactivity, simulation and virtual reality are able to configure an immaterial yet tangible space of forms and images which we then can enter and explore. In this boundless and ubiquitous cosmography, the invention of meaning is the essential task that faces both science and art.

Multimedia intercommunication and networking signals fundamental transforma-

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15 Computer artist and Director of the Center for Arts and Media in Karlsruhe (Germany).

tions of our social and cultural paradigms. The current practice of art is bound to traditional structures of exhibition, publication, consumption and economics. Worldwide digitally networked communications offer the opportunity for the development of completely new forms of propagation and dissemination of creative activity. Space, time and interaction become the design parameters of the televirtual ambiance, and the mass address of the televirtual ether can carry the practice of art from the periphery to the center of all social discourse. Tele-virtual-reality becomes then the appropriate domain for our technological and artistic desires as we approach the new century. This fictitious cosmography is now searching to invent those spaces and forms in which it can fully manifest its imaginative orbit.

One specific example is the research and development of various mechanisms and codes of spatial representation which has been a basic preoccupation throughout the history of western art. The formulation of a set of spatial coordinates provides an underlying aesthetic and existential paradigm within which a culture achieves tentative representation, and thus comprehension, of its desires. The recently developed digital imaging technologies offer the artist new methods and new paradigms which extend the spatial identity of the artwork. And not just in terms of the structure of the image itself, but also in terms of a space of interaction between the image and the spectator.

So it is significant that virtual reality is so often an activity of « world building », of creating socio-urban meta-architectures. The city is simultaneously a tangible arrangement of forms and an immaterial pattern of experiences. Its underlying identity is a psycho-geographic network of information - a labyrinth of narratives secreted within its urban framework. The mediated city mirrors the objective world into this virtual imaginative space, and simulation deconstructs its material structures and evokes a fluid poetics of space, of person and of intimate experience.

Another significant paradigm is the « virtual museum ». This is not a museum in the traditional sense but more like a « memory theater » where an interactive meta-architecture embodies a store of audio visual information in a form that hybridizes the functionality of a museum, a library and a game arcade. Furthermore, the extension of such virtual museums into the network creates a ubiquitous and universal space of access to informational and artistic structures.

Probably one of the most pertinent issues in this immaterial cyberspace of forms and ideas is the telepresent extension of our bodies through space and time that these technologies afford us. Despite the seemingly simply playfulness of the games we tend to create to model this surreal multiplicity of our new being, the technological deconstruction and artistic reconstruction of our identities in the digital ether is an almost metaphysical enterprise.

Another pertinent issue is the confluence of art and science. There is evidence that contemporary scientific developments have influenced certain historical currents in art - for instance Impressionism, Cubism, Constructivism and Futurism. There is less evidence that artistic works have directly influenced science. One could argue that the primary intentions of these two forms of creative endeavor are fundamentally different - the one aimed at the object and the other at the subject.

In my opinion the question is more relevant at the level of industrialization of scientific knowledge - in the social arena where science becomes transformed by the specific ambitions and ideologies of exploitative concerns. All artists working with the new technologies have struggled with the rigid constraints imposed by hardware and software morphologies that have been designed by military,

industrial and/or commercial attitudes. Here I feel the artist has his/her most provocative role in the future with respect to science and technology. That is to expose and even undermine those attitudes by creating a new sensibility that posits and implements new relationships between « media machines » and « media people ». Relationships that embody the exploration and articulation of human complexities and experiences which is the essential domain of artistic research and practice. The challenge now is to apply these artistic skills in the heterogeneous territory of the media machines.