

VIDEO, NETWORKS, AND ARCHITECTURE

Some Physical Realities of Electronic Space

■ Kathy Rae Huffman

A form of architecture can now be located within video and computer technology. It is electronic volume, a phenomenon that also provides cohesion for radical artistic communication practices. This is intelligent space! It defines information as site, especially as it informs the influence of experimental art and the fundamental discourse relevant to the *reality* of data space. The expanded redefinition of the virtual as real has been reconstructed by traditional communication practices such as radio, telephone, and television, and their manifest contemporary forms in electronic network environments and their evolving multimedia network applications. These spatial expressions employ electronics not only to decode the transparencies inherent in the video and computer images we normally observe, but in this case they are also used to define the physical, navigable properties of electronic data space itself. In an obvious contradiction, these *spaces* are conceptually embedded in the intelligent mechanisms that exist independently of what is visible on the surface of an electronic screen. This spatial transparency, which as Virilio notes has long supplanted appearances,¹ takes on physical dimensions of a new order at this point because the representation of overlapping physical and electronic realities can now be readily constructed, observed, and experienced in convenient formats.

Equally important in a discussion of an electronically created terrain and virtual architecture is the consideration of the critical and theoretical discourse that connects video, informatics, and the geography of space.² These concerns, which have evolved during the past three decades of practical experience, research, and observation by artists using the new media of their era, are the direct consequence of the exploration of the media's potential, including the investigation of the altered and elaborated electronic image. Likewise, the rapid advancement of the understanding of information networks underscores a completely new phenomena: the traceable grid that exists in electronic space. A revolutionary new understanding of this volume is a result of what once seemed to be an impossibility: the representation of depth in the electronic frame. But, according to Deleuze, impossible ideas from one medium often translate to another, because a creator who is not seized at the throat by a set of

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impossibilities is no creator. A creator is someone who creates his own impossibilities, and thereby creates possibilities.³ Network communication and navigation now transcend the political understanding of boundaries, and a travel route can also be understood as the trajectory of movement into experiential trails of electronic memory. The radical shift of understanding towards the idea of media volume is a revised understanding of space.

The experiences of artists and technicians, throughout the history of video and multimedia technology, has advanced the understanding of how the viewing of something progresses from the metaphysical, or psychological act, toward a perceptual understanding complete with physical experience and comprehension. This experiential phenomena translates into an awareness of how images function on various levels of the communication scale. The online real-time exercise in the simultaneous transmission of ideas functions as an example of the numerous communication energies and impulses crowding earth's airwaves, outerspace, and the universe. In our real-world environment, we participate in the network of intense frequencies that intrude into — and upon — the rhythm of the human body. Both tangible and intangible effects of this information bombardment are physically evidenced. As invisible phenomena, this is media information portrayed by way of digital decoding, and analogue visualization processes. In a selection of video for the exhibition "Intelligente Ambiente/Intelligent Environments,"⁴ an attempt is made to create a new awareness of these mysterious communication media as a new epistemological space: a real space that combines video and computer technology with theoretical and practical issues of architecture and appearances.⁵

ARCHITECTURE AND COMMUNICATION

The intrusion of media in today's urban environment is overwhelmingly apparent as a system of electronic space mapping. These abstract functions range from real surveillance mechanisms, to the analysis of how traffic moves, or how design



Left: Merce Cunningham in Nam June Paik's "Good Morning Mr. Orwell," 1984. Center: Ponton European Media Art Lab — Arts Project. Piazza Virtuale: a. i. Right: LIVE AID — from TV.

functions in physical space. We have grown accustomed to these systems, which are ongoing, and are always quietly at work. The next generation of communication technologies will require more advanced, conceptual ability to receive and perceive abbreviated language, as bits of images from commercial and authoritative sources. This information will involve the physical and psychological immersion into electronic advertising, official regulations, and state propaganda. Therefore, the necessity to expand the creative expressions of environmental electronic architecture is a developing concern of designers. The alternative, unrestricted exploration of multimedia artists is of real value to urban planners, architects who are socially concerned with the numerous electronic augmentations and configurations of natural space.

This cinematic phenomena, previously known and visually translated as the genre of architecture on film dates back to the beginning of experimental filmmaking at the turn of the century. By tradition, this activity was primarily an interpretive look into spaces and structures, and the early films made by architects, sometimes in collaboration with filmmakers, primarily analyzed architectural forms. As a genre of documents, these films preserve valuable images of structures threatened or lost through time, war, or renovation. As conceptual statements and observational practices, the favorite filmed subjects included cities, housing projects, highway systems, landscapes, and workplaces. The effect of these film studies on contemporary architecture has been strong, and the relationship between the two is a powerful precedent for today's new media concerns. In fact, in an interaction between film and architecture, it has been noted that architecture does not merely put forward prospects for viewing. Rather it creates energy spaces with which the cinematic interfere, so as to gain its own topology in loco. The cinema will grow so enormously that the architectural itself will begin to charge itself with cinematic forces. . . .⁶

ELECTRONIC MEMORIES

The consumer video boom of the 1980s propelled ordinary folks to purchase Super 8 home movie cameras or, a little later, VHS video recorders. These home recorders made it possible to discover how to see and experience space differently, and began the accumulation of an entirely distinct set of memories that were experienced differently from the preceding generations' memories — in large part because of the ability to replay recordings of personal events instantaneously. With the endless opportunities to document life around them during the past decade, individuals have become so familiar with the act of observing space and time — in electronic form — that the medium has become infused with new meanings and opportunities to understand the self and others. Video, which portrays these moments without judgment, or the filter of emotion, reflects them as ordinary memories in a continuously moving, and thoroughly integrated, picture of reality. Created from an

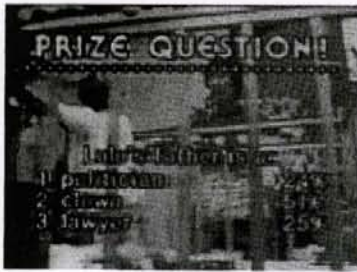
electronic light source that overlaps and juxtaposes the now-familiar memory-images in new combinations—unnatural in physical life but familiar in the state of video—the encountering of the electronic memory as reality has become commonplace. The resulting commercial mass consumption of mega-information, which is supposed to be by everyone and for everyone is, in reality, the art of being everywhere while really being nowhere. A question is the degree to which individuals will continue to affect and establish the real space of network environments, neighborhoods, and communities. A witness and transmutation of representation, the emergence of forms as volumes destined to persist as long as their materials would allow has given way to images whose duration is purely retinal.⁷

VIDEO, INSTALLATION, AND PSYCHOLOGICAL SPACE

Videotape provided a breakthrough in the understanding of the relationship between artistic image making, space, and perception of oneself. In the mid-1970s, when video first began to be used widely by the first generation of video pioneers, these artists, coming from various creative fields, explored new ways to examine the technology and to observe themselves simultaneously in personal and public space.⁸ Video was a rejection of the frozen moments in time most familiar to artists, in which temporal space was painted atmosphere or a mood captured in a photograph. The video medium was a statement against consumerism, against the art market, and toward a communication practice that involved community and consciousness. In the earliest actual practice, video was used in the same way as surveillance devices are today; it was employed to keep watch over and to observe reality. Much of this video research material remains unedited—and unwatched. It was, however, a valuable experience that facilitated artists' understanding of electronic space, memory, and video's ability to document experience in real time. Towards these goals, many artists created sophisticated settings in which a prepared physical environment was integral to the



Left: Russel Connor interviewing Rainbow Video at WGBH-TV's first-ever live, on-the-air, half-inch video festival, 1972. Center: Douglas Davis, Documenta 6 Satellite Telecast, 1977. Right: Kit Galloway and Sherrie Rabinowitz, documentation of Hole in Space communications sculpture, 1980.



Left: WGBH-TV: Lulu, or the chicken who ate Columbus. Interactive TV à la 1980. Center: Michael Smith and Mike Kelley in *The Arts for Television*, 1982. Right: First moon landing, 1969.

understanding of the electronic space being created with video technology. This act — creating electronic territory and involving the viewer in it as a physical entity — is a direct predecessor to contemporary, interactive multimedia art, and immersive technology. Installation artists introduced strong concepts of both psychological and physiological territory, and advanced an awareness of extended boundaries, and an electronic ability to define space, time, and energy.

LIVE TELEVISION EXPERIMENTS— BEING TOGETHER IN ELECTRONIC SPACE

Television experience has extended the territory of the home and the sensibilities of its inhabitants. Like radio and the telephone, its direct-indirect capabilities were, on the one hand, all-pervasive yet for the most part uncontrollable. As a private/public space, television was often referred to as a window on the world — a phrase now understood more clearly for its political-commercial context and as a control mechanism for the public than as a method to gain cultural information. In television terms, information, cultural standards, and trend setting is big business, and the subject of culture is generally connected with research into its effective control. The explorations of television space by artists from the 1960s include live and interactive experimental events that allude to a real space, but were actually created as an alternative television space that connected, or allowed communication, between sites. Live television and satellite performances were designed to combine two or more places. Spaces were first attempted by artists under the concept of event and spectacle. Interactive and live broadcasts were, however, usually closed circuit, or broadcast to a limited number of homes or limited market, as broadcasters normally refer to the viewers. The earliest television experiments were possible only because they were not considered to be important, because broadcasters considered art to be a neutral subject, and for public and cable television, the artist held a special position, much like that of a researcher.⁹

For telecommunications, coming together in time means, inversely, distancing oneself in space.¹⁰

Many of the early television projects were at the time called interactive but were actually performances held in more than one location to attempt mutuality of time and space from different locations. These connections between spaces were often accompanied by theoretical subtexts on mass communication, and the political issue surrounding the control of information by broadcasters. Even now, in the context of advanced computer technology, some of the early live historic television transmissions stand up as seminal works, integral to the communication industry's acceptance of art and technology. Douglas Davis, Allen Kaprow, and Nam June Paik were three primary artists who experimented by creating the first live and interactive television events, first dating from 1968, and continuing into the early 1970s, on WGBH television, Boston's public television station and on PBS WNET 13, in New York City. Other experiments were conducted on the West Coast at KQED, the San Francisco public television station. The archeology of artist's broadcast work, including radio, television, telephone, and various communication networks, continues to be compiled and examined. Important keys to an interrelated history of the cultural and individual vitality of seeing electronic images and spaces will be revealed in the analysis of this history.

The 1990s introduced a relatively new concept of the interactive/digital-television environment. The first of the artistic experimental electronic networks featured direct access to the communication system from home by way of the common communication interface: the telephone. The capabilities exist for multimedia exploration of the television and information networks, the specific architectural forms and realities created by electronics. As physical places, three contemporary references include: Piazza Virtuale the Ponton European Media Art Labs interactive computer environment for live television (broadcast for 100 continuous days from the Documenta IX), which featured Picturephone ISDN connections, telephone keypad-controlled games and activities, and chat programs using modems, FAX, telephone and live entry-points; the interactive television space Yorb World, an interactive community cable television program developed at New York University, in which a little world can be explored by viewers using the telephone keypad; and the Electronic Cafe, a real site that connects participants in point-to-point communication from various sites around the world in conversations, poetry, and communication art. In these examples it is important to recognize that place is still a necessary space, but architecture can no longer be bound by the static conditions of locally defined place, here or there, but as architecture in data space.¹¹

In the mediated virtual world, there are no longer fixed places in the sense that we once knew them. Architecture must now address the problem of the event, and even rock concerts may be considered the archetypal form for an architectural event.¹² If, as Peter Eisenman states, the new architecture is a rock concert, then the ultimate skyscraper of the recent past is the example by U2, with their concert



Left: Nam June Paik, Picturephone performance between Los Angeles and New York, 1979. Center: Pier Marton meditates on the world situation in *The Arts for Television*, 1982. Right: Bill Viola, a lot of young people at WGBH-TV's first-ever live, on-the-air, half-inch video festival, 1972.

tour of ZOOTOV, a mobile live satellite spectacle connecting their concert with the broadcast of regular television programs, and the viewers to the concert, by satellite dish and by telephone. And, as a finale and sign-off at the end of each concert, a call is placed to the White House, asking the president for peace, with the background roar of applause and agreement from the thousands of spectators in the live audience. Another example is of course the m-Bone transmission of the Rolling Stones concert, as a full Internet experience over broad-band systems.

CHECKING OUT DATA SPACE FOR PHYSICAL REALITIES AND SOCIAL PRACTICES

The new electronic territory is media information. This is an invisible architecture without the interface of technology, and it faces new challenges in the public domain. But, it is not a fictional nor simply a virtual environment. Artists, for expressive and theoretical intent, have discovered important lessons about the image and its relationship to this created space, especially as it relates to the vast worldwide Internet territory of seemingly unlimited and compounding information. This space, a potential new shared platform for collaborative artmaking and communication, demands an entirely new use of language, space, and time. And, if we believe Wittgenstein — that language is also a fundamental technology, and not merely a vehicle for expressing thought but the driver of thought — then the new information technologies are doubly important for our future understanding of space and information. Very seriously we must judge how they affect our culture, our lives, our living. As a working space, electronic architecture impacts our creative practices and physical reality — which certainly will bring about new social practices and observed realities.

There are collapsing boundaries and new case histories for representation: "boundary," or "limiting surface" has turned into an osmotic membrane, like a

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blotting pad. Even this definition is more rigorous than earlier ones, and yet it still signals a change in the notion of limitation.¹³ These ideas are urgent challenges for architects and communications experts, who — together with the designers of new formats for information systems — should be collectively recognized as the influential media artists of the late 1990s. The growing public interest in electronic data space, interactive television, and the virtual experience has been compounded by the news media, by its excitement and enthusiastic journalism regarding the large financial investments being made by computer companies, entertainment, television, and public utility systems. It is a crisis of physical dimensions in the mediated world that the practical and theoretical interests, and the information technology itself, have shifted toward multimedia, virtual reality, and cyber-connected networks: all new territories created to explore and to understand spatial realms. □