

17. The Space of Electronic Time: The Memory Machines of Jim Campbell

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The installation form implies by its definition an engagement with the question of space. An installation both defines and contains space, situating, if not controlling, the viewer within it. In addition, installations that deploy such technologies as video and computer devices delineate time; they are constructed with particular concerns about the length of time viewers will stay with the work versus its cycle, as well as concerns about how to get viewers to move in particular ways in the space. Indeed, one could argue that for artists working in these media, control of the viewer in time and space is a primary and inevitable goal. The space of installations is inhabited not by the artist but by the viewers. Hence, as Margaret Morse has written, it is the visitor rather than the artist who performs the piece in an installation.¹ The role of the artist is thus to create the rules, limitations, and context for that "performance," as well as to create a context in which it can, perhaps, operate in unanticipated ways.

The meaning of the installation is thus created in the moment when a viewer is interacting with it—walking into and through it, standing within it, watching or even touching it. Those installation works that actually acquire the definition of "interactive" are more conscious of the extent to which the presence of viewers completes the work, either in supplying the raw image material for a piece or activating it in some way. An interactive work constructs a complex negotiation with its viewers, both anticipating their potential responses and allowing for their agency in some way.

The question of memory hovers over contemporary interactive installations. Through computers, the concept of memory has acquired an increasingly strong association with the notion of control. Computer memory is what we intentionally store, something we amp up, make more powerful, and deploy to create databases, which are seen in turn as essential and infinite realms of information. Human memory is now



Figure 1. Jim Campbell, *Digital Watch*, 1991, interactive video installation. Collection of the San Francisco Museum of Modern Art. Used by permission of the artist.

commonly discussed in terms of the computer metaphor, with words like storage and retrieval, and increasingly seen as that which can be harnessed, reconfigured, sped up, and expanded. Little wonder, then, that the metaphor of computer memory has been coincident with a popular backlash against Freud and the concept of repression, a notion in which memory is decidedly unlike an easily retrievable database.

The relationship of the concept of memory to notions of electronic technology has always been one of paradox. The idea of the database, what could be seen as an aesthetic or fetishization of the concept of storage, works in tension with the fleeting aspects of the live, transmitted image, at once instant but then ungraspable and gone. We often experience memory as something that is transitory, something that has to be searched for, yet that often appears to us when we don't expect it. Memory is resistant to our control, both arbitrary and random. Indeed, it is possible that the fascination with memory in computer consumer culture is a reaction to the ways in which we experience our memory as so unlike the supposedly all-knowable database.

Jim Campbell's installations engage viewers in an edgy, often unnerving kind of negotiation with space, memory, and the machine. Comprising custom-designed computer devices and video screens, these works are constructed by Campbell as semiautonomous systems, programmed for controlled randomness. Most are designed to respond to the presence of the viewer in order to reinterpret the view of the viewer in a given space, or to restrict their vision of a desired object in some way. Campbell's work addresses the paradox of memory in the electronic realm in its evo-

cation of both the fleeting nature of memory and its haunting presence. These works are often elusive and seductive, drawing us in only to confront our desire to see. In their explorations of the relationship of the electronic to remembrance, interactivity, and voyeurism, they ask us in many ways to experience and then reconsider our relationship to the electronic. Many are devices that hold and replay memories in complex systems of retrieval and storage—systems that appear as capricious as memory itself. In these machines, questions of time and space are inextricably tied together. The movement of the viewer within the space of the installation is often monitored by the device itself, as it refigures a space of time, repetition, and memory.

Campbell, who has degrees in engineering and mathematics, approaches art through the construction of discrete devices, each unique and responsive. His work fits into few neat categories. It is neither simply video (often its screens are stripped down to their most elemental components, as if dragged in from an electronic workshop) nor simply computer (since the computer elements of the works are usually the most hidden and elusive). His works form discrete devices that invite us to examine the small details of, and memory in, the moments contained within them. If nothing else, Campbell's machines undermine our preconceptions about the electronic in that they seem to have an unconscious.

Time Passing

The measurement of time permeates this work, in ways that demonstrate both the aesthetics of the numeric marking of time as well as its fluid quality. Here the digital and the analog function as conceptual frameworks for time. In *Digital Watch* (1991), a large monitor displays the image of a pocket watch face. As viewers approach the monitor they see themselves in two worlds. Outside the circular watch face the monitor acts as a mirror of the surrounding space; yet inside the dial face images pass through a five-second delay in a staccato effect that is synchronized with the second hand. As the ticking hands relentlessly edge forward, the images of viewers appear and then pass through, as if the memory is established in an instant, returns, and then is gone.

Digital Watch is an interworking of both digital and analog elements of time. The hands of the watch face are decidedly analog, representing the movement of time forward in a geometrical form—time as the movement of hands, as the increments between lines, as something tangible that we can hold onto and symbolize. The inexactitude of the analog watch can be deeply comforting—we do not necessarily know the exact second but are reassured that we have a sense of time by the shape of the hands. Yet, it is a digital framework that intercedes with our image, capturing it, storing it, and replaying it through computer devices. Digital time is exact, atomistic, the opposite of the geometric image of the ticking hands. *Digital Watch* asks us to reflect on the ways in which the digital has reconfigured how we conceptualize time, moving from the circular watch face with its implication of cycles and renewal to the digital world of time relentlessly moving forward numerically.

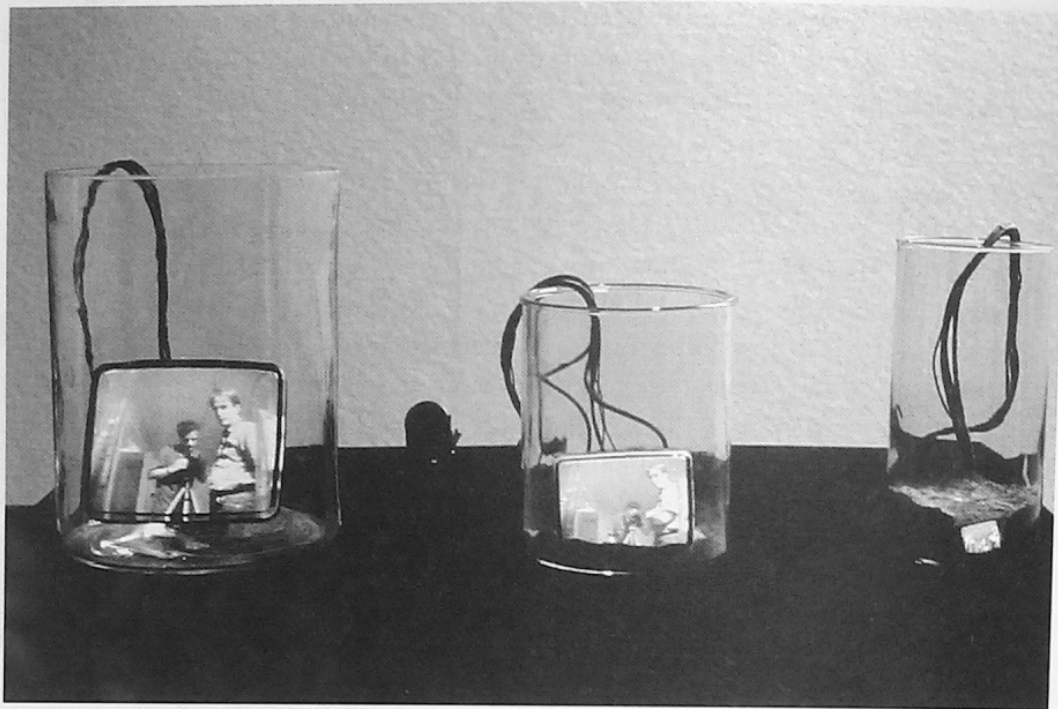


Figure 2. Jim Campbell, *Memory/Void*, 1990, interactive video sculpture. Collection of Susan Swig Watkins. Used by permission of the artist.

The representation of time passing is also examined in *Memory/Void* (1990), in which a series of monitors, stripped down to their bare screens, sit in ashes in a series of glass containers. The glass vials, which are reminiscent of hourglasses, evoke a predigital sense of time's passage. Still images of viewers appear successively on the screens in a time delay, each progressively more difficult to see as the screens become smaller and more deeply buried in the ashes. Time, the work implies, is relentless, and the fragile electronic image is not immune from its material deterioration. The recycled video image that reasserts itself here works in tension with the simple image of time as a kind of earthly burial, swallowing up the present and rendering memories difficult to read.

Memory is the fabric through which time is rendered continuous, through which the present and the past are interwoven and interdependent. Campbell deploys electronic configurations in ways that represent memory as both elusive and ungraspable yet at the same time ever present and assertive. In *Memory/Recollection*, a similar set of stripped-down monitor screens replays a series of paradoxically "live," yet still, delayed images, which fade in resolution from left to right. While standing before it, viewers see their image appear in time delay on the left and then move across the screens as additional images emerge. However, the piece usurps our expectations because other more distant images also recycle through it (it has stored images since its creation). As one stands before it, expecting to see the familiar space of the gallery, the image will shift and new people will appear arbitrarily within it. This has the effect of redefining the space in which one stands through presenting its past manifestations.

Once, as I stood alone in the gallery with this work, watching my image move through it and fade into a deteriorated memory, I was suddenly confronted with images of crowds standing and looking, a group of men in suits standing awkwardly in front of the lens, and other images from its past. It was as if the work itself were asserting its memory, replaying what it had "seen."

This kind of sly assertion of the machine is a common effect in Campbell's work. All of his works are obliquely described as being made up of "custom electronics" that he leaves unexplained. It is as if these works were given, through his construction of their interactivity, a kind of agency in which they seem to notice, evade, and survey viewers. Through their capacity of digital storage, which Campbell has programmed to "remember" randomly over time, these devices seem to be conduits for memory's assertions and evasions, its fading nature and its retellings.

Yet, what are the forms in which memory is manifested? We commonly associate memory with talismans such as photographs and perceive the memories themselves to take the form of an image or sound. In Campbell's series *Memory Works*, the question of personal versus collective memory is related to an examination of the forms in which memories exist. In each work in the series, an "original" memory is presented as electronically stored and contained within a metal box. This memory is then represented through another form or system. In *Photo of My Mother* (1996), the artist's breath, recorded for an hour, is the "memory" that mediates a faded image of his mother as a young woman, transforming it from foggy to clear. In *Portrait of My Father* (1994-95), the image of his father flashes on and off with the rhythm of his heartbeat recorded over an eight-hour period. The implication is that memory is always mediated by something, always filtered through another form that prevents it from remaining stable in any way.

Other memory works reveal an atomistic, one could say digital, view of the forms in which cultural memory resides. In *Typing Paper* (1994-95) the sounds of an old typewriter are presented to suggest the text of Martin Luther King's "I Have a Dream" speech; in *I Have Never Read the Bible* (1995) the "memory" of the Bible is evoked by the sound of a voice whispering the letters of the text of the Bible one by one next to a worn book, which turns out to be Webster's dictionary. These works are provocative in their reduction of these cultural memories to some kind of elemental form: letters, the sound of typing, the ASCII text. In many ways, Campbell is playing off the very essence of the digital. Unlike analog, the digital reduces all information (and in this case all memory) to bits, to ones and zeros, to elements that are infinitely changeable and malleable. What happens when you reduce the Bible to each letter—the digital Bible? It becomes, of course, meaningless, a jumble of letters. Campbell states, "In other words, even though I have not read the Bible, this work is a representation of me reading the Bible," a statement that asks us to think not of the meaning of the words but of the bitlike presence of the letters. It appears that the digital framework is playing a joke on language and philosophy—what after all is the Bible but a bunch of letters? Whose memory is it then? Here, the metal boxes evoke an anachronistic sense of storage—the metal box

that in its very form presents a kind of mortality—in relationship to the electronic storage of memory that is so ungraspable, so elusive as a physical object. Here, Campbell implies that the Bible actually undergoes a kind of data compression, and the very concept of storage is confronted—the database as a one-dimensional form of memory. Indeed, digital storage is revealed as potentially meaningless. Campbell plays this out further in *The End* (1996), in which a computer algorithm is used to generate all possible video images, and viewers see a blank screen with a small dot of light in its center. If all the images are containable, and the potential number of images is finite, then why bother to create more? In these works, Campbell is mocking the fetishization of storage and safekeeping that surrounds the contemporary database—what we end up with is archived yet essentially incomprehensible.

Interactivity and the Pleasures of the Response

The sly nature of many of these works, at once profound and provocative, is derived primarily through the almost secretive nature of the ways in which they reveal themselves to viewers. Because of the “black box” nature of Campbell’s “custom electronics,” viewers often engage with these works by trying to figure them out and bypass their systems; in the very least the experience of them is one of negotiating machine devices. That this never seems to work at the level of trickery is a testament to the self-consciousness and irony that Campbell has constructed in relationship to the viewer. It’s as if Campbell sets up an exhibition space as a means to both seduce and deter the viewer. In the process he often forces viewers to examine the issue of desire, specifically our desire to see what we have been told we cannot see. What emerges is a carefully constructed electronic environment, or way of being, that is about surveillance and monitoring, qualities that, one could argue, form the essence of electronic media.

In *Hallucination* (1988–90), Campbell intervenes in a video “mirror” image in such a way that viewer expectations are confounded. Through a mix of live imagery and stored images, viewers are alternately mirrored by a video screen and seen in time delay, their silhouette set on fire within it, and they interact with a woman who appears randomly on the screen, tossing a coin and looking directly at them. At other times viewers simply disappear. There is a sense that this piece is constantly changing its rules, never quite following a set sequence, so that viewers are always a bit off balance if they try too hard to figure it out. Like many of Campbell’s installations, one feels constantly reflected back by this work, unable to get away from its lens. Indeed, to go to a Campbell exhibition is to see one’s image constantly and often uncomfortably, and never to be “left alone” as a viewer.

This sense of viewer surveillance pervades Campbell’s work, and is often refined in such a way that viewers feel their movements are taken note of, perhaps judged. Nowhere is this more evident than in *Untitled (for Heisenberg)* (1995). In this work, viewers enter a long dark room that contains at the far end a platform resembling a double bed. The surface of this bed is covered with salt, shaped to resemble a rump



Figure 3. Jim Campbell, *Untitled (for Heisenberg)*, 1994–95, interactive video installation. Used by permission of the artist.

set of bedsheets, and onto it is projected the image of a naked couple who are either sleeping, caressing, or in sexual embrace. As the viewer enters the space, this scene is visible yet distant, entreating people to move closer to get a better look. The room, as in many of Campbell's works, is wired to our response; as we move toward the bed the projector zooms in and the image becomes abstract to the point where we can only see blurred body parts. As we move away, the image readjusts to "show" us more. Campbell titles this work "for Heisenberg" as a reference to the Heisenberg Uncertainty Principle from quantum physics, which contends that the act of observation always has an impact on the object of observation; because of this one can never observe an object in its "purest" form. Here, however, he is deliberately transferring this concept to questions of desire and sight. As he puts it, "The more you want to see the less you see."

Untitled could easily be seen as either an exercise in frustration or a work of trickery, yet it succeeds in avoiding both. I have stood in the piece and watched people, after they understand how it "observes" their behavior, try to avoid detection by running to the bed or crawling along the walls (neither tactic works). Yet, what happens in those moments is that viewers are eventually confronted with their own behavior, caught trying to get a glimpse of an intimate scene, perhaps a potentially pornographic moment. In the process of revealing how our position as viewers affects what we see, this work also asks us to be conscious of the desire that propels us toward the image as if it would reveal something—our belief, for instance, that we could experience the intimacy presented on the bed.

The elements of interactivity that permeate almost all of Campbell's work are at their most obvious here in the push/pull between viewers and *Untitled*. Yet, what kind of interactivity is this? Campbell states that he wants to make a distinction between controllable systems and responsive systems and to create works in which the concept of interactivity is derived from the work itself:

I've often wondered why most interactive work feels contrived and designed for a calculated response, like bad school art. I've seen so many CD ROMs and interactive video discs that have felt like my interaction was completely scripted and predetermined within the pretext of a few choices. . . . It's almost impossible for an artist creating an interactive work to not try and second guess the viewer. How else can an artist design the interface without seeing it from the other side? One of the ways that I've seen artists avoid this problem is to not put themselves in the viewer's shoes but instead to take the point of view of the work itself. Instead of saying as viewer what can I trigger? saying as program what can I measure? . . . Because the artist doesn't write the viewer's side of the interaction, the viewer can respond in a more open way. One of the consequences of this approach is that the work, like a painting and like a film, exists on its own. There is no attract mode. The work is not waiting for a person to complete it. In a way, the work becomes interactive not with people but with its environment.²

While it may be that Campbell's works are not "waiting" for viewers to complete them, they are works that change character in response to the presence of viewers. As such, they are often experienced by viewers as withholding and secretive works that operate through deferring viewer desire. Like *Untitled, Shadow (for Heisenberg)* (1993–94) reacts to the presence of the viewer in such a way that our ability to see further is impeded. Here, a transparent cube sits in a room; when viewers approach they can barely discern that the cube contains a Buddha figure who sits on a faded text of some kind. As they move closer to the cube, the surface fogs, obscuring the icon (as its shadow appears on the glass surface), preventing them from seeing the text (by implication, the wisdom) beneath it. Instead of being a mere exercise in frustration (why won't it let me see/read it?), this piece works by forcing viewers to reflect on their needs and wants—why is it that now that it is hidden, I feel I have to see it? This work can be seen as demonstrating, as psychoanalysis has suggested, the ways in which that desire is always deferred and unfulfilled, constantly beyond reach.

In *Simultaneous Perspective* (1997), the effect of the viewer's presence is equally subtle at first impression. The viewer enters a room containing a suspended candle, so that the slight shift in the air created by his or her presence affects the amplified sound of the candle's flame. The viewer then moves to an adjacent room in which a screen displays a stunning visual collage of images from several live cameras of the environment outside and within the gallery space (in this case, the NTT InterCommunication Center in Tokyo). Images of freeway traffic, pedestrians, and skyscrapers, combined with images of the candle and the viewers within the gallery, are infused into textured images of the sidewalk, the lines of the escalator steps, and fabric. These images move in and out in a fleeting sense, like figures of memory that fade and return. The viewer is thus invited to reexperience the trajectory of his or her journey into the gallery space as a highly textured two-dimensional image. As the images shift, with different elements gaining and lessening in intensity, the work invites viewers to stay and watch, which they often do. However, if they remain still in the space, the layers will gradually peel away until the screen is dark. Here, then, it is the absence of action that provokes a response from the work.

These discrete electronic devices, then, both circumvent and point to viewers' actions and reactions. They are intended to move toward a state of autonomous reaction, in which the presence of the viewers is merely one variable of many. As such, Campbell's work can be seen as allied with recent research in artificial life in which computer programs are designed to follow certain principles of evolution, that is, to move beyond their original programmed form into something else, something unpredictable. Time and memory are gauged and then set loose in these works. Viewers move in and out of them. Memories are recycled and return according to a random set of rules. Campbell appears to give his devices a certain amount of autonomy, yet he seems intent upon demonstrating the fragile and ultimately random nature of machine interaction. The world he creates is therefore a complex amalgam of the fluid analog world with the rigid and expansive digital realm. These are machines that seem

to retain and repress, to withhold and respond, to pose questions with no anticipation of an answer. They turn the lens back upon the viewer, asking us again and again not to reflect on the nature of the machine so much as on ourselves.

Notes

This article was originally published in a shorter version in *Afterimage* (November/December 1997).

1. Margaret Morse, "Video Installation Art: The Body, the Image, and the Space-in-Between," in *Illuminating Video: An Essential Guide to Video Art*, ed. Doug Hall and Sally Jo Fifer (New York: Aperture, 1990), 155.

2. Jim Campbell, "Delusions of Dialogue: Control and Choice in Interactive Art" (talk delivered at the Museum of Modern Art in New York, May 1996).