"In On the Job:" *Praxis*, Critique, and the Evolution of Virtual Harlem

Ken S. McAllister

AEE & *Praxis*: The Context for the Critique

Theodor Adorno, in his *Prisms* essay "Cultural Criticism and Society," debunks the role of pop culture critic, observing that such pundits forfeit their "legitimation by collaborating with culture as its salaried and honored nuisance (20). Moreover, Adorno goes on to say, cultural critics get a good deal of self-satisfaction from their work, not because they have changed the world in any important way, but because "To flaunt one's superiority is, at the same time, to feel in on the job" (20).

I must confess at the outset that I am, as Adorno writes, "in on the job." As Director of Alternative Educational Environments (AEE), I have two sometimes contradictory jobs: first, to help our organization identify new approaches to education that seem promising, if unorthodox; and second, to simultaneously critique those approaches even as we work to develop them. The principle behind this mission is an unfortunately uncommon understanding of *praxis*, historically a politically charged term that has now decayed under the vacillations of liberalist social theory. By *praxis*, I mean social practice that is constantly informed—and subsequently modified by—critique. In other words, as we act in the world, we vigilantly take note of the effects that our actions are having on it. If our actions are not moving us toward our objective, we re-act to guide us back toward are objective.

Praxis so described raises political alarms only to those familiar with the code words of leftism; without the keys to such codes—whether by chance or choice—*praxis* becomes merely indicative of action informed by theory, and without any attendant social obligations or ethics. The term's ancient Greek origins, however, were of a distinctly political stripe, referring to any of the various kinds of work that a *free man* might perform. It was in this spirit that Marx used the term, not as indicative of the range of non-enslaved male freedoms, but of the range of freedoms that should be shared equally by all human beings. In this tradition, "*praxis*" is a revolutionary objective toward which we must strive and for which we

must fight. The role of the critic, then, is to compare current world-ly conditions to the fullness of a realized *praxis*, noting in particu-lar any trend or tendency that seems to lead away from a state in which *praxis* is omnipresent. As Adorno put it, "the task of criticism must be not so much to search for the particular interest groups to which cultural phenomena are to be assigned, but rather to deci-pher the general social tendencies which are expressed in these phenomena and through which the most powerful interests realize themselves" (30).

It is by this principle of *praxis* that AEE works to foster projects that strive to catalyze transformations among students of all ages, transformations that result in a clear vision and an empathic response to the social injustices of our time. Historically, though not exclusively, AEE has done this within the realm of that particu-larly complicated mode of production, the computer. Among its projects have been studies of computer-mediated collaborative research, electronic scholarship, distance education, and comput-er-enhanced pedagogy. For several years now, we have been work-ing on (and "in") electronic virtual spaces, some completely immersive, others only rendered on small monitors. The group has consistently struggled to identify technologies—both common-place and emerging—that facilitate *praxis*, which is to say, tech-nologies that might have a unique capacity to further socio-politi-cal transformations that favor the exploited and oppressed classes.

Anytime I articulate AEE's mission in public, I am almost invari-ably challenged by a thoughtful colleague who sees the project of critiquing unfinished technologies as actually contrary to the ideals of *praxis*, which always begins in practice. If one must first gain practical experience with something before being able to make the "cognitive leap" (as Mao puts it) into forming concepts, judgments,

and inferences about it, then, according to this line of argument, one can not do critique until the "something" is usable. At an abstract level, this is true. Technologies, however, are never completely new: the papyrus was like a clay tablet, TV was like the radio, and computers are like typewriters. Knowledge of previous and related technologies gives the critic a point from which to begin examining emerging ones. As a consequence, even uncompleted technologies may be rigorously critiqued, albeit with a speculative and inferential character.

Our determination to both develop and critique emerging educational technologies has two immediate consequences. First, it slows the development of the technology considerably. When each design decision is "ruthlessly critiqued" as Marx put it, the production process can be halting and frustrating, especially to those people accustomed to working with little or no sense of social accountability. The second consequence follows from the first: as the technological product emerges, it is always emerging toward *praxis*. Unlike more traditionally developed technologies, therefore, which remain largely immobile when confronted by social (or even technical) critique, AEE's technological initiatives are consistently agile and highly responsive to critique at any point in the development process.

I, and all of my colleagues represented in this issue of *Works & Days*, however, are "in on the job." Does this skew our ability to render a critique? No doubt. We all work very hard on our projects and we want them to succeed. Our critical advantage, however, and the one that strengthens our ability to do and to endure self-critique, is our commitment to social transformation. With that objective, and not the objectives of profit and glory, we find it relatively easy to scrap bits of our work (sometimes whole projects) in order to stay focused on *praxis*. Virtual Harlem, the subject of this volume, is a case in point.
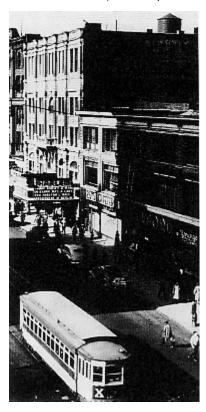
A Review (not a Critique) of Virtual Harlem

How do you teach people about a time and place that no longer exists but that was so heavy with genius that it is remembered as a "renaissance?" But even that question is premature. Better to begin with: "Why would we want to teach about such a time and place known as a renaissance?" For those of us involved in AEE, the answer to this question forms around our commitment to social transformation, the question itself transforming into "what is it about cultural rebirth that moves people toward *praxis*, toward an environment in which inequity is considered sociopathic?"

Rebirths are, by nature, revolutionary. Established orders are upset and new ways of knowing and being in the world emerge. If some of the changes that emerged in a renaissance tend toward *praxis*, then the collective memory of people long after may still benefit from learning the stories of those struggles and transformations. Here, then, is the answer to how a bygone renaissance may be taught: by telling stories.

There are many ways to tell a story. Certainly a story's content varies one account to another: stories have "sides," they may be "full" or "real" or "true," or they may be "growing." Sometimes, stories remain "untold." In telling stories about a renaissance, particularly stories that tended—and continue to tend—toward *praxis*, the method of delivery must be well considered if the stories are to retain their ability to compel.

The oral tradition of storytelling is among the oldest, along with musical and pictographic traditions. Later advances include written storytelling and various techniques of what might be called meta-delivery, that is, the recording and playing back of stories initially offered in another medium. These different media have observable effects on how people interpret the stories told to them; sometimes the medium bolsters a story's authority and, for example, its psychological effects, and sometimes it diminishes them. Orators, writers, narratologists, and media analysts have been documenting these effects for centuries. What concerns us at present is the set of conditions and decisions that has led to the development of a particular medium, a particular method of story-telling, and a retelling of a particular renaissance, all bound up in the com-

puter application called "Virtual Harlem."

Originally intended to be a fully immersive experience, Virtual Harlem (VH) is currently a semi-navigable digital representation of New York City's Harlem in the 1920s and '30s. Buildings are recreated with striking accuracy and detail. A trolley runs through the streets at regular intervals and may boarded by VH explorers. Popular bands of the day can be heard at the Cotton Club, and old films will soon be available for viewing at the cinema. A few people populate the street and, as explorers approach, conversations, songs, stories, and speeches can be overheard. Nine square city blocks have been rendered: dozens of row houses, store fronts, and official buildings line the streets. Barber shops, grocery stores, pharmacies, nightclubs, theaters, libraries, and nickel-and-dimes surround explorers as they "walk" along.

But the streets are empty. Or very nearly so. As of this writing (September 2001), fewer than a hundred "people" can be found in VH, and cars were just beginning to be added to the streets. Of the people who do occupy VH, fewer than ten are actually interactive; the rest are just inanimate figures in a crowd. To many new visitors, this lack of a human population is one of the most striking experiences to be had in our high-tech history simulation. The architecture bespeaks teeming masses, but the virtual reality of the space is quite to the contrary. Like a character in a Cold War B-movie who has survived a nuclear apocalypse, the explorer who wanders down the side streets and back alleys of Virtual Harlem rarely sees a soul—not even a virtual one. The few human figures that are in the environment are cutouts from vintage photographs and appear almost exclusively on the main thoroughfares. Their range of motion is rotational: from whatever angle the explorer approaches, the cutout turns to the opposite angle, that is, toward the on-comer. There are no backs in VH, only fronts.

I noted earlier that the environment is semi-navigable. By this I mean that of the dozens of buildings, only a handful can actually be entered. It is of course arguable that even in real life in Harlem in the 20s a wanderer would not be free to enter just any apartment or house she or he desired. But the lockout of this place is almost total. Intriguing shops are as brick walls. Inviting doors into public buildings are verboten. And streets that cross the boundary of that which is digitally rendered and that which is not are tromp l'eaux, avenues that seem to stretch out into the rest of this vast city, but when approached become as impassable as a façade at a cheesy wild west show.

Then there's the weather. The skies are not cloudy all day and the sun never sets in Virtual Harlem. It is one ceaseless, bright afternoon, regardless of when the explorer visits. Want to see Cab Calloway? He's there singing, whether it is nine in the morning or three in the afternoon. Care to hear some old stories of hoodoo and voodoo? Visit the back alley card players any time. They are all there, that handful of folks, awaiting the explorer's presence like so many motion-detecting animatronic puppets.

To a considerable degree, these criticisms are easy though. For a technology like VH, a computer application in what developers call the "alpha stage," criticisms like these are comparable to criticisms of infants who cannot quote Langston Hughes. The extremely able developers of VH—programmers, artists, writers, and scholars—have made reasonable decisions about what, how, and when to make the tens of thousands of components that make VH as compelling as it is, even with all of its immediately apparent inad-

equacies. From a development perspective, the VH group has acted quite sensibly, building the easiest things first: streets before buildings, buildings before trolleys, trolleys before cars, and cars before people. So last come the people.[1]
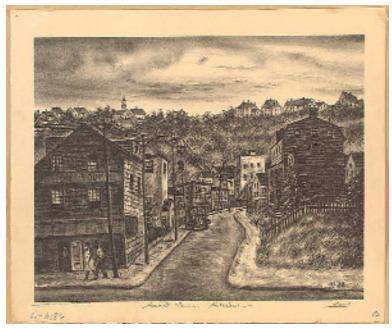
What then is there to critique about Virtual Harlem if its technical and aesthetic limitations are, for now at least, off-limits? Recall that Adorno advises readers that "the task of criticism must be not so much to search for the particular interest-groups to which cultural phenomena are to be assigned, but rather to decipher the general social tendencies which are expressed in these phenomena and through which the most powerful interests realize themselves" (30). Within the context of VH, this means foregoing criticisms of the seeming or real negligence of its creators, and instead concentrating on the ways in which broader social tendencies are made manifest in the application as well as the ways in which these tendencies reproduce and realize the interests of the privileged elite of society. To put it another way, a critique of VH must go beyond any immediate technical shortcomings and examine the means by which even a project as committed to social transformation, as VH can become an instrument of the very forces it seeks to disrupt.

Resistance is Necessary: A Critique of Virtual Harlem

Technologies like virtual reality (VR) can be usefully critiqued along three general lines of inquiry, each suggesting particular realms of influence in which VR is especially forceful. First is representation, which culls the ways in which the technology captures pieces of our existence and mediates it back to us. Second is epistemology, which culls the ways in which the technology influences how we understand what is being represented to us, which is to say, it influences how we know. Finally, there is ontology, which culls the ways in which the technology influences our sense of being through our relationships with people and things. Each of these lines of inquiry can yield innumerable questions about the tendencies of a complex technology like Virtual Harlem, but of particular concern to AEE are those questions that will help determine if a project is tending toward *praxis*. In each of the following sections—Representation, Epistemology, Ontology—I raise questions and issues that seem to me to be among the most difficult to address in a technological project such as this, but are also among the most important if the project is to remain true to the spirit of *praxis*, rather than to capitalism or individualism. Because I am "in on the job," of course, it is not necessarily my intention to foreclose or even discourage further development of this project. Rather, it is my intention to bring into consciousness (or at least refresh it) some of the more insidious possible outcomes of computer-mediated alternate realities such as our own Virtual Harlem. And although these matters are raised more for our own developers than for non-affiliated readers, the questions that I raise below could facilitate critical inquiries into other, similar projects.

Representation

Virtual realities, even non-visual ones like those of composers Steve Reich and Meredith Monk, re-present realities. These realities may have as much or as little in common with places and events that actually existed as might be expected in any other creative work. Yet when pixels are made to align in clusters that depict recognizable structures—buildings, vehicles, faces—we begin to believe in them. As personal and cultural associations fall into place, explorers of virtual realities suspend their disbelief (to varying degrees) and a host of expectations and assumptions quickly begin to mediate their experiences. In Virtual Harlem, I am consistently reminded in this regard by technology's determined tendency toward hygiene and erasure.

By "hygiene," I mean that computer generated environments, since they are built directly as the age they are supposed to represent instead of evolving slowly into them, almost always appear clean and bright. The disorganization and grime that textures a city street accumulates over years. The broken bottles of cheap gin discarded in the alley, the week-old newspaper soaked by last night's rain storm and now matted on the front stoop of a brownstone, the dog shit on the sidewalk, all of these are details from the story of a community. But when the environment is built up one immaculate digital texture at a time, the result is a pristine world that never existed. Ironically, it is technology that makes city streets—those of Harlem and of every other city—filthy: limestone turned black

by coal soot, sewer covers clogged by tobacco tins and dead leaves, the smell of kerosene and ozone in the air. Cities are dirty, even where the rich folks live. And this dirt is an integral part of the stories of the people who live there. They become accustomed to it (or don't know anything different) and develop a peculiar relationship to it. The blowing garbage and smoke is as much a part of a city's topography as are its hills and structures. Building this out of a virtual environment alters the stories that are to be set there at a profound level. It sanitizes the soil out of which a host of genuine joys and sorrows emerge, destroying a crucial element of what it means to be a city-dweller.

In this fashion, the hygiene of virtual space contributes to its coldness, turning the rich mix of an overpopulated working class community, for example, into an odorless suburban wasteland. This kind of representation goes beyond fiction and becomes a lie that undermines all the real stories of the people who once inhabited the place. Alternative environments of this sort sterilize even the human body, desexualizing it, making it impervious to the ravages and raptures of drugs, and disappearing every possible rationale for enacting violence. Technologically induced hygiene of this sort turns historical projects like Virtual Harlem away from *praxis* and rewrites history to make it brighter and neater than it ever was. This *embourgeoisement* of Harlem in the 1920s goes a considerable distance to erase the class and race lines that in fact energized millions of African-Americans to revolt against the political, social, and economic tyranny systematically imposed upon them. This is a tendency away from *praxis,* because it effaces the experiences of transformative struggle and suggests that the fighting is over. It is not, and the representations of Virtual Harlem should remind explorers of this fact.

The phenomenon of computer-mediated hygiene extends beyond the specific application of Virtual Harlem (or any other VR application I know), instead existing in a symbiotic relationship with the hardware that stores and processes the environment. Entering Virtual Harlem when it is fully operational in the CAVE is spectacular in and of itself. A truckload of equipment hums and whispers in the background, a strange interactive monument to the engineering genius of the late 20th-Century. Though it is commonplace for critics of technology and science to dismiss instrumentalist approaches to such mechanistic wizardry, the general population continues to accept the idea that machines are ideologically neutral: "guns don't kill people," the motto for this viewpoint goes, "people kill people." As we develop Virtual Harlem and our other VR projects, then, we need to recognize this popular assumption and work against it.

The workstations, projection units, tracking devices, and other equipment that bring VH to life need to be problematized right along with the content of the application. Many decisions that led to VH's current look and feel were determined by the constraints imposed by the machinery on which it runs. The representation of history, already two steps away from the real time and place, is thus

mediated by a third force, namely, the medium upon which the representation is offered. If explorers transfer their assumptions about the ideological neutrality of the medium onto the material it is representing, then the authority of the material is magnified far beyond what is probably reasonable. It is possible, of course, that the reverse might occur, that an explorer with intense technological skepticism would be utterly suspicious of the artificial environment inside, but to me, this situation is far less problematic and seems more unlikely than the former scenario. As VH continues to be developed, a related project would seem to be in order, a project that demystifies the technological development and implementation of Virtual Harlem for them, and reveals how human— and not unassailably "scientific"—the project is. Such a companion project would contribute significantly to VH as *praxis*, and would certainly create many pedagogical opportunities for exploring not just Virtual Harlem, but of the nature of history and the difficulties of representing it.

Epistemology

It is worth asking about a project like Virtual Harlem what kinds of epistemology it favors and what kinds it ignores. Among the several variations of the project that are currently under development, the differences primarily involve its display and navigational technologies: fully, semi, or non-immersive visual and auditory displays, and the 3-D or 2-D tracking systems that control them. From the beginning, Virtual Harlem was intended to be fully immersive, and so many of it extant features—even in the 2-D environment— are holdovers from a different implementation. While this raises some serious usability issues, more important to this examination is that VH has remained consistently visual, secondarily auditory, and always semi-tactile. Virtual Harlem, it seems safe to say, is heavily reliant on most of the senses and so its epistemology is arguably a sensual one.

Clearly, the primary developers of VH have been guided by the belief that education that touches the senses as well as the mind is especially "effective." Without exception, every person with whom I've spoken about their experience in VH—even in its current sparsely appointed form—have noted that they feel like they "know" Harlem better as a result. But the Harlem these visitors have come to know is a fanciful one where even the architecture is unstable. This fact is probably most quickly experienced by people familiar with the real Harlem and who, upon entering VH, quickly realize that their landmarks are all mixed up: the real Cotton Club is north of the Savoy Ballroom, not southeast of it as it is in VH, and the real Apollo Theater is at least a mile away from the Savoy, not just across the street. Admittedly, I write this from Tucson, Arizona where people with an intimate familiarity with Harlem at any time period are hard to find. As a result, such spatial anomalies may seem relatively inconsequential to outsiders. But if the environment is characterized as historical and if the rep-

resentation itself is photo-realistic, then explorers of VH are likely to confuse the simulation with the reality. Also problematic is the likely possibility that explorers will confuse—and perhaps even privilege—VH's representation of Harlem over those of other artists who have worked to represent Harlem's space more accurately: Langston Hughes, Lorraine Hansberry, and Ollie Harrington, to name just a few. These matters make it clear that the sensual nature of VH offers a complicated set of pedagogical advantages and dis-advantages.

In the early 1990s, I visited Harlem twice and enjoyed walking along the broken sidewalks and looking at all the people. I was deeply impressed on both of those occasions by the enormity of the New York City and the density of its population. And I am no farm boy. I grew up on the south side of Chicago, two miles from the stockyards and three miles from the Loop. I moved fifteen times in my first thirty years there, and learned more about the world and its great variety of cultures by talking to my neighbors than I ever did in school. I once lived in an apartment where I could reach out my bedroom window and touch the elevated train as it clattered by, and I frequented bookstores that sold poetry in languages I'd never heard of before. I was mugged, robbed, had cars broken into and stolen, and had friends who were killed in gangland shootouts. I walked picket lines with the Teamsters and saw houses with the word SCAB spray painted in red across the brick fascia out in front. I wrote my dissertation while looking out across housing projects that the first Richard Daley had built in the middle of Little Italy to punish the mafia for threatening him (or so the story went). All of this is to say that I was no stranger to big city life when I visited New York City and Harlem, and yet Chicago seemed like the cow town it is when I stood on the corner of West 142nd and Lenox and realized that I hadn't seen the horizon in days. It was then that I realized that a city like New York is only knowable in some deep and ephemeral way, a knowing in the bones more than in the mind.

VH has no pretensions, of course, to teach this kind of knowl-edge to those who explore the environment. It seeks only to help people get some limited sense of the zeitgeist it is digitally model-ing, to let people experience a bit of the architecture and a hodge-podge of the cultures that flourished—and continue to flourish—there. But even the limited sensuality of the experience, as I have noted, is memorable to people, so much so that they claim to "know" the place better. And perhaps they do. Perhaps, at least, they feel as if the literature, music, dance, and politics they are studying in their classes has come alive for them. This could well be a turn toward *praxis*.

But in order for this turn to be toward and not away from *praxis*, the Virtual Harlem team will have to resist the tugs of self-suffi-ciency to which technological projects often succumb. Technology has a way of making us forget the past, particularly when it is oper-ating with a sensual epistemology. Under this framework of know-ing, immediate experience rules and tends to privilege trial-and-

error learning over contemplation, association, intuition, and theorization. A Virtual Harlem that stands alone with a terabyte of data and room full of projectors but that is disengaged from the dialectic that courses throughout all human experience, may be an efficient system but it will not be a humane or ethical one. Virtual Harlem is capable at this early stage in its development to be designed to accommodate and encourage a variety of epistemologies while still holding *praxis* as its guide.

Ontology

The critiques raised under the rubrics of representation and epistemology lie at the edges of a very deep philosophical well. Representational and epistemological questions grease the perimeter of this well so thickly that those who approach cannot help but fall in. I do so willingly because understanding what it means *to be*, even if only tentatively, is sufficiently definitive to allow vitally important questions about *praxis* and its relationship to technology to emerge. These are questions about ontology, about the ways we use our relationships with other people and things to make sense of ourselves. It will perhaps seem ironic that, after observing the basis of Virtual Harlem to be a sensual epistemology, I will now question the role of the body in that environment. But my concern here is not about the extent to which the body is engaged—which senses are stimulated most, for instance—but rather is about the phenomenon of the disembodied body that the explorer assumes while wandering about in Harlem.

When I stroll down the street in VH, I feel like me; unlike many computer games where one assumes either a completely different persona (e.g. Lara Croft or J.C. Denton) or a deified version of oneself (e.g. *Black & White* or *Warcraft*), playing in VH is not unlike exploring a museum. I have no skin-tight outfit, no particular objective, and no special powers except one: I can "pass." As special powers go, though, this is a strong one. It allows me, an Anglo male, to explore Harlem as free as I please. The story-telling buddies in the alley don't mind if I walk up and listen in on their conversation, nor do the three young women walking down the street chatting about their weekend plans. Marcus Garvey does not care if I stand beside him during his soapbox oration, and even if I was a ten-year old, no one would keep me out of the Cotton Club.

It is a truism among game designers that if you make a game too realistic it will be as tedious as real life. If, at the beginning of *Deus Ex*, players had to enter their own real statistics—"skinny, uncoordinated, 22-year old with poor verbal skills seeks position as International Geo-Political Operative"—we can guess that the game wouldn't last very long. Game designers specifically avoid this kind of player/agent integration because the ontological problems and paradoxes that would subsequently emerge would be too great to overcome, both technically and narratologically. In Virtual Harlem, because there is no back story and no persona for the player to adopt, these problems and paradoxes do emerge and they

will grow as the environment matures and becomes more populat-
ed. Students, scholars, and teachers will all want to know how it
is that they can be in on these experiences when, in real life, they
never would be. If VH is pitched as a semi-utopia in which, mag-
ically, its inhabitants have become color-blind and unconcerned
about gender and body size for example, then explorers will likely
soon come to question the authoritativeness of the historical schol-
arship that stands behind the project. Less informed explorers—
children, for example— will also be justified in wondering about
what so many authors, poets, painters, and musicians were beefing
about when they articulated their experiences of the social evils
and blessings of that time and place. "Why," a precocious teen-
ager might ask, does Sylvester Leaks describe Harlem as "A six
square mile festering black scar on the alabaster underbelly of the
white man's indifference"? VH offers no answers for this except per-
haps to lead explorers toward a logic that invalidates Leaks' com-
ment in light of the "evidence" of VH.

But there is a more serious ontological problem in the offing
with Virtual Harlem than having it stand accused of unrealism or
lazy scholarship. In the late 1980s, the Federal Aviation
Administration discovered that the tests they had been using to
select air traffic controllers had suddenly begun to fail, passing, as
they were, individuals who seemed to possess some of the rudi-
ments of traffic control but who, in fact, did not have the logical or
stress management skills necessary to do the job safely. An inves-
tigation into the matter found that the increasing popularity of flight
simulators for home computers was a major factor in this develop-
ment, and was causing people to believe that they had skills and
natural abilities for this extremely demanding profession. What
these players didn't realize—in part at least because flight simula-
tors are marketed as "real" and "highly accurate" models—is that
the developers of the simulations necessarily had to dumb down
the simulation in order to make it a manageable product that was
also entertaining. Realistic weather effects, pressure fluctuations,
cargo balancing issues, idiosyncratic pilot decisions, and a host of
other variables that enter into an ATC's and a commercial pilot's
daily work had all been greatly simplified (or left out) in the simu-
lations that were now causing people to believe that they could fly
a 747 or safely process all the hand-offs at an international airport.

I have already noted that people commonly claim to "know
Harlem" after spending half-an-hour or so walking the empty
streets of VH. When the space becomes populated and its charac-
ters become more animated, will Anglo or Thai-American explor-
ers come away from it "knowing" equally well what it's like to *be*
African-American? Or a factory or hotel worker? Will 21st-
Century male explorers from rural Missouri "know" what it is like
to *be* a woman in 1926 Harlem?

My answer to this is that they will think they know what it is like
to be these kinds of people, just as scholars who study that time
and place develop a (hopefully more guarded) sense of what it was
like to be a person back then. I doubt there is any way around this

kind of ontological simulation in this medium, and in fact, I do not believe it should be avoided. Part of the pedagogical power of virtual reality is that it is sensual and semi-experiential, which often translates into more rapid and memorable learning. Consequently, however, this power must be used very deliberately because it *is* so compelling. In a video and aural media culture like ours in which messages and associations take hold in the mind much more rapidly and with much less critical interference than in by-gone times when they were read, developers of applications that carry the semblance of "truth," "accuracy" (even if only partial) and "realism" must take special precautions to mediate the ontological as well as the historical complexities of their work. To do otherwise is to homogenize and sanitize human history, to openly condone identity and culture theft, and to heel to the powers of oppression—powers that would prefer people forget the pain and suffering they've endured and struggled against for generations.

Conclusion

Like my other critiques, I view this last one as an opportunity to grapple with some difficult practical and philosophical problems concerning the ways in which emerging technologies can facilitate or move us toward *praxis*. The advantage to posing these critiques at this stage in the development of VH is that it is not yet too late to address them. Virtual Harlem is already a remarkable technology and its developers are to be applauded for the thoughtful and impressive work they've already accomplished. The project's popularity is growing, however, and pressures to kludge future pieces of the project together will, I suspect, increase accordingly. As deadlines for demonstrations to colleagues, professionals, and the press accumulate, and as teachers begin requesting that VH be implemented quickly for their curricula, it will become tempting for the developers to prioritize immediate prestige over the patient development of a technology that meets the people's needs.

Let us not succumb. Anyone with a bit of engineering experience knows that "temporary" kludges almost always become permanent, and that hasty action requires short-sighted thinking. Instead, let us encourage patience amongst each other, rewarding critique and acting deliberately so that Virtual Harlem transforms the world.

In short, let us model *praxis*.

Notes

[1] Even the most sophisticated computer games of the early 21st century don't imitate people very well, and the budgets for those projects exceed by several orders of magnitude the budget for VH. So-called AI (artificial intelligence) in computer games today are measured according to standards of believable response: if a computerized character is shot at, does it hide or does it fearlessly stride

into enemy fire like a creature from *Night of the Living Dead*? If it "hears" footsteps at the bottom of the stairs, does it carefully investigate, sound the alarm, or ignore them? Do different computer characters act differently in similar situations, or do they all behave the same? Programmers and artists are especially aware of the challenges of simulating human behaviors because it falls to them almost exclusively to model the infinite complexities of thinking and feeling creatures. For this reason, computer game developers rarely venture beyond the modeling of soldiers and stereotypes. Soldiers are to be fighting machines (at least while they're still grunts), and exemplars of disciplined precision. Similarly, stereotypes act only within the bounds of the limited perceptions of others; their disciplined precision constrains them never to act like real people do, who respond to situations according to a plethora of idiosyncratic and sometimes contradictory stimuli.

Work Cited

Adorno, Theodore. "Cultural Criticism and Society." *Prisms*. Cambridge: MIT P, 1990.