Charles Tonderai Mudede Space, Cyberspace, and Species

Since I can last remember, I have always dreamed of going to outer space. Gattaca

The mysteries of creation are there. The moon and the planets are there. And new hopes for knowledge and peace are there. And therefore as we set sail we ask God's blessing on the most hazardous, and dangerous, and greatest adventure on which man has ever embarked. John F. Kennedy (as sampled by Gang Starr in the song Above the Clouds)

Posthumanism is postindividualism. The notion dominant since the Renaissance that the individual soul is of central importance. Yes, naturally, patented body parts would help displace it. But in a profounder sense, by manufacturing our desires, corporations have already replaced human beings. James Latteier

There is simply no overstating the importance of science fiction to the present cultural moment, a moment that sees itself as science fiction. Scott Bukatman

I

One night in 1987 I was searching with some friends for a party in a low-density suburb, the Highlands, in Harare, the capitol city of Zimbabwe. As we only had a vague idea of where the party was located (we were not invited to this party, we had only heard rumors about it from our friends who were also not invited) we listened carefully, patiently to the night air for the faint "din din dee" (as the expression goes) of dance music. Now and then we would catch a weak distant pulse, then lose it a block or so later. We walked for miles in the dark under the revolving stars which were bright because there were no street lights on these minor residential roads, which had no order and led us nowhere except further and further into the night. Then something incredible happened, something that was to impress my imagination for the rest of my days. Along a winding road we came across a big satellite dish which, because of its whiteness, was ghostlike, luminous, a hologram that seemed to float in the dark as it received distant signals from the stars.

What struck me about this satellite dish was not so much its strangeness (American science fiction films and television programs like Carl Sagan's *Cosmos* had long made me familiar with this form of communication technology), but that it was in someone's front yard, in their garden, dwarfing the trees, the car, and even the home. This was so incredible because here was a technology I habitually associated with governmental operations–a technology in the order of nuclear reactors, power stations, military bases–reduced to domestic use. It was like something out of science fiction, a mock-up of a future home with its own launch pad in the backyard, a satellite dish in the front, and through the glass windows of the French doors a Sears robot maid could be seen vacuuming the carpet.

The domestication of big science, big capital technology represented (for me) the arrival of a new age. An age is not an age unless its defining technologies are as palpable, as possible, as this dish which stood right before my eyes, silently stitching the beams of hidden satellites into the very fabric of my reality. With this event satellites lost their function to overawe; I could see that they were busily communicating with someone who could easily have been my neighbor. At last, I thought to myself, still staring at this moonlit dish -still trying to figure out where this damn party was—we have entered the future.

Π

The integration of a "big science" into civilian life, into regular consumption by the general public is really what the whole game is about. Without complete integration the field of science will fail, it will be discredited, be replaced, relegated to the museum, to memories, to nostalgia, as was the case with the Space Age. The Space Age could not integrate its sophisticated technology into civilian life; it never became the launch pad in everyman's backyard; it never even came close to that satellite dish I saw in the Harare night. The satellite dish, I should emphasize, represented information technology, not space technology. And as everyone knows by now, the future of space is simply an adjunct to the cell phone industry!

NASA, a department invented in response to the Sputnik, made extraordinary attempts to integrate space technology into commercial life, to make us believe that the Space Age could transcend the cold logic of the Cold War, that this form of complex science would and could trickle down (to use the Ronald Reagan term) to us. For example, in the early seventies when the US Airforce and NASA joined together to make the space shuttle, they modeled it after an airplane, a move that was more symbolic than practical. "To date," *Jane's Defense Weekly* reported, "no one at the Air Force has been able to explain how [the shuttle] was going to save money." Giving the shuttle wings and wheels and a runway in California civilianized the look of space travel and consciously linked it by look and procedure with commercial air travel.

Another attempt was with the doomed space shuttle Challenger which had a civilian (a school teacher) as a crew member. This was the mission, *Time* magazine wrote, that was "designed to show that space belongs to everyone." The teacher was to instruct students from outer space (wow!) and demonstrate how normal, how civilian, this big science was-that in fact launch pads would appear in our backyards. I had waited many years for this. Since I was boy, books, TV programs, magazines had promised me that I would be, by the end of this century, traveling through space to the moon, where the job market was positively booming! But it didn't happen. And because the Space Age was never properly ushered into our lives, because it was impalpable, impossible, and always in the hands of big government, and the only time a somewhat dowdy civilian participated was in the Challenger, then, by definition, the Space Age really only lasted for 78 seconds before it exploded into an incredible fire-spider, becoming the most expensive (\$1.2 billion) fire cracker in history. As a footnote, the recent flight of Senator John Glenn came after the fact and didn't help much to routinize space travel. His mere age exposed the class of people who are still moved, and obsessed by space.

III

The Information Age only came into being through a seemingly effortless integration of big science with commercial and private life. A clear example of this is the Internet, which was created by the US military in 1969 and augmented later by scientists in CERN. And this incredible proliferation of electronic information within the public sphere has made our world, as Bruce Sterling wrote, "truly science fictional." We are now cybernized creatures—so much so that for the first time in history we imagine Armageddon not as a final war (as was the case in the film War Games), or the day that the machines take over (as in Terminator 1 and 2), but as a big computer failure. We come by way of the Mad Max scenario not because of fire, but because of an electronic glitch: a sudden stoppage of information, an ATM that won't perform its function. The death of machines now means the end of human beings.

Another way to recognize our transformation into cybernized (or "technologized") creatures is the fact that science fiction (particularly in cinema) rarely ventures to construct a way life that lies far in the future. Instead it tends to look, if not "just ahead," then at the "now." This phenomena, which is a consequence our age "living out the existences predicted by an early generation of SF writers" (Bruce Sterling), really began with the novels of J.G. Ballard (Crash, Concrete Island, High Rise) and became a trope in the science fiction novels of the 80's (Sterling, Gibson). By the 90's this was the mode for any serious science fiction film. To go too far ahead in time now meant two things: one, it is a parody, a kind of joke, like Starship Troopers and Fifth Element; or two, it entered the terrible realm of pure fantasy-meaning it became something akin to Lord of the Rings. Science fiction's abandonment of the far future is evidenced in TV programs like Milleniu and X-Files which, though categorized as "sci-fi" and with a following of loyal sci-fi fans, takes place in the present time, in a time that is concurrent with our own. Science fiction needs only look "just ahead" and often, in films like Wim Wenders' Until The End of the World (1991), employs hi-tech toys that are not yet (but soon to be) on the consumer market. In some cases one can even go back in time and produce a work of science fiction. This is an interesting effect whereby an artist can use dead material which connoted the future in the past (particularly the Space Age). One may call this the "back to the future" effect or, as Baudrillard once put it, a "nostalgia for the future." Bands like Land of the Loop, Dr. Octagon, the Beastie Boys' recent CD Hello Nasty, and more specifically an elaborate, experimental mix called *Grapheme* by Afrofuturist par excellence D.J. Spooky (Paul D. Miller) employ this technique to give their work that "jaded android" effect, as the New Musical Express once called it.

IV

We now stand at the brink of a whole new technological age, the Biotech Age. Once again what is at stake, or more closely, what is still in process is the integration of this big science into commercial and private spheres. There is as always considerable public resistance resulting from a complex set of fears and phobias. Let us put aside the predictable complaints of tampering with life and try on some more potent bio-angst with the help of David Cronenberg's new film eXistenZ, which takes place, as all important science fiction does (Strange Days, Gattaca, Mimic), in the days "just ahead." The movie is about a biologically created computer game called "eXistenZ" whose creator, a woman, is wanted dead by an underground resistance movement who are unhappy about the ways her popular games have fucked up reality.

On one level *eXistenZ* addresses the question of identity, or the crisis of identity in a world that is more and more virtual. This has to do with the commodification of the psyche. As Zizek puts it, this is "a world in which corporate capital has succeeded in penetrating and dominating the very kernel of our being: none of our features are really 'ours'; even our memories and fantasies are artificially implanted." In this respect, *eXistenZ* is a lot like *The Matrix*, or *The Thirteenth Floor*, where what is at issue is the consequence of the Information Age, the way all of these information technologies (which we need and love) have broken down reality and replaced it with a Baudrillard-like simulacrum. "What is real," asks Morpheus in the box-office hit *The Matrix*, as he demonstrates to the "absolute proletarian"–a person who is "bereft of the pockets of private resistance"–that what he sees, breathes, eats, loves, rebels against is manufactured by men in sharp suits who look and talk like corporate lawyers. In his essay *The Thing That Thinks*, Zizek elaborates eloquently on this theme: the psyche colonized by a fusion of multinational capital, a process which will soon be followed by the colonization of the actual body itself, if bioengineering has its way in the next millennium.

On another level, the more important and relevant level, Cronenberg squarely confronts our greatest anxiety with this new big science: it simply has to do with the gooeyness of it all. This is a science that lacks, for the most part, the grace of the Apollonian sciences that are rooted in the sweep of Newtonian motion: jet propulsion, astronomy, astrophysics, space travel. (It is no coincidence that the spacecraft that landed on the moon in 1969 was called Apollo). Space is very neat, orderly, mechanical; whereas the body, the human body, is a swamp, the true "heart of darkness," and most importantly, as Freud pointed out long ago, the domain of the female.

V

If we look closely at the three technological stages traversed in the 20th century, we find that the Space Age was linked in every way (shape, structure, form, theory) to the male gender; and the Information Age was androgynous (an aspect celebrated by cyberpunks and postmodern theorists like Steven Shaviro who saw the interchangeability of sex roles within the playhouse of cyberspace as an exciting breakthrough); but the Age of Biotech belongs certainly to the female gender. A quick survey of recent science fiction shows how deeprooted this association is. In Gattaca (1997) it is the man who longs for(and finally goes to) space, while the woman stays on earth. In the TV program X-Files Mulder, the male, is directly connected to the grand themes of the Cold War and the Space Age; indeed the walls of his office and bedroom are covered with posters of the stars, the galaxies, and space. In contrast his partner Scully, the woman, is associated with the age of biotechnology; she is the doctor, she works on dead bodies, opens them up and deciphers their secrets. In other science fiction films women so frequently play the role of the biologist, biotechnician (Sphere, Species 1 and 2, Mimic) that one would expect an affirmative action policy is needed if a male presence is to emerge in this field. Women are not only biotechnicians but also the subjects of cloning. In all the movies so far women are the ones who are cloned. Fifth Element, Species 1 and 2 ("We cloned a woman because we thought she would be more docile," says one scientist in Species 1), Alien Resurrection, and on the X-Files the episode called "Eve" has a female biologist and group of evil girls she cloned from her own DNA.

The reason why women dominate biology (at least in science fiction films) is because, until it became profitable, men disparaged the body. But now that body represents a whole new arena for venture capital–a territory that promises enormous returns and has people like Bill Gates scrambling for a position (Gates famously donated \$12 million to the University of Washington, which is only a lake away from Microsoft headquarters, to have leading scientist, Leroy Hood, establish a molecular biotechnology department that will advocate bioinformatics)–it seems that women are in the way. Indeed, this is not unlike the problem developers face when they want to gentrify some inner-city neighborhood long abandoned by the middle class; how does one get around the poor? How does one uproot them, relocate them, and make this awful place appealing to investors and homebuyers? How does one reclaim what they have (for years) rejected, ignored, oppressed, despised? And here it is that we arrive at the very source of Cronenberg's anxiety, of the public's anxiety, our resistance to the Biotechnology Age: men must now deal with the body, with woman.

eXistenZ is about a computer game, but what makes this computer game different from the one in *The Thirteenth Floor*—which is a slick machine with green beams of light swirling over the rested (and ready to be downloaded) body—is that the game pod, or more closely, the computer itself, is biological; it is a living organism and the way one jacks into it is by having a bioport surgically placed at the base of the spine whereupon an umbilical cord (instead of communication cable) is used to connect you to the living and breathing computer. The man

who is led into the labyrinth of this new game can't get over the fact that the computer is a living creature; he is constantly complaining about how messy this game (created by a woman) is. "Everything here is bloody, dirty, and grotesque," he says to her of this wet and spongy world where she has "an unfair advantage." He feels "vulnerable," always worried about "infection," and most importantly claims he never wanted a bioport because he feared "penetration." He feared the world of the woman.

There are anxieties about Biotech to about the same degree as there was hype preceding the Space Age. Mimic charitably reckons that even if biotechnology means well, it may nevertheless create a monster, open up a Pandora's box ... and the rest of that boring scenario. Judging from *eXistenZ* and the narrative strategies of other science fiction films (especially the hysterical *Species 2* which prefers the space age over biotech because at least you can kill an astronaut, whereas an "alien biobitch's" drive to reproduce is unstoppable–a fear that in many ways recalls the public hysteria over teenage pregnancies, as if there were a swarm of horny, hungry, indigent girls with an evolved capacity to reproduce) what is really at stake is the symbolic association of this new science, a science that is inevitably, irrevocably, female. How do we get over that?

Conclusion

Though infinitely more practical than space travel, biotechnology is (by the reaction of recent science fiction films and the strong public resistance to genetically altered food) incomparably harder to sell. As a consequence of its beauty and its maleness, the failed concept of space travel had a longer-than-expected life. Indeed, it is still doing okay in its afterlife. Today there is no public outrage–rather a lack of interest–over the fact that NASA is building a \$140 billion international space station which will require 45 launches of the not yet justifiably useful space shuttle. As to the return on all of this money, all the NASA folks can say to validate this waste is, "this is a modern-day equivalent to the building of the pyramids or the cathedrals of Europe." Disturbing analogies, for sure. All that is taking place 200 miles above earth is the construction of an expensive museum to an age that was beautiful but ultimately useless. Such is the power of the stars.

The secret motto in all of this: the stars are what we know; life is what we fear. We fear AIDS, death, wild animals, contaminated food, bad smells, old age. All that saves us from fear has taken its clue from the revolving spheres. God turns the key in the clock and we take what comfort we can therein. This Newtonian world is man's not woman's domain. There are no Apollonian women. But once this hurdle is overcome, once the "life sciences" can convince us that looking at the cells is like looking at the stars, then the full integration will occur without any resistance, and not only will there be a satellite dish in the front of our houses, but a tomato the size of a Volkswagen happily growing in the back garden.