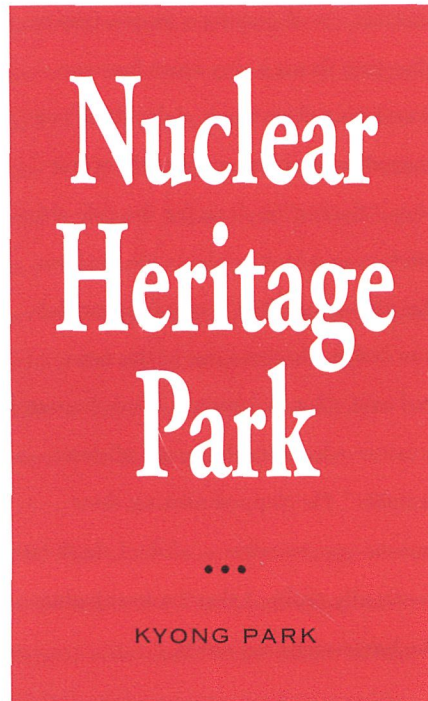


TERRITORIES

On the golden anniversary of the first nuclear explosion, and in memory of the Cold War, the Office of Strategic Architecture (OSA) proposes the development of the world's first post-disarmament, weapon-based family entertainment theme park, the Nuclear Heritage Park (NHP). By converting existing military installations and technologies into the sites and spaces of virtual adventure in simulated environments, the project will advance the nexus of popular entertainment – television, malls and amusement parks – into playgrounds for culture under the influence of weaponry. For this purpose, the existing military industrial complex, with its global networks of corporations, research centers and universities, would be invited to research the development of future hardware, software and “wetware” for real-time virtual theaters and plays [1]. The result would be the conversion of the military industrial complex into the cultural entertainment complex, and the relocation of personal desires and cultural dreams to digitally interactive spaces.

Although the technologies for the Nuclear Heritage Park may still be in their infancy, the feasibility of the park is based on the behaviors and trajectories of today's advanced technologies. For instance, a defense system such as C³I (Command, Control, Communication and Intelligence), with



its heat-seeking, remote-sensing, phased-array radar - and along with other reconnaissance and warning technologies - has given us a means of seeing objects and places that were previously invisible to us [2]. And for the purpose of superior battle-management in the event of nuclear exchange, distant territories and future engagements were digitally constructed, in the process creating an impressive portfolio of multi-dimensionally fractaled electronic and interactive cartographies, such as AWAC, AEGIS and NORAD, by means of which various cruise missiles would hug terrain contour systems (TERCOM); or the “fire and forget” predatory flying-machines like BRAVE 3000, which could laser-signature their destinations. Replacing

the two-dimensional cartography of the age of exploration, the automation of space not only provides new ways of “grasping” the existing world but also, the ability to “duplicate” it through simulations [3].

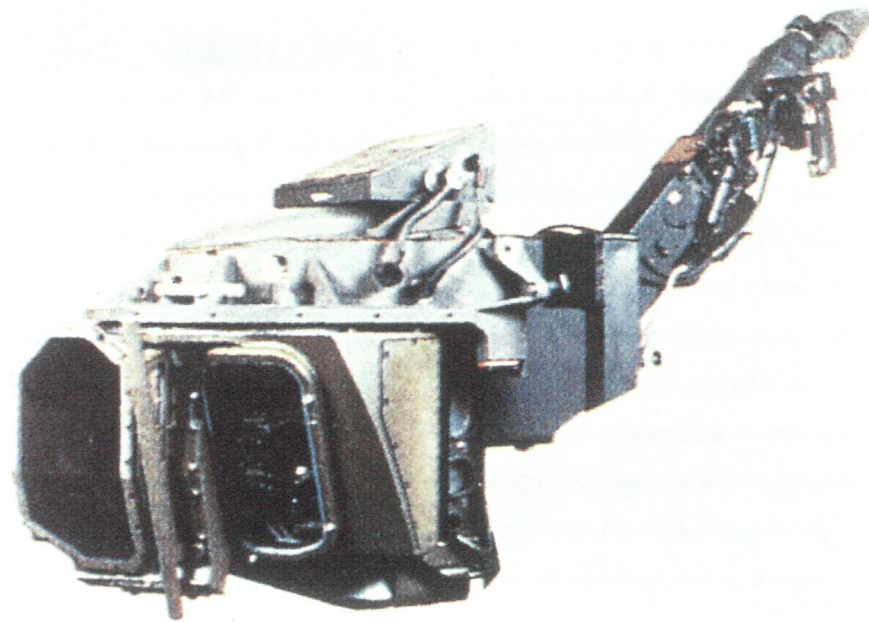
Computerized war-games and interactive displays of the Doomsday scenario, as developed by the RAND Corporation, SAI (Science Applied Inc.) and others, represent the emergence of digital futurology. As the speed and accuracy of missiles rapidly increases and, therefore, the response time for defense is inversely eclipsed, the scenario of nuclear war has to be prepared beforehand – in electronic animation – so as to extend the rapidly-shrinking time lapse between catastrophic possibilities, and so as to visualize events that were too powerful to look at [4]. Thus, only on the death of the future, did we think about the future of the future, as we began to recreate the world with the very technologies that would destroy the world.

Through the genesis of virtual reality machines – from *Sensorama* (Morton Heilig, 1962) *GLOWFLOW* (Myron Krueger) and *Convolutron* (Elizabeth Wenzel and Scott Fisher) to *Revolutron* (Jaron Lanier and VPL) – the immersive technologies of sound and images are beginning to envelope humans. Defense-spawned instruments such as force-reflective feedbacks,

position sensors, and shape acquisition cameras (among others), are bypassing the autonomy of the human body through sensory-based interventions. Greater developments in biotechnologies, such as molecular docking, or nanotechnology (the future production of subnuclear machines that would enter our body to fix and improve it) are invading our body through progressive miniaturization. These molecular, genetic and sensory interventions are creating new relations between humans and machines, which are by far more fundamental than the bionic technologies, such as the Utah Arms and other cyborgs [5]. If the television screen which is portrayed in the movie *Videodrome* symbolizes what was a two-dimensional relationship with technology, then the sequence in which the main character is absorbed into the screen represents our submission to the immersive three-dimensional qualities of post-industrial technologies.

But the most powerful immersion today may well be the openness with which military-borne technologies invade popular culture [6]. Beginning with early entertainment simulators (ranging from the Doron Precision System's *SR2* at a shopping mall near Peoria, Illinois (1977) and Disney's "Iwerks 870," (a 70mm, 3-D, 360-degree screening on a motion-platformed theater), to Douglas Trumbull's "Secrets of The Luxor Pyramid" at the Luxor hotel/casino in Las Vegas [7]), militarily-inspired computer simulations

and virtual reality have increasingly found their footing on domestic grounds. With over 200 high-fidelity specialty-film theaters in the making, together with more than 500 (one - to 2+0 - persons) motion simulators which appear in shopping malls and amusement parks, it is apparent that the evolution of simulation will now be



carried on by Hollywood, Disney and other industries of popular entertainment.

Here, Jean Baudrillard's argument on the indistinguishability of reality and simulation is being played out by the union of military and civilian cultures. Perhaps the aftermath of the disappearance of the Berlin Wall consists of not just one military-political entity dissolving into another, but of the secrecy and dystopia of military technology unleashing itself to the pleasure of capitalism. Hence, the reconfiguration of the military in the "New World Order" is more than just

down-sizing for regional theaters; rather, it amounts to the global colonization of the theater of mass consumption through the conversion of destructive objects into pleasurable desires. Out of this reconfiguration, an entirely different kind of world domination emerges – the control of cultural war in the world-wide web of entertainments – in the capitalistic

manipulation of undisclosed technologies and classified simulations [8].

So, will the next MTV be based on the military and not music? After all, it was the military which created the global village in the first place. With the automation and multiplication of the world, our relationship to space and time are in the form of "telepresence," embodied by the animated machines of nuclear defense. No longer industrial, these advanced machines do not extend our physical will, but rather expand our presence and perception. With enough computational power and speed, the

Crave New World of defense could create a fully imaginary world in which we could live without being there.

And, within the cyberspace between monitors and interfaces, our fundamental and personal status are constantly morphing. In them, “the notion of a unique and immutable body gives way to a far more liberating notion of the “body” as something quite disposable.” [9] With the transformation of one’s body-image into “a new body, a new voice and a new identity,” we can elude the facial, gender or class-based dichotomies that have sustained the dominance of one culture over another [10]. Even the notion of eternity through technology seems feasible, with the potential for a corporeal presence without organs. Will we see Frankenstein in Cybervania?

The weapons and systems that were designed to destroy us physically instead attack our social and personal identities. Thus, in the post-Cold War era, the dismemberment of our bodies may not be a result of nuclear explosions but of the everyday invasions of surveillance, intelligence and reconnaissance into our lives. The mind, functionally separate from the body, is the new afterpart of thermo-nuclear based defense, and our personal and cultural identities become the new victims of cold war. In the presence of nuclear arms that reduce “all ‘ground-level’ events to mere ephemeral scenarios.” [11] it seems only natural to invent Strangelovian nirvanas that are

no longer physical and are, therefore, indestructible.

So come to the Nuclear Heritage Park and check into the newly refurbished Domsday underground facilities, where you will be staying in the same spaces that were designed for government dignitaries and cultural treasures. Take control of the apocalyptic fate of the civilization, or partake in the making of the next world straight from the rubble. Rest your tired soul next to the MX Peacekeepers, inside our Multiple Deployment Sheltering System, under the big blue sky over the high deserts of Nevada [12]. “Come to the War Room, a full-size replica of the one at the Pentagon, and watch as our technicians struggle to maintain control of technology gone haywire. It is better than any laser light show at a rock concert because you know the action is for real.”[13].

On Main Street World of the Nuclear Heritage Park, you can leisurely ride aboard Segó, Saddler, Sasin, Scarp, Savage and Scrag land-based missiles, Scud, Scaleboard, Scapegoat and Scrooge tactical missiles, Shark, Serb and Sawfly submarine launched missiles, or Spartan and Sprint ABMs. Stroll through the nostalgic life of a small town in any desired position or time. Fruit vendors at the Main Street World display fresh and crisp flowers, coated with radar-absorbing materials (RAM), bathed in liquid sodium coolant. Your popcorn is reinforced with Marel, a new high tension steel, jam-resistant to

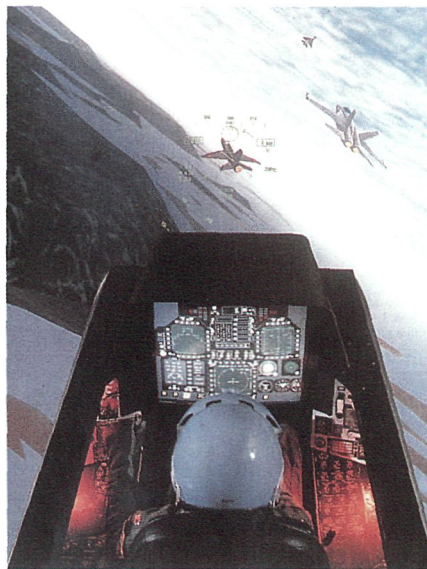
Ground-based Electro-Optical Deep Space Surveillance (GEODSS). Every sight and sound of Main Street World is guaranteed to make you feel “red, white and blue all over,” as our robust inertial sensors and low-rate data communication operate with indexed X-shape hydrophones to “electronic sniff” any potential siege operation on our beautiful past. Our inter-service vendors in high priority room-services will be wearing fragmentation-resistance vests, SAS smocks, flack jackets and knitted woolen balaclava helmets – all in matte black. They will be armed with *Smith and Wesson’s* Mark XII-C Pepper Fog Smoke Generator, producing 100.000 cu. ft. of CN, CS or special CS tear-gas in just 26 seconds, to ensure a safe, hospitable stay at Nuclear Heritage Park.

In Adventure Land, the beat of native drums and the cries of strange beasts will echo through General Electric’s APG-67 radar program, which is capable of thrust-vectoring you to any passive detection system. You will be guided by INS (Inertial Navigation System), FLIR (Forward-Looking Infra-Red) and DLIR (Downward-Looking Infra-Red), all operating under very stealthy LPI (Low Probability of Intercept) radar with two-way teletype communications –all under the strategic-entertainment management of the Boeing E-4B National Emergency Airborne Command Post.

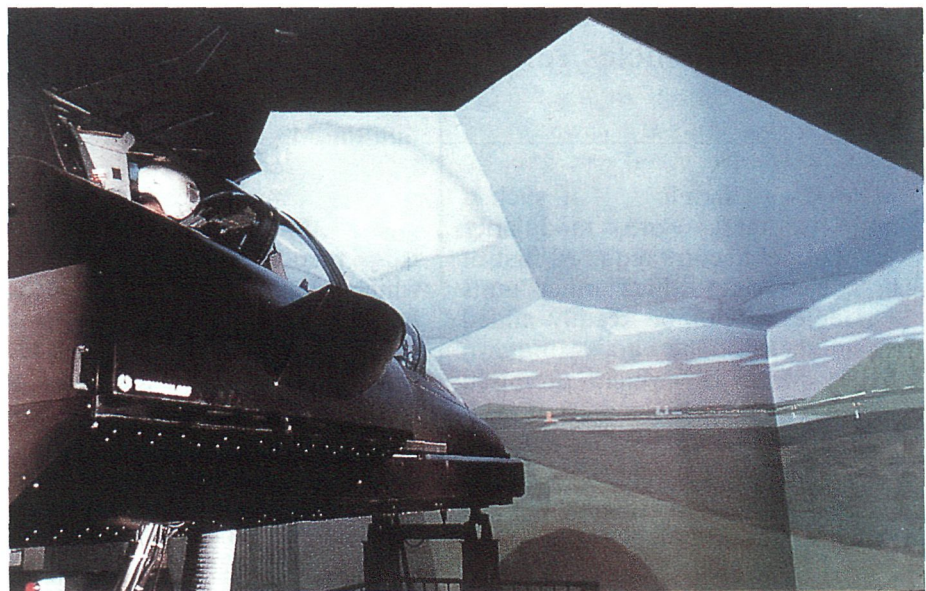
No visit to Adventure Land would be complete without lightweight dual-purpose Bofors 40mm L70 naval guns

nestled on Breda-designed cradles, with selective firing rates up to 444 rounds of feed-rate per minute, ensuring a high kill probability against sea-skimming missiles from religious fundamentalist or ultra-nationalist groups. All this will be supported by the most sophisticated jungle defense system in any theme park: the US Navy's Aegis defense system, equipped with the AN/SPY 1A multi-functional phased-array radar and the Standard SM-2 missiles, capable of wild beast-position reporting, target selection and guidance correction, through a monopulse receiver, an inertial reference unit for mid-course guidance, and two-way telemetry links.

You can experience Frontier Land aboard *Lafayette*, *Poseidon*, *Polaris*, *Trident*, *Mk II*, *Typhoon* and *Seawolf* class nuclear-powered, hunter-killer submarines, where you will supercruise past banjo pickers, crafts-people and farm animals in the hardy atmosphere of the American wilderness. In *Colonial World*, you will be air-supported by Subsonic Low Altitude Bombers (SLAB), Extended Range Strike Aircraft (ERSA) and Advanced Manned Precision Strategic Aircraft (AMPSA), "winged" with AIM-9M Sidewinder and AIM-120 AMRAAM missiles, with saw-tooth nozzles capable of two-dimensional vectoring, very rapid pitch changes, fly-by-wire (FBW) flight controls, high angle-of-attack performance and quadruple-redundant flight control system to "attrition bombard" all savages with the Great American Dream.



In this cultural meltdown of definitions – between future and present, physical and animated, reality and simulation, and finally machines and human – the Nuclear Heritage Park is a full immersion entertainment which allows you to experience the post-Cold War culture and its New World dis-Order. Here, the Mutually Assured Destruction of thermo-nuclear war becomes Mutually Assuring Hallucination [14], as you cruise the ephemeral cartography of contemporary



cultures inside the videodromed "windows" of its polyworlds. Real life and actual phenomena are morphed into "Randomly Accessible Fictions (RAF)," on the pull-down desktop "menu" with its political, social and ecological "options," with their "preferences," all digitally-modeled for your futurological pleasure. More dangerous than any ordinary roller-coaster, the "digital coaster" of this socio-cultural-techno-based theme park will take you through a multi-spatial and timeless journey into "civizationalizations;" three-dimensionally animated, all sensory-facilitated telepresences of our past and future. Following the principle of virtual reality as an immersive language, and the notion of cyberspace as "a theatrical medium of events with dramatic structure and cultural emotions in which people can actively participate," [15] the Nuclear Heritage Park is a computer-generated and mediated "fly-through" cultural space; an immersive language, with color, position and



movement. for "total physical as well as intellectual involvement" with our environments [16].

In the deep and dark entertainment of the Nuclear Heritage Park, no-one will be sure that the experience is "for real." In a culture where "true closeness is television closeness," reality can only be understood in the presence of an animated reality. Thus, in this strange yet destined alliance of the Pentagon, Hollywood and Disney World, weapon designers, communication vendors and computer video-game programmers would consort with artists, architects and movie directors to replicate reality in the finest detail. There will no longer be just one reality, which we inherit and which rules us. With more than *one* reality, we could choose *a* reality. Complete and convincingly real, fully interactive and deftly manipulative, the simulated adventure in the Nuclear Heritage Park will mark "the death of reality and the triumph of imagination." [17]

Will the first peace dividend of the post-Cold War period be the Nuclear Heritage Park?

Kyong Park

Office of Strategic Architecture

July, 1995

The Nuclear Heritage Park is a collaborative project between the Emergency Broadcast Network (EBN) and the Office of Strategic Architecture (OSA). It was first conceived by Pearson Post Industries (PPI): Defense Entertainment Technologies, and presented at Atlas Project (an international design

competition for the reuse of abandoned Atlas ICBM silos, which was produced by, and exhibited at, the StoreFront for Art and Architecture in New York in 1990). Since then, PPI has become EBN, and NHP has been further expanded by OSA.

- [1] The military industrial complex is the largest industry ever created by civilization. Could all this resource and knowledge be used for different purposes?
 - [2] In a recent interview, Paul Virilio describes a science-fiction short story in which "Cameras are inseminated into artificial snow which is dropped by planes, and when the snow falls, there are eyes everywhere. There is no blind spot left." See Arthur Kroker, *CTheory, Internet* (1994).
 - [3] You could consider the GPS (Global Positioning Satellites) and other military surveillance satellites as digital instruments to recreate the world in simulated forms.
 - [4] At Hiroshima, a survivor was seen holding his eyeballs in his own hands. He was sitting, staring toward the ground zero. The intensity of the nuclear explosion had caused his eyeballs to fall out.
 - [5] The Utah Arm, developed by the University of Utah, is an electronic prosthetic limb with a mechanical and sensor-based control system that offers limited arm and hand movements.
 - [6] Unlike the problems with the "black market" trading of weapon-grade plutonium in the post-USSR, or the development of nuclear weapons by developing military forces such as North Korea, the on-going assimilation of *military technologies in popular culture* may have more devastating impact, precisely due to their invisible and uncritical presence in our daily lives.
 - [7] The second episode of "Secrets of The Luxor Pyramid" uses the new Ridefilm Theater system that puts the 15-seat vehicle on top of an orthogonal motion-control platform, which was developed by Douglas Trumbull. Surrounding the bay, there is a stationary 180" and spherically-curved screen, upon which a VistaVision TM film is projected through a fish-eye lens at 48 frames per second.
 - [8] Following the changes in world dominations from the military powers to the economic - from the United States and former USSR to Germany and Japan as an example - we may consider the technologies and power of entertainment as the next source of global domination.
 - [9] Eric Gullichsen and Randal Walser.
- "Cyberspace: Experiential Computing," in *Nexus '89 Science Fiction and Science Fact*, (1989).
 - [10] Michael Jackson, perhaps the first bionic cyborg, deftly but painfully erases his blackness by Asiatic features and skin-tones and, therefore, cleverly "pictures" himself away from the issue of black and white confrontation. On the other hand, Schwarzenegger's hard-bodying is a curious juxtaposition to the futuristic movies in which he stars - such as "Predator I" and the "Terminator" series - where the dematerialization of the body is a constant theme.
 - [11] Jean Baudrillard, "Simulations," (Translated by Paul Foss, Paul Patton and Philip Beitchman) in *Semiotext(e) Foreign Agent Series*. (New York: Columbia University, 1983.) p.59.
 - [12] The facility, partly completed, was designed to build more than 20 horizontal empty silos to house a single MX missile. Then the missile was to rotate from one silo to another through connecting railways, so that the enemy would never know in which silo the missile was actually placed. Furthermore each silo itself was placed about mile apart, to ensure that a direct nuclear hit on one silo would not destroy the other silos. Given the plan to build 100 MX missiles, this sheltering system, if built, would have taken up almost 1/3 of the state of Nevada.
 - [13] "Nuclear Heritage Park: A Proposal for Project Atlas" Pearson Post Industries: Defense Entertainment Technologies. Video, 1990.
 - [14] Cyberspace, along with virtual reality machines, has often been called "Consensual Hallucination."
 - [15] Howard Rheingold, *Virtual Reality*. (New York: Simon & Schuster, 1991.) p. 190; Randal Walser and Brenda Laurel are also proponents of this thought. Also see Brenda Laurel, *Computer as Theater*. (Menlo Park, CA: Addison-Wesley, 1991.)
 - [16] "It seems clear that the old alphabet may no longer be adequate. We may, over a long period of time, evolve a new symbol system that employs color and position and movement in three dimensions to represent ideas... towards an ever richer representation of problems and proposed solutions... that can only be attacked by total and physical as well as intellectual involvement." Myron Krueger, "Artificial Reality." (Reading, MA: Addison-Wesley, 1983.)
 - [17] Jean Baudrillard, *op. cit.*

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