

Avatecture

Architecture is becoming avatecture: Physical buildings morph into virtual structures that generate online avatar communities. The avatars discuss prototype structures in virtual reality, and the physical structures become multimedia visualizations -- a magic theater where buildings acquire networked significance. Avatecture injects transformation into physical structures, merging clicks with bricks, enlivening re-configurable buildings with flexibility, change, and soft significance. The avatect is a shaman who creates interactive visions, who initiates a shared version of future habitation. The shaman dances the community into a dwelling that responds to shared visions and that can later morph to accommodate the passages of time. The physical edifice becomes a theater of endless possibilities.

What is an avatar? An avatar is a graphic representation of a person communicating through real-time online chat in 3-D fantasy worlds. Such worlds already exist as Internet test beds in software universes like ActiveWorlds, Eduverse, and CyberTown. Avatars are shared fantasy identities that prove they are alive and telepresent through real-time playful interactive construction. Avatar identities are finite points of presence, intrinsically interactive and plural, embedded in communities of other avatars.

The transformed architect or avatect is neither an infinite all-seeing Eye who manages building plans from an aloof, non-socially embedded position, nor is the

avatect a slave of local committees and "not-in-my-back-yard" politics. The avatect induces vision through virtual worlds on the 3-D Net and that vision helps community clients produce physical softcopies of flexible forms permeated by electronic surfaces and interpenetrated by spatial flows.

For the avatect, the client is an avatar community. The avatect is not a solitary eye projecting abstract structures from 2-D plans and miniature mock-ups. In the past, architects used CAD software to handle computation, but software does not of itself produce interactive building. The avatect must in the deepest sense go online with networked reality. The architect dons an avatar to project vision through fantasy in a series of exchanges with client groups. This process differs from conventional procedures not only in its thoroughgoing interactivity, but also in its global reach. While some architectural firms claim online presence in the sense of using network software to create architectural walkthroughs, their architecture is not online for the global Internet. To date, architects still work within local intranets that implicitly prop up the all-seeing Eye of pre-avatar architecture.

Avatecture emerges from global colloquy. Buildings of the future do not foist international modernism on a passive public. True internationalism arises where the architect descends to avatar in a 3-D world not simply to present models for public browsing, as though paging a catalog. Nor does a "QuickTime [so-called] VR" allow the conventional architect to act as finite shaman among other avatars. The true merger of cyberspace and physical space occurs where the

avatect leads a process of shaping and critiquing prototype structures envisioned and re-visioned through several phases.

Such dwellings no longer disjoin software from physics, clicks from bricks. The physical building presents a single current version (2.1) of the virtual structure, and the virtual structure ripples through metamorphoses as the momentum of the online process continues even after the initial building extrudes a footprint into physical space. The building itself continues the momentum through installations of networks, video walls, avatar alcoves, and digital systems. The electro-physics of such a building necessarily flows in and out of the cyberspace where it emerged and where it still exists in ever-new prototypes. Future ritual enactments by the avatar community reaffirm and re-orient the meanings of physical space.

Since January 2000, the [CyberForum@ArtCenter](#) has hosted artists and authors in 3-D avatar worlds to discuss the development of avatar spaces. Many cyberspace theorists, including William J. Mitchell, Brenda Laurel, Katherine Hayles, and Bruce Damer, have descended to avatar for these public events, some of which were covered by older media of television and magazines. In Fall 2000, the CyberForum introduces its first avatecture series. Avatar events feature PUSH LA, a Los Angeles-based architectural firm directed by Christophe Cornubert (California), award-winning designer of the Educatorium in Holland, and including collaborators Henrik Valeur (Copenhagen), and virtual-worlds philosopher Michael Heim (California). PUSH became a finalist in Summer 2000

for the international competition to design the Hotel Pro Forma theater / performance center in Copenhagen, and the PUSH process will provide one of the central topics for the CyberForum Fall series of online public meetings. (See links below.)

The CyberForum's online meetings take place in the 3-D universe called Eduverse. This universe exists on the Internet as a freely downloadable 3-D browser known as the ActiveWorlds browser. Although the current Web privileges the 2-D metaphor of the "desktop," future technology will regard the desktop metaphor as we today regard black-and-white television or movies. Tomorrow's browser and operating system will replace desktops with worlds and interconnected universes. Today's 3-D browser is a clumsy beta version of tomorrow's 3-D universes. Like all of online media today, the 3-D browser is restricted by narrow bandwidth and limits on image quality and representation, but the over 900 worlds in the ActiveWorlds universe host lively interactive avatars who chat, dance, and build structures. These are the training wheels for tomorrow's avatect.

The ActiveWorlds universe is global in its reach, and the CyberForum has hosted guests from India, Malaysia, Sweden, Norway, England, Cuba, Canada, Australia, Brazil, and South Africa. This is an already-existing global community that is gregarious and eager to create virtual structures. Virtual structures can branch into representational copies of physical structures or into fantasy structures that leave behind horizon and gravity. With its "Avatecture" series, the CyberForum

will bring conscious global prototyping to a universe that has for the most part attracted only hobbyists. The premises behind Avatecture 2000 can be stated in predictive manifesto form:

The Avatar Manifesto

--By 2010, buildings unsupported by avatecture will seem lifeless and irrelevant, boring relics of pre-interactive construction. Auteur architects like Gehry and Koolhaas, for whom computers are mere desktop appliances, must descend into avatar or die as dinosaurs.

--A global 3-D operating system will support minor components in 2-D, just as black-and-white movies also appear on color televisions. Computer games will have converged with avatar worlds to exploit new advances in hardware and bandwidth.

--The spatial metaphor "cyberspace" becomes literal as three and more dimensions become cues for orientation. The knowledge locked in the human body will be tapped for purposes of navigating information.

--The desktop metaphor expands into the world metaphor, with private worlds belonging to larger software universes of networked worlds with their distinct galaxies.

--The inhabitants of cyberspace become telepresent avatars who interweave human with artificial identities. Avatecture involves habitats for avatars (Latin

tectum = "roof"), and avatars are telepresent identities (Sanskrit *avatar* = "to cross down into").

--The continuing development of new metals and plastics permits the merger of electronic and physical structures.

--Networked collaborative communication becomes the norm for business, commerce, and the arts.

--Experiments with Internet 2 reveal that photo-realism provides only a small component of what is needed for interactive fantasy and visionary constructivism.

Related links:

About the [CyberForum@ArtCenter](http://www.mheim.com/cyberforum), <http://www.mheim.com/cyberforum>

CyberForum Archive of past events,
<http://www.mheim.com/cyberforum/html/archives.html>

ActiveWorlds avatar worlds, <http://www.activeworlds.com>

CyberTown avatar worlds, <http://www.cybertown.com>

Architectural theory, http://mitpress.mit.edu/e-books/City_of_Bits/

LA Weekly article about avatar world,
<http://www.laweekly.com/ink/99/40/cyber-wertheim.shtml>

Telepolis author describes a CyberForum event,
<http://www.heise.de/tp/deutsch/inhalt/co/5849/1.html>

Writings on virtual reality, <http://www.mheim.com>