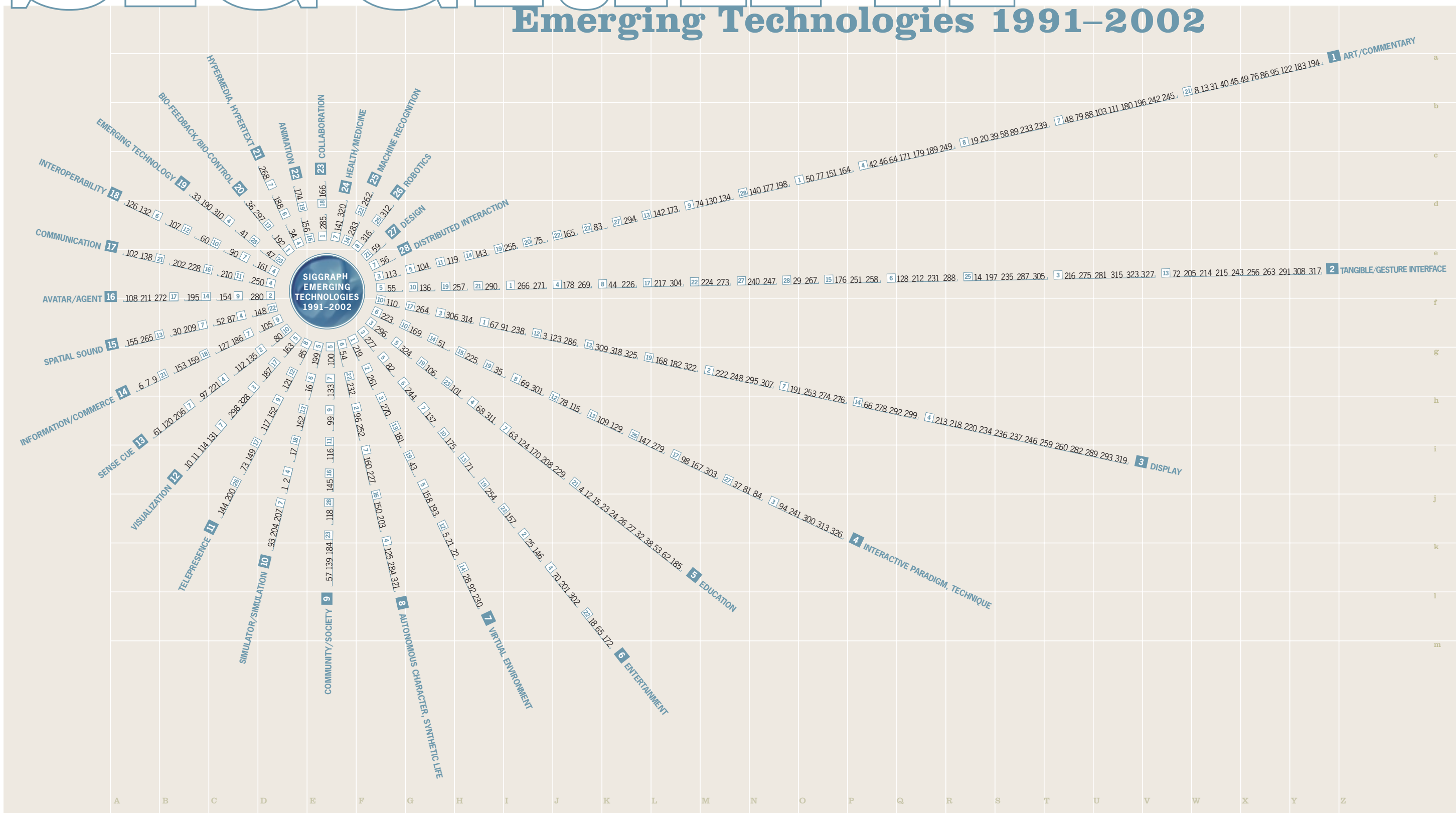


SIGGRAPH

Emerging Technologies 1991-2002



www.siggraph.org/~fujii/etech/history.html

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HOW TO READ THIS MAP

This map recognizes the visionaries, explorers, artists, and pioneers who have shaped the Emerging Technologies programs since 1991. It is today's departure point to "what is next" and "who might take us there."

Since 1991, 328 Emerging Technologies projects have appeared at the annual SIGGRAPH Conference on Computer Graphics and Interactive Techniques. Each unboxed black number on the map represents a specific project. A brief description of each project is available in the project index.

Complete information is available at: www.siggraph.org/~fujii/etech/history.html

The spokes of the display represent primary application areas. The boxed numbers indicate secondary application areas. For example, in the Sense Cue spoke, the secondary application area for projects 97 and 221 is:

4 Interactive Paradigm, Technique.

How to find a specific project's location in the map: locate its coordinates in the project index, then use those coordinates to find its position and related application areas.

Center image credit: Blue Suspension, detail 2 Artist © 2000 Kent Oberheuer, Pandromeda

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Project Index

1991

- 1 3dm, A 3-Dimensional Modeling System**
Immersive, two-user system for creating 3D models based upon designer/client collaboration.
- 2 Assembly Modeler - A Manufacturing and Engineering Operations Simulator**
Immersive, two-user collaborative engineering simulation for virtual prototyping.
- 3 Be Here Now**
Exploration of highly practical virtual-environment systems for visualization and entertainment.
- 4 Beethoven's Ninth Symphony**
Hypermedia interactive CD audio disc of Beethoven's Ninth Symphony.
- 5 The Boeing V5X**
Conceptual demonstration for virtual-environment design of Boeing aircraft systems.
- 6 ClickOn MSU**
Interactive hypermedia presentation of Michigan State University.
- 7 The Computer Sciences Electronic Magazine**
Distributed-information hypermedia interface for worldwide IBM researchers.
- 8 EAT - A Virtual Dining Environment**
Virtual dining art installation.
- 9 EXPO'92 Guest Information System**
Multilingual information kiosk system for a 1992 Universal Exposition in Seville, Spain.
- 10 Flying Through Protein Molecules**
Immersive environment for atomic-level exploration of different molecular structures.
- 11 An Interactive Building Walkthrough System**
Immersive walkthrough application for architect and client design visualization.
- 12 Interactive Color**
Hypermedia instructional program for teaching principles of digital color.
- 13 Life On A Slice**
Interactive multimedia poetry that explores algorithmic poetic art generation.
- 14 The Mandala VR System**
An Amiga-driven multimedia virtual reality system with gesture-recognition interface.
- 15 Mars Navigator**
Hypermedia installation for exploring the Jet Propulsion Laboratory's Viking Orbiter Mars database.
- 16 A Mountain Bike with Force Feedback for Indoor Exercise**
Interactive virtual environment for exercise and entertainment.
- 17 NPSNET**
Multi-player, real-time, 3D virtual environment simulation for distributed learning systems.
- 18 Performance Cartoons**
Prototype demonstration of a virtual production studio and virtual theater.
- 19 Plasm: Above the Dome**
Multiplayer cooperative virtual arena for 3D dance with artificial life forms and other participants.
- 20 Portrait One**
Dialog with a virtual woman from Montréal, Québec.
- 21 PROvision**
Virtual environments for designing, exploring, and touching synthetic objects.
- 22 Radiation Therapy Treatment Planning with a Head-Mounted Display**
Immersive medical application for radiotherapy beam targeting in a virtual environment.
- 23 Simulation of Acute Myocardial Infarction**
Interactive hypermedia simulation of heart attacks for medical students.
- 24 SuperImage**
Hypermedia tutorial for teaching medical students and technical professionals digital imagery basics.
- 25 Throwing Real Objects Into Virtual Space**
Footable simulation with physical cue ball and poolcue gesture interface.
- 26 The Time Table of Science and Innovation**
Hypermedia presentation of science and invention history.
- 27 Treasures of the Smithsonian**
Interactive CD application for home exploration of the Smithsonian Institution.
- 28 YBK - A Moviemap of Karlsruhe**
Surrogate moviemap travel program of the Karlsruhe tramway system in Germany.
- 29 VIDEOESK Teletutoring**
Remote collaboration through a simultaneous, gesture-driven telecommunication interface.
- 30 Virtual Acoustic Environments**
Real-time interactive simulation of simple room audio dynamics.
- 31 Watch Yourself**
Hypermedia installation for visualizing and interacting with historical art.

1992

- 32 CreANimate: A Biology Tutor**
Interactive hypermedia for teaching elementary school children about animals and animal survival.
- 33 DARPA High Resolution Video Workstation**
Prototype demonstration of high-resolution video on a technical workstation.
- 34 A Fast and Accurate Light Reflection Model**
SIGGRAPH's first multimedia technical paper.
- 35 Free Range Chicken**
Realtime digital painting through a remotely controlled paint-carrying output device.

- 36 IBVA Biofeedback Hypermedia Workstation**
Audio and visual control of a hypermedia environment through biofeedback.
- 37 Knowledge From Beauty**
Constraint-based expert system for 3D model design.
- 38 Landslides and Debris Flows**
Interactive multimedia presentation on landslides and debris flows for public education.
- 39 A Memory Project**
Interactive art exploration of memory and forgetfulness in humans and computers.
- 40 Notes Toward a Mental Breakdown**
Hypermedia presentation of 1976 story by English author J.G. Ballard.
- 41 A System for Distributed Physical Interactions**
Nearly linear-efficient computing demonstration of real-time distributed simulations.
- 42 Virtual Environments of Actual Places through Field Recording and Human Crafting**
Spatial reconstruction of virtual environments through human techniques.
- 43 The Virtual Museum**
Interactive exploration of a virtual museum.
- 44 ALIVE**
Interactive for interacting with artificial life forms through a gesture interface.
- 45 B*rbie's Virtual Playhouse@CityOfTheFuture.**
Provocative art installation for artificial life forms through a gesture interface.
- 46 Books of Change**
Interactive art installation focused on the nature of change.
- 47 DesignSpace**
Prototype of future collaborative design technologies to better map manual skills to data operations.
- 48 Electro-Healing**
A collaborative interdisciplinary virtual healing environment.
- 49 The Exquisite Mechanism of Shivers**
Hypermedia poetic art installation.
- 50 Formal Elegance and Multi-Modal Command Objects**
Poster series on multi-modal command objects as seen in reality.
- 51 Hands on Hawaii**
Partially immersive information kiosk with hands-inclusive interface.
- 52 An Interactive Exploration of Computer Music Research**
Interactive demonstration of psycho-acoustical virtual environments with sound production.
- 53 ItE!: Egypt Prototype Program**
Hypermedia multi-disciplinary learning environment simfined and integrated learning resources.
- 54 KA-O-Ri**
Realtime virtual actress demonstration with realistically expressive features.
- 55 Mandala: Virtual Cities**
Urban environment study for networked young students through the Mandala VR system.
- 56 Mandala: Virtual Village**
Collaborative virtual village design through the Mandala VR system.
- 57 MATRIX: Women Networking**
Collaborative cultural event that focuses on inclusion with lowest-common-denominator systems.
- 58 Menagerie**
Immersive virtual environment inhabited with interactive synthetic life forms.
- 59 The Mohawk**
Progressive hypermedia project demonstrating new ideas in architectural design.
- 60 NPSNET and AFT-HOTAS**
Demonstration of collaborative heterogeneous simulation projects using common communications protocols.
- 61 Plasm: A Country Walk**
Immersive interactive art installation for walking a virtual dog down a country lane.
- 62 Portraits of People Living with AIDS**
Interactive essay and documentary kiosk.
- 63 Projecto ESE**
Virtual environment walkthrough simulation of Aztec temples and a contemporary museum.
- 64 Surface Tension**
Interactive art installation for exploring the boundaries of reality and virtuality.
- 65 Vector Animation Creation System**
First commercially available real-time character animation product.
- 66 Virtual Environments for Public Exhibitions**
Immersive virtual environments for extending and exploring museums.
- 67 Virtual Table with Lamp**
PHSColor digital 3D imaging process for backlit, unassisted stereo viewing.
- 68 WaveMaker**
Interactive computer graphics simulator for teaching high school physics.
- 69 A-Volve: A Real-Time Interactive Environment**
Virtual environment for synthetic life forms.
- 70 ARCHITEXTURE by SUPREME PARTICLES 1994**
Interactive virtual entertainment installation with distributed plasmonic being.
- 71 CyberFin**
Immersive location-based entertainment installation for underwater frolicking with digital dolphins.

1994

- 72 Desktop Force Display**
Interactive force-feedback display system for the desktop.
- 73 The Edge Observer**
Radio-controlled telepresence platform with a helium blimp.
- 74 Guerrilla Gallery**
Digital imaging studio program.
- 75 Human/Dolphin Virtual Reality World Concept**
Immersive virtual environment for underwater exploration with a dolphin.
- 76 IDEA-ON-!: Database of Experience**
Interactive art installation focused on ideas and experiences.
- 77 Inside/Out Figurative Sculpture**
Digital sculpture created with 3D digitizing lasers and rapid prototyping technology.
- 78 MindSet**
Exhibit on man/machine neural interfacing through imaging and feedback systems.
- 79 NorthWater World**
Interactive virtual environment for experiencing life as alternate life forms such as an Arctic wolf or seal.
- 80 The Personal Flogistabarium Release 1.0**
Name of Experience: Waving
Immersive personal motion platform through a neutral posture chair.
- 81 PolyShop**
Immersive virtual design environment that incorporates real-world reference surfaces such as desktops.
- 82 Projecto Xochicalco**
Educational and entertainment simulation.
- 83 Renga (Linked Images)**
Collaborative derivative art through networked interactions.
- 84 The Responsive Workbench**
Non-immersive virtual environment workbench designed for real-world practitioners.
- 85 ROVER - Remote audio/Video Explorer Robot**
Experimental robotic telepresence unit.
- 86 She Loves It, She Loves It Not**
Interactive hypermedia CD about women's use of technology in the past, present, and future.
- 87 SMDK**
Interactive immersive installation for exploring spatial sound through virtual environments.
- 88 Softworld 2.1.: The Imperial Message**
Anti-war game inspired by the Kafka parable, "An Imperial Message."
- 89 Turbulence**
Art that views relationships among logic, purpose, vitalism, destiny, and human consciousness.
- 90 uniVRsum VRASP**
Prototype API wrapper for interfacing heterogeneous virtual worlds created by unique VR toolkits.
- 91 Virtual Photography/PHSColograms**
Digital 3D imaging process for backlit, unassisted stereo viewing.
- 92 A Virtual Shopping Mall**
Research prototype of a virtual environment interface for practical commerce.
- 93 A Virtual World for an Autonomous Underwater Vehicle**
Virtual environment testbed for autonomous underwater vehicle design and evaluation.
- 94 Voice Dancers**
Untethered virtual immersion through wireless head-mounted displays.
- 95 Waxweb**
Hypertext multimedia narrative.
- 96 Alive Dreams and Illusions**
Interactive immersive environment with synthetic life forms as agents of change.
- 97 Audio Navigation in a Cyberspace Village**
Visualized sound signatures through networked audio servers.
- 98 Better Face Communication**
Visualization of a virtual face-to-face communications environment.
- 99 Better Living Through Technology**
Unique student-community environment called Computer Science House (CSH).
- 100 Breast Cancer Lighthouse**
Hypermedia CD and networked support group for newly diagnosed patients of breast cancer.
- 101 The Digital Learning Center for Microbial Ecology**
Hypermedia CD and networked research communities for microbial ecology.
- 102 The Electronic Postcard**
Digital postcards through the emerging WorldWideWeb.
- 103 First Contact: An Exercise In Understanding**
Immersive cross-cultural experience with extraterrestrial life forms.
- 104 Frontiers of Utopia**
Virtual time travel to explore the history and nature of idealism, technology, and design.
- 105 HotWired Lounge**
A new kind of publication for the emerging World Wide Web.
- 106 Interactive Exploration of Environmental Concerns on Planet Earth**
Demonstrations of the latest visualization and analysis for environmental and earth sciences exploration.
- 107 Magic Gigabit Testbed**
Terrain visualization through distributed servers and gigabit networks.
- 108 Network Neuro-Baby with Handshake**
Cross-cultural communications avatar with live link between Tokyo and Los Angeles.

- 109 One Input De Three Voices**
Consumer reality one-input/one-output interactive systems.
- 110 OSIRIS**
Immersive virtual environment for night-vision battle simulation.
- 111 Ping**
Interactive multimedia datascape through the emerging World Wide Web.
- 112 Shared Haptic World**
Simultaneous force-feedback virtual environment for two users.
- 113 The Snake Pit**
Social commentary art installation through networked hyper-resolution displays.
- 114 Solar System Modeler**
Networked immersive virtual environment for interactive study of heavenly bodies.
- 115 T_Vision**
Interactive networked visualization of a virtual globe through high-resolution satellite data.
- 116 The Tele-Garden**
Interactive community gardening through the World Wide Web.
- 117 Telemedicine**
Telepresence technology for remote medical consultation.
- 118 Telluride Info-Zone**
Community networking project for enhanced education, government, healthcare, business, and cultural exchange.
- 119 Virtual Discussion**
Interactive art installation exploring democratic communication.
- 120 Virtual Perambulator**
Physical walking interface for interactive immersive virtual environments.
- 121 VR MON**
Space flight monitoring through immersive virtual environments.
- 122 Waxweb 2.0**
Hypertext multimedia narrative for the emerging World Wide Web.
- 123 Addressing Biological Complexity Using Computer Visualization**
Advanced interactive visualization and study of organisms.
- 124 Alice: Easy to Learn Interactive 3D Graphics**
Educational toolkit for creating interactive virtual environments.
- 125 Artificial Dolphins**
Interactive communication interface with artificial life forms in a virtual environment.
- 126 Bayou Sauvage**
Multi-user, multi-vendor virtual world using Distributed Interactive Simulation protocol.
- 127 BE NOW HERE (Welcome to the Neighborhood)**
Immersive virtual environment installation about landscape and public gathering spaces.
- 128 Cypress Adventure**
Interactive virtual experience with optical gesture interface.
- 129 Deceiving Manipulation with a Palmtop Display**
Virtual environment manipulator paradigm with visual and haptic feedback.
- 130 Digital Doleland**
Multiplayer musical jam session in a collaborative environment.
- 131 Distributed Scientific Visualization of Ocean Models**
Prototype simulation testbed for oceanographic operational planners.
- 132 Dr. Jack's Robot Island**
Interactive 3D application using emerging VRML 2.0 standard.
- 133 Global Interior Project**
Real-time, multi-cultural communications playground built on a networked 3D virtual environment.
- 134 Guerrilla Gallery**
Digital imaging studio program.
- 135 Haptic Challenge**
Multi-user virtual gaming environment with haptic feedback.
- 136 HapticWeb**
World Wide Web client for enabling the feel of rigidity and weight from virtual objects.
- 137 Interactive Multiplayer HoverBall**
Networked multi-player gaming environment for arena-based virtual air hockey in spacecraft.
- 138 Interview**
Interactive multimedia interview program for child victims of sexual abuse.
- 139 First Contact: An Exercise In Understanding**
Immersive cross-cultural experience with extraterrestrial life forms.
- 140 Neither Here Nor There**
Immersive and multi-locational art installation.
- 141 Overcoming Phobias Using Virtual Reality**
Exposure therapy approach to acrophobia (fear of heights).
- 142 Plasm: Yer Mug**
Late Night Cafe art installation with interactive electronic looking glass.
- 143 Project(ions)**
Multimedia interactive map of New York City.
- 144 R.O.V.E.R. II**
Experimental robotic telepresence unit with stereo tracking and independent head tracking.
- 145 Riverworld**
Avatar-based meeting place in a Louisiana paddle-steamer virtual environment.

- 146 San Francisco Rush**
Multiplayer physics-based driving simulator for a race across a virtual San Francisco.
- 147 Smart Spaces: The Untethered Interface**
Gesture-based interactive workspace for animation and entertainment applications.
- 148 Soundscapes Entertainment**
Music-driven stereoscopic virtual environment.
- 149 Space Browser**
Mobile telepresence platforms using helium blimps for two-way communication.
- 150 Spirits of the Bayou**
Virtual environment where human-directed avatars and computer-controlled agents interact in real time.
- 151 STORZart**
Futuristic sculpture exhibition.
- 152 Telemedicine**
Telepresence technology for remote medical consultation.
- 153 Tenochtitlan: The Clash of Empires**
Web-based 3D interactive multimedia tour on emerging VRML 2.0 standard.
- 154 Traveler**
Avatar-based virtual community interface through the World Wide Web.
- 155 Vebescape**
Immersive virtual environment for soundscapes in real 3D space on a Sonic Wave Floor.
- 156 Virtual Kabuki System**
Real-time facial animation system for virtual Kabuki actors.
- 157 The Virtual Lego Village**
Immersive virtual environment for collaborative play.
- 158 Virtual Lepidoptera**
Physical virtual environment for studying over 350 species of butterflies.
- 159 Virtual New Orleans**
Hyper-linked virtual database of New Orleans in VRML.
- 160 Virtual Playspace**
Immersive virtual environment for a soccer game with users and autonomous agents.
- 161 Virtual Society**
CyberPassage Conductor creates and edits 3D virtual environments with access through VRML browsers.
- 162 The Virtual Space Fortress**
Immersive 3D training simulation in the form of an intergalactic space game.
- 163 Visualization of Earth and Space Science Data**
Daily demonstrations of Jet Propulsion Laboratory's processing and visual science technologies.
- 164 wango:W (Immortal Wire)**
Technology-based art installation that evolves through participant interaction.
- 165 Watch Your Language: Typography in Motion**
A series of unique typographic animations projected above the Digital Bay.
- 166 Where No One Has Gone Before**
Collaborative immersive environment for networked virtual training scenarios.
- 167 Wizard Island**
Avatar-based multiuser virtual environment designed for bandwidth-constrained home PC environments.
- 168 3D Imaging Sensing Technology**
Stereo 3D imaging systems for depth-map compositing of video inputs.
- 169 Advanced Technologies for Virtual Environments**
Virtual environment and image-based rendering techniques.
- 170 Alice: Easy to Learn Interactive 3D Graphics**
Educational toolkit for creating interactive virtual environments.
- 171 ants under a mushroom**
Interactive art installation addressing issues of reality and abstraction.
- 172 Big Head Racer**
Virtual environment prototype to personalize video racing entertainment experiences.
- 173 Bodymaps: Artifacts of Touch**
Interactive sound and video art installation.
- 174 Cyber Bunraku**
Experimental computer animation of traditional Japanese puppetry.
- 175 Cyber Space Adventure**
Interactive team space adventure for children at a municipal science museum.
- 176 d-rhumc**
Interactive music installation involving mechanical drumming through sensor arrays.
- 177 Dancing Fire and Water**
Live networked art installation of Norway's Jostedal glacier and Japan's Owakudani volcano in 3D.
- 178 Direct Manipulation Scene Creation in 3D**
Interactive virtual design environment with gesture-driven video interface.
- 179 Faery Garden**
Interactive art installation with virtual life forms and environments.
- 180 Fantasy3**
Educational design collaboration to study ties between virtual world building and animated film making.
- 181 Media & Mythology**
Immersive art installation for interactive story experiences.
- 182 Natural 3D Display System Using Holographic Optical Element**
Holographic display for unassisted stereoscopic viewing.
- 183 The Grimm Show**
Multimedia art installation performing a Brothers Grimm parable.

- 184 HORIZONS by TeleCommunity**
Multicultural telecommunity project for students worldwide.
- 185 Journey into the Brain**
Educational interactive CD about an adventure within the human brain.
- 186 Journey to Anahuac**
Interactive information installation about Mexican civilizations over a 3,000-year period.
- 187 JPL Space Garden: Space Data Visualization**
Daily demonstrations of Jet Propulsion Laboratory's processing and visual science technologies.
- 188 Iamascope: An Interactive Kaleidoscope**
Interactive multimedia environment of interpreted sights and sounds.
- 189 The Land of Time**
Interactive art installation about time and people.
- 190 Magic Morphin Mirror**
Interactive virtual mirror capable of face-specific image manipulation.
- 191 MEDIA³: The Virtual Hologram**
Liquid-crystal display cube for viewing virtual objects.
- 192 Mind Garden**
Bio-feedback interactive art installation.
- 193 Multi Mega Book in the Cave**
Immersive virtual environment book about 15th- and 20th-century achievements.
- 194 The Multi-Cultural Recycler**
World Wide Web-based art installation contrasting recycled imagery from live camera sources.
- 195 Multiple Identities MAP**
Avatar-driven interactive digital map of New York City.
- 196 Nerve Garden**
Virtual environment digital terrarium for growing synthetic plant and animal organisms.
- 197 Optical Gesture Recognition System**
Real-time gesture recognition system for animation and entertainment applications.
- 198 Point of View, Point of You / Body to Body**
Interactive remote-sensing art installations.
- 199 Project ScienceSpace**
Investigation of physical immersion and multi-sensory perception in enhanced science education.
- 200 ProP: Personal Roving Presence**
Research in tele-embodiment (two-way presence) through sight, sound, and tele-robotic exploration.
- 201 Sunset Boulevard**
Participatory interactive narrative for passing motorists.
- 202 Talking Head**
Prototype physical avatar interface for video conferencing.
- 203 Toco the Toucan**
Interactive, story-infused synthetic life form with autonomous emotional states.
- 204 Traffic Control**
Interactive virtual environment for understanding traffic in urban environments.
- 205 Ultra Magic Paper Interface**
Physical paper tangible interface for intuitive novice user interaction.
- 206 Virtual Basketball**
Interactive virtual environment with visual, auditory, and tactile feedback for virtual objects.
- 207 Virtual Environment ATC Tutor (VEAT)**
Interactive virtual environment for educational air traffic control simulations.
- 208 Virtual Explorer**
Interactive virtual environments for immersive science learning experiences.
- 209 Virtual Orchestra Performance**
Interactive virtual environment for symphonic performances.
- 210 Wango: COMPOST**
Interactive system for remote attendee conference experiences.
- 211 WonderSpace: Interactive 3D Animation Browser**
Avatar-driven interactive virtual environments.
- 212 AR² Hockey**
Augmented-reality collaborative-play environment for a virtual hockey game.
- 213 Direct Watch & Touch**
Native stereoscopic display without viewing assistance.
- 214 Foot Interface: Fantastic Phantom Slipper**
Demonstration of tactile feedback interface for the feet.
- 215 Haptic Screen**
Deformable force-feedback display device for virtual objects.
- 216 HoloWall: Interactive Digital Surfaces**
Interactive information display with gesture interface.
- 217 InTouch**
Tele-touch interface for remote interpersonal communication.
- 218 Mass Hallucination**
Interactive virtual mirror capable of face-specific image manipulation in a group.
- 219 Media & Mythology**
Immersive art installation for interactive story experiences.
- 220 Natural 3D Display System Using Holographic Optical Element**
Holographic display for unassisted stereoscopic viewing.
- 221 Natural Pointing Techniques Using a Finger-Mounted Direct Pointing Device**
Prototype demonstration of an infrared-based natural pointing interface for laptop computers.

- 222 Object-Oriented Displays**
Virtual-reality displays where users perceive and operate virtual objects in a real-world context.
- 223 PingPongPlus**
Digitally enhanced reactive table ping-pong game.
- 224 Shall We Dance?**
Multi-user environment character animation through a gesture interface.
- 225 Stretchable Music with Laser Range Finder**
Interactive graphical and gesture interface for music creation.
- 226 Swamped!**
Multi-user interactive environment with tangible gesture interface.
- 227 Virtual FishTank**
Whimsical virtual environment populated with artificial life forms.
- 228 Virtual Head**
Prototype physical avatar interface for video conferencing.
- 229 Building Virtual Worlds**
Undergraduate course on creating interactive virtual environments with an educational toolkit.
- 230 City of News**
Immersive virtual environment for creating and exploring an urban landscape of information.
- 231 Curlybot**
Interactive gesture-driven robotic toy that captures and replays human inputs.
- 232 Digital Cloning System**
Interactive real-time character animation through tracked live actors.
- 233 Emergence**
Interactive art installation for exploring the role of human presence in a world of artificial life.
- 234 Enshpered Vision**
Immersive display utilizing a single projector and mirrors to produce a seamless wrap-around image.
- 235 HandSCAPE**
An orientation-aware digital measuring tape for computer modeling inputs.
- 236 Head-Mounted Projector**
Experimental augmented-reality stereo display with almost-correct occlusion visualization.
- 237 Hologram/Head-Mounted Display**
Experimental augmented-reality head-mounted stereo display.
- 238 HyperMask**
Animated facial projections on an actor's mask with orientation tracking.
- 239 Life Spaces**
Remote interaction and communications environment through artificial life forms.
- 240 The Luminous Room**
Projected graphical display that responds to 3D physical objects in its free-form environment.
- 241 metaField Maze**
Humanscaled interactive system for immersive play with a virtual marble and maze.
- 242 Microworlds, Sirens, and Argonauts**
Interactive virtual environment for exploring the art of living narrative landscapes.
- 243 musicBottles**
Tangible music interface for three corked bottles that contain the sounds of Edouard Lalo's Piano Trio.
- 244 POND**
Community play space in The Millennium Motel.
- 245 ROUTE 66**
Live, interactive, MIDI-driven 3D virtual world created for The Millennium Motel.
- 246 Shared Space: Collaborative Augmented Reality**
Overlapping virtual and real-world interface to enhance face-to-face and remote collaboration.
- 247 Surface Drawing**
Interactive, gesture-driven design interface for intricate, organic 3D shapes.
- 248 Touchable 3D Display**
Reality-enhanced 3D display through synthetic parallax.
- 249 TV Guides**
Interactive art installation about contemporary living with television.
- 250 VisiPhone**
Communication object that visualizes sounds flowing between two locations.
- 251 Visual Conductor**
Immersive gesture-driven virtual environment for conducting a digital symphony.
- 252 (void)*: A Cast of Characters**
Virtual environment for interacting with synthetic life forms through a novel gesture-driven interface.
- 253 Water Display**
Immersive, gesture-driven design revealing images, sounds, and movement in a head-mounted system.
- 254 Zowie Powered Smart Toys**
Innovative play experiences for both kids and adults.

2000

- 255 10,000 Year Clock Dial and Rosetta Disk**
Prototype model of future 10,000 Year Clock.
- 256 4 + 4 Fingers Direct Manipulation with Force Feedback**
Tactile interface with lightweight fingertip devices.
- 257 ActiveCube**
Interactive bi-directional interface for constructing virtual 3D objects through realworld physical cubes.
- 258 Augmented Groove**
Collaborative musical interface through a gesture-based interface.

- 259 Autostereoscopic 3D Workbench**
Virtual environments with a reality-enhanced autostereoscopic 3D workbench.
- 260 Autostereoscopic Display for an Unconstrained Observer**
Dynamically varying parallax barrier display for unencumbered stereo visualization.
- 261 CYPHER: Cyber Photographer in Wonder Space**
Self-referential immersive virtual environment for creating and exploring virtual worlds.
- 262 Danger Hamster 2000**
Dynamic character animation through machine tracking of a random-motion hamsterball.
- 263 Gait Master**
Locomotion and force-feedback interface for walking on simulated irregular surfaces.
- 264 HoloSpace**
Full-color, full-parallax digital holographic stereograms for unassisted 3D viewing.
- 265 InTheMix**
Interactive, virtual audio environments from real-time 3D sound-field modes.
- 266 Jamodrum Interactive Music System**
Interactive communal drumming experience through an integrated tabletop system.
- 267 LaserWho**
Immersive gesture-based visualization of affinity and affiliations within a community of users.
- 268 Magic Book**
Immersive virtual environment for exploring transitions among physical, augmented, and virtual realities.
- 269 Medieval Chamber**
Demonstration of a real-time animation through a gesture-based tracking interface.
- 270 MicroTelepresence**
Stereoscopic telepresence applied to a microscopic world.
- 271 Musical Trinkets: New Pieces to Play**
Musical performance through a tangible interface of physical trinkets.
- 272 Art**
Artificial creatures designed to create social bonding with humans.
- 273 Networked Theater**
Proposal for a networked virtual environment that supports movie-like entertainment experiences.
- 274 Panoscope 360-degrees**
360-degree cylindrical viewer from a single video source.
- 275 Plasm: In the Breeze**
Swing experience above an interactive creek display.
- 276 Retinal Direct Imaging**
Direct stereoscopic display projector for the human eye.
- 277 RV-Border Guards**
Projected graphical display that responds to 3D physical objects in its free-form environment.
- 278 Ultra-High-Resolution Reality Center**
Low-resolution (context) and high-resolution (focus) embedded display for interactive data exploration.
- 279 V-TOYS: Visually Interactive Toys**
Human-sensing, visually interactive robot that understands and reacts to visual communication.
- 280 VaRionettes**
Interactive avatar-driven installation with gesture-recognition interface.
- 281 Virtual Hockey**
Virtual hockey game through overhead visual tracking system.
- 282 X'tal Head**
Projection-based augmented reality system with telecommunication applications.
- 283 You Were There**
Demonstration of a visitor tracking system within a confined space.
- 284 O' Wolf**
Interactive virtual environment with a pack of autonomous wolves.
- 285 CircleMaze**
Interactive multi-user communal music experience.
- 286 Cylindrical 3D Display Observable From All Directions**
360-degree stereoscopic display for multiple unassisted viewers in a space.
- 287 Enhanced Desk**
Augmented-reality desk system with tangible gesture-driven interface for multiple users.
- 288 Enhanced Reality**
Enhanced-reality solution for home entertainment applications with consumer hardware and props.
- 289 Everywhere Displays**
Projector and gesture interface that turns every surface into an interactive display.
- 290 Excerpts From Experiments In The Future Of Reading**
Interactive and augmented-reality reading experiences.
- 291 FEELEX**
Haptic-visual display that offers a responsive deformable surface for tactile feedback.
- 292 I-BALL**
Object-oriented spatial display that responds to direct manipulation for viewing control.
- 293 IllusionHole**
Simultaneous stereoscopic display system for multiple observers with tracked shuttered glasses.
- 294 Informative Art**
Museum display-case technology for enhanced learning and understanding of cultural and scientific artifacts.

2001

- 295 An Interface For Touching The Interface**
Augmented-reality force-feedback display to explore the tangible interface between two virtual liquids.
- 296 Just Follow Me**
Immersive environment tutor for learning limb-motion profiles required by sports, dance, and visual arts.
- 297 Meditation Chamber**
Biofeedback-driven virtual environment for visual, auditory, and tactile meditation therapy.
- 298 Micro Archiving**
Digital archiving application for small objects like insects.
- 299 Mobile Augmented Reality Systems**
Wearable interactive information display with context management.
- 300 Origami Desk**
Interactive tutoring installation with machine recognition of user process requirements.
- 301 OttoAndrius.Com**
Interactive story-driven entertainment environment with synthetic hosts.
- 302 Pirates!**
Interactive multi-user proximity-aware computer game for handheld PDAs in a confined activity space.
- 303 Riding the Net**
Speech-based image browser using voice recognition to display visual content from the World Wide Web.
- 304 RobotPHONE**
Robotic shape-sharing system for tangible communication during interpersonal tele-exchanges.
- 305 sensingChair**
Pressure-sensitive chair for responsive user environments.
- 306 Ultra-Bright Ultra-High-Resolution Reality Center**
Demonstration of simulation-based digital light-wave projection technologies.
- 307 ARS Box**
Immersive PC-based virtual-environment system with handheld intelligent PDA controller.
- 308 Audio Haptics**
Real-time auditory and haptic feedback for virtual object dynamics.
- 309 Augmenting Reality with 3D Sound Sources**
Manipulation of virtual 3D sound-source objects overlaid upon the real world.
- 310 Block Jam**
Collaborative, tangible, and graphical musical interface using blocks for sequencing and phrasing.
- 311 Cyberarium Knowledge Fountain**
Portable rapid-prototyping system for teaching and exploring new humans-computer interfaces.
- 312 Distributed Systems of Self-Reconfiguring Robots**
Highly adaptive autonomous units that can change system shape to suit immediate task requirements.
- 313 Focus-Plus-Context Screens**
Demonstrations of a large-format stereoscopic display.
- 314 Immersive and Interactive Rear-Projection Stereo DLP Reality Center**
Bicubic image-warping system for stereo DLP on curved rear-projection screens.
- 315 The Interactive Window**
True stereo retrofit that turns a plain glass window into an interactive, touch-sensitive view surface.
- 316 Lewis the Robotic Photographer**
Autonomous robot that interactively seeks out ideal group photographs in a crowded room of people.
- 317 A New Step-In-Place Locomotion Interface for Virtual Environments With Large Display System**
Intuitive, self-orienting locomotion interface for virtual environment exploration.
- 318 NONA-Vision**
High-resolution, wide-angle video capture and projection system for remote visualization.
- 319 Occlusive Optical See-Through Displays in a Collaborative Setup**
Head-mounted display for showing opaque virtual objects interacting with better world objects.
- 320 Physiological Reaction and Presence in Stressed Virtual Environments**
Research demonstration on gauging virtual environment effectiveness through physiological metrics.
- 321 Public Anemone: An Organic Robot Creature**
Interactive synthetic life form designed to explore qualities of living presence that appeal to humans.
- 322 Regeneration of Real Objects in the Real World**
Interactive image-based archive and display system for real world objects.
- 323 SmartFinger**
Finger-tip tactile feedback device for augmenting a user's physical perceptions of a smooth surface.
- 324 Tomorrow's Yesterday**
Navigable visual history of SIGGRAPH Emerging Technologies programs, 1991 - 2002.
- 325 TWISTER: A Media Booth**
Immersive full-color auto-stereoscopic display for face-to-face telecommunication systems.
- 326 Ultrasound Visualization With the Sonic Flashlight**
Hand-held real-time tomographic reflection display for in-context visualization of patient conditions.
- 327 Virtual Chanbara**
Immersive, force-feedback virtual environment for the ancient Japanese art of samurai sword fighting.
- 328 The Virtual Showcase**
Museum display-case technology for enhanced learning and understanding of cultural and scientific artifacts.