Title: Moving Camera Studies

Genre: New Media

Applicant's Role in Production: Artist

Production Format: an early-stage investigation leading to an installation

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Brief Project Description (do not exceed space given below)

"Moving Camera Studies" investigates why our personal sense of looking around and moving through space differ from the gaze of a camera. The method of investigation is through using a hand-held digital camera along with GPS and angular sensors, then relying on extensive handiwork, frame by frame, after shooting. The intention is explore aesthetic potential in the fastest, least constrained way. The goal is to become fluent in what can be done, and to make an installation.
2007 New Media Fellowships
Sample Work Form

MICHAEL NAIMARK

If you are sending more than one sample, please copy this page. Sample(s) must be cued: indicate how long each sample should be viewed for a COMBINED viewing time of no more than 10 minutes. If slides are included in this application, please list the title and year of the work on this form.

Title: Naimark Rockefeller 2007 Sample

Year: 2006

Technical

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| ___ Browser requirement(s) |
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| ___ This sample requires broadband connection (fast Internet connection) |
| ___ A local copy of the sample work has been included with the application |

Special Information For Viewing:

Description of Work  (use an additional sheet if necessary)

My sample DVD consists of two parts (TRT 8:33):

Previous Moving Camera Work
- from moviemaps (Banff, Karlsruhe, Aspen, Golden Gate) (1978-94)
- from an early dance study (1978)

Two Previous Largescale Installations
- Displacements (1980-84/2005)
- Be Now Here (1995-97)

Additional information may be found on my website: http://www.naimark.net
I've been a professional "media artist" (at least in the eyes of the IRS) since 1980. My particular area of experience may be called "place representation," exploring how new media technologies can be used to expand and broaden our sense of place, particularly real (rather than fantasy) places. It's both a commitment and a celebration.

On a deepest level, I'm driven by embracing our unique planetary moment: we are the witnesses, indeed participants, of our planet becoming a live networked whole. Among the most significant implications is a shift of fitness factor from a Western "conquest" ideology to an Eastern "sustenance" one, probably resulting in a synthesis of the two. Exciting times.

The closest guiding principles of my practice may be Gregory Bateson's assertion that almost all meaningful human interaction happens on a non-verbal level; Gyorgy Kepes' philosophy that an interdisciplinary approach to the arts builds bridges - between people, their environments, and themselves; and Stewart Brand's statement about art as "at guerrilla war with artifice, employing and subverting the artificial to reawaken the real." I've had the fortune of having had several conversations with Bateson, Kepes as a longtime mentor, and Brand as an occasional colleague.

"Media art," like "anything art" (conceptual, feminist, video) addresses a dual agenda, and like all dualisms, sometimes there is symbiosis and sometimes there is strife. And though I've chosen media, or tech-based, art as my field, I do believe in the existence of "pure art," art without any other agenda.

A related issue is the distinction between "first word art," where newness, novelty, and innovation are its prominent features, and "last word art," where doing well, doing best, and
virtuosity are most prominent. History has demonstrated that, on occasion, it’s possible to do both. (1)

Another related issue is the dynamics of getting innovative work successfully realized. Traditionally, the old media world (e.g., film) required a much higher commitment to staying on-plan while the new media world encourages experimentation where it’s OK to fail. I’m convinced that a “calculated risk” can be nurtured which balances creative exploration with getting things done. (2)

Over time, my “place representation” work slowly evolved from formal art and technology concerns to acknowledge the politics both of place and of representation. My work became as much about cultural geography, indigenousness, and the future of travel and tourism as it was about field cinematography, interactive installations, and immersive display. (3)

But my current challenge as an artist is personal rather than political. I’ve done serious. “Highlights” from “Be Now Here” (1995) alone included filming through a bomb scare in Jerusalem, driving solo through Bosnia at night during wartime, negotiating with rebel Taurig camel drivers in Timbuktu, and bribing members of the Cambodian army to get my driver out of jail. My work with “camera zapping” (2002) led to several death threats after it was featured in the New York Times.

We may be witnessing a unique planetary moment, but on a more immediate, human scale (say, since Bush 2000), these are dark times. It’s no surprise that contemporary art and activism are so tightly interwoven right now. But if our work as artists doesn’t start from deep within our bodies, minds, and hearts - we’ve lost.


These, and relate writings, can be found at http://www.naimark.net.
Moving Camera Studies
(an early-stage investigation)
Michael Naimark
November 2006

DESCRIPTION --- I've been walking a lot lately, ideally several miles every morning. This is rather unusual since I live in LA. I don't drive to canyons or hiking trails, I just walk through nearby residential neighborhoods. The scale of walking, as a mode of transportation, is a very human one.

On good days, days when I feel clear-minded and well, my gaze is straightforward and level with the horizon. Of course, my eyes may wander to look at things I pass by, but mostly my eyes are looking forward. If you were to ask me "looking at what?" my answer would be "looking at nothing," perhaps similar to one's gaze during open-eyed meditation like zazen.

Eyes and cameras have a lot in common, but they also have major differences, and this "looking at nothing" is one of them. Much of my past work has been around conveying "sense of place," usually via custom camera systems and interactive installations. Some have addressed the matter of "looking around" (e.g., Displacements 1984/2005, Be Now Here 1995-7), while others have addressed the matter of "moving around" ("moviemaps").

Consider the different ways to record moving forward in space:

- The camera could be hand-held, but even the steadiest hand will result in some wobble. Hand-held wobble is a well-known cinematic trope (think "Blair Witch") but it's far from what our eyes do. Our eyes have a wonderful way to compensate by rotating in their sockets.

- The camera could be mounted on a "Steadicam" style stabilizer. These are devices that use balance and inertia to minimize jumpy (high-frequency) wobble, but do nothing for slower wobble. The original Aspen Moviemap (1978) was filmed using such a system, but the
remaining wobble was distracting and unacceptable (particularly for the stop-frame style footage preferred for interactive moviemaps).

- The camera could be mounted on a dolly and moved forward either on wheels or on a track (the latter being the preferred Hollywood method). "See Banff" (1993) was shot with cameras mounted on a custom dolly, and the "Karslruhe Moviemap" (1990) shot with a camera mounted on the front of a tramcar to exploit the rails. While both produced novel footage, neither had the human feel of walking. This was partially due to the gaze of the camera remaining fixed in a single direction.

- The camera could be mounted in a high-tech, expensive gyro stabilizer, a motorized gimbal whose motor is controlled by gyroscopic sensors. These stabilizers even look like giant eyeballs. They can be locked on a specific setting (measured in "azimuth-elevation"); and very expensive ones can track objects using human or computer-vision techniques. The Aspen Moviemap was entirely reshot in 1979 with a gyro stabilized system pointing forward, while the Golden Gate Flyover (1987) used a gyro-stabilized helicopter camera which was manually tracked to be centered on the Golden Gate Bridge. Again, novel footage resulted, but again, lacking a human scale. And expensive.

An entirely different approach is proposed here: to record more than is needed spatially, then to carefully recompose the material by hand, frame by frame. This is the spatial equivalent to traditional film editing, where more is recorded than is needed temporally, then carefully selected by hand. Tedious as this may be, it would allow for maximum unfettered experimentation.

The toolset would consist of a digital camera system and a computer. The camera system would be augmented by relatively cheap GPS and angular sensors. Digital editing software such as Final Cut Pro and Shake would make such activity relatively fast and efficient, certainly compared to the old days using film (e.g., Dance Study 1978). Digital tiling software
such as QuickTime VR and Realviz would additionally enable experimentation with “looking around” as well as “moving around.”

It’s important to distinguish handiwork from automation. Computer graphics, computer vision, and perceptual psychology experts often think about similar issues of visual representation, then work to develop algorithms to automate the process. My goal is different. It’s to explore aesthetic potential, and the fastest, least constrained means is through brute force handiwork. History has shown that new forms of representation usually begin as an art before becoming a science (e.g., rotoscoping).

This proposal is for an early stage investigation. My confidence is high that visual material will result where folks say “hey, I’ve never seen anything like that before.” I expect an installation to result, whose exact nature will reveal itself along the way, as it has with most of my past projects. I would begin making studies - shooting locally is fine - and work to become fluent in what can be done. It may end there, with snippets packaged into some form of mini-installations (Jim Campbell’s work comes to mind), though there’s a better chance that a larger integrated installation will emerge.

**FEASIBILITY** --- As an early stage investigation, the feasibility of producing the proposed studies (as “studies”) is a no-brainer, though developing them further into a finished installation is the goal.

**USE OF WORK** --- Some form of small-scale or large-scale installation, TBD.

**BUDGET** --- The budget is based around having a self-contained tool set including cameras and sensors, computer and software, and technical assistance. This will get me started. A substantial allocation is reserved for a final production leading toward an installation. It is expected that most of the work will take place during the summer of 2007, though it may naturally spread out as it dovetails with the rest of my USC activities.
October 2006

CURRICULUM VITA

Michael Naimark

www.naimark.net

Interests

Art and science: presence and abstraction, new media and interactivity, psychophysics and cognition.
Place representation: field cinematography, image-based modeling, immersive virtual environments.
Consequences: virtual travel and tourism, cultural geography, globalization.
Technology-based art and the dynamics of sustainability.

Born

16 November 1952, Detroit, MI
US Citizen

School

M.S., Visual Studies and Environmental Art, Massachusetts Institute of Technology, 1979
B.S., Cybernetic Systems (Independent major, with high distinction and high honors), University of Michigan, 1974

Work

2004-6: Visiting Associate Professor, Interactive Media Division, School of Cinema/Television, USC
2001-2004: Media Artist and Researcher (self-employed). Clients and supporters include:
   2004: Ars Electronica Festival, Linz, AUSTRIA
   2004: Columbia University School of the Arts
   2002-03: Rockefeller Foundation and Leonardo/ISAST , New York
   2001-02: Institute of Advanced Media Arts and Science, Gifu, JAPAN

1992-2001: Member of the Research Staff, Interval Research Corporation, Palo Alto

1980-1992: Media Artist and Researcher (self-employed). Major clients include:
   1987-90: Apple Multimedia Lab and Human Interface Group
   1986-90: Lucasfilm Ltd., Nicosia, CA
   1985-86: Panavision, Tarzana, CA
   1982-84: Atari Research Lab, Sunnyvale, CA

And:

Faculty Appointments and Residencies

2004-6: Visiting Associate Professor, Interactive Media Division, School of Cinema/Television, USC
2005: Guest Artist, Art Center College of Design, Pasadena
2004: Adjunct Faculty, Interactive Media Division, School of Cinema/Television, University of Southern California
2004: Resident Faculty, Interactive Telecommunications Program, Tisch School of the Arts, New York University
2001-2: Residency, Institute of Advanced Media Arts and Sciences (IAMAS), Gifu, JAPAN
1993: Residency, "Art and Virtual Environments," Banff Centre for the Arts, CANADA
1991: Residency, "Bioapparatus," Banff Centre for the Arts, CANADA
1990: Residency, "Aesthetics of Interactivity," School of Film/Video, California Institute of the Arts
1979-80: Research Fellow, Center for Advanced Visual Studies, Massachusetts Institute of Technology
1978-79: Technical Instructor (film/video), Architecture Machine Group, Massachusetts Institute of Technology
1977: Teaching Assistant, "Creative Seeing," College of Architecture, Massachusetts Institute of Technology
1974-75: Instructor (Video), Residential College and Department of Geography, University of Michigan
1972-75: Instructor, Future Worlds Program, College of Literature, Science, and Arts, University of Michigan

Awards, Grants, and Acknowledgements

2002: Recipient, Rockefeller Foundation Creativity & Culture grant, New York (Leonardo/ISAST "arts lab" study)
2002: Recipient, World Technology Award for the Arts, New York
2001: Nominee, World Technology Award for the Arts, London, UK
1998: Nominee, ICC Biennale '99, Tokyo, JAPAN (abstained)
1995: Finalist, Interactive Media Festival, Los Angeles
1995: Nominee, Chrysler Innovation in Design Award, New York
1994: Nominee, ARTEC '95, Nagoya, JAPAN
1992: First Award (SFAM Immersive Virtual Environments class), Futures Scenario, ACM SigCNY, Monterey
1992: Recipient, Artist Fellowship Program Grant in "New Genres," California Arts Council
1991: Recipient, artist Grant, Tamara Foundation, San Rafael, CA
1989: Recipient, Spring Show Award (Virtual Environments class), SF Art Institute
1984: Recipient, First Award, SECA "film as Art," SF MOMA
1983: Finalist, Society for the Encouragement of Contemporary Art (SECA) Award, SF MOMA
1982: Recipient, Media Arts Fellowship, National Endowment for the Arts
1979: Finalist, Video Artists Fellowship, The Artists Foundation, Boston
1979: Recipient, M.I.T. Council for the Arts Grant
1978: Recipient, M.I.T. Council for the Arts Grant

Professional Activities

Major

2004-2008: Member, MIT Corporation Visiting Committee, Media Laboratory and Media Arts & Sciences
2006-present: Member, Scientific Council of the Ludwig Boltzmann Institute for Media Art Research, Vienna, AUSTRIA
2000-present: Board of Directors, ZeroOne Foundation, Palo Alto
2001-2005: Board of Advisors, Media Lab Europe, Dublin, IRELAND
2004: Guest Curator, Ars Electronica Festival 25th anniversary Symposium, Linz, AUSTRIA
1998: Jury Chair, Interactive Art, Ars Electronica, Linz, AUSTRIA
1990: Steering Committee, Cyberthon Conference, Point Foundation, Sausalito

Minor

2002-present: Board of Advisors, International Society of Arts, Science & Technology (ISAST), San Francisco
2001-present: Board of Advisors, The Lab artists organization, San Francisco
2001-present: Papers Reviewer, Siggraph Conferences
2001-present: Program Committee, Virtual Systems and Multimedia (VSMM) Conferences
1999-present: Submissions Reviewer, Leonardo journal, MIT Press
1994-present: Member, Society for Visual Anthropology, American Anthropological Association, Washington, DC

2006: Tenure Reviewer, Interactive Telecommunications Program (ITP), NYU
2004: Juror, Tania Trepanier Award, Labyrinth Project, Annenberg Center, USC
2004: Collaborator, Siggraph '04 Computer Animation Pre-Show (Squid Ball)
2003: Thesis Reviewer, Comparative Media Studies, MIT
2003: Demonstrations Program Committee, Ubicomp 2003, Seattle (self-withdrawn under protest)
2002-2004: Board of Advisors, National Art and Technology Network (NATN), The Kitchen, New York
2000-2002: Board of Advisors, Creative Disturbance, San Francisco/Marseille, FRANCE
2000: Advisor, Jewish Museum planning meeting, San Francisco
1999: Graduates Reviewer, SF Art Institute, New Genres
1998-2002: Board of Advisors, Coalition of Artists and Life Forms, San Francisco
1998-2001: Board of Directors, The Lab artists organization, San Francisco
1997: Thesis Reviewer, MIT Media Lab
1997: Juror, Interactive Art, Ars Electronica, Linz, AUSTRIA
1996: Papers Reviewer, Symposium for User Interface Software and Technology (UIST), Seattle
1995: Juror, Interactive Art, Ars Electronica, Linz, AUSTRIA
1995: Juror, 10/10 Portraits in Cyberspace Artshow, MIT Media Lab
1994: Thesis Reviewer, SF Art Institute, New Genres
1994: Juror, Interactive Art, Ars Electronica, Linz, AUSTRIA
1994: Juror, "NewMediaTopia" Exhibition, Moscow, RUSSIA
1993: Program Committee, First Virtual Reality Annual International Symposium (VRAIS), IEEE, Seattle
1993: Nominator, Interactive Media Festival, Los Angeles
1993: Juror, Siggraph Multimedia Exhibition, Los Angeles
1991: Thesis Reviewer, SF Art Institute, New Genres
1989: Graduates Reviewer, Architecture Dept, Cal College of Arts and Crafts, San Francisco
1988: Nominator, SECA Video Art Award, SF MOMA
1988: Juror, "Cindy" videodisc award, Assoc of Visual Communicators, San Francisco
1988: Board of Advisors, Twin Palms Gallery, San Francisco

Publications


Naimark, M. (2002). Interaction 01 Review. Diatxt, the critical journal by the Kyoto Art Center, vol. 6, Kyoto, JAPAN.


Naimark, M. (1995). (untitled talk), NewMediaLogia Symposium Proceedings, Soros Center for Contemporary Art, Moscow, RUSSIA.


Video

U.S. Patents Granted


Exhibitions

Permanent Exhibitions

2000-present: American Museum of the Moving Image, Queens, NY (See Banff Kinetoscope)
1997-present: Zentrum fur Kunst und Medientechnologie (ZKM), Karlsruhe, GERMANY (Karlsruhe Moviemap)
1987-present: Exploratorium, San Francisco (Golden Gate Flyover)

Solo Exhibitions

2001: Presidio, SF International Film Festival and SF MOMA (Be Now Here)
1995-6: Yerba Buena Center for the Arts, San Francisco (Be Now Here)
1995: Berkeley Art Museum / Pacific Film Archive (See Banff Kinetoscope)
1985-86: Madeleine Metro Station, Paris FRANCE (Paris VideoPlan)
1984: Bruce Velick Gallery, San Francisco (Virtual Object Series)
1984: San Francisco Museum of Modern Art (Displacements)
1980: Center for Advanced Visual Studies (CAVS), MIT (Movie Room)
1978: Dept of Architecture, MIT (Moving Movie Studies and Dome Projections)

Group Exhibitions

2006: technoSpheres: Futures of Thinking, Beall Center for Art and Technology, UC Irving (Fast Cheap GigaPixel Image)
2006: Sensorium colloquium, USC (Fast Cheap GigaPixel Image)
2005: The Art Formerly Known As New Media, Walter Phillips Gallery, Banff Centre, Banff, CANADA (See Banff)
2004: Interactions/Art and Technology, American Museum of the Moving Image, New York (See Banff)
2003: Future Cinema, Kiasma Museum of Contemporary Art, Helsinki, FINLAND (Be Now Here)
2002-3: Future Cinema, Zentrum fur Kunst und Medientechnologie (ZKM), Karlsruhe, GERMANY (Be Now Here)
2002: NaviGate @ Art, Automobil Forum Unter den Linden, Berlin, GERMANY (Karlsruhe Moviemap)
2001: ArtSale 2001, The Lab, San Francisco (sortitout.org)
1998: Inventing Experience, The Tech Museum of Innovation, San Jose (See Banff and Be Now Here)
1998: Exploding Cinema, International Film Festival, Rotterdam, NL (Be Now Here)
1997: Art in the Anchorage, Creative Time, New York (Be Now Here)
1997: Dallas Video Festival, Dallas Museum of Art (See Banff)
1997: Best of Dallas Video Festival, LA Film Forum, Los Angeles (compilation video)
1997: Finding the Fulcrum (Leonardo's 30th Anniversary Show), 111 Minna Gallery, San Francisco (Eyepiece)"
1996: Digital Bayou, Siggraph '96, New Orleans (Be Now Here)
1995: Interaction '95, International Academy of Media Arts and Sciences (IAMAS), Gifu, JAPAN (Karlsruhe Moviemap)
1994: Old Glory, Santa Monica Museum of Art (No State)
1994: Old Glory, Capp Street Project, San Francisco (No State)
1994: International Symposium on Electronic Art (ISEA) 94, Museum of Contemporary Art, Helsinki, FINLAND (See Banff)
1994: Mill Valley Film Festival (See Banff)
1994: Walter Phillips Gallery, Banff Centre for the Arts, CANADA (See Banff)
1994: Film Academy (w/ISEA), St. Petersburg, RUSSIA (Virtuality, Inc.)
1993: Multimediale 3, Zentrum fur Kunst und Medientechnologie (ZKM), Karlsruhe, GERMANY (EVE project)
1992: G-Tech Exhibit, Siggraph '92, Chicago (Field Recording Studies)
1992: Images du Futur '92, Montreal, CANADA (Karlsruhe Moviemap)
1992: Triennale di Milano, ITALY (EAT and Karlsruhe Moviemap)
1992: Futures Scenarios, ACM SigCHI Conference, Monterey (Virtuality, Inc.)
1991: Multimediale 2, Zentrum fur Kunst und Medientechnologie (ZKM), Karlsruhe, GERMANY (Karlsruhe Moviemap)
1991: Art and Multimedia, Center for Advanced Visual Studies (CAVS), MIT (compilation video)
1990: Cyberthon Conference, Point Foundation, San Francisco (EAT, Golden Gate Flyover, and Virtual Object Series)
1990: Virtual Reality Panel, Siggraph '90, Dallas (Virtuality Inc.)
1989: Mill Valley Film Festival (EAT)
1989: San Francisco Art Institute (EAT)
1989: Kanagawa International Art and Science Exhibition, JAPAN (Golden Gate Flyover)
1988: Exploratorium at the World Financial Center, New York (Golden Gate Flyover)
1988: Exploratorium at the Kennedy Center for the Performing Arts, Washington, DC (Golden Gate Flyover)
1987: The Situated Image, Mandeville Art Gallery, UC San Diego (Computer Eyepiece)
1986: Silicon Valley Electronic Arts Festival, Institute of Contemporary Art, San Jose (Computer Eyepiece)
1986: American Association of Anthropology (AAA) annual conference, Philadelphia (compilation video)
1986: Art New Vision '86, Nippon High Technology Arts Festival, Tokyo, JAPAN (compilation video)
1985: US Pavilion, EXPO '85, Tsukuba, JAPAN (Siggraph Videodisc)
1984: Ann Arbor Film Festival (Computer Eyepiece)
1984: The Artist As A Young Machine, Ontario Science Center, Toronto, CANADA (Computer Eyepiece)
1984: San Francisco International Video Festival (Computer Eyepiece)
1983: Siggraph '83 Artshow, Detroit (Computer Eyepiece)
1982: Palo Alto Film Festival (All My Worldly Things)
1981: SF Art Institute Film Festival (Eyepiece and Moving Movie)
1981: Centervideo, American Center, Paris, FRANCE (Babies on the Subway)
1981: CenterVideo, Koelnischer Kunstverein, Cologne, Germany (Babies on the Subway)
1981: CenterVideo, Kunsthau, Zurich, SWITZERLAND (Babies on the Subway)
1980: New York Avant Garde Festival (Eyepiece)
1980: Beyond Object, Aspen Art Museum (Moving Movie)
1980: Council for the Arts annual meeting, MIT (Talking Head)
1980: SF Art Institute Film Festival (All My Worldly Things)
1980: CenterScreen Series, Harvard University (All My Worldly Things)
1979: Ann Arbor Film Festival (All My Worldly Things)
1978: The Mall, Washington, DC (Centerbeam)
1977: Documenta 6, Kassel, GERMANY (Centerbeam)

Invited Presentations

214 (10/06): Opening Seminar for the Art and Technology Planning Group, NYU
213 (09/06): PICNIC '06 Cross Media Week, Amsterdam, NETHERLANDS
212 (08/06): Third Annual Seminar in Experimental Critical Theory, UC Irvine
211 (07/06): Institute for Creative Technology, USC
210 (06/06): Big Picture Summit, National Geographic Society, Washington, DC
209 (05/06): Department of Design | Media, UCLA
208 (03/06): School of Art, USC

207 (10/05): Frontiers in Optics, the 89th Annual Meeting of the Optical Society of America, Tucson
206 (10/05): REFRESH! First International Conference on Media Arts, Science, and Technology, Banff Centre, CANADA
205 (09/05): School of Fine Arts, San Francisco State University
204 (04/05): IMC Expo, Chelsea Art Museum, New York
203 (02/05): Vision Group, California Institute of Technology, Pasadena
202 (02/05): Design Dialogues, Media Design Program, Art Center College of Design, Pasadena

201 (12/04): EALA Presents, Electronic Arts, Marina del Rey
200 (12/04): Big Picture Summit, Interactive Telecommunications Program, NYU
199 (11/04): Interactive Media Division Forum, USC
197 (11/04): Art, Science, Technology Forum for National Science Week, Gijón, SPAIN
196 (11/04): Institute for Creative Technologies, USC
195 (09/04): Ars Electronica, Linz, AUSTRIA
194 (08/04): Siggraph '04, Los Angeles
193 (07/04): First International Conference on Design Computing and Cognition (DCC '04) Workshop, MIT
192 (05/04): Digital Avant-Garde, Celebrating 25 Years of Ars Electronica (moderator), Austrian Cultural Forum, New York
190 (01/04): Interactive Media Division, USC School of Cinema-Television Visiting Speaker Series

189 (11/03): Role of the Arts in a Research University (open mic statement to the Presidents of NYU and Columbia), NYU
188 (11/03): National Art and Technology Network meeting, Arizona State University, Tempe
187 (10/03): Intro Class, Interactive Telecommunications Program (ITP), NYU
186 (06/03): ZeroOne Foundation, Palo Alto
185 (04/03): Intel Research Invited Seminar Speaker Series, Berkeley
184 (04/03): Exploratorium, San Francisco
183 (04/03): Friday Seminar Series, Interactive Telecommunications Program (ITP), NYU
182 (02/03): TTI Vanguard Conference, San Jose
181 (01/03): Dublin Arts and Technology Association (DATA), Dublin, IRELAND

179 (10/02): Computer Art Department, School of the Visual Arts (SVA), New York
178 (10/02): Intro Class, Interactive Telecommunications Program (ITP), NYU
177 (10/02): Future Cameras, Computer Science Department, NYU
176 (04/02): Art, Technology, and Culture Colloquium, UC Berkeley
175 (04/02): Numer.02 Interactive Design Conference, Centre Pompidou, Paris, FRANCE
174 (04/02): Media Lab Europe, Dublin, IRELAND
173 (04/02): Saturday Seminar Series, Interactive Telecommunications Program (ITP), NYU
172 (02/02): InterMediun Institute, Osaka, JAPAN

171 (12/01): DocMo House, Keio University, Tokyo, JAPAN
169 (11/01): Future of Creativity Symposium Discusssant, AAC / School of the Art Institute, Chicago
168 (10/01): Embedding Media in Culture Panel, Interaction '01, IAMAS, Gifu, JAPAN
167 (10/01): International Academy of Media Arts and Sciences, Gifu, JAPAN
166 (08/01): Bridges Symposium, USC / Banff Centre, Los Angeles
165 (02/01): Center for Digital Media, SF Art Institute

164 (11/00): Art Frontiers: Partners in Art and Industry Symposium, Ground Zero / The Kitchen, Menlo Park, CA

Michael Naimark
163 (10/00): Arts Panel, First MIT Media Lab Reunion
162 (10/00): Looking at San Francisco Panel, "Really Wired" exhibition, New Langton Arts, San Francisco
161 (10/00): Master Viewpoints Presentation, Edgewise Conference, New York
160 (05/00): Green Interfaces Panel, Planetwork Conference, Presidio, San Francisco
159 (05/00): Bernard Q. Nietschmann Memorial, Faculty Club, UC Berkeley
158 (05/00): Center for Interactive Art, SFSU
157 (04/00): Digital Work and Play Symposium, Mission College, Santa Clara
156 (03/00): At What Stage Art and Technology Symposium, The Kitchen, New York
155 (03/00): Design Department, UCLA
154 (02/00): Art Dept, Mills College, Oakland
153 (02/00): New Media: Where To Now? Panel, The Lab, San Francisco
152 (02/00): Computer Science Department, UNC, Chapel Hill
150 (04/99): Lannan Foundation, Geography Dept, UC Berkeley
149 (03/99): Arts Dedication Ceremony, The Tech Museum of Innovation, San Jose
147 (11/98): Ecole des Beaux Arts Aix en Provence, FRANCE
146 (11/98): VSMM '98, Gifu, JAPAN
145 (09/98): Center for Advanced Visual Studies (CAVS) Series, MIT
144 (05/98): Virtual Museums on the Internet Symposium, Salzburg, AUSTRIA
143 (04/98): Scripted Spaces Conference, Art Center, Pasadena
142 (03/98): Design Department, UCLA
141 (02/98): Spatial and Collaborative Cinema Panel, International Film Festival, Rotterdam, NL
140 (12/97): Conceptual Design/Information Arts Dept, SFSU
139 (11/97): Global Jukebox presentation, ITP, NYU
138 (10/97): Art Dept, UC Santa Barbara
137 (10/97): Multimedia Series, Santa Barbara Community College
136 (10/97): Art Dept, Art Center, Pasadena
135 (10/97): Virtual Worlds Beyond the Screen Lecture Series, SF MOMA
134 (09/97): Telepresence Panel, International Symposium of Electronic Art (ISEA), Chicago
133 (08/97): Multimedia Studies Program, SFSU
132 (07/97): Consciousness Reframed Conference, CAiA, University of Wales, Newport, WALES
131 (06/97): Multimedia Summit, Banff Centre for the Arts, CANADA
130 (05/97): Stereoscopic Displays and Applications, SPIE, San Jose
129 (02/97): Film Academy (In conjunction with ISEA '94), St. Petersburg, RUSSIA
128 (02/97): New Genres Dept, SF Art Institute
127 (02/97): Computer-Related Design Dept, Royal College of Art, London, UK
125 (09/96): MultiMedia 96, Media Academy, Cologne, GERMANY
124 (09/96): Art@Science Symposium, Advanced Telecommunications Research (ATR), Nara, JAPAN
123 (08/96): International Academy of Media Arts and Sciences (IAMAS), Mito, JAPAN
122 (08/96): Center for Design Research, Stanford University
121 (04/96): Arts Dept, UC Santa Cruz
120 (03/96): Governor's Conference on the Arts, Los Angeles
119 (01/96): Urban Site Panel, Yerba Buena Center for the Arts, San Francisco
118 (11/95): Geography Dept, UC Berkeley
117 (11/95): Seminar on Cinema Research, Directors Guild/American Museum of the Moving Image, Queens, NY
116 (09/95): Museums of the Future Panel, Siggraph 95, Los Angeles
115 (05/95): Oksoenn 95 Symposium on "Presence," Oksoenn, NORWAY
114 (11/94): NewMediaLogia Symposium, Moscow, RUSSIA
113 (10/94): Artists in Multimedia Panel, ACM Multimedia Symposium, San Francisco
112 (08/94): Film Academy (in conjunction with ISEA '94), St. Petersburg, RUSSIA
111 (06/94): Virtual Cafe (via picturephone), McLuhan Program, U Toronto, CANADA
110 (05/94): Museum of the Future Symposium, University of Ferrara/UC Berkeley, Bologne, ITALY
109 (05/94): Art and Virtual Environments Symposium / Cyberconf 4, Banff Centre, CANADA
108 (04/94): Center for Digital Multimedia, NYU
107 (03/94): Space Electra, U Paris 1+8 Joint Series, Paris, FRANCE
106 (11/93): Explorations in New Realities, Dallas Video Festival, Dallas Museum of Art
105 (05/93): Cyberspace 3 Conference, Austin
104 (05/93): Beaux-Arts, Paris, FRANCE
103 (03/93): Dept of Architecture, UC Berkeley
102 (03/93): Art Talk, Xerox PARC, Palo Alto
101 (02/93): Interface II Conference, Hamburg, GERMANY
100 (02/93): College of Arts and Sciences, USF
99 (11/92): Human Computer Interaction Seminar, Stanford University
98 (11/92): Navigation Series, Exploratorium, San Francisco
97 (10/92): CyberArts Conference, Pasadena
96 (09/92): Center for Creative Imaging, Camden, ME
95 (06/92): Virtual Travel Panel, Travel and Tourism Research Association (TTRA) Annual Conference, Minneapolis
94 (06/92): VR and Art Panel, YLEM, Exploratorium, San Francisco
93 (05/92): Design for Conversations Seminar for duPont, Pangaro Inc., Boston
92 (01/92): Artistic Experimentation with Multimedia Panel, MacWorld EXPO, San Francisco

91 (11/91): Bioapparatus Residency, Banff Centre, CANADA
90 (10/91): Bits of Art series, School of Art, University of Cincinnati
89 (10/91): Pioneer LDC, TOKYO, JAPAN
88 (10/91): Art and Multimedia panel, International Conference on Multimedia '91, Tokyo, JAPAN
87 (10/91): Savannah College of Art and Design
86 (10/91): Center for Electronic Art, San Francisco
85 (08/91): First Moscow International Workshop on Human-Computer Interaction, Moscow, USSR
84 (08/91): Virtual Reality Summer Seminar, SF Art Institute
83 (06/91): Center for Electronic Art, San Francisco
82 (05/91): Multimedia 2, ZKM, Karlsruhe, GERMANY
81 (04/91): Cyberspace II Conference, Santa Cruz
80 (03/91): ITVA panel, San Francisco
79 (03/91): IBM (DPS Project), Los Angeles
78 (02/91): Center for Electronic Art, San Francisco

77 (12/90): Interactive Multimedia Association Developer's Forum, Scottsdale, AR
76 (10/90): Cyberthon Conference, San Francisco
75 (10/90): Center for Electronic Art, San Francisco
74 (08/90): Interface Panel, Siggraph '90, Dallas
73 (08/90): Center for Electronic Art, San Francisco
72 (07/90): Multimedia '90 Conference, Hakone, JAPAN
71 (07/90): Center for Electronic Art, San Francisco
70 (04/90): Gender and Cultural Bias Panel, Computer Games Developer's Conference, San Jose
69 (03/90): Whittle Communications, Knoxville
68 (03/90): Pacific Film Archive, UC Berkeley
67 (02/90): Conceptual Design Dept, SFSU

66 (12/89): Whittle Communications, Chicago
65 (12/89): Pacific Film Archive, UC Berkeley
64 (11/89): US International Cultural and Trade Center Commission, Washington DC
63 (11/89): Lucasfilm/Apple Umbrella (LUAI) talk, Headlands Center for the Arts, Marin Headlands, CA
62 (11/89): Art Dept, SFSU
61 (10/89): Autodesk Corporation, Sausalito
60 (10/89): Society of Motion Picture and Television Engineers (SMPTE) Conference, Los Angeles
58 (09/89): Film Dept, SF Art Institute
57 (02/89): American Society of Magazine Photographers, San Francisco
56 (02/89): Developing Interactive Video Workshop, Aspen Institute, Wye Woods, MD

55 (11/88): Apple Developer's Conference, Cupertino
53 (08/88): Museum of Science and Industry, Chicago
52 (08/88): Multi Image Association, Phoenix
51 (07/88): Open School, Apple Vivarium Project, Los Angeles
50 (06/88): Fluid Media Conference, Apple Computer, Cupertino
49 (05/88): Beyond CAD Symposium, American Institute of Architects, San Francisco
48 (02/88): Multimedia Authoring Panel, Microsoft Third International CD-ROM conference, Seattle

47 (12/87): Lotus Development Corporation, Cambridge
46 (10/87): Mattel Inc., Hawthorne, CA
45 (09/87): Interactive Video for Museums Workshop, Boston Museum of Science
44 (07/87): Society of Motion Picture and Television Engineers (SMPTE), San Francisco Chapter
43 (06/87): High Technology Media Panel, American Association of Museums Annual Conference, San Francisco
42 (05/87): Emerging Media Landscape Conference, Diaquest Corporation, Berkeley
41 (05/87): HOK Associates, St Louis
40 (03/87): Athens International Video Festival, Athens, OH

39 (10/86): Microsoft Corporation
38 (10/86): Advanced Decision Systems, Santa Clara
37 (07/86): Summer Arts '86 Conference, Cal State University, San Luis Obispo
36 (06/86): School of Medicine, Stanford University
35 (05/86): Panavision, Tarzana, CA
34 (03/86): Film/Video Program, Univ of Michigan

33 (12/85): Film/Video Dept, Cal Arts
32 (12/85): Interactive Videodisc Consortium, San Francisco
31 (11/85): California Academy of Science, San Francisco
30 (10/85): MIT Media Lab
29 (04/85): Dept of Geography, UC Berkeley
28 (03/85): International Interactive Communications Society (IICS), San Francisco Chapter
27 (02/85): Centre Mondial, Paris, FRANCE
26 (02/85): Ecole National Superior des Art Decoratif, Paris, FRANCE
25 (02/85): Mirror Systems, Cambridge

24 (11/84): First Annual Hacker's Conference, Marin Headlands, CA
23 (06/84): 4th grade class, South Elementary School, Hingham, MA
22 (04/84): Renan Productions, Los Angeles
21 (03/84): Dept of Education, University of Michigan
20 (02/84): Friends of the Earth, San Francisco
19 (01/84): SPIE Conference, Los Angeles
18 (01/84): Videodisc Workshop, Bay Area Video Coalition (BAVC), San Francisco

17 (01/83): Warner Brothers Records, Los Angeles
16 (12/82): Bank of America, San Francisco
14 (06/82): International Television Association (ITVA), Houston chapter
13 (04/82): AEC Seminar, Engineering News-Record, Denver
12 (04/82): AEC Seminar, Engineering News-Record, Houston
11 (03/82): Landor Associates, San Francisco
10 (03/82): Math Imagery Conference, UC Santa Cruz
9 (02/82): New Directions/New Dimensions Showcase, Diaquest Corporation, Berkeley

8 (12/81): Office of the President, National Geographic Society, Washington DC
7 (10/81): Graphics Gathering, Stanford University
6 (09/81): Video Department, California College of Arts and Crafts, Oakland
5 (08/81): Still-Frame and Optical Transfer, Summer Session on Interactive Videodiscs, MIT
4 (08/81): Videodisc Cinematography, Summer Session on Interactive Videodiscs, MIT
3 (05/81): WED Enterprises (Disney Research), Glendale, CA

2 (03/80): Center for Advanced Visual Studies, MIT
1 (01/80): Art and Perception Conference, Dept of Psychology, MIT