YOUR NAME HERE

Carol Flax

Title memoria/memoir

Genre Interactive installation and website

Applicant's Role in Production
Principal investigator and lead artist, driving the visual and conceptual direction of the work
Production Format
Database, a Flash ActionScript and java/php-enabled Web site and a physical interactive installation

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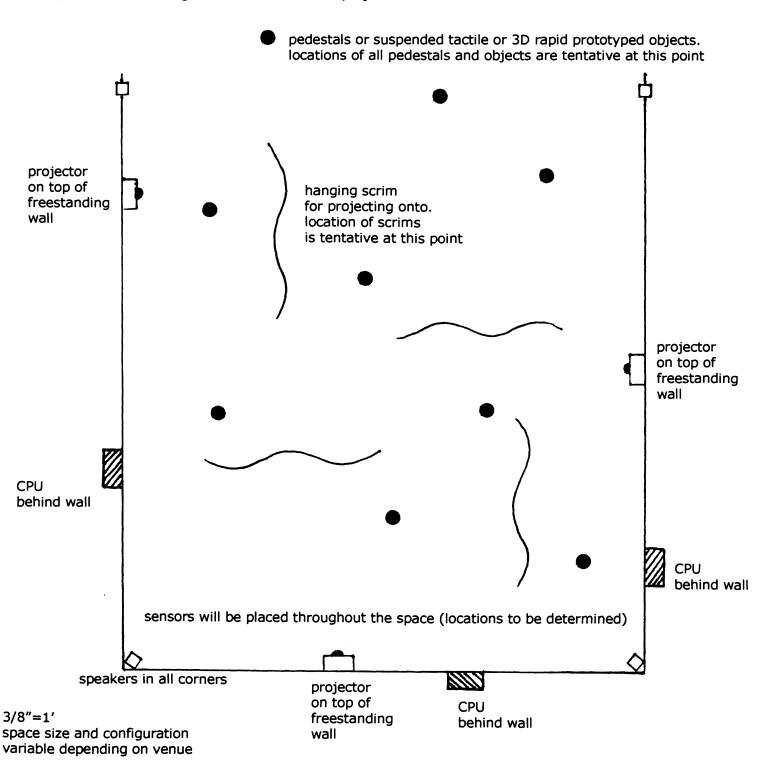**Brief Project Description** (do not exceed space given below)

This proposal for the New Media Fellowship is in support of a dynamic project, *memoria/memoir* which will be realized as both an interactive installation and website. The website is currently in development and this proposal is in support of the installation, which I intend to begin production on in spring 2005. Among other things, *memoria/memoir* is a venue for current research in Artificial Intelligence learning capabilities, on-going research into the workings of human memory and an exploration of non-keyboard interfaces for computer input and output. Working with collaborators in digital arts, electrical and computer engineering, neuropsychology, computer science, and composition and sound design, I am in the process of creating a complex arts and sciences interdisciplinary collaborative research project, which connects machines with human intelligence and memory with visual and aural symbols.

Memoria/memoir is a project about the memory process, how we gain, lose and share memories and how through our senses and emotions we archive, access and change memory over time. The project is entirely interactive. Through its database, a Flash ActionScript and java/php-enabled Web site and a physical installation, viewers will participate in an examination involving memory and sensory perception. The primary objectives of the work are to look at (1) how memory informs and affects our relationship to cultural memories, collective history, ourselves and others and (2) how we can visually represent these effects of memory using what we know and can learn about language, voice and pattern recognition from Artificial Intelligence, (3) to explore options for non-keyboard interfaces and (4) to engage in research and discovery through collaboration.

CAROL FLAX   installation floor plan

entrance includes input station

flow: visitor can enter on either side and move through the space among objects on pedestals or suspended from ceiling and scrims with video projected onto them.

● pedestals or suspended tactile or 3D rapid prototyped objects. locations of all pedestals and objects are tentative at this point

projector on top of freestanding wall

hanging scrim for projecting onto. location of scrims is tentative at this point

projector on top of freestanding wall

CPU behind wall

CPU behind wall

sensors will be placed throughout the space (locations to be determined)

speakers in all corners

projector on top of freestanding wall

CPU behind wall

3/8"=1'
space size and configuration variable depending on venue

YOUR NAME HERE

Carol Flax

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 15 minutes. If slides are included in this
application, please list the title and year of the work on this form.

Title 2 mothers, 2 daughters, 2 sisters, 2 brothers, 1 father

Year 2003

Technical Flash ActionScript enabled website

Original Format	**Format Submitted for Viewing**	**Prefered OS**
__ Software	__ Software	__ Windows
XX Web	__ Web	__ Mac
__ Installation	XX VHS	__ Unix
__ Other_____	__ Other_____	__
Other_____		

Web Information   (answer only if sample work is in Web format)

__URL_____ (if more than one please list them below)

__ Browser requirement(s)

__ Plug-in requirement(s)

__ 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)

2 mothers... (http://www.arts.arizona.edu/flax/2_mothers/) is the web version of 2 mothers, 2 daughters, 2 sisters, 2 brothers, 1 father, a DVD installation originally installed at the Tucson Museum of Art as part of the solo exhibition, *Traces.* The piece features a 50 year-old female adoptee. Each of her five genetic and four adopted family members are displayed on separate 5.6" flat panel LCD video displays in the installation and as video clips on the website, reading selections from the book, "The Dependent Gene" by David S. Moore. The viewer sees ten close up views of the lips of each person, but for the most part without hearing the audio. Occasionally the group will

recite a short passage aloud simultaneously. The piece is intended to raise issues about the relationship and probable interdependency of nature and nurture, posing the question of how we become who we are.

The web piece is similar to the DVD installation in terms of the questions it raises and the overall visual look. What is substantially different about the web as a medium, is the relationship of the audience to the piece and the very public nature of the medium. This work also is interactive on the web (i.e., the audience can control the outcome through their actions), as opposed to the museum installation where the audience is passive.   As with much of my other work, the piece poses questions of who we are and how our sense of memory and identity helps to shape our character.

First piece on videotape   Viewing time: 2:47

Check One:_XX Sample
__
Supplemental ___

YOUR NAME HERE

Carol Flax

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 15 minutes. If slides are included in this
application, please list the title and year of the work on this form.

Title Tuesday Afternoon

Year 2002

Technical Website

Original Format	**Format Submitted for Viewing**	**Prefered OS**
__ Software	__ Software	__ Windows
XX Web	__ Web	__ Mac
__ Installation	XX VHS	__ Unix
__ Other_____	__ Other_____	__
Other_____		

Web Information   (answer only if sample work is in Web format)

__URL_____ (if more than one please list them below)

__ Browser requirement(s)

__ Plug-in requirement(s)

__ 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)

In the process of globalization international borders become increasingly easy to cross for capital. Corporations reach super-mobility, but borders are militarized against "undesirable" populations. Birth becomes one's first immigration, and seemingly arbitrary lines determine social and economic geography. Tuesday Afternoon,(http://www.tuesday-afternoon.net) is an
easily accessible screen-based hypermedia project. Landscape is experienced as site of discrimination and even death. Using sound, text and video, the game-like structure of Tuesday

Afternoon goes beyond the point-and-click and makes each visitor's navigation of the piece unique. Done in collaboration with Trebor Scholz, the piece has won numerous awards and was included in the 2002 XXV Bienal de Sao Paolo, Brazil.

This videotaped segment is meant give an idea of the tone and interface of this work. The full piece is included on the supplemental CD. This sample illustrates my deep commitment to the importance of interactivity in my artwork and my concerns that art be first about ideas and second about the technology.

Second piece on videotape   Viewing time: 2:38

YOUR NAME HERE

Carol Flax

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 15 minutes. If slides are included in this
application, please list the title and year of the work on this form.

Title Journeys:1900/2000

Year 2000

Technical Interactive Installation

Original Format	Format Submitted for Viewing	Prefered OS
__ Software	__ Software	__ Windows
__ Web	__ Web	__ Mac
XX Installation	XX VHS	__ Unix
__ Other_____	__ Other_____	__
Other_____		

Web Information   (answer only if sample work is in Web format)

__URL_____ (if more than one please list them below)

__ Browser requirement(s)

__ Plug-in requirement(s)

__ 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)

In 1999 I was commissioned to make a work for the exhibition *Voyages (per)Formed*, an exhibition about Photography and Tourism in the Gilded Age, curated by Alison Nordström. Four artists were commissioned to work in separate archives in order to reconsider 19th Century commercial photography albums. I chose to work in the UA, Center for Creative Photography archive and to make an interactive photo album, bridging the late 19th / early 20th and 21st centuries through the dominant new technologies of those eras. The camera has always served as reassurance of the real. As the new technology of the late 19th, early 20th century it mystified and amazed, but

most importantly, showed us that which we couldn't see for ourselves. The new technologies of the 21st century have all but removed that privileged position from the camera, allowing for the creation of believable simulations. We enter the new century no longer assured of the presence of that which we cannot see or even that which we can see. We reconnect with a past where our imaginations must fill in. Without the power of photographic evidence, the world is again a strange and exotic place."

Journeys:1900/2000 is an interactive installation about a journey. It is a journey in which the viewer is complicit and it cannot occur without their active engagement. Using bend and touch sensors imbedded in a reproduction of a 19th century travel album, video and audioare triggered as the pages of the album are turned. I have constructed an album, which is composed of fragments of memory, pieces of voyages, and bits of history, taking single images from various existing albums, reproducing and recontextualizing them to create a voyage of my own devising. Each of these fragments is enhanced by video and audio, which may support, amplify or contest the visual information we are receiving from the photographic print on the album page.

In order to do a work using complex technologies, I applied for a residency at Institute for Studies in the Arts at ASU, the technology research arm of the College of Fine Arts at ASU. This is an internationally respected research institution that has brought in some of the most prestigious artists of our time to give support to their individual research. It is an incredible honor to be included among the prestigious researchers who have worked there. In my case, I was given a fair amount of financial support (totally approximately $11,000) and in-kind support of computers, space to set up and test the project and assistance with programming, video editing and fabrication. I also asked Kip Haaheim on the music faculty at UA to assist with audio recording and received a UA grant in order to secure studio time with him. This was my project, completely conceived and conceptualized by me. The production assistance was all paid technical support and included programmer, Robb Lovell; video editor, Patricia Clark; fabricators Kelly Phillips,David Lorig; and electrical engineer Assegid Kiddane. The piece was exhibited at ISA, then traveled with the exhibition Voyages (per)Formed for two years (to SMP, PRC at BU, Houston Fotofest) and was included in the University of Arizona Museum of Art exhibition Love and/or Terror in fall 2003. *Voyages (per)Formed* received approximately $100,000 in funding including a 2000 National Endowment for the Arts Creation and Presentation Grant, with approximately $20,000 in direct grants to *Journeys:1900/2000*.

This piece bridges many of my major concerns, looking at issues of memory, privilege, our sense of our own place in the world and using interactivity as a way to fully engage the visitor. The segment selected gives an idea of the interface and the immersive quality of the experience when interfacing with the piece. Additional information is available on the supplemental CD and the project website (www.arts.arizona.edu/flax/journeys/)

Third on the videotape   Viewing time: 3:40

Check One:_XX Sample
___
Supplemental ___

YOUR NAME HERE

Carol Flax

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 15 minutes. If slides are included in this
application, please list the title and year of the work on this form.

Title Ex/Changing Families

Year 1997/1998

Technical Interactive Installation

Original Format	Format Submitted for Viewing	Prefered OS
__ Software	__ Software	__ Windows
__ Web	__ Web	__ Mac
XX Installation	XX VHS	__ Unix
__ Other_____	__ Other_____	__
Other_____		

Web Information   (answer only if sample work is in Web format)

__URL_____ (if more than one please list them below)

__ Browser requirement(s)

__ Plug-in requirement(s)

__ 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)

Ex/Changing Families was conceptualized by Ann Fessler and myself each working individually (on separate coasts) on our own room of the 4-room installation. This installation considers adoption as a particular social formation that resonates within a variety of cultural contexts and informs our understanding of identity as a whole. Visitors entered through the waiting room (conceptualized and created together), moved into the *Nursery/Orphanage* (my individual interactive installation), then into the *Living Room* (Ann's individual video installation) and finally to the mail room where people could interact with the website that I created or write stories and post them on the walls

of the room. Early in the process of working on this piece, I applied for a Banff Centre for the Arts residency, so that we could have some time together to work. This residency allowed us the focused time to brainstorm, for me to create the website and for Ann to edit her video.

The piece has been installed twice, at the California Museum of Photography in Riverside, CA and the McKinley Avenue Contemporary in Dallas, TX. Each installation was site specific and slightly different. In both, the *Nursery/Orphanage* presents an environment dominated by cold, steel, institutional style cribs. Images of animals that are neither warm nor fuzzy are painted directly onto the walls or contained within "framed, slightly amiss, portraits." Text panels explain the actual and emotional cost of adoption and a low-level sound track blends the voices of the institution, the voices of the society that feeds it and the voices of the (mostly) women and children who are both present and absent in the this scene. As viewers move through the installation, they trigger sensors, which affect the audio. By entering into the space, visitors alter the site's audio environment, not only for themselves, but also for each other.

This videotape sample is meant to give a sense of the feel of the space, the discomfort of the environment, the quality of the visuals and the audio and the way in which the visitor interacts with the space. As with all my interactive work, it is critical to me that the visitor be complicit in the outcome, not a passive viewer.

Fourth on videotape   Viewing time: 2:43

| Check One:___ Sample |
| _XX_ |
| Supplemental |

YOUR NAME HERE

Carol Flax

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 15 minutes. If slides are included in this
application, please list the title and year of the work on this form.

Title CD Sampler of Various Works

Year 1997-2004

Technical Websites, Interactive installations and DVD installations

Original Format	**Format Submitted for Viewing**	**Prefered OS**
__ Software	__ Software	XX Windows
_XX Web	__ Web	XX Mac
_XX Installation	__ VHS	__ Unix
__ Other_____	XX Other_ C D - R o M _	__
Other_____		

Web Information   (answer only if sample work is in Web format)
__URL_____ (if more than one please list them below)

__ Browser requirement(s)

__ Plug-in requirement(s)

__ 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)

This CD contains full websites and more detailed information about the work submitted on the videotape. All websites are located locally on the CD with additional links to live sites. There are two additional pieces on the CD that are not on the videotape.

2 mothers, 2002, DVD Installation
2 mothers, 2 daughters, 2 sisters, 2 brothers, 1 father, a DVD installation was originally installed at the Tucson Museum of Art as part of the solo exhibition, *Traces*. The piece features a 50 year-old female adoptee. Each of her five genetic and four adopted family members are

displayed on separate 5.6" flat panel LCD video displays reading selections from the book, "The Dependent Gene" by David S. Moore. The viewer sees ten close up views of the lips of each person, but for the most part without hearing the audio. Occasionally the group will recite a short passage aloud simultaneously. The piece is intended to raise issues about the relationship and probable interdependency of nature and nurture, posing the question of how we become who we are.

Kyle, 2004, DVD Installation
The birth of my first grandchild has been the occasion for my most recent DVD installation, *Kyle*. Along with a video projection of the mostly sleeping and mute newborn, the piece features genetic and non-genetic relatives of the still malleable and unformed infant, each of who will ultimately contribute significantly and in very different ways to who he is and who he becomes. For years my work has broached questions of uncertainly in my own identity, mingled with larger questions of social and cultural identities. Like life, my work with technology moves through multiple generations to reach its finished state. As I bring this next generation of family to my artistic explorations, I continue to broach these questions of identity and knowing and hopefully find a deeper understanding in the process.

Carol Flax artist statement

As an artist, I try to find those delimiting spaces where the personal and the social come together, where boundaries shift and nothing is quite certain. As an adoptee, I have spent most of my life caught in the transitional state between knowing and not knowing. For years my work has broached questions of uncertainly in my own identity, extended outward to include larger issues of social and cultural identities. I have used various strategies, sometimes working in the intense private realm, sometimes in the vulnerable and exposed public domain, and various approaches, from my early computer-altered print work in the mid-1980's to more recent web, multimedia and installation work. In each of my projects, questions of memory, both personal and cultural, help to shape my approach.

In my 1997/1998 interactive installation, *Ex/Changing Families*, I looked at the role of contradictory messages in identity formation. I wondered at a society that bandies about such loaded terms as "out of wedlock" and "illegitimate" while simultaneously leaving women and children subject to poverty/neglect. In response to the fears and fantasies engendered by the more negative discourses surrounding adoption, I created the home of the unwanted child, the child for whom society has no place. The "Nursery/Orphanage" presents an environment dominated by cold, steel, institutional style cribs. Text panels explain the actual and emotional cost of adoption and a low-level, triggered sound track blends the voices of the institution, the society that feeds it, and the (mostly) women and children who are both present in and absent from this scene. As viewers move through the installation, they trigger sensors, activating the audio and altering the site's audio environment, not only for themselves, but also for each other.

I continued to explore the idea of a journey, through both space and time, in my interactive installation *Journeys:1900/2000*. Using bend and touch sensors embedded in a reproduction of a 19th-century travel album, viewers trigger video and audio as the pages of the album are turned. The album I have constructed is composed of pieces of voyages and bits of history, taking single images from various existing albums, reproducing and recontextualizing them to create a voyage of my own devising. These

fragments are enhanced by multimedia, which support, amplify or contest the visual information being received from the photographic print on the album page. The voyages documented are from the turn of the last century and were significant events in the formation of collective cultural history. Our contemporary reading relies on hindsight as we fill in the missing pieces and allow our own interpretations to guide our experience.

My 2002 work, *2 mothers, 2 daughters, 2 sisters, 2 brothers, 1 father* features a fifty year-old female adoptee, along with each of her five genetic and four adopted family members. Because she did not meet her genetic family until the age of forty, she spent most of her life without knowledge of her genetic connections. This piece is an inquiry into the question of what is inherent and what is learned and whether the two can ever be separated.

The birth of my first grandchild has been the occasion for my most recent DVD installation, *Kyle.* Along with a video projection of the mostly sleeping and mute newborn, the piece features genetic and non-genetic relatives of the still malleable and unformed infant, each of whom will ultimately contribute significantly and in very different ways to who he is and who he becomes. This installation continues my exploration of family, history, memory and identity As in life, all my work with technology moves through multiple generations in order to reach its finished state. Just as I am bringing this next generation of family into my artistic explorations and continue to develop other new work, I will explore difficult issues and challenging new technologies as a means of expression, hopefully finding some answers and raising new questions along the way.

Carol Flax New Media Fellowship Narrative

This proposal for the New Media Fellowship is in support of a dynamic project, *memoria/memoir* which will be realized as both an interactive installation and website. The website is currently in development and this proposal is in support of the installation, which I intend to begin production on in spring 2005. Among other things, *memoria/memoir* is a venue for current research in Artificial Intelligence learning capabilities, on-going research into the workings of human memory and an exploration of non-keyboard interfaces for computer input and output. Working with collaborators in digital arts, electrical and computer engineering, neuropsychology, computer science, and composition and sound design, I am in the process of creating a complex arts and sciences interdisciplinary collaborative research project, which connects machines with human intelligence and memory with visual and aural symbols.

Memoria/memoir is a project about the memory process, how we gain, lose and share memories and how through our senses and emotions we archive, access and change memory over time. The project is entirely interactive. Through its database, a Flash ActionScript and java/php-enabled Web site and a physical installation, viewers will participate in an examination involving memory and sensory perception. The primary objectives of the work are to look at (1) how memory informs and affects our relationship to cultural memories, collective history, ourselves and others and (2) how we can visually represent these effects of memory using what we know and can learn about language, voice and pattern recognition from Artificial Intelligence, (3) to explore options for non-keyboard interfaces and (4) to engage in research and discovery through collaboration.

Employing a dynamic user interface, both the website and physical installation will create similar experiences, one in virtual space, the other in physical space, to allow users to input their stories, call up their own and others' stories/memories and to return and 'replay' their own memories. As the program acquires information—actually, "learns"—it emulates the processes of consolidation and reconsolidation in our brains, rewriting our memories each time they are activated. Importantly, it also helps to turn our individual memories into collective memories as each new connection is made. In both spaces, the visitor will enter and contribute

her/his story via sound, spoken word, text and visuals, and *memoria/memoir* will add the data to its archive. Visitors will be able to call up contributed stories as audio, text, image and video, or experience the Artificial Intelligence program as it controls and alters, combines and recombines the archived database material.

With a live connection in the space, the installation will draw from the data gathered through the website as well as allowing for more data input. My intention with the installation is to engage as many of the senses as possible, as modes of machine/program input or output in order to create an experience, which is immersive and visceral. Input may occur through voice recognition, eye movement, haptic devices, evocative and tactile objects housing sensors that the viewer will be invited to touch, and various triggers including motion, proximity and others; output (response) may occur as sights, sounds, touch, the suggestion of smell and taste (eventually maybe actual smells), fully engaging visitors' senses. Prior to entering, visitors will be invited to add their stories and then to select a keyword from a large list of words, which are potential memory triggers (foods, people, places, etc) either by speaking, pointing or touching. Then, when they enter the space, the activation will already have been affected by their selections. As the visitor moves through the space, variations of the stories, sounds and visual materials will be projected onto gallery walls, a series of large veils, and possibly other surfaces, emulating the way images may travel from the eye to the brain. Audio will permeate the installation with a mixture of the visitor's story and other aural/oral data from the database. Consequently, each visitor will have a unique experience within the space. The elements retrieved by visitors via queries made to *memoria/memoir* will mutate as the Artificial Intelligence program learns, remembers and forgets in a manner similar to the process of human memory. It will remind us that memory is nuanced and subtle, strange and mysterious and something that we may never fully understand yet it is critical to creating our place in the world.

This is clearly a long-term endeavor. In my discussions with memory researchers, Artificial Intelligence researchers and computer scientists, the response has been that this is exciting, innovative and difficult research. I imagine this project will continue and grow for many years and will hopefully eventually be

permanently installed somewhere. For the period of this fellowship, my goal is to do a first installation, which will be both an elegant visual and visceral work as well as an opportunity to gather additional data, learn from the process and the outcome and create an opportunity for continued research.

Since the late 1980s I have consistently made work that examines issues such as memory and its visual representation, and concepts such as how we understand who we are and what our place in the world is through the innovative use of various forms of digital technologies including print, web, multimedia work, and interactive installations. My goal is to use technology in new and provocative ways, while at the same time making work, which is content filled and technology supported, not the other way around. As a member of the University of Arizona art faculty, I have built relationships with other units on campus as well as alliances with researchers at other universities, helping me to achieve my research goals.

My full budget for this project is approximately $65,000. To date I have received almost $30,000 in grants and in-kind support to design and build the database structure (see supplemental budget sheet). This database is housed on servers at the Treistman Center for New Media at the University of Arizona. Continued support from the Treistman Center will allow me to complete the website by May 2005. For this proposal, I have budgeted programming and network support at $10,000, materials and supplies at $12,500, RP support and other labor at $2,500 and artist's fees and travel at $10,000 for a total requested budget of $35,000. I am confident that I can complete a first installation of this project for the requested $35,000 during the 18-month term of the fellowship. I will continue to apply for funding in order to achieve my long-term goals with this project. Additionally, I have passed the pre-screening process and have been invited to submit a full proposal for a technical residency at the Banff Centre for the Arts to work on developing sensory input and output possibilities for non-keyboard interface and interactivity. The Banff residency will help me begin production on the installation. Were I to receive it, the New Media Fellowship will allow me to complete the project as I have envisioned and planned it over the past six months. I am very excited about that prospect and genuinely appreciate the opportunity to submit a proposal for consideration.

Carol Flax   Proposed Budget

2 Computer systems (CPU's) @ 2000/ea	4,000.00
Software	1000.00
2 Video data projectors @ 2000/ea	4,000.00
Misc electronics, cables, etc	1,000.00
Sensing cameras and asst'd sensors and input devices	1,500.00
Construction materials	1,000.00
Labor	500.00
Programming and implementation support	10,000.00
3D Scanning and rapid prototyping	2,000.00
Artist fees	7,500.00
Travel for research and collaboration meetings	2,500.00
Sub total	**35,000.00**

C A R O L   F L A X

http://www.arts.arizona.edu/cflax/

EDUCATION

1982   MFA   Photography, California Institute of the Arts
1980   BA   Art, California State University, Northridge   (Summa Cum Laude)

HONORS AND AWARDS

2002-03   Institute for Studies in the Arts, Arizona State University
               Funded Residency in support of *memoria/memoir*

2001   InternetKunstPreis 2001, Net-Z-Lab, Chemnitz, Germany
               for *Tuesday Afternoon* (with Trebor Scholz)

2001   Finalist in the First International 'Lite Show: Flash and Other Low Bandwidth Media'
               festival, BostonCyberArts for website, *Gravity*

1999-2000   Institute for Studies in the Arts, Arizona State University
               Funded Residency for production of *Journeys:1900/2000*

1996   Association of American Museums Publications Award
               for artist's book, *Some (M)Other Stories: A Parent(hetic)al Tale*

1996   Banff Centre for the Arts, Funded Residency
               for production of *Ex/Changing Families*, a collaborative installation later installed at the
               California Museum of Photography in Riverside, CA and the McKinney Avenue
               Contemporary in Dallas, TX

1992   Finalist, Long Beach MetroRail Pylon Competition (Blue Line), Long Beach, CA

1992   Finalist, Kodak Motion Picture and Television Imaging Center Lobby Installation,
               Los Angeles, CA

1991   Finalist, LA MetroRail Transit Station Design (Green Line), Los Angeles, CA

1990   City of Los Angeles, Cultural Affairs Artists Grant

1989   First Award, Artist's Billboard, Arts Festival of Atlanta, Atlanta, GA

1988   First Award, 18th Juried Photography Exhibition, Houston, TX

1982   James D. Phelan Art Award in Photography, First Award, San Francisco, CA

1981   National Endowment for the Arts Photography Honorarium

1981   Security Pacific Bank Bicentennial Art Award, Los Angeles, CA

GRANTS AND CONTRACTS

2002   Foreign Travel Grant, International Affairs Office, University of Arizona, Tucson, AZ

2002   Internet Technology and Commerce Institute Grant
              in support of *3D Visualization Symbology for Disaster Relief Operational Management*
              (Co-PI with Dr. Jerzy Rozenblit, ECE) ($14,500)

2002   The College of Fine Arts and the Internet Technology, Commerce and Design Institute,
              Digital Arts Planning Grant in support of *Memoria/Memoire* (PI) ($2000)

2002   Fine Arts Research and Professional Development Incentive Grant, College of Fine
              Arts, University of Arizona in suport of research and development of work for
              exhibition, *Traces* (PI) ($2000)

2002   International Visitor Grant, Office of International Affairs, University of Arizona
              in support of 2002 Digital Arts Symposium, *Neural Networks* keynote speaker, Kevin
              Warwick (PI) ($500)

2001   New Learning Environments and Instructional Technologies Grant, University of
              Arizona, Office of the Senior Vice President for Academic Affairs in support of *Art and
              Engineering: Creating Collaborations* (co-PI with Lucy Petrovich) ($24,900)

2001   Arizona Commission on the Arts Grant
              in support of 2002 Digital Arts Symposium, *Neural Networks* (PI) ($2700)

2001   Arizona Commission on the Arts Encouragement grant
              in support of *Journeys:1900/2000* (PI) ($500)

2001   University of Arizona, College of Fine Arts Small Grant
              in support of 2002 Digital Arts Symposium, *Neural Networks*
              (Co-PI with Lucy Petrovich) ($1500)

2001   University of Arizona, College of Fine Arts Small Grant
              in support of School of Art Visiting Artist Program (PI) ($2500)

2000   National Endowment for the Arts, Creation and Presentation Grant
              in support of *Voyages (Per)Formed* (Co-PI) ($15,000)

2000	University of Arizona, College of Fine Arts Small Grant in support of *Interfacing the Future: 3rd Annual Digital Arts Symposium* (Co-PI with Lucy Petrovich) ($2500)
2000	Marjorie and Louis Slavin Grant in support of *Interfacing the Future: 3rd Annual Digital Arts Symposium* (Co-PI with Daniel Bernardi) ($1000)
1999-00	Institute for Studies in the Arts, Arizona State University, Residency and Research Grant in support of *Journeys:1900/2000* (PI) ($11,726)
1999-00	University of Arizona, Small Grant, Office of the Vice President for Research in support of *Journeys:1900/2000* (PI) ($4937)
1999	University of Arizona, College of Fine Arts Research and Professional Development Incentive Grant in support of *Journeys:1900/2000* (PI) ($1926)
1999	Visual Arts II Fellowship from Tucson/Pima Arts Council (PI) ($4975)
1998	University of Arizona New Learning Environments and Instructional Technologies Grant (PI) ($13,122)
1998	University of Arizona, College of Fine Arts Small Grant in support of *Mission:Mars* (PI) ($2900)
1998	University of Arizona, College of Fine Arts Small Grant in support of Digital Arts Symposium (Co-PI with Lucy Petrovich) ($1100)
1995	Instructional Development Grant, University of California, Santa Barbara

SOLO AND COLLABORATIVE EXHIBITIONS AND INSTALLATIONS

2002	*Traces*, Solo Exhibition, Tucson Museum of Art, Tucson, AZ
2000-2002	*Journeys:1900/2000*, Interactive Installation as part of *Voyages (Per)Formed*, (catalog) 2002 Fotofest, Houston, TX 2001 Photographic Resource Center, Boston, MA 2000 Southeast Museum of Photography, Daytona Beach, FL

2000   *Journeys:1900/2000*, Interactive Installation, Institute for Studies in the Arts Gallery, Arizona State University, Tempe, AZ. This piece was commissioned by curator, Alison Nordstrom at the Southeast Museum of Photography for the exhibition, *Voyages (Per)Formed*, and was completed in residence at the Institute for Studies in the Arts at Arizona State University

1997-1998   *Ex/Changing Families,* Interactive Installation (with Ann Fessler),
              1998 McKinney Avenue Contemporary, Dallas, TX
              1997 California Museum of Photography, Riverside, CA

1995   Solo Installation, San Francisco Camerawork, San Francisco, CA

1993-1994   Public Arts Commission, City of Manhattan Beach, CA

1993   Public Art Installation, Inverness Rail Station, Inverness, Scotland

1991   Solo exhibition, 92nd St. Y, New York, NY

1991   Solo exhibition, Executive Tower, Los Angeles, CA

1990-1991   Window Installation, 462 Broadway, New York, NY

1990   Artist's Billboard, Los Angeles Festival, Los Angeles, CA

1990   Solo exhibition, Midtown Y, New York, NY

1990   Artist's Billboard, San Pedro, CA (City of LA Cultural Affairs Grant)

1989   Artist's Billboard, Arts Festival of Atlanta, Atlanta, GA (First Award)

1983   Solo exhibition, LAPA Gallery, Venice, CA

1983   Solo exhibition, Hoffman Gallery, Spokane, WA

1982   *Constructs*, Graduate exhibition, Gallery D300, CalArts, Valencia, CA

1981   Solo exhibition, BC Space, Laguna Beach, CA

WEB ART

http://www.tuesday-afternoon.net
       Tuesday Afternoon (with Trebor Scholz), A project about borders and their political and social implications.

http://www.arts.arizona.edu/flax/journeys
Web site for the Interactive Installation piece, *Journeys:1900/2000*

http://www.mind-shift.net/
Art-Id / Cyb-Id: Identities in Cyberspace, Curated by Roy Ascott and Josep Giribet, an internet project for the Bienal do Mercosul, Porto Alegrem Brazil. Nov, 1999 - Jan, 2000

http://www.arts.arizona.edu/flax/gravity/
Gravity A piece about traveling parallel paths. Finalist in the First International 'Lite Show: Flash and Other Low Bandwidth Media' festival, BostonCyberArts

http://www.mintmuseum.org/cflax/
Sometimes A piece of visual poetry commissioned by the Mint Museum of Art, Charlotte, NC.

http://www.cmp.ucr.edu/ex/changing/
Ex/Changing Families At the California Museum of Photography, a web site and traveling collaborative installation about issues of adoption and it's social and political implications

http://www.arts.arizona.edu/flax/
M/Other Stories A poetic piece on adoption and it's surrounding issues. This site offers viewers an opportunity to add their own stories.

http://www.cmp.ucr.edu/flax/mortal/
In the Absense of Memory Part of the web project, "Terminals", and the UC, Santa Cruz project, "Mortal Coil"

http://www.arts.arizona.edu/art444x/
The site for the Digital Photography Program at the University of Arizona

http://www.art.uiuc.edu/@art/carol_flax/carolflax.html
@art gallery A virtual gallery for contemporary electronic art maintained by Joseph Squier at the University of Illinois,Urbana Champagne.

http://www.art.uh.edu/dif/flax_1.html
Digital Imaging Forum The electronic journal and internet web site for digital imaging, maintained by Suzanne Bloom and Ed Hill at the University of Houston.

http://cepa.buffnet.net/exhibits/EXHIBIT.19981999/ruinsinreverse/RIR.02.public.html
Ruins in Reverse: Time and Progress in Contemporary Art, Public Art

http://www.crania.com
Crania, A Literary/Arts Magazine. Featured artist, Issue 6

SELECTED GROUP EXHIBITIONS

2004   *In the Center of Things*, Center for Creative Photography, University of Arizona, Tucson, AZ

2003   *Global Priority* Herter Art Gallery, University of Massachusetts, Amherst, MA (Catalog published by Routledge)

2003   *Love and/or Terror* University of Arizona Museum of Art, Tucson, AZ

2002   *dos madres* Second International Art Biennial-Buenos Aires, Museo Nacional de Bellas Artes, Buenos Aires, Argentina (catalog)

2002   *Tuesday Afternoon* (with Trebor Scholz), WebArt, XXV Bienal de São Paulo, São Paulo, Brazil (catalog)

2001   *Borderlands* (with Trebor Scholz), WebArt, Hellenic World Foundation, Athens, Greece

2001   *Zeros and Ones* Moser Performing Arts Center Gallery, Joliet, IL

2001   *Art Faculty Exhibition* University of Arizona Museum of Art, Tucson, AZ

2000   *F I L E (festival internacional de linguagem eletronica)* WebArt, Sao Paulo, Brazil

2000   *Art Faculty Exhibition* University of Arizona Museum of Art, Tucson, AZ

1999   *Arizona Biennial 99* Tucson Museum of Art, Tucson, AZ

1999   *Art Faculty Exhibition* University of Arizona Museum of Art, Tucson, AZ

1998-1999   *Ruins in Reverse* Window Installation, CEPA Gallery, Buffalo,NY (publication and web site)

1998   *Digital Frontiers* George Eastman House, Rochester, NY (catalog on CD-ROM)

1998   *Art Faculty Exhibition* University of Arizona Museum of Art, Tucson, AZ

1997   *Telling Our Own Stories* Southeast Museum of Photography, Daytona Beach, FL

1996   *Mortal Coil* print and web, Sesnon Gallery, Porter College, University of California, Santa Cruz, CA

1996   *Faculty Exhibition* University Art Museum, University of California, Santa Barbara

1995   *P.L.A.N. Photography Los Angeles Now*, Los Angeles County Museum of Art, Los Angeles, CA

1995   *Autobiographical Works by Women Photographers* Silver Eye Center for Photography,
              Pittsburg, PA

1995   *Digital Identities: Technologies of Meaning* Sheppard Gallery, University of Nevada,
              Reno, NV

1995   *Contemporary Photography: The California Focus* Armand Hammer Museum of Art,
              Los Angeles, CA

1994   *L'Image réinventée: Art/Photographie/Numérique* CYPRES, Aix en Provence, France

1994   *Transformations* California Museum of Photography, Riverside, CA

1994   *Underexposed* Los Angeles Municipal Art Gallery, Barnsdall Art Park, Los Angeles,
              CA

1993-1994   *Iterations: The New Image* 1994, International Center for Photography, New York;
              1993, Montage, Rochester, NY (catalog)

1993   *Pro-femina: Images of Women by Women* Samuel P. Harn Museum of Art, Gainesville,
              FL and Southeast Museum of Photography, Daytona Beach, FL (purchase) (catalog)

1993   *Fotofeis: Scottish International Festival of Photography* Public Art Installation,
              Technology Venue, Inverness, Scotland (catalog)

1993   *The Art Factor* FISEA 93, Minneapolis College of Art and Design, Minneapolis, MN

1992   *Digital Photography* Centre National de la Photographie, Palais de Tokyo, Paris, France
              (catalog)

1992   SIGGRAPH '92, Chicago, IL

1992   *Intimate Technologies/Fictional Personas*, Brush Art Gallery,
              St. Lawrence University, Canton, NY

1992   *Inaugural Exhibition*, Southeast Museum of Photography, Daytona Beach, FL

1991   *Clear and Present Danger: Censorship in an Age of Intolerance* Carleton College,
              Northfield, MN

1991   *Virtual Memories* Friends of Photography, San Francisco, CA

1991   *Out of the Ether* Film in the Cities, Minneapolis, MN

1990   Siggraph '90, Dallas, TX and traveling to Frankfurt, Madrid, Boston and New York

1990   *Digital Image-Digital Photography* Jonsson Library, Dallas, TX

1990   SISEA, Groningen, Holland

1990   *Digital Photographs* Webster University, St. Louis, MO

1989   *Media Talk* Security Pacific Gallery, Costa Mesa, CA (purchase) (catalog)

1989   *Creative Process* Downey Museum of Art, Downey, CA

1989   *Digitized Images* Orange Coast College, Costa Mesa, CA

1989   *Just Beyond Photography* Montpelier Art Center, Laurel, MD

1988   *Prix Ars Electronica 88* Linz, Austria (book)

1988   *Digital Photography* San Francisco Camerawork, San Francisco, CA, and traveling to
            University of Texas at Arlington; Houston Center for Photography; CEPA Gallery,
            Buffalo, NY; Museum Folkwang, Essen, West Germany; Musseet for Fotokunst,
            Odense, Denmark; Perspektief, Rotterdam, Holland; curated by Jim Pomeroy and
            Marnie Gillette (catalog)

1988   *National Computer Art / Electronic Media Exhibition* Eastern Washington University,
            Cheney, Washington (poster)

1988   *Eighteenth Juried Photography Exhibition* Foto Fest, Houston, TX (first award)

1988   *Exhibition of Computer Art* SIGGRAPH, Atlanta, GA

1986   *Faculty Show* photographs, California State University, Northridge, CA

1986   *Outspeak* LACPS Gallery, Los Angeles, CA

1985   *Olympic Show, Part I* Los Angeles County Museum of Art,
            Los Angeles, CA

1984   Otis Art Institute, Los Angeles, CA

1983   *New Photographics* Central Washington University, Ellensburg and Cheney Cowles
            Memorial Museum, Spokane, WA

1983   *Sequential Photography* Mount Vernon College, Washington, D.C.

1982   *Phelan Award Winners Exhibition* San Francisco Camerawork, San Francisco, CA

1982   *Photography Invitational* Weber State College, Ogden, UT

CITATIONS

Gerbracht, Grady and Susan Jahoda, Ed., *Global Priority*, Rethinking Marxism, (New York: Routledge 2003); pp. 360-361

McCaslin, Nikki. *Distinguished Adoptees*, (Phoenix, AZ: Oryx Press 2003)

Cidades. Exhibition Catalog, 25ª Bienal de São Paulo Iconografias Metropolitanas, São Paulo, Brazil: Fundação Bienal de São Paulo, 2002, p. 417

Fotofest 2002, Classicism & Beyond, Exhibition Catalog, Ninth International Biennial of Photography, Fotofest, Inc, 2002, p. 119

Silver, Joanne. "Visual Arts; Souvenirs inspire travels back in time." *Boston Herald*, 7 Dec 2001

Wildman, David, "Postcards from the Past." *The Boston Globe*, 18 Nov 2001, City Weekly Section, p. 14

"Top Picks for November." *Boston Magazine*, Sept 2001, vol. 93, no. 9

Nordström, Alison. "Voyages (per)Formed," *in the loupe* (November/December 2001): pp. 5-8

Xu, Gan, Ph.D. *Installation Art.* (Beijing, China: Art Publishing House, 2001)

Holleley, Douglas, Ph.D. *Digital Book Design and Publishing.* (Rochester, NY: Visual Studies Workshop, 2001), p. 233

Collins, Dan, "Educating for Interaction." *New Art Examiner* (Chicago: Winter. 2001): 19-21

Cal Arts Alumni News. California Institute of the Arts, (Winter, 2001): p.8

"Annual Guide to Museums, Galleries and Artists, 2000-2001." *Art in America*, August 2000, 1907

Searleman, Eric. "Past comes alive with moving pictures." *Arizona Republic*, 17 Aug 2000

Nordström, Alison. *Voyages (Per)Formed*, Daytona Beach, FL: Southeast Museum of Photography, Daytona Beach Community College, 2000 (catalog essay)

Cadava, Eduardo. "Irreversible Ruins." *CEPA Journal,* ed. Grant Kester, (September 1998 - March1999): pp. 5-8

Daniel, Mike, "Adopting a questioning attitude", *Dallas Morning News*, 12 June 1998

Walker, Marina "The ascent of (wo)man," *Santa Barbara News Press*, 18 July 1997

Fotografie Nach Der Fotografie, Siemens Culture Program, Verlag Der Kunst, Germany, 1996

Kojima, Hisaka, ed. *Digital Image Creation.* (Berkeley, CA: Peachpit Press, 1996)

Ascott, Roy. "Photography at the Interface," in *Electronic Culture* ed. Tim Druckrey, (New York: Aperture, 1996), pp. 165-171

Hirsch, Robert. *Exploring Color Photography*, 2nd Edition, (Brown & Benchmark Publishers, 1996)

Gosney, M. and L. Dayton, *The Desktop Color Book*, 2nd Edition, (MIS Press, 1995)

Kojima, Hisaka, ed. *Digital Photography Now*, Tokyo, Japan: Graphic-sha, 1995

"Cyberscope." *Newsweek.* 12 December 1994

Morgan, Anne Barclay. "Tomorrow's Palette." *Art in America.* April 1994

Druckrey, Tim, ed. *ITERATIONS: The New Image.* (New York: ICP/ Cambridge: MIT Press, 1994), pp. 102-107

CAMERAWORK, A Journal of Photographic Arts. SF Camerawork, Fall/Winter, 1993, vol. 20, no.2

Hagen, Charles. "High-Tech Razzle-Dazzle and State-of-the-Art Art." *New York Times*, Oct. 29, 1993

Foster, Alisdair, ed. *FOTOFEIS.* (Edinburgh, Scotland: Fotofeis, Ltd, 1993), pp. 110-111 (exhibition catalog)

Hirsch, Robert. *Exploring Color Photography.* (Brown & Benchmark Publishers, 1992)

"The Wizards of Light and Motion." *MONDO 2000.* Winter 1991, Issue #3

Howe, Graham, and Pilar Perez, eds. *FRAME/WORK* (Summer, 1991)

"Digital Image Digital Cinema: Siggraph 1990." *LEONARDO* (August, 1990): p. 109

Gerken, J. E., ed. *CLICK 1*, (Northlight Books, 1990)

PERSPEKTIEF 37, Perspektief Center for Photography, Rotterdam, Netherlands, Dec 1989-Jan 1990

Curtis, Cathy, "Media Talk at Gallery Makes Some Strong Comments." *Los Angeles Times*, September 1, 1989

O'Dair, Barbara. "Media Talk' Exhibit Manipulates Images as it Examines the Concept." *Orange County Register*, September 15, 1989

Security Pacific Corporation, *Media Talk*, with essays by Mark Johnstone and Irene Borger, 1989 (exhibition catalog)

Houlihan, James W. "The Ethics of Manipulation." *SPOT*, Houston Center for Photography, Winter, 1988

Leopoldseder, Hannes. *Meisterwerke der Computerkunst*, Prix Ars Electronica, TMS-Verlag-Bremen, 1988

Nash, Graham, ed. "Digital Frontiers" Nash Editions and George Eastman House, 1998

San Francisco Camerawork, Inc. *Digital Photography:Captured Imagery, Volatile Memory, New Montage*, 1988, includes essays by Martha Rosler, Tim Druckrey, and Jim Pomeroy (exhibition catalog)

Tamblyn, Christine, "MachineDreams." *Afterimage*, Sept 1988, vol. 16, no. 2

Jordan, Jim. "Art and the Electron." *Artweek*, September 1988, vol. 19, no. 24

Lufkin, Liz. "High Tech Comes Down to Earth in Summer Shows*. " San Francisco Chronicle*, July 17, 1988

Bloom, John. "10th Anniversary San Francisco Camerawork," *PhotoMetro*, September 1984

Bowles, Demetra. "The Phelan Award", *Artweek*, July 17, 1982, vol. 13, no. 24

PUBLICATIONS

Flax, Carol. "Teaching in a Collection," *Original Sources: Art and Archives at the Center for Creative Photography,* eds. Amy Rule and Nancy Solomon, (Tucson: Center for Creative Photography, University of Arizona, 2002) pp. 200-203 (invited).

Flax, Carol. *Journeys:1900/2000*, Southeast Museum of Photography, Daytona Beach Community College, 2000 (Commissioned catalog in conjunction with exhibition, *Voyages (per)Formed*) (Funded by a grant to the Museum from the Florida State Institute of Museum and Library Services).

Flax, Carol. "Crossing a Line." *CEPA Journal,* (September, 1998-March, 1999): p. 25 (invited)

Flax, Carol. "The Appropriateness of Appropriation" *Thresholds: viewing culture*, Volume 10 (1997): pp. 49-53 (invited).

Flax, Carol. "Ex/Changing Families," *IndieVisions*, Issue 12, (April/May, 1997): p. 7 (invited).

Flax, Carol and Robert Cook, eds. "Power and Control Imag(in)ing Technology", *exposure,* Vol.30, No.1/2, 1995

PUBLISHED ARTIST'S BOOK

Some (M)Other Stories: A Parent(hetic)al Tale, published by Southeast Museum of Photography, Daytona Beach, FL, produced at Visual Studies Workshop, Rochester, NY, 1995

SELECTED COLLECTIONS

- •Museo Nacional de Bellas Artes, Buenos Aires, Argentina
- •Seattle Art Museum, Seattle, WA
- •Santa Barbara Museum of Art
- •Visual Studies Workshop, Rochester, NY
- •Southeast Museum of Photography, Daytona Beach, FL
- •Center for Creative Photography, University of Arizona, Tucson, AZ
- •Bank of America (formerly Security Pacific Bank) Art Collection, Los Angeles, CA
- •Numerous Private Collections

SCHOLARLY PRESENTATIONS

2003	**Invited Speaker**, *Representational models for the creative process and computational models of memory*, Institute for Studies in the Arts, Arizona State University, Tempe, AZ
2003	**Invited Speaker**, Maryland Institute College of Art, Baltimore, MD
2002	**Invited Speaker**, XIX Jornadas de la crîtica, Second International Art Biennial-Buenos Aires, Museo Nacional de Bellas Artes, Buenos Aires, Argentina
2002	**Invited Speaker**, College of Arts and Media, University of Colorado at Denver, Denver, CO

2002   **Invited Speaker**, Computer Imaging Department, The Metropolitan State College of
              Denver, Denver, CO

2002   **Invited Speaker**, Society for Photographic Education National Conference, Las Vegas,
              NV

2002   **Invited Speaker**, Third Richard A. Harvill Conference on Higher Education, University
              of Arizona, Tucson, AZ

2002   **Invited Speaker**, *Eye of the Beholder* Optical Science and the Visual Arts, Tucson
              Museum of Art, Tucson, AZ

2001   **Invited Faculty**, American Photography Institute, National Graduate Seminar, New
              York University, New York, NY (June 8, 2001)

2001   **Invited Speaker**, Net-Z-Lab Awards Ceremony, Chemnitz, Germany

2001   **Invited Speaker**, *The Art of Family* Center for Creative Photography, University of
              Arizona, Tucson, AZ

1999   **Invited Speaker**, *Photography; Digital Spin* Simmons College, Boston, MA

1999   **Invited Speaker**, Centro de la Imagen, Mexico City, Mexico
              (Part of an invited residency. See description under Artist Residencies)

1999   **Invited Speaker**, Colloquium on Technology Development Studio, Institute for Studies
              in the Arts, Arizona State University, Tempe, AZ

1998   **Invited Speaker**, Artist in Residence, Summer Media Institute, Ohio Arts Council,
              Ohio University, Athens, OH (see description below under Artist Residencies)

1998   **Invited Session Chair and Presenter**, Technology and Collaboration, College Art
              Association Conference, Toronto, Canada

1998   **Invited Session Chair and Presenter**, The Magic Classroom: Pioneering the Digital
              Future I: Art Studio, College Art Association Conference, Toronto, Canada

1998   **Invited Visiting Artist**, Mixed Media Series, Maryland Institute College of Art,
              Baltimore, MD

1997   **Invited Speaker**, in conjunction with the exhibition, "Discomfort", Contemporary Arts
              Forum, Santa Barbara, CA

1997   **Invited Speaker**, Symposium: *Telling Our Own Stories*, Southeast Museum of Photography, Daytona Beach, FL

1995   **Invited Speaker,** Rhode Island School of Design, Providence, RI

1995   **Panelist**, Teaching Multimedia, LA Freewaves conference on Artist and Activist CD-ROMS, University of Southern California, Los Angeles, CA

1995   **Invited Speaker**, Carnegie Mellon University, Pittsburgh, PA

1995   **Invited Speaker**, Loyola Marymount University, Los Angeles, CA

1994   **Invited Speaker**, Rochester Institute of Technology, Rochester, NY

1994   **Invited Speaker**, *Pro-Femina*: Four Women Photographers, SMP, Daytona Beach, FL

1993   **Invited Speaker**, "New Imaging, New Techologies", Fotofeis Conference, Inverness, Scotland

1993   **Invited Speaker** and **Panel Moderator**, Photography Without Borders, SF Camerawork, San Francisco, CA

1992   **Invited Speaker**, Photography Studies in France, Paris, France

1992   **Invited Speaker**, Southeast Museum of Photography, Daytona Beach, FL

1991   **Panelist**, "Documentary Photography: Repeatedly Buried, But Not Dead", SPE West Regional Conference

1991   **Invited panelist**, "Society and Perception: New Imaging Technologies", California Museum of Photography, Riverside, CA

1991   **Presenter**, "Artists and Digital Imaging", SPE National Conference, New Orleans, LA

1990   **Invited Speaker**, University of California, Riverside, CA

1989   **Invited Speaker**, California State University, San Bernardino

1989   **Invited Speaker**, Maryland Institute, College of Art, Baltimore, MD

1985   **Co-chair and Panelist**, LACPS Symposium: Issues in Education, Otis Art Institute, Los Angeles, CA

2002   Invited one-year residency, Institute for Studies in the Arts, Arizona State University, Tempe, AZ in support of *memoria/memoire*.

1999-2000   Invited one-year residency, Institute for Studies in the Arts, Arizona State University, Tempe, AZ. Residency included funding and technical support for completion of the project, *Journeys:1900/2000*

1999   Invited one-week residency, Centro de la Imagen, Mexico City, Mexico. Residency included teaching a one week workshop on web design and an invited lecture to members of the Center

1998   Invited one-week residency, Summer Media Institute, Ohio Arts Council, Ohio University, Athens, OH. Residency included teaching one-week workshop on digital book design and giving public presentation on my work

1996   Invited six-week residency, Banff Center for the Arts, Banff, Canada. Funded residency in support of research and development of collaborative installation, *Ex/Changing Families,* with artist, Ann Fessler

1995   Invited one-week, Artist in Residence, Drexel University, Philadelphia, PA funded by a Teaching Learning Committee Grant for Residency and Production

1993   Invited six-week residency, Fotofeis, Inverness and Dundee, Scotland for research and production of banners to be installed in Inverness Train Station as part of Fotofeis, The Scottish International Festival of Photography

PROFESSIONAL EXPERIENCE

1997-present **Assistant Professor**, Photography and Intermedia, School of Art, University of Arizona, Tucson, AZ

1998-present **Chair**, Electronic Publications, Society for Photographic Education

2002   **Co-chair**, Fourth Annual Digital Arts Symposium, *Neural {Net}work*, University of Arizona, Tucson, AZ

1993-01   **Member,** National Board of Directors, Society for Photographic Education

2000   **Chair**, 3rd Annual Digital Arts Symposium, *Interfacing the Future* University of Arizona, Tucson, AZ

1999   **Chair**, Second Annual Digital Arts Symposium, *Artists and Technology,* University of Arizona, Tucson, AZ

1998   **Chair**, First annual Digital Arts Symposium, University of Arizona, Tucson, AZ

1997   **Adjunct Professor**, Laboratory for New Media, School of Film and Television, UCLA

1997   **Curator**, "Discomfort", Contemporary Arts Forum, Santa Barbara, CA

1997   **Art Director**, Cyberteca MultiMedia Production, St. Martin's Press, New York

1996-97   **Researcher,** University of California, Santa Barbara, Department of Germanic, Slavic
              and Semitic Studies. Project to research distance learning using the World Wide Web

1996   **Chair**, Society for Photographic Education, National Conference, Los Angeles, CA

1995   **Producer and Creative Director**, CD-ROM "A Poetic Vision", commissioned by
              Santa Barbara Museum of Art in Conjunction with Exhibition of Work by
              Anne Brigman

1994-96   **Adjunct Professor**, Electronic Media, Dept of Art Studio, University of California,
              Santa Barbara

1993   **Instructor**, Video Catalog Production, Vidkidco, LBMA Video Annex, Long Beach, CA

1994   **Instructor**, Video Production, Multivision Cable Television and City of
              Manhattan Beach, CA

1993-1994   **Instructor**, Electronic Media, Orange Coast College, Costa Mesa, CA

1989-1994   **Instructor**, Computer Graphics, UCLA Extension, Los Angeles, CA

1991-1992   **Chair**, Western Region, Society for Photographic Education

1989-1992   **Member,** Board of Directors, Society for Photographic Education, Western Region

1989   **Chair**, Western Regional Conference, Society for Photographic Education

1984-1988   **Instructor**, Photography, California State University, Northridge, CA

1982-1988   **Member**, Board of Directors, Los Angeles Center for Photographic Studies
              (VP, 1987-88)

1984   **Administrator**, LACPS/LAOOC/MOCA 1984 Olympics Photo Commission Project