

New Media Fellowships
2004 Project Cover Form

NORIE NEUMARK

Title *E.motion Machines*

Genre Experimental sound/new media art

Applicant's Role in Production Sound/new media artist. Conceptualise the work. Leading role as maker in collaboration with visual digital artist (Maria Miranda). Some programming (max/msp and I-cubeX – to be learnt during project)

Production Format net.art + networked performance + installation

Brief Project Description

Emotions are a strangely neglected topic and medium in new media art. This project, *E.motion Machines*, works innovatively with e.motions as physical (*e.motion*), cultural (culturally diverse) and networked (e.motions relaying between people and machines). The project networks together a net.art site, a performance, and an installation. This networked form also explores the way that computer networks are social networks.

This 'pataphysical work creates a playful and imaginary science of *emotionography* which connects the works and draws participants into its world. It is a world for performance and for engaging users/participants in a series of e.motional networked experiences. The project explores conceptual and aesthetic ideas about emotion, networking, the cultural effects of science, and embodied cultural diversity.

I will use sound in innovative ways to engage users/audience in the interactivity and navigation. The sound will be visceral, intimate and intense; it will be localized and in motion. I will also learn new sound/installation hardware and software for the project, which is important for my development as a sound/new media artist.

Project Narrative for Norie Neumark

My new media art project, *E.motion Machines*, includes a performance, *Se.ance*, an installation, *The E.motion Polygraph*, and a net.art work, *The Institute for the Study of E.merging E.motions*. For the last 10 years I have done sound and new media work which explore innovative approaches to sound and interactivity as well as to concepts of human/computer relations. This project takes these into the realm of emotions, an underdeveloped area in new media. I will also learn new software and hardware (max/msp and I-cubeX) for the project.

Concept: *E.motion Machines* is a 'pataphysical work which will map e.merging e.motions in digital culture -- emotions which exist but are not (yet) necessarily visible or audible. 'E.merging' is a 'pataphysical play on the scientific notion of 'emergent' and also suggests a 'merging' of bodies and machines. *E.motion* evokes the flow of electromagnetism between people and machines and also explores how emotions are physical motion -- a moving of feeling in and of bodies. We jump with joy, we recoil with fear and when sadness weighs down our hearts, our limbs turn to lead.

Emotions are cultural and I am interested in how e.motional relations are experienced and expressed within and across different cultures. The project also asks how they are changing as digital cultures develop. In *E.motion Machines* I will also explore the cultural effects of current scientific work on emotion. For instance, there is popular interest in neurobiology's measuring and color coding of the brain during emotional states; yet this scientific work does not grapple with culture and cultural difference. The project works with the historical and scientific work of Etienne-Jules Marey, famous for his machinic inventions

and motion studies. *E.motion Machines* are a play on Marey's machines: they re-map the emotions that were left out of Marey's original motion studies.

The Work: The net.art work (now prototyped) is a *fictive* institute - *The Institute for the Study of E.merging E.motions* (ISEE). It is dedicated to the 'pataphysical science of e.motionography -- the study of e.merging e.motions in everyday life in the 21st century. Each section of the net.art site will be a specially designed apparatus, such as a Perpetual E.motion Machine (PEM), an E<poly-Amygdala> Color Grapher (ECG), and a Marey audio-visualizer Machine (MavM). I will conceptualise the navigation and interactivity, write the texts and gather, treat and produce the sound material -- interviews, voice performances, stories, and sounds. Maria Miranda will do the Flash animation and images.

Sea.nce, a site specific networked performance event, will be prototyped for the ISEA 2004 ferry (proposed), and then completed for other sites. It will include a 'Sea.nce S<t>imulator,' to measure the manifestations of e.motional forces or force fields, particularly those related to the sea. The Sea.nce S<t>imulator will be a virtual, multi-user Ouija Board interface. Participants will network into it at the performance site (through multiple computers) or remotely, on their own computers. They will log in and choose an avatar (in fact all the avatars will be the same as a way to provoke exploratory mousing, which the programming can track). The programming will track and transcode all movements of the avatars in order to move the planchette on the Ouija Board. The Ouija Board will 'respond' both through sound and through images.

The E.motion Polygraph installation will involve a reworking of Marey's polygraph, to 'pataphysically graph the e.motions of the body's organs. The work will involve an interface

and sensors that will 'graph' the participant's responses visually and aurally. Participants will sit at a computer and be directed to attach sensors to their bellies (which has more synapses than the brain). *The E.motion Polygraph* machine interface will present them with complex and ambiguous material and they will have to type in 'yes' or 'no' answers. The material will be aural, visual, and textual. Through programming, the information from the sensors (sensing breathing, motion and 'organ' heat) will be tracked along with the typed response and transcoded into a graph and sounds. The sound will include treated interviews, performances of texts and stories, sounds, location recordings etc. It will become a rhythmic composition, an e.motional playing of and by the organs.

Contribution to New Media Art: This project will innovatively focus on emotion, both as the subject of the work and as a formal device. Its novel take on e.motion, as a networked relay between people and machines, contributes new insights about the intersecting relation between social networking and computer networking. The project also addresses another important question: when so much net.art is going down the formalist road, how can one make net.art in a way that works with it as a medium without forgoing a desire to make culturally relevant content? My 'answer' includes working with networking (which is formally 'native' to the net) and with e.motions (an exploration of cultural content). In summary, the project will be an innovative engagement for the users and audience. It combines cultural questioning with sound, text, visual art, performance, installation and interactivity -- in a playful and networked new media art work.

Feasibility: This project networks together a net.art work, a performance and an installation. Each of these is well within my demonstrated capacity. The installation, which I

will conceptualize and produce, is on a par with work I did on *Dead Centre* and *Shock* (installation version). For the development and completion of the net. art work, Helen Thorington has invited me to work with her and exhibit the work on *Turbulence* “as a spotlight, or part of an artist’s studio.” I will develop and ‘stage’ the (prototyped) performance. Timothy Murray has offered curatorial assistance for it and the installation.

Budget/Fellowship Use: The budget is for developing and completing the full project, including buying and learning the necessary software and hardware. It includes presenting the performance: prototype at ISEA, final at a site-specific US location (tbc). I will organize to mount the installation in the US after the Fellowship. The Fellowship will also give me the opportunity to realize my plan to shift my practice permanently to 1/2 time in the US.

Additional information about income related to prototype stage of project, prior to and during project**Living and Travelling during Project**

From Sabbatical and long service leave
from University of Technology, Sydney,
toward living expenses \$30,000

Collaboration on prototype, up to end March 2003:

Programmer for prototype of performance (for ISEA)
From Australia Council for the Arts, New Media Arts Fund \$ 3,000

Visual artist/Flash programming for net.art prototype, from
Australia Council for the Arts, New Media Arts Fund \$ 4,000

Equipment Provision by artist for Performance

I will use my own Mac G4 laptop and webcam for the performances

Equipment Provision by Performance site

Projection screen, computer tables etc

Artist Statement for Norie Neumark

The viscosity of sound as a medium and the ways sound can explore ideas are what engage me as an artist. I work with the “grain’ of the voice” (Roland Barthes), which for me *embodies* cultural differences in its color and timbre and rhythm. In new media, my concern is to address the still underdeveloped potential of sound - to undo the hegemony of image and the peripheral use of sound as ambient or mood enhancing. My ‘vision’ is to work with the viscosity, performativity and intimacy of sound as well as playing with tensions and potentialities between sound and image in new media art.

With my CD-Rom *Shock in the Ear*, I began to explore innovative ways to engage users through my use of sound for interactivity and navigation. I created the opportunity for an interactive **live mix** experience. And I worked with the way sound plays into the very **body** of the listener. I also explored the coming together of visceral sound with haptic image and touch during the **gestural moment of desktop interaction**. I understood that the desktop affords a moment of **intimate intensity**. In terms of my working method, for this project and a number of others, I used sound from my previous radiophonic essays – voice (interviews and performances of my texts), sounds, and location recordings. I reworked the sound and also produced new performances of the ‘same’ interview material to suggest that memory (of shock) experience is not fixed.

Being an artist allows me to explore philosophical and cultural questions through aesthetic engagement with my medium. For example, the installation *Dead Centre: the body with Organs* was my response to ideas about computers as brain or mind, as if the body ('meat') and its senses had been left behind. To me this erased cultural difference. *Dead Centre*

created a serious and playful installation, an organically pulsing space for live performance and the audience's sensual experience. I wanted the **interactivity** to work as a subtle, **at first imperceptible tendency** (rather than instant triggering) which was appropriate for the vicissitudes of pulsing, organic bodies and the irreducible differences of cultural diversity. As people stepped on the sensor mat, it slowly drew the underlying pulse out from the sound and brought it into the foreground, creating a sense of the room as a pulsing organ. When I re-worked the sound for *Machine Organs* and the bandwidth of the net, I worked particularly with the cacophonies of different and visceral bodies through sound and text.

Having worked with **immersive sound** in new media installations, I next wanted to explore **localized sound** to create a sense of intimacy as well as moving people around a space. In *Volcano*, the sound jumped between (4) sets of stereo speakers. It was **elusive yet intimate**. Sometimes quiet and delicate, sometimes noisy, the sound kept drawing people up to the speakers and into the work. I produced sound that was volcanically "thrown like a stone." I also worked with the noise of volcano both through noisy sound and also by finding the noise *in* the sound. In Pro-Tools (which I work with) I did my own version of 'granular synthesis,' minutely fragmenting voices as if by volcanic eruptions. I mixed these with sounds, which I treated, that came from my location recordings at volcanic sites. Though the content was specific to *Volcano*, my working process (with voice, sounds and location sound recordings) was one I continue to use.

I often collaborate on works, especially with my partner, digital visual artist, Maria Miranda, in *Out-of-Sync*. (In *E.motion Machines* I'll have the leading role, which varies from project to project.) Our work has recently taken a *fictive* swerve into the imaginary science of

'pataphysics. This non-sense, humorous science sits beside and perturbs Science. The 'pataphysical turn has brought my concern with the cultural effects of science together with a playful approach to writing and performance. It has also opened a way to develop some new approaches to networked interactivity in performance, installation and net.art, as I am proposing for *E.motional Machines*.

NORIE NEUMARK

Title **Shock in the Ear**

Year **1998**

Technical Information

Original Format		Format Submitted for Viewing		Preferred OS Mac OS 9	
<input checked="" type="checkbox"/>	Software	<input checked="" type="checkbox"/>	Software	<input type="checkbox"/>	Windows
<input type="checkbox"/>	Web	<input type="checkbox"/>	Web	<input checked="" type="checkbox"/>	Mac
<input type="checkbox"/>	Installation	<input type="checkbox"/>	VHS	<input type="checkbox"/>	Unix
<input type="checkbox"/>	Other	<input type="checkbox"/>	Other	<input type="checkbox"/>	Other
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

Special Information for Screening: Stereo speakers or headphones needed to hear the stereo sound

Description of Work (2 sheets)

Set-up: ** Requires stereo speakers or headphones. Copy the full folder to the hard drive. Set the screen to 1000s of colors and 640x 480. Click on the Ear icon.

Concept: *Shock in the Ear* is an experimental new media art work which evokes the moment of shock and its aftermath, as a sensual experience. From culture shock to electric shock and reverberating beyond into shock aesthetics, shock resonates with deep and abrupt physical and psychic change. *Shock in the Ear* is an intense and poetic work, composed (and recomposed by the user) through interactive screens, stories, performances, music, and sound. The work explores the potential of desktop new media for poetic movement, understandings, emotions, and sensations.

Interactivity: To convey a sense of shock, the work is random and not 'controllable' via a menu. The work puts you in the *dislocated* space of shock, where memory is layered and varying. It is best to spend time with the work to get a sense of it, around 10 minutes (usual time is over 1/2 hour each time). Most of the interactivity is by rollover, so you need to **explore the screens** with the mouse. Where the interactivity requires clicking or dragging, the hand icon will indicate this. [There is a **HELP** menu available through the ? on the bottom left. Click on the Ear to exit that menu].

Navigation and Contents: The work begins with an opening and acknowledgements. To move on, find the clock icon by rolling over the bottom right of the screen. This will take you randomly to one of the 4 sections of the work (Memory, Resonance, Attack or Decay – as in musical attack and decay). To move **within** any section, find and click on the **1/2 clock icon**. To move **between** sections (randomly) find and click on the **full clock icon**. The clock icons are a

reminder of the way that time is strangely stretched in shock experiences. The work is random - like shock itself. So it is random which section you will come to first. Therefore the following order will probably not be the order that happens for you. If you revisit the work, you get a different order, which is part of the experience: it creates a sense of not-quite 'deja vue' which is the feeling of experiencing shock ("as if you had willed it").

The **Memory** section is the one that opens with a black screen with a central image and 2 fragments. You need to rollover the fragments to begin the sound and the central image to move on. These are the 'original' shock stories. **Rollover and explore the screens** and follow the icon 'prompts' as you listen. In a short visit to the work, you will not have time to listen to them all fully. You might listen to one fully, or listen briefly to several (there are 6) – by moving between them with the 1/2 clock icon. 2-3 minutes total for short viewing of this section.

The **Attack** section has a reddish intensity to the image and performance (a performance of part of the 'original' interview story). This is where you can do a **live mix** as you roll over the screen. This section expresses the intense moment of the shock experience. In a short visit, perhaps best to play 1-3 of these. Navigate within this section with the 1/2 clock icon. 2-3 minutes for short viewing

The **Decay** section has a bluish, numbed quality to the image and performance (a performance of another part of the 'original' interview). This is where you can also do a **live mix** as you roll over the screen. This section explores the experience of shocked numbness and slow return to feeling. In a short visit, perhaps best to play 1-3 of these. Navigate within this section with the 1/2 clock icon. 2-3 minutes for short viewing

Resonance section has a painterly quality and explores **haptic imagery** that invites **rolling over for sound and interactivity**. It has performances of poetic texts about shock. This section takes time to get a feel for and is the place where you are both most dislocated but also most in your senses – through the haptic image and sound (sounds, music, and performer's voice) which enter your body. For a short viewing, you will not really get a sense of it, so just 'sample' it for 1-2 minutes.

The Call. In a short viewing, you may not get The Call. If you do, you need to **answer by clicking** where the text invites you to. The Call comes randomly every 7-12 minutes. There are 3 different calls. It gives a sense of the implacability of shock and is a reminder of Keith's story, the old soldier from WW1 [who never really recovered]. He got his shock while on a phone call in a thunderstorm -- a Shock in the Ear.

NORIE NEUMARK

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 **Machine_Organs**

Year **2001**

Technical Information:

Original Format	Format Submitted for Viewing	Preferred OS
Software	<input checked="" type="checkbox"/> Software backup	<input type="checkbox"/> Windows
<input checked="" type="checkbox"/> Web	<input checked="" type="checkbox"/> Web	<input checked="" type="checkbox"/> Mac
Installation	<input type="checkbox"/> VHS	<input type="checkbox"/> Unix
Other _____	Other _____	Other _____

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

URL http://ctheorymultimedia.cornell.edu/issue2/trans_flesh.htm → p.13.2

Or www.out-of-sync.com → *Machine_Organs* → *See at Machine_Organs*

Or http://thap.sca.usyd.edu.au/2003/mva/~mmiranda/machine_organs/

_____ Browser requirement(s) IE (preferred) or NN

_____ Plug-in requirement(s) Flash Player 6

☒ This sample requires broadband connection (fast Internet connection)

☒ A local copy of the sample work has been included with the application (not full site...use only if necessary please – contains Flash movie only, not video documentation etc.)

Special Information for Screening: Stereo speakers or headphones needed to hear the stereo sound

Description of Work

Concept: Organs are figured and experienced differently by different cultures and at different moments of history. This work explores and plays with bodily organs as they are being reconfigured in computer culture. It also plays with computers as 'organs' of digestion and excretion, emission and transmission. Digestion offers a way to move beyond the limiting notions of computer as brain and body as meat -- when you scan in your images or digitise your sounds, you subject them to a digestion process carried out by you and the computer together. As digestion it can be messy, noisy and undisciplined.

Machine_Organs sets this process loose on the net, so that this messy digestion can contaminate the discreteness and control of information and information culture. It undermines information culture's promise of pure exchangeability. In information culture we are learning to know the body as if outside culture and history. But sometimes, through the noisy digestive processes of digital art, organs and computers break this sameness and let loose cacophonies of difference and visceral bodies. This net work is itself a <digestion> of a new media installation, *Dead Centre: the body with organs*.

Navigation: Roll over the screens to find sounds and texts. There are a number of layers to each screen and section. A **4 - 5 minute** play will provide a sense of the work.

[STEREO SOUND]

NORIE NEUMARK

Title *Institute of e.merging emotions (prototype)*

Year 2003

Technical Information

Original Format	Format Submitted for Viewing	Preferred OS
<input type="checkbox"/> Software	<input type="checkbox"/> Software	<input type="checkbox"/> Windows
<input checked="" type="checkbox"/> Web	<input checked="" type="checkbox"/> Web	<input checked="" type="checkbox"/> Mac
<input type="checkbox"/> Installation	<input type="checkbox"/> VHS	<input type="checkbox"/> Unix
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____

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

☐ URL www.out-of-sync.com → Institute of e.merging emotions (try both locations there)
☐ Or http://thap.sca.usyd.edu.au/2003/mva/~mmiranda/emotion_machine/
☐ Browser requirement(s) IE preferred
☐ Plug-in requirement(s) Flash Player
☒ This sample requires broadband connection (fast Internet connection)
☐ A local copy of the sample work has been included with the application

Special Information for Screening: Stereo speakers or headphones needed to hear the stereo sound

Description of Work

This is a supplemental work. It is provided because it is the prototype for the net.art work proposed here and can give a sense of the direction of the work.

[STEREO SOUND]

Resume – Norie Neumark

As a sound/new media artist, my recent works are often collaborative which is standard practice in new media. Works in which I played the major conceptual and directorial role, such as *Shock in the Ear*, are publicly considered to be 'my' work and listed as such. For Out-of-Sync collaborations see <http://www.out-of-sync.com>. I am also a sound/new media practice and theory academic and list academic works at the end.

Fellowships, Artist Residencies, Jury Invitations

Juror, ISEA 2004, Sound works.

Solar Circuit Artist Residency, Tasmania, February, 2002.

Fellowship, Society for the Humanities, Cornell University, 1999-2000.

Juror, Thaw 00 (Festival of Video, Film, and Digital Media), University of Iowa, April, 2000

CD-ROMS, Installations, Net Art works, Radio Works

Norie Neumark, sound, for Maria Miranda, Museum of Rumour (installation and net.art work, Dec.2003.

Norie Neumark with Maria Miranda, "Hollow Man Rumours," ICOLS How to be a perfect guest Sharjah International Biennial 6, 2003, Sharjah Art Museums and Expo Centre Sharjah, United Arab Emirates

Norie Neumark and Maria Miranda, *Journey to the Centre*, online, <http://www.out-of-sync.com/journey> August 2002. Selected for TypeSlowly, September 2002 (www.typeslowly.org); Media Teche, This is Not Art, Newcastle, October 2002. Selected for Maid in Cyberspace 06:: Active Agent, Montreal, February 2003.

Norie Neumark and Maria Miranda (as Doktor Rumor and Professore Rumore), contributors, Local Unit of Missing Links, ICOLS, online, <http://www.icols.org>, July 2002, launched MCA, Sydney, July 13, 2002. Exhibitions include: 2003 FILE 2003- festival internacional de linguagem eletrônica, Museum of Image and Sound (MIS) São Paulo, Brazil. <http://www.file.org.br>

Norie Neumark and Maria Miranda, *Volcano*, installation, Artspace, Sydney, June 2001 and The Virtual Mine, Saarbrücken, Germany, August-September, 2001 and on line www.the-virtual-mine.net

Norie Neumark and Maria Miranda, *Machine_Organs*, 'TechFlesh', *Ctheorymultimedia*, June 2001,

http://ctheorymultimedia.cornell.edu/issue2/trans_flesh.htm p.13.2; exhibited
d>gest@feast, Arts SA Gallery, Adelaide, Oct, 2001

Norie Neumark, "Esprit de corps: oscillating with emotion", Listening Room, ABC Classic FM, September 1999

Norie Neumark, Director, writer, sound artist, *Dead Centre: the body with organs*, installation, The Performance Space, Sydney, July 1999

Norie Neumark, "Dead Centre: the body with organs", *Listening Room*, ABC Classic FM, October, 1998

Norie Neumark, *Shock in the Ear*, CD-ROM, June 1998 (see below*)

Norie Neumark, "ISEA 97", *Arts Today*, ABC Radio National, October, 1997; rebroadcast January, 1998.

Norie Neumark, *Shock in the Ear*, installation, Artspace, Sydney, April, 1997; Artemesia Gallery, Chicago, Sept, 1997

Norie Neumark, "Separation Anxiety: not the truth about alchemy", *Listening Room*, ABC Classic FM, September, 1996. Rebroadcast, *New Radio and Performing Arts*, USA, April, 1997; rebroadcast *Arts Today*, Radio National, January, 1999

Norie Neumark, "Shock" *Listening Room*, ABC Classic FM, March, 1995; rebroadcast, *New Radio and Performing Arts*, USA, April-July, 1996 and Rebroadcast *Listening Room*, July, 1997. Rebroadcast, *Arts Today*, Radio National, January, 1998; *The Singing Loudspeaker*, Adelaide Festival of the Arts, March 3, 9, 15, 1996; Exhibition of Recorded Sound Works, Presented by 23five Incorporated, Sound Culture '96, San Francisco, 29 March-April 13, 1996.

Norie Neumark, "Into the Interface" *New Radio and Performing Arts*, National Public Broadcasting, USA, Jan-March, 1995 and *Listening Room*, ABC Fine Music (FM), April, 1994. "Into the Interface" *New Radio and Performing Arts*, National Public Broadcasting, USA, Jan-March, 1995 and *Listening Room*, ABC Fine Music (FM), April, 1994

Norie Neumark, Writer/Producer/Sound, *Go For It*, an interactive CD-ROM, March, 1994

Norie Neumark, "Jobs for the Girls – or --Who Do You See When You Look in the Mirror?" *The Coming Out Show*, ABC Radio National, April, 1991; broadcast *New*

American Radio, USA, November, 1992; rebroadcast, ABC Radio National, February 1992

Norie Neumark, "Comics Ungagged" *In The Mix*, ABC Radio National, June, 1992

Norie Neumark, "Showcase of Work by Radiomakers from UTS", *In the Mix*, ABC Radio National, December, 1991

Norie Neumark, "The Invasion of the Killer Hormones from Outer Space", *The Coming Out Show*, ABC Radio National, August 1991

Norie Neumark, Co-Producer, "Women and the Gulf War" and "All in the Name of Peace," *The Coming Out Show*, ABC Radio National, January- February, 1991

Norie Neumark, "Feminism and Science", *The Coming Out Show*, ABC Radio National, Sept 1990; rebroadcast April 1991

Norie Neumark, "You Own the Problem - or - The Quick Fix", *The Coming Out Show*, ABC Radio National, Nov, 1989

***Awards for Shock in the Ear (CD-ROM)**

First Prize for multimedia, VideoFormes 2000 (Clermont Ferrand, March, 2000)

First Prize for experimental CD-ROM, ATOM awards, (Melbourne, July, 1999)

First Prize, CD-ROM award at COMTECart (Dresden, November, 1998)

Silver Medal at Invision 98 (San Francisco, November, 1998)

Third Prize in the National Digital Art Awards (September, Brisbane, 1998) [First in CD-ROMs]

Special mention at Videobrasil (Sao Paulo, September 1998) [No 'award category' available for CD-ROMs]

***Exhibitions of Shock in the Ear (CD-ROM)**

In 2001, selected for exhibition at Nickle Arts Museum, the University of Calgary, Oct.-December. Purchased for permanent collection and exhibition, *Cinemedia*, Melbourne, July, 2001

In 2000, selected for exhibition at VideoFormes (Clermont Ferrand, March), Dissection, The Macau Museum of Art (Macau, August-November), Siggraph 2000 Art Gallery (New Orleans, July). Juror's Exhibition, Thaw 00 (Festival of Video, Film, and Digital Media, University of Iowa, April, 2000), ISEA 2000 (September, Paris)

In 1999, selected for exhibition at, among others, "Points of Contact " (Ithaca, New York; Mexico City, Mexico; Virginia Film Festival), CCC Gallery, Melbourne (April); EMAF (Osnabreuck, May); Virtuality and Interactivity: mediARTech (Florence, May); v.1.

(Hobart and William Smith Colleges) N.Y. (Sept-May); and DAC Artists' Salon, Atlanta (Oct)

In 1998, selected for exhibition at, among others, Australian Film Commission Annual Conference, 'Being Connected' (July, Melbourne); ACM-SIG Multimedia 98 Art Program (September, UK); Institute of Modern Art (September, Brisbane); WoW film festival (Sydney, September); Montreal international Festival of new Cinema and new Media (Montreal, October); SEAFair 98 (Skopje, October); French-Baltic-Nordic Video and New Media Festival (November, Estonia); Ngapartji Gallery (Adelaide, November)

Exhibition of the prototype released in mid-1997: *techne* (Perth and Australian National Tour); *Matinaze* (Sydney); *transmedia 97* (Berlin); Australian Centre for Contemporary Art (Melbourne); *Altered States/Interact Asia Pacific Multimedia Festival* (Melbourne); Institute of Modern Art (Brisbane); *Pan-Pacific Festival, Centre for Contemporary Art* (Amsterdam); *WoW Film Festival* (Sydney); *arts'_edge* (Perth)

Artist's Presentations and Performances

Artist's Presentation, SPARC Media Festival, University of Waikato, NZ, August 2002

Artist's Performance, "Correct Usage of Budinsky and Budoutsky Pipettes for Rumour Extraction," ICOLS.org launch, MCA, Sydney, July 2002

Juror's Presentation, *Thaw 00 (Festival of Video, Film, and Digital Media)*, Iowa, April 2000

Artist's Presentation of *Shock in the Ear: Women Direct*, Ithaca College, April 2000; *COMTECart*, Dresden, November, 1998; *ACM98*, Bristol (UK) September 1998; *Matinaze*, Art Gallery of New South Wales, April, 1997

"Into the Interface", at *Future Languages*, Adelaide Festival Artists' Week, February 1994

Book

Norie Neumark and Annmarie Chandler, editors, *At a Distance: Precursors to Internet Art and Activism*. Norie Neumark, "Introduction: Relays, delays, and distance art/activism" (MIT Press: Cambridge, 2004, forthcoming)

Book Chapters

"E/motional Machines: esprit de corps", in Conference Proceedings For Affective Encounters Rethinking Embodiment in Feminist Media Studies, Anu Koivunen and Susanna Paasonen (editors), University of Turku, School of Art, Literature and Music Series A, No 49 Media Studies, Turku 2001 E-book at

<http://www.utu.fi/hum/mediatutkimus/affective/proceedings.pdf>

"The Well Tempered Liver" in Brandon Labelle and Christof Migone (eds), *Writing Aloud: The Sonics of Language* (San Francisco: Errant Bodies Press, 2001), Pp88-105

"Girlz in the 'hood" in S. Holt and M. Lynch (eds), *Motherlode* (Melbourne: Sybylla Press, 1996), Pp141-1551; excerpt reprinted in Trish Luker and Neal Drinnan (eds), *Fruit Salad* (Sydney: Sydney Gay and Lesbian Mardi Gras & Random House, 1997), Pp79-82

"The Protection Racket", in Helen Wilson (ed), *Australian Communications and the Public Sphere*, (Sydney: Macmillan, 1989), Pp248-276

Journal Articles, Review Articles, and Published Conference Papers

With Nina Czegledy (ed) et al, "Rethinking Female Experience(s), *n.paradoxa: international feminist art journal*, vol10, 2002, Pp. 6-13

"Making Contact with Artful CD-ROMs" *IEEE Multimedia*, January-March 2000, Pp 4-6

"Shock in the Ear", *Essays in Sound* 4, 1998/9, 41-49

"Synaesthetics and Kinaesthetics", *Media Art: Connecting/linking the Senses* (Dresden: COMTECart, 1998), Pp119 -124

"Review: *Electronic Eros* by Claudia Springer", *21C*, 1997, issue 24, Pp 82-83

"ISEA97", *Mesh*, #12, 1998/99, Pp 57-58

"Interactive Journeys: Making Room to Move in the Cultural Territories of Interactivity", *Leonardo*, 28:4, 1995, Pp. 301-306. Also *FISEA (Fourth International Symposium of Electronic Arts) Conference Proceedings* (Minneapolis: FISEA, 1993), Pp111-123

"Diagnosing the Computer User: Addicted, Infected, or Technophiliac?" *Media Information Australia*, No. 69, August, 1993, Pp. 80-87

"A Stitch in Time", review article, *Photofile*, November 1995, no. 46, Pp 38-39

"Who was that Masked Maus: sound and interactivity", *Essays in Sound* 2 September 1995, Pp 86-91

"Women in Cyberspace", *Australian Women's Book Review*, Vol.7 no. 2, June 1995, Pp14-16

"Interactive journeys: making room to move in the cultural territories of interactivity", "Girls, Computers and Computer Culture", GASAT 6 (Gender and Science and Technology 6th International Conference), University of Melbourne, July 1991, Vol 1, Pp 135-143

Conference Papers

"E/motional Machines: esprit de corps", *Affective Encounters*, University of Turku, Finland, Sept., 2001

"Listening to the Interface", *Uncommon Senses*, Concordia University, April 2000

"A Shock in the Ear: re-sounding the body, tracing the space of shock aesthetics", *Sound Culture* 96, April 1996, San Francisco

"Revolting Sounds: the body/machine with organs", *ISEA98*, Liverpool (UK) September 1998

"Time for Sound: Digital Aesthetics and Sound", *ISEA98*, Liverpool (UK) September 1998

"The Well-Tempered Liver" *Sound Theory Seminar: After the Big Bang*, Artspace, Sydney, August, 1998

"Content and Discontent", *ISEA 97*, Chicago, September, 1997

"Report from Sound Culture 96", *SOUNDcheck.one*, Art Gallery of NSW (August 3, 1996)

"Interactive journeys: making room to move in the cultural territories of interactivity", *FISEA* (Fourth International Symposium of Electronic Arts), Minneapolis, USA, November, 1993

"Go For It': inclusive design in multimedia", *Intercultural Conference*, University of Technology, Sydney, September, 1993

"Diagnosing the Computer User: Addicted, Infected, or Technophiliac?" *Sex/Gender in Techno-Science Worlds*, University of Melbourne, July, 1993

"Diagnosing the Computer User: Addicted, Infected, or Technophiliac?" *TISEA* (Third International Symposium of the Electronic Arts), Sydney, November, 1992

"Girls, Computers and Computer Culture", GASAT 6, University of Melbourne, July 1991

Reviews and Features about my work

Gretchen Miller, "The pull of the volcano", *RealTime*, no 44, August-September, 2001

Mitchell Whitelaw, "Organ(ic)s: real and metaphorical", *RealTime*, 34, December-January, 99/00

Keith Gallasch, "The centre shifts", *RealTime*, 31, June/July, 1999

"Dead Centre" in ABC zine, headspace, ABC website:

<http://arts.abc.net.au/headspace/special/deadcentre/default.htm>

Michel Belair, "Derives, delires et paranoia", *Le Devoir*, 18 Octobre, 1998, Montreal: review of Media Lounge of Montreal international Festival of new Cinema and new Media

Timothy Murray, "Digital Impossibility: Cruising The Aesthetic Haze Of The New Media", Fundacio "la Caixa", Barcelona, October 1998 and reprinted in *Ctheory*, no, 78, Jan. 00 (<http://www.ctheory.com>)

Shock in the Ear, excerpted on *Arts Today* as part of review of *techne*, Radio National, February 18, 1997

'shock in the ear', *geekgirl*, no 10.

<http://www.geekgirl.com.au/geekgirl/010con/ear.html>

"art & technology: web journal" in *Itau Cultural Revista Electronica*, <http://www.ici.org.br>

Mike Leggett, "Norie Neumark's Shock in the Ear" *Mesh*, #11, 1997

Keith Gallasch, "Condition: Shock of the Ear" *RealTime* 19, June-July 1997

Mike Leggett, "*techne* cultures", *RealTime* 18, April-May, 1997

"AFC Multimedia Report: *Shock in the Ear*", *AFC News*, 158/159, March/ April 1997

Deborah Durie, "Norie Neumark's Separation Anxiety", *Mesh*, #10, October, 1996

Professional Bodies

Board of Sound Culture, 2002-

College Art Association (USA), 1999-

Australian Network for Art and Technology (ANAT), 1996-

dLux Media Arts, 1996-

Member advisory panel, *Xtext*, 1997/8

Education

BA University of Chicago, 1969; University Honors, *Phi Beta Kappa*.

Ph.D University of Sydney, 1976

Academic and Professional Experience

Associate Professor, University of Technology, Sydney, 1977-present.

Producer, Australian Women's Broadcasting, ABC Radio, 'The Coming Out Show', 1993.

Producer, Acoustic Art Unit, ABC Radio Arts, 'The Listening Room' 1999.

Fellow/Professor, Society for the Humanities, Cornell University, 1999/2000