

The ■
Virtual
Environment
Artwork

of

Jacquelyn Ford Morie



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Pre-Virtual Environment Art

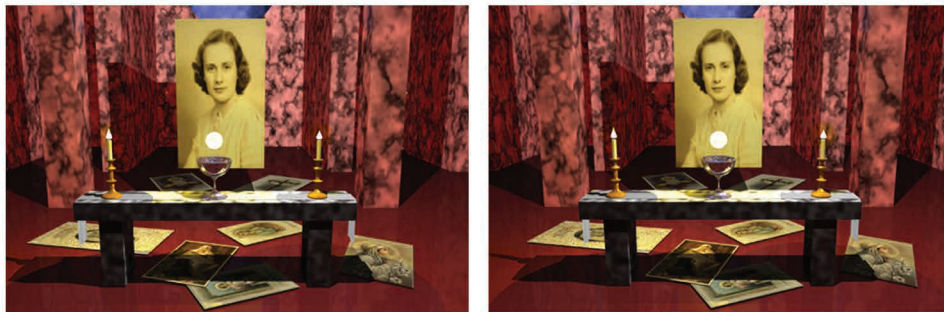


Statement

*I can take you to places
wonderous and serene
places
warmed by
a
sacred fire.*

Come within.

*Experience
intangible
memories that
may become yours.*



Altars of My Childhood 1990.

3D computer modeled environment shown as a stereo pair.
Predecessor of my virtual environments.

Pre-Virtual Environment Art

■ *From my beginnings as an artist, my work has always been created with the goal of evoking strong emotional responses from those who experience it.*

I wanted to wrap my work around the viewers; have it encompass them completely.

When virtual reality came along, I knew I had found my true medium. I could design the space, bring people inside and see what they did there.

I was always excited to see what the work would mean to them, what they brought to it, what I added, and what they took away.



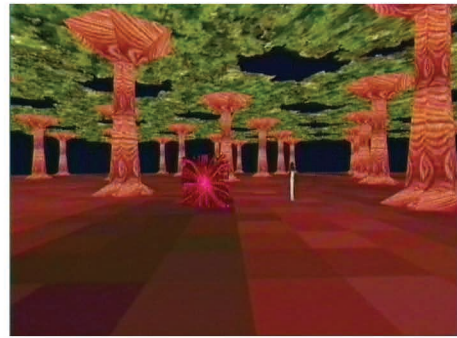
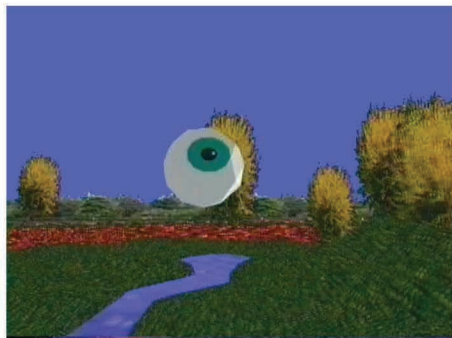
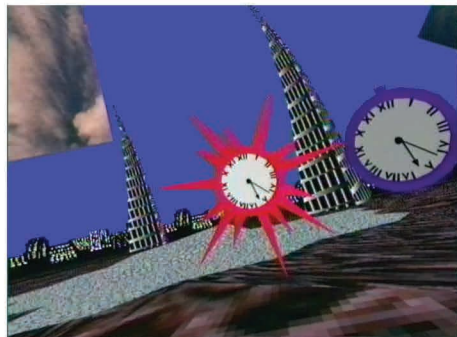
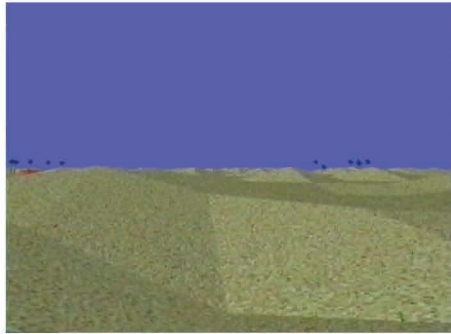
Forgotten Room 1987



Provincia Deanna 1996.

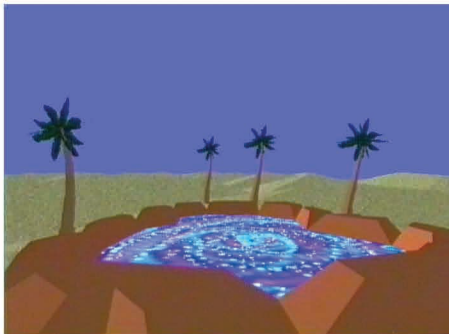
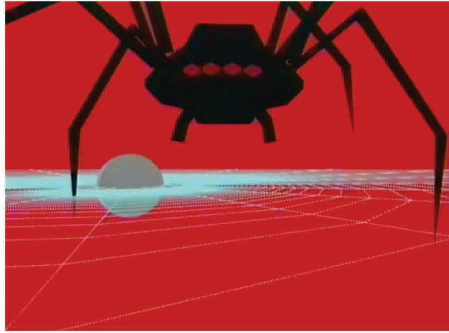
3D assemblages designed to bring one into the created environments.

Virtopia 1992–1994



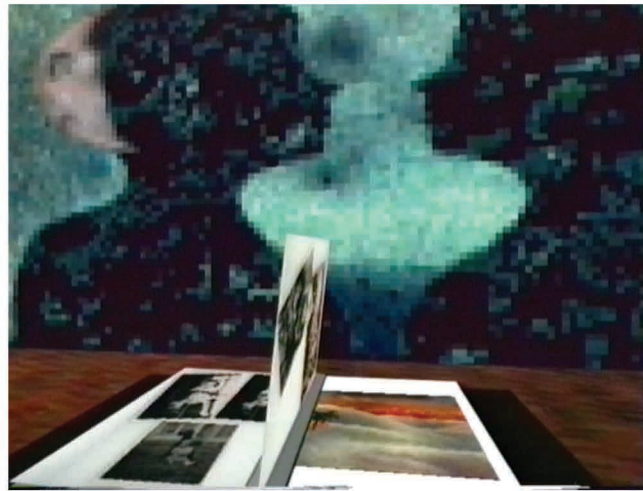
Virtopia consisted of several worlds one could visit.
Over a dozen were designed; five were fully implemented.
An endless desert interface connected them all,
Oases with colourful pools were portals to bedlam or peace.
In *Fang City* clocks clanged and buildings tore through the earth..
The eerie eyeball was the only way out.
The Endless Forest was filled with wraiths
singing in doleful chorus. They all fled when approached.

Virtopia



Spider World,
Crazy World,
anything can happen
through the shimmering
portals ::
the pools at the
desert oases

even a
Conversation Room
haunted by
sentences
spoken long ago.



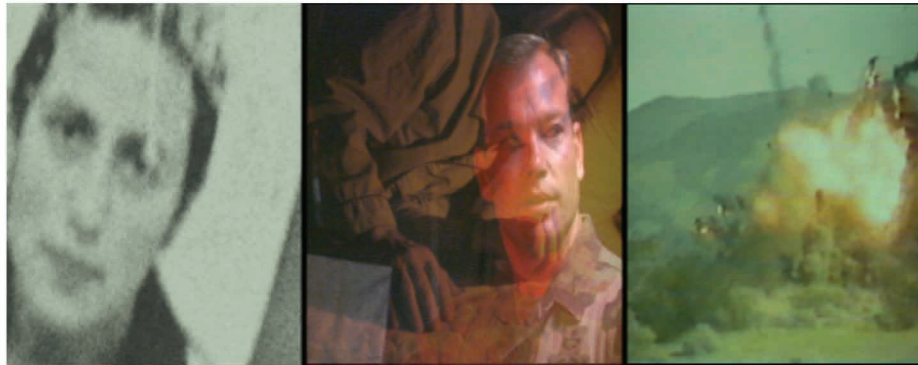
Jacki Morie :: Mike Goslin
Creators

DarkCon 2001-2005

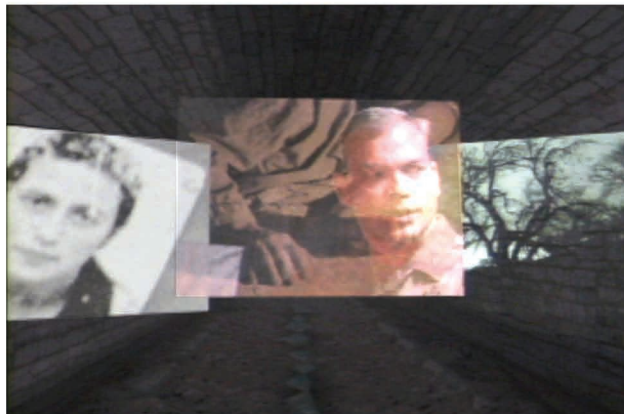


DarkCon is a virtual environment designed for cognitive realism. In a war-torn part of Eastern Europe the experient must determine whether refugees or paramilitary forces have taken over a crumbling old mill complex along the river.

The countryside is sad and scarred, with landmines in every open field.



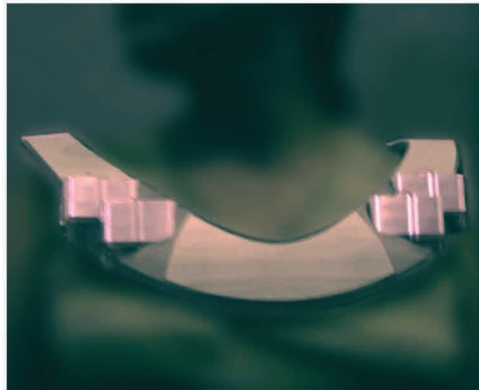
The journey starts inside a dark, dank culvert. Memories of a briefing telling about the area and the mission, play on imaginary screens within the culvert tunnel.



DarkCon



DarkCon stimulated multiple senses with stereo images in a wide angle Head-Mounted Display, fully spatialised audio, scents from a custom-made scent collar, and passive haptics via a ten transducer infrasonic floor.



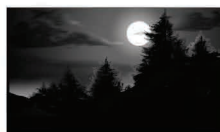
Scent collar prototype with four scent cartridges



Creating sounds for the environments with our own Foley stage



Rumble floor installed in the VR Theatre



Episodes in the environment were storyboarded before 3D modelling began.

SCENARIO DARKCON



DarkCon



Starting in the culvert, the experient makes her way to the outside and watches the traffic crossing the rickety bridge.



■ *DarkCon*

Inside

detritus::
a suitcase, a doll,
water bottles,
a photo album



■ bats &
blood stains



■ *DarkCon*

Outside



The Memory Stairs 2004-2007

The Memory Stairs' virtual environments allow experiencers to participate in the fragile spaces of remembrances. Stairs are a metaphor for life.

We rise up with each moment, each stage of a lived life.

The Memory Stairs experiences

The Embryonic Chamber

Just New

The Forgotten Rooms

Release



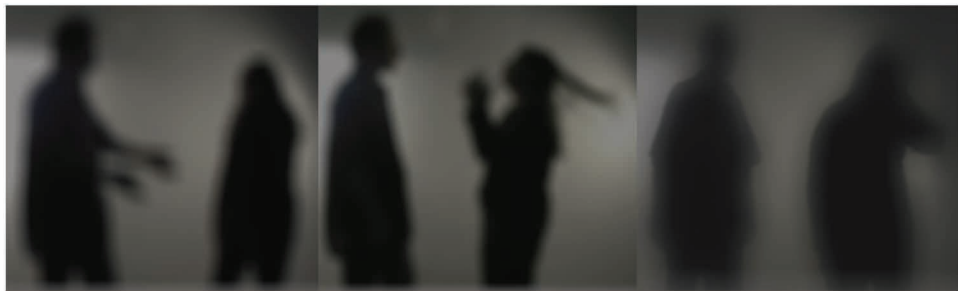
Memories distance and abstract real events.

Modified over time, remembered as we need them,
memories take on a life of their own.

They shift and evolve and often bear little resemblance
to the events that triggered them.

Memories are fragile, resilient, liquid and treasured,
not so much for what they are, but for what they represent ::
idealized capsules of moments in space/time.

The Memory Stairs ■
The Embryonic Chamber



Noises and voices and dim shapes permeate the liquid world,
but above all there is the constant beating of hearts, in synch
with emotional influences of the external world
passing wordlessly into the inner chamber.



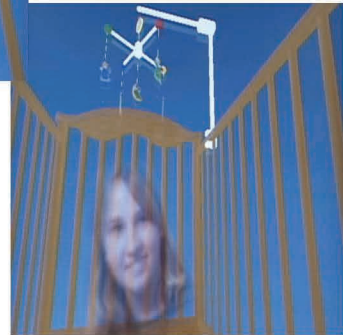
The Memory Stairs

Just New

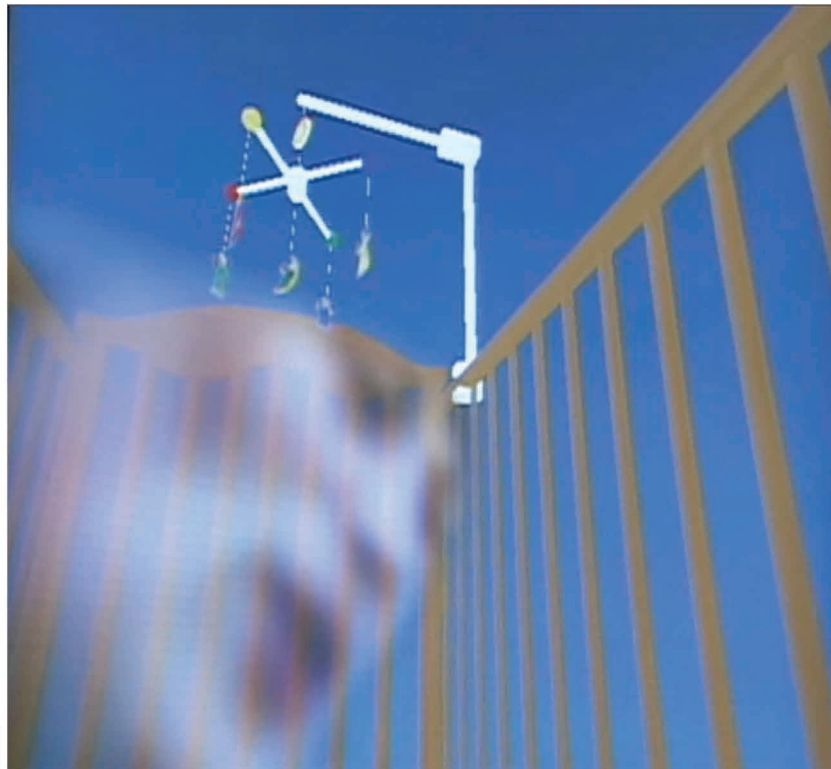


Your world is awash
with the scent of
baby powder.

Everyone smiles &
coos at you.



Your mother's face is soft, and she
smells like heaven.



The Memory Stairs

The Forgotten Rooms



The rooms are made of
memories,
old and still.
No one has walked these
floors in decades.



Even the smells are old.
Fires long extinguished
in the fireplace,
pipe tobacco, age.



Ghosts can be found,
playing,
watching,
remembering.



The clock ticks
so very slowly,
counting ages,
instead of seconds..

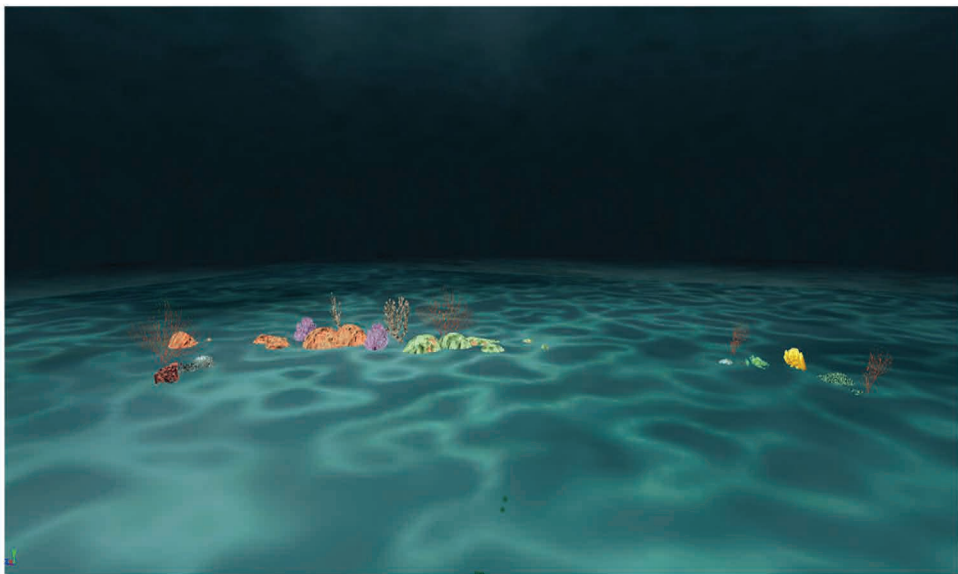
The Memory Stairs

■
Release

A vast bubble of dreams
A life written on the ocean floor
with delicate trceries of light.

I inhale the scent of the sea.

This dream is done.



The Memory Stairs

Concepts and installations

Initial design concepts called for a custom spiral staircase the experient would ascend, with multiple screens showing the others in the installation space. what was being experienced.

Actual experience settings ultimately had to be very basic. Participants sat or stood through their traversals of The Memory Stairs.



The Memory Stairs

Participant Reactions 1





Experients often wanted to comment on their experiences in *The Memory Stairs*. Many had previously experienced an immersive virtual environment, but as one experient stated “None as richly detailed.”

Descriptive words for *The Embryonic Chamber* included :: mysterious, scary, especially during the fighting, curiosity, tinge of fear (of the shadows), unease with bursts of calm, wonder about the blob-shaped figures, sympathy, dream memory, between waking and sleeping, pre-mind experience, in utero-visceral infancy, pre-birth/subconscious, womb-like cocoon with lots of outside people noise, a reach-in planet, and womb conversations.

For the *Just New* memory, people mentioned :: pleasant, secure, safe, happy, slightly embarrassing, comforting, nostalgic, I am playing with a different world, in the crib, safe and peaceful, baby state, emerging world, and mental model of infancy.

The Forgotten Rooms elicited :: curiosity, wonder, desire to explore, safety, pleasure, warmth, frustrated at being enclosed (there was no way out of the room), and joy at being able to move (the first two environments did not permit movement), a child’s eye view of the adult world, visiting someone’s old house in the USA, ghosts in the room, home, grandparent’s house, being a child in an adult world and mother’s home.

The final memory, *Release*, evoked the following :: unclear, mysterious, scary but sublime, distancing, slight fear, anxiety, time to go back, swamp, confusion, going back to the regular world, being in an underwater videogame, towards death, water world, and bottom of the pool.



The Memory Stairs

Participant Reactions 2

I wondered...would these experiences evoke experientists' own deep seated memories? One person said there were no specific memories triggered, but that all the memories "felt voyeuristic, as if sorting through someone else's papers." Here are a few of the other evoked memories people shared.

The Embryonic Chamber :: "While not a complete map, I was reminded of the fear/joy split of affect I experienced when very young." "Feeling of being half asleep and hearing/seeing people around me talking." "The sensation of being central to a personal space, but marginal to action as shared by others." "It brought back the experience of having very poor vision as a child; the blobby shapes were how I actually saw people then."

Just New :: "The scale of adult faces when I was a child, how they would loom into view. Also the powerlessness as a child, how one can't control one's personal space so much."

The Forgotten Rooms :: "This reminded me of experiences when I baby-sat and was able to wander through rooms in other people's houses." "The rooms reminded me of the wallpaper in my grandparents' house when I was young." "This reminded me of my grandparents' house, especially the old Time magazines."

A few of the memorable moments recounted by the experientists included: "Being delighted by and laughing at the grandmother's baby talk." "Everyone seemed to be smiling and mean well for me." "I gasped when I saw the ghost children. I wanted to talk with them, but they vanished." "Getting to explore the old rooms was wonderful and I was curious about everything. I was a voyeur enjoying myself." In the final world one person commented: "The world had edges I couldn't move past."

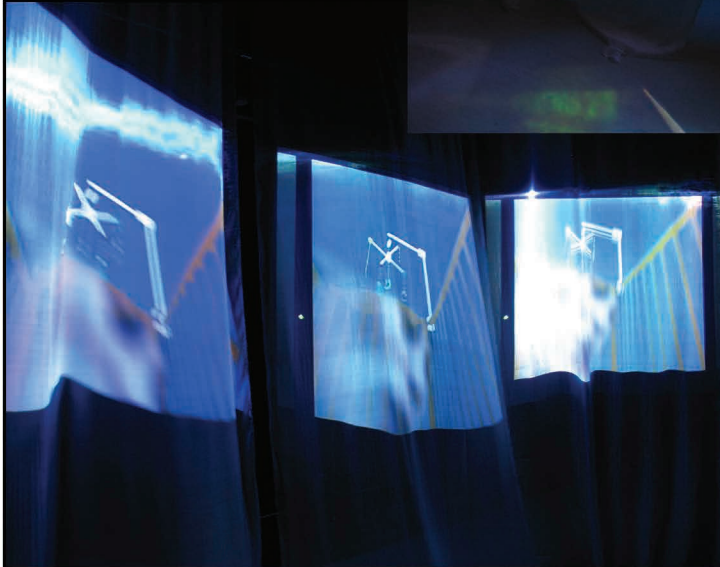
Finally, this response, from a young woman who was experiencing virtual environments for the first time, delighted me for the sense of empowerment and agency it evoked in her:

*"When I wear the head mounted display
and move the controller, it seems*

I operate the whole virtual environment."

Memories of the Memory Stairs *Matrix installation at UEL*

For the University of East London showing I devised a more ethereal immersive experience. Videos from *The Memory Stairs* were rear-projected onto large gossamere white silk panels. Sounds and music played. A fan sent gentle ripples shivering through the silk curtains.



Showings

Florida Film Festival May 1993
Enzian Theatre Orlando Florida

Florida Film Festival May 1994
Orlando Museum of Art, Orlando Florida

SIGGRAPH 1994 Conference
Orlando Florida

University of Southern California October 2004
USC Games Summit
Los Angeles, California

Human Computer Interface International Conference July 2005
Caesar's Palace, Las Vegas

Presence Conference August 2006
Cleveland State University
Cleveland, Ohio

Los Angeles SIGGRAPH event March 2007
Los Angeles, California

Private and Public Showings 2003~2006
Institute for Creative Technologies, VR Theatre
Marina Del Rey, California

Presence Conference August 2006
Cleveland State University
Cleveland, Ohio

Los Angeles SIGGRAPH event March 2007
Los Angeles, California

Private Showings May~October 2007
Institute for Creative Technologies
Marina Del Rey, California

Memories of The Memory Stairs

University of East London October 2007
Matrix Lab, London, UK



Virtopia

DarkCon

The Memory Stairs



Technical Details



Virtopia

*Implemented on an SGI Crimson with Multichannel option
N-Vision 90 ° HMD
Space Ball for navigation
Custom engine built on Performer and Sense 8 software
Models made in Multigen Creator
Convolvotron 3D spatialized sound*

Engine ported to Kubota PC for SIGGRAPH 1994 show

DarkCon

*Implemented on an SGI Reality Engine
Custom engine built on Performer
Kaiser ProView XL50 HMD
Game pad for navigation
Models made in Maya
Spatialized sound via ICT's custom 10.2 Immersive Sound system
Custom designed Infrasonic floor for kinesthetic signals*

*Engine ported to a custom 3 PC cluster (Windows & Linux)
FakeSpace Research prototype 90° HMD
Scents released via custom scent collar
Game pad for navigation*

The Memory Stairs

*Implemented on DarkCon's custom 3 PC cluster (Windows & Linux)
Custom engine built on Performer
FakeSpace Research prototype 90° HMD
Game pad for navigation
Models made in Maya
Scents released via custom scent collar*

Memories of The Memory Stairs

*Custom screens made of three White silk fabric panels, 10 ft x 5 ft
Videos from The Memory Stairs walkthroughs
Rear-projected onto silk in darkened room*

