

*IONS 2.0 Tools and Technologies
for a World Transforming*

Transformative Media's Next Evolution:

**Emerging and Future Trends in Media
Technologies for Personal, Societal and
Global Transformation**

Ed Lantz

Co-Founder & Director, IMERSA, Inc.

President & CTO, Vortex Immersion Media, Inc.

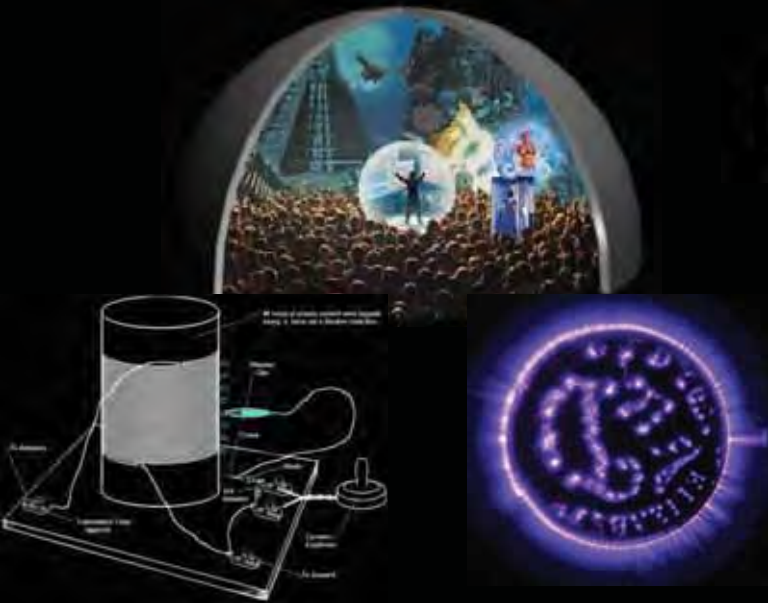
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www.vorteximmersion.com

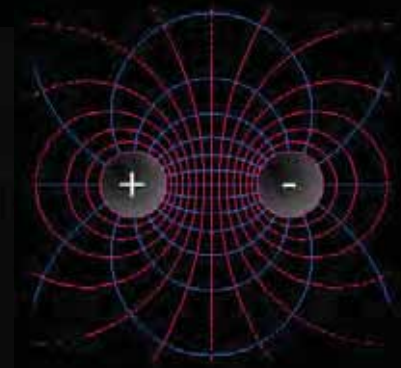
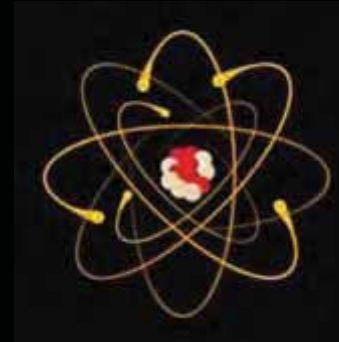
www.imersa.org



My Story



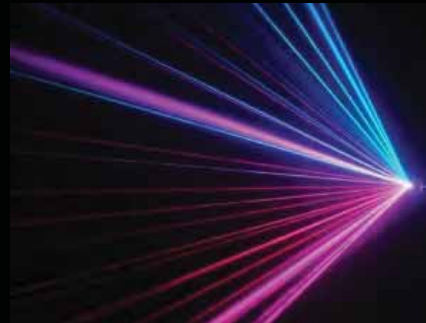
Artist /Writer/Inventor
Hollywood, Florida



Masters in Engineering
w/Quantum Physics
Tennessee Tech University



Aerospace Engineer
Melbourne, Florida



Planetarium Engineer
Cocoa, Florida

My Story



Immersive Theater Engineer
Chadds Ford, PA

Cable Television Pioneer
Philadelphia, PA



Immersive Media Producer
& Entrepreneur
Los Angeles, CA



My Story



Interfaith Minister



Celebratory Drummer,
Ritualist, Performer



Writer, Speaker



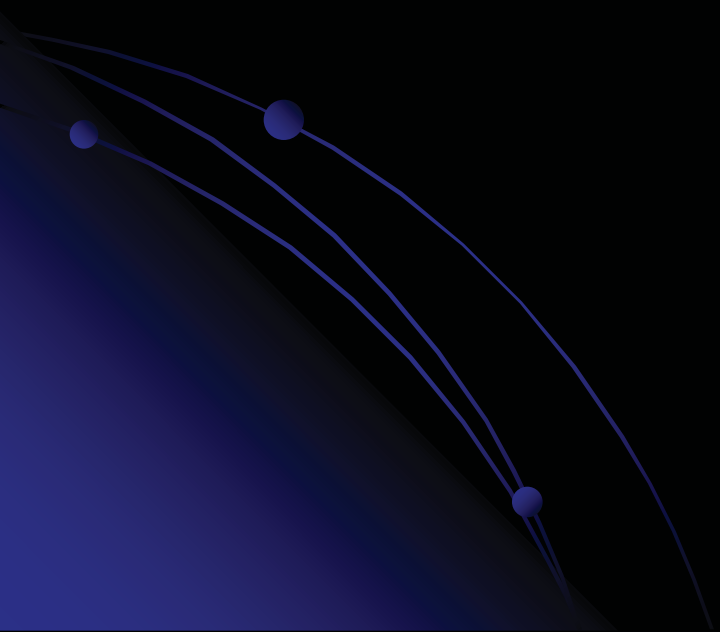
CENTER FOR
CONSCIOUS
CREATIVITY



Socially Beneficial Organizations,
Networking and Events

The universe is made of stories, not of atoms.

- Muriel Rukeyser



Storytelling: An Engineer's Definition

Story: An imaginative journey within the mind that evokes affective and cognitive neurological responses in viewer's brain and nervous system as if the story were real.


Storytelling: The art and science of invoking story narratives within the minds of audiences through various sensory stimulation channels and storytelling modalities.

Sensory Channels include auditory, visual, aroma, taste, haptic and various special effects. Digital channels require sensory interface devices.

Storytelling Modalities include: dialog, narration, music and sound effects (auditory); acting, cinematography, production design, visual effects (visual).

Neurological Response to Stories

Cognitive (thoughts, beliefs, language, etc.):

- Conceptualization, Imaging
 - Problem Solving
 - Rationalizations, Interpretations
 - Recognition, Remembering
 - Linguistic Articulation
 - Realizations, Logical Connections
 - Learning, Skills, Technical Information
- 

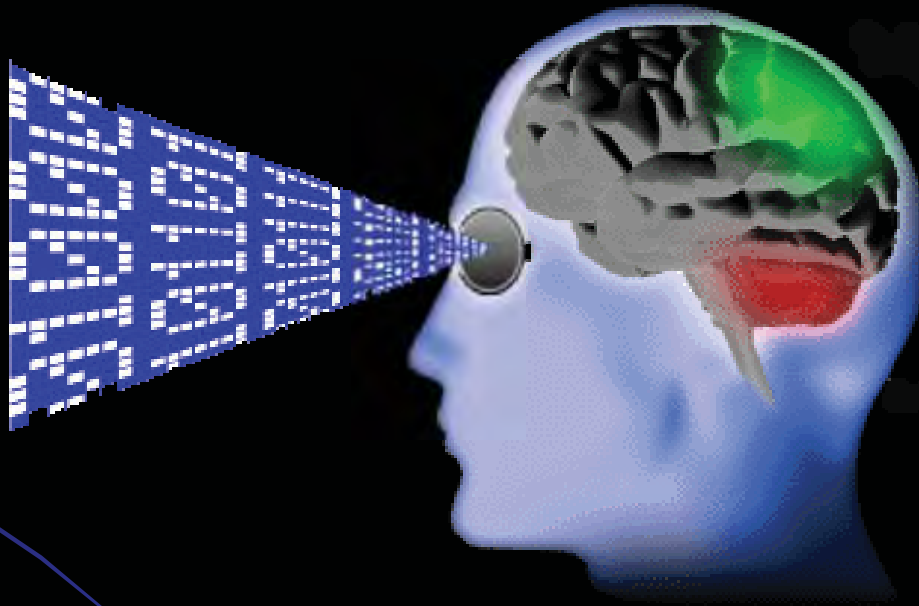
Neurological Response to Stories

Affective (feelings, moods, reactions, etc.):

- Energized, Motivated - *adrenaline*
- Ecstasy, Bliss, Connectedness - *oxytocin, anandamide*
- Curiosity, Anticipation - *endorphins, beta-endorphins*
- Chills, Goose Bumps - *pilomotor reflex*
- Sense of Accomplishment - *norepinephrine, epinephrine*
- Humor, Laughter, Pleasure - *dopamine*
- Sexual Arousal - *androgens and estrogens*
- Happiness, Satisfaction - *serotonin*
- Relaxation - *GABA, anandamide*

Transformative Media

The Eyes and Ears are a Wideband Interface to the Brain



**Arts, Media and Entertainment are Powerful
Tools for Reprogramming our Neural Software**

Transformative Media

An experience that substantially alters a person's
“possibility space” or life path

- Discovering new facts, cultures, connections
- Epiphany, realization, revelation
- Spiritual, numinous, or “unity” experience
- Awakening to empathy, compassion, love
- Often triggered by new friends, social circles
- Trauma, loss, fear, etc. can also be transformative

transformed world view = transformed world



THE ACADEMY

OF MOTION PICTURE ARTS AND SCIENCES

WHERE DO WE GO FROM HERE?

WHERE DO WE GO FROM HERE?

DECEMBER 2, AT THE
SAMUEL GOLDWYN
THEATER

Arts, Media & Entertainment Modalities



Cable & Broadcast TV



*Giant Screen &
Digital Dome Theaters*



Mobile Media & Apps



*Music, Video & Print
Publishing*



Video Games



*Theater, Opera
& Live Performances*



The Fine Arts



*Online Media &
Social Networking*



*Digital Cinema
& Feature Films*



*Virtual Reality
& Augmented Reality*

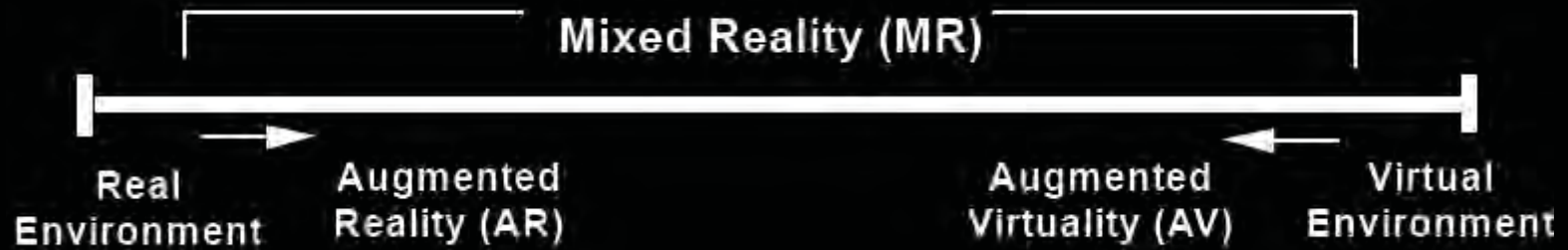


Themed Entertainment



Art & Music Festivals

Spectrum of Virtual Reality



The Holodeck



The Matrix

Gesture Interactive Surfaces



Gesture Interactive and Multi-Touch Displays

- Interactive tables, walls, floors,
- Kiosks and tradeshow

Stereoscopic 3D and Autostereo Displays

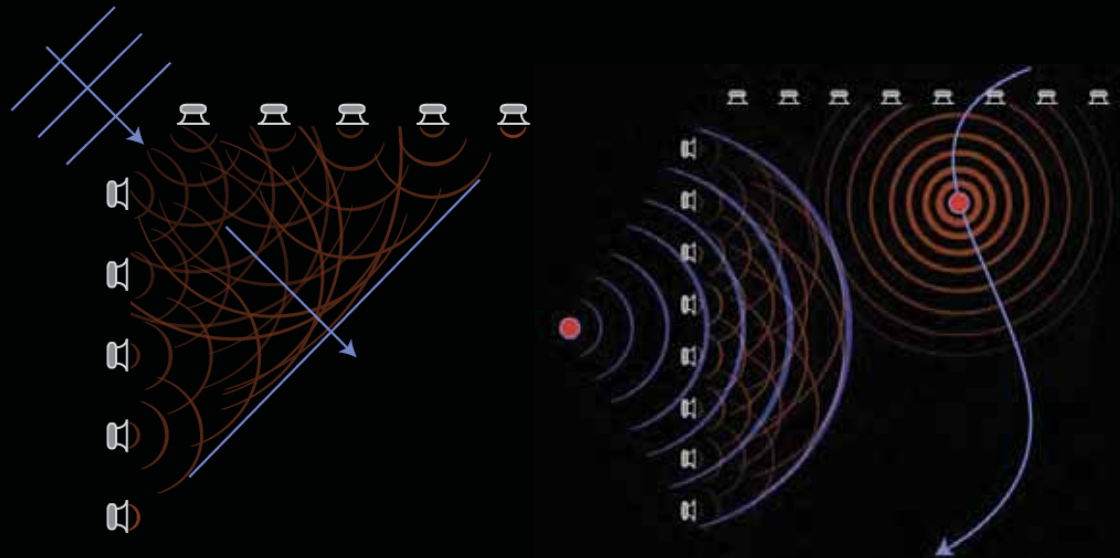


3D & Holographic Displays

- No glasses needed
- Touch or gesture interactive

Holographic Audio

- IMAX Producers Claim Audio is 60% of the Experience
- Holographic Wavefront Reconstruction
 - Sound sources can be placed anywhere within theater space
 - Virtual plane waves provide identical directionality for all seats
 - Commercial system now available (IOSONO)



4D Theater Effects: Multisensory Stimulation

- Fog, Strobes, Bubbles, Mist, Snow
- Face Blast/Mist/Scent – Air, water mist, scent blast from seat in front
- Seat Transducer - Audio shaker based in seat pan
- Seat Back Audio FX - Audio speakers located in seat back
- Seat Cushion Air Poker - Seat cushion inflation with poker
- Seat Cushion Ripple - Small air bladders that inflate/deflate in sequence
- Seat Back & Cushion Buzzers - Seat vibration in cushion and back
- Seat Back Air Bladder - Gentle seat back motion inflation/deflation
- Leg Tickle - Pneumatic tickle at back of leg
- Neck Tickle - Air tickle at neck left and right
- Seat Cushion Drop - Sudden seat cushion deflation
- Seat Motion – Translation, rotation



Courtesy Tehcnifex



Next-Gen Cinema



Interactive Lounge and
Restaraunt



Premium Cinema



Digital Immersive Dome



Personal On-Demand
Spaces (PODS)



Live Performances



Video Game Tournaments

Immersive Cinema

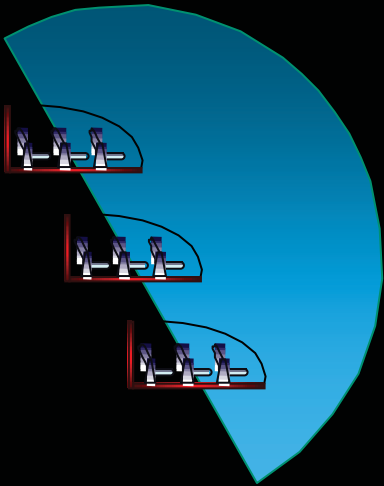
Digital Dome or “Fulldome” Theater



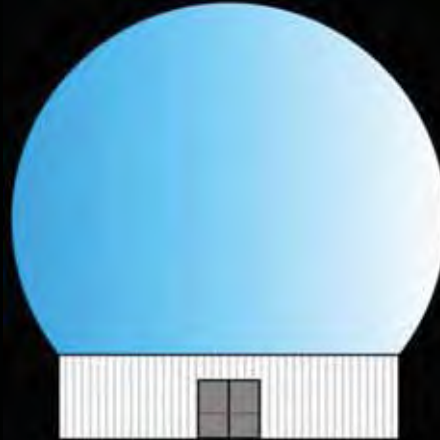
Large-scale, real-time interactive
group immersive environments

Digital Dome Growth Markets

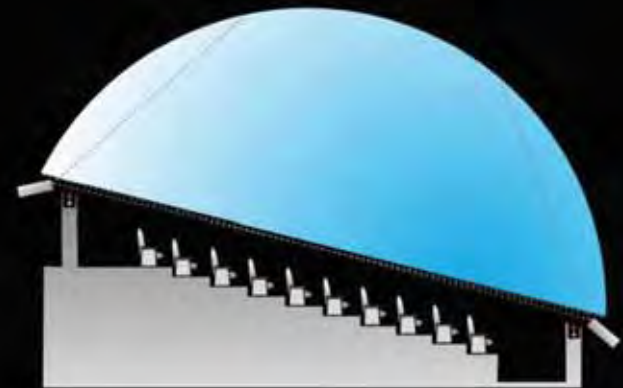
850 Digital Dome Screens Worldwide



Themed Entertainment



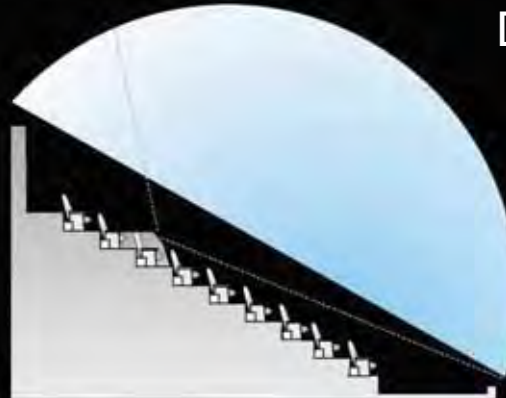
Events Domes



Digital Planetariums



Portable Planetariums



Giant Screen
Digital Cinema

Sampling of Fulldome Theaters



**Volkswagen Autostadt
Wolfsburg, Germany**

**Morrison Planetarium
California Academy
of Arts and Sciences
San Francisco, CA**



**Papalote Museo del Niño
Mexico City**

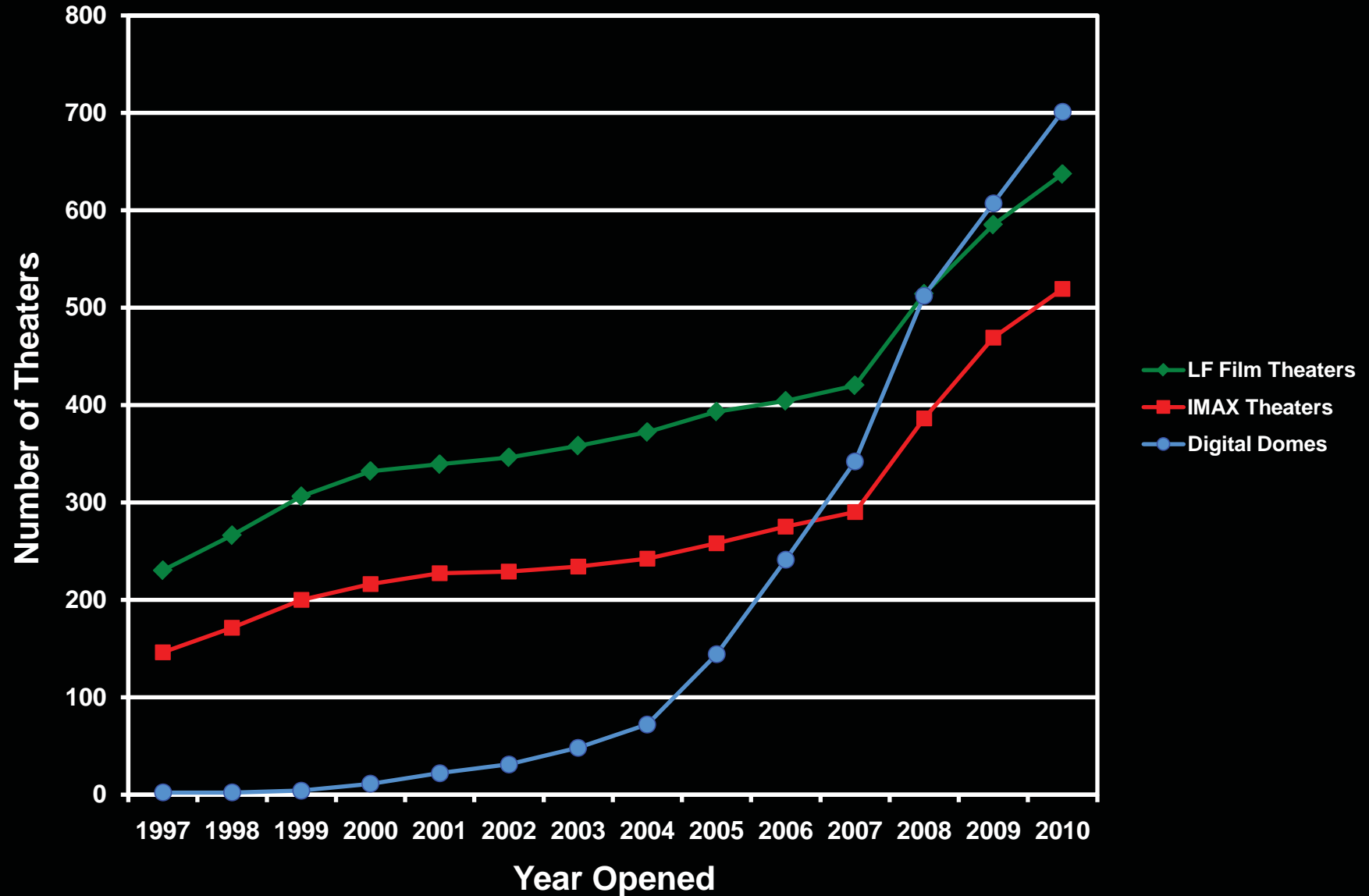


**Bibliotheca Alexandrina
Alexandria, Egypt**



**Hayden Planetarium
Rose Center for Earth and Space
American Museum of Natural History
New York, NY**

Fulldome Theaters Worldwide



Digital Planetariums

Fulldome Planetariums allow Navigation through a Scientifically Accurate Model of the Known Universe

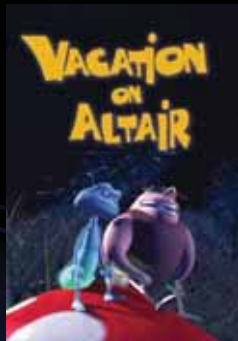


Carter Emmart, Director of Astrovisualization
at the American Museum of Natural History's
Rose Center for Earth and Space



Images Courtesy SCISS AB
www.scalingtheuniverse.com

Immersive Cinema Productions



Live Immersive Performances



Bridge Dance League



David Arkenstone



**Bella Gaia
Kenji Williams**

**Two Voices, One Vision
C3 Vision Lab**



Bella Gaia



A Non-Narrative SciArt Experience

- Features NASA and NOAA Earth Science Datasets
- Music and Immersive Visuals create Powerful Experience
- Cognitive Goal: Earth Science Understanding
- Affective Goal: Overview Effect

Mobile Dome Venues



Inflatable
(Air-Supported)

Geodesic
(Rigid Structure)

Mobile Dome Venues



Nike Quad Dome Event



SciDome™ Trade Show Dome

- Portable Planetariums, Art Exhibits
- Events, Tradeshows, Festivals



Vortex Dome

Los Angeles Center Studios



**Next-generation immersive cinema
events venue and development studio**

Venue Specifications:

Diameter

External:

50'

Internal w/video screen):

45' 9"

Floor Area:

1,963 sq. ft.

Standing Capacity:

280

Theater Seating Capacity:

120

Push4Peace Dome Tour



Push4Peace Dome Tour



- 2012/2013 national tour
- Over 20 peace organization affiliates
 - UN International Day of Peace
 - Earthdance International
 - Dali Lama Foundation and more...
- Provide transformational experiences
 - Heart opening, inspirational, uplifting - WOW!
 - Model how humans can achieve peace
 - Story of humanity's evolution and future
- Call participants to action (inner/outer)
- Information dissemination & networking

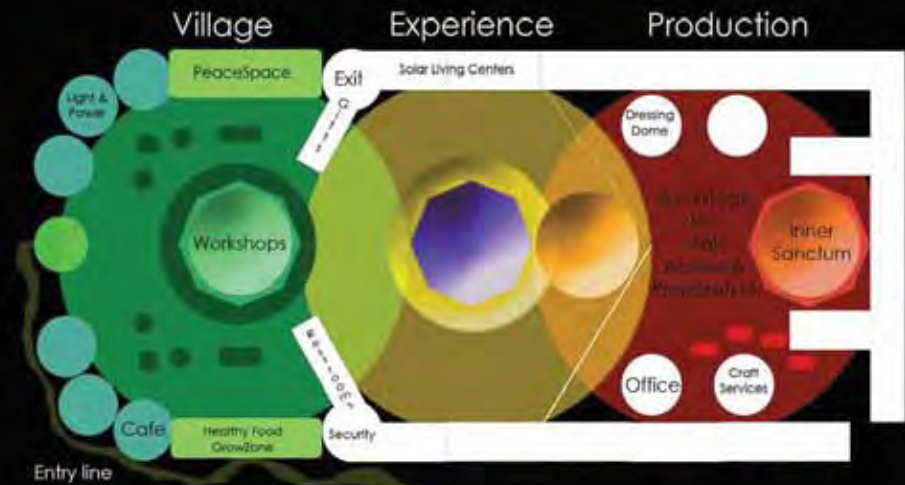
Push4Peace Dome Tour



ArcheDream for Humanity



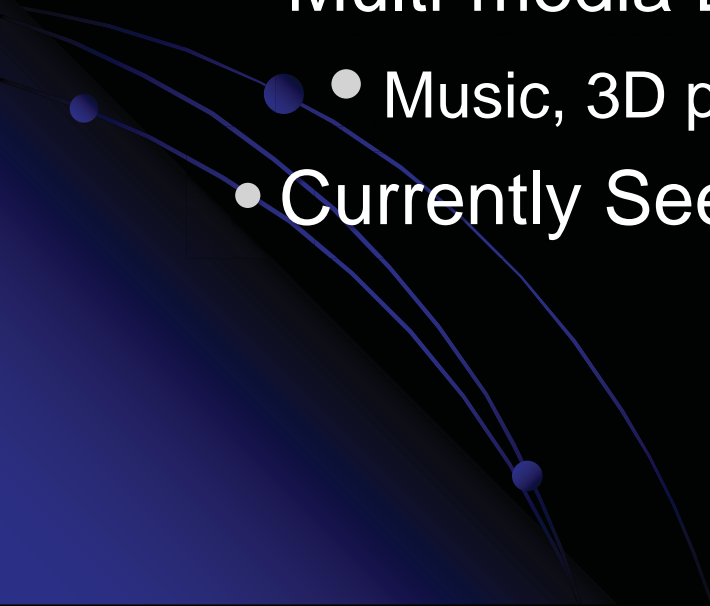
Jeff McBride



The Awakening Dome Tour



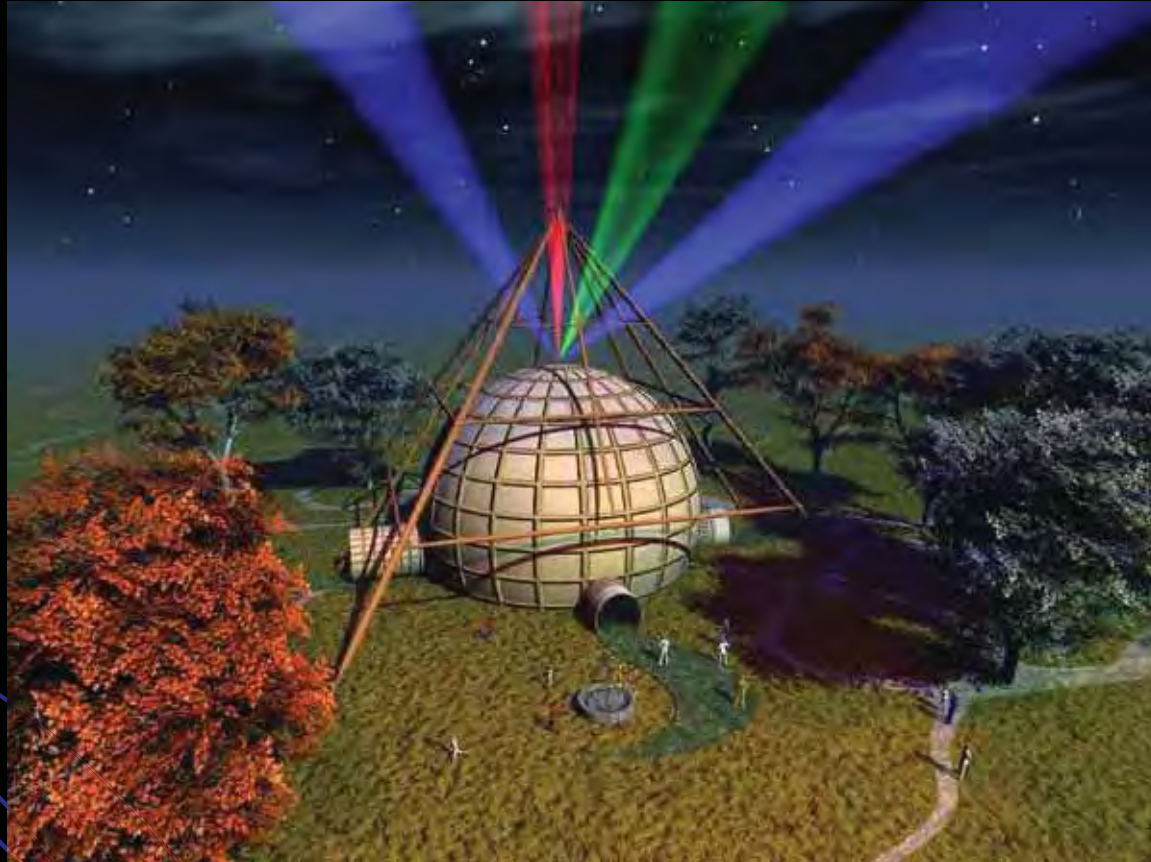
The Awakening Dome Tour

- Created by Andre RIPA
 - Journey of Remembrance
 - Magical journey of the Soul
 - Highlights human potential
 - Multi-media Dome experience
 - Music, 3D projections, song and dance
 - Currently Seeking Sponsors
- 

The Awakening Dome Tour



the walk[™]



A New Genre of Entertainment



***The Walk* is an event venue providing state-of-the-art experiences for relaxation, inspiration and transformation; a tune up for the body, mind and spirit.**

- Entertainment technology integrating color, immersive visuals, surround sound, aroma, vibration and movement.
- Participatory experiences that amplify personal creative expression.
- Interactive art installations from creative artists around the world.
- An ongoing showcase for ground-breaking entertainment technology
- Created by Zubin Levy

Main Chamber

Participants are seated in floating simulator chairs to experience the first fully integrated multisensory system combining vibration, surround sound, aroma, and immersive imagery that produce a heightened state of consciousness and relaxation.



Main Chamber Experiences



Inspirational and stress reducing journeys

Virtual Sanctuary



Virtual Sanctuary

The Digital Spa's Purpose is Simple:

*Deliver Experiences that Make People Feel Better
and Promote Wellness*

How?

- Provide powerful immersive experiences that are:
 - Soothing, relaxing, inspiring, healing
 - Meditative, contemplative, beautiful
 - Energizing, invigorating, awe-inspiring
 - Transformative, uplifting

Virtual Sanctuary



Inspirational and stress reducing journeys

Virtual Sanctuary

Sampling of Programs for the Digital Spa:

- Ambient Environments
- Nature and Space Journeys
- Harmony Channel's MoodZones
- Vibrational Healing
- Immersive Cinema Productions
- Virtual Worlds
- Neurofeedback Games and Experiences
- Virtual Reality Healing
- Digital Planetarium

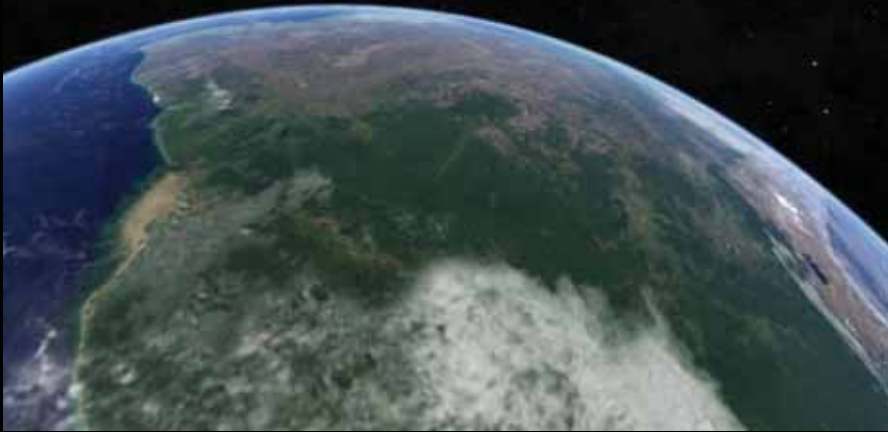
Ambient Environments



Nature Journeys

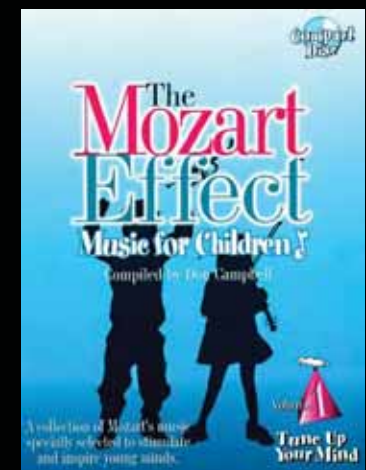
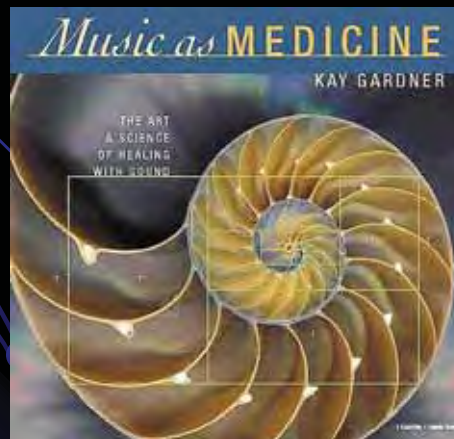
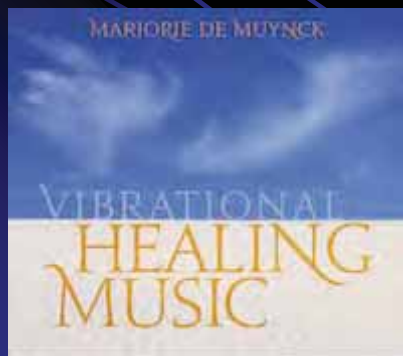


Space Journeys



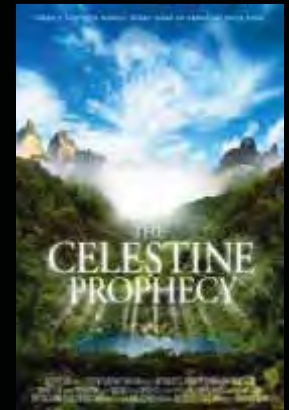
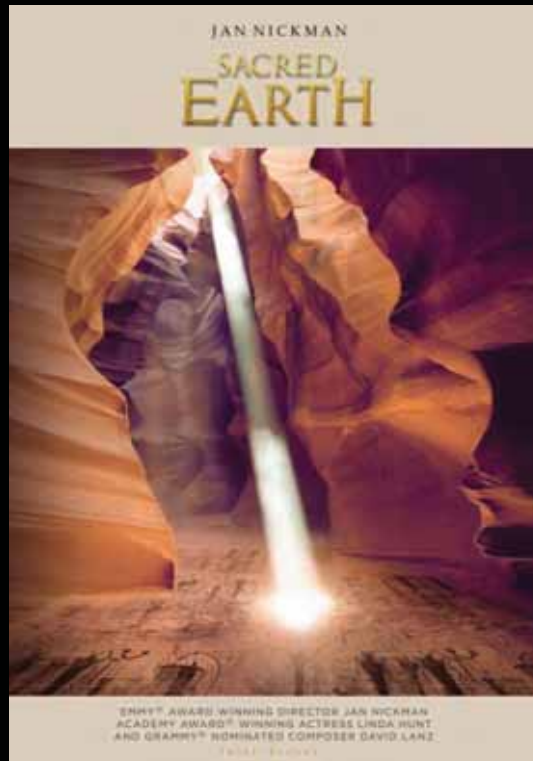
Vibrational Healing Music

With immersive music visualizers/screensavers



Transformative Films

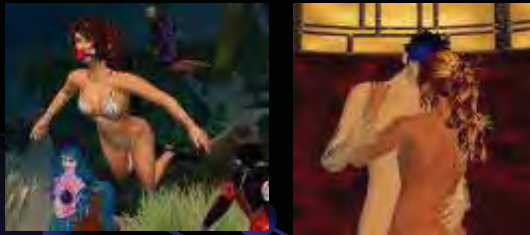
Mind-opening, thought provoking, inspiring, etc.



Virtual Worlds

Virtual worlds with wellness themes

- Art and entertainment experiences
- Collaborative/creative social circles
- Spiritual celebrations, ceremonies, meditations
- Counseling, mentoring, coaching sessions



Neurofeedback Games & Experiences



*Wild Divine &
Healing Rhythms*
WildDivine.com



Emotiv Systems
www.emotiv.com

Epoc can differentiate between thoughts such as lifting or rotating an object; detect and mimic a user's expressions such as a smile or wink; and respond to emotions such as excitement or calmness.

Virtual Reality Healing

- Pain Management
- Phobia Treatment
- Technology-enabled
conflict negotiation
- PTSD treatment
- Anxiety disorders
- Addictions
- Eating disorders
- ADHD treatment



Cybertherapy Conference

interactivemediainstitute.com/index_conf.html

Virtual Healing (book)

Brenda K. Wiederhold, Ph.D., MBA, BCIA

vrphobia.com



The degree of immersion in an interactive VR experience seems to improve its efficacy in medical treatments for phobias and pain, performing better than 2D video games, for instance. - Hunter G. Hoffman, Sci. American, August 2004

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Thank You!

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