

# VISITATIONS



Virtual Environments for Ketamine Infusion Therapy

**VISITATIONSVR.COM**

# SET & SETTING IN VR

**Set:** Your mindset - **Setting:** the place you're in

“Timothy Leary: 99% percent of the specific response to LSD is determined by set-and-setting.”

- A collection of vignettes
- Abstract and natural scenes
- Designed for patients receiving .5-1 mg/kg
- In collaboration with Manhattan Restorative Health Sciences
- Artwork designed to support therapeutic outcomes
- Available for download on PC VR headsets, Oculus Go, Quest, HTC Flow



# DAVID LOBSER

dlobser.com

animation direction & visual effects

Shifted to development &  
procedural design

Cosmic Sugar released in 2016

“Luxury Escapism” Digital Spa  
with Tyler Pridgen in  
Brooklyn, NY - 2019-2020

Visitations released in 2021





## LUXURY ESCAPISM - NY's First Digital Spa







# VISITATIONS

A Virtual Reality Experience

# ORIGINS

- Conceived as a gallery of mind altering art
- An excuse to collect experiments
- Inspired by goals of 70s experimental film
  - Stan Brakhage, James Benning, Michael Snow, Jordan Belson
  - Cinema of consciousness
  - Influenced by psychedelic culture
- Introduced to Dr. Melissa Selinger & Dr. Tim Canty

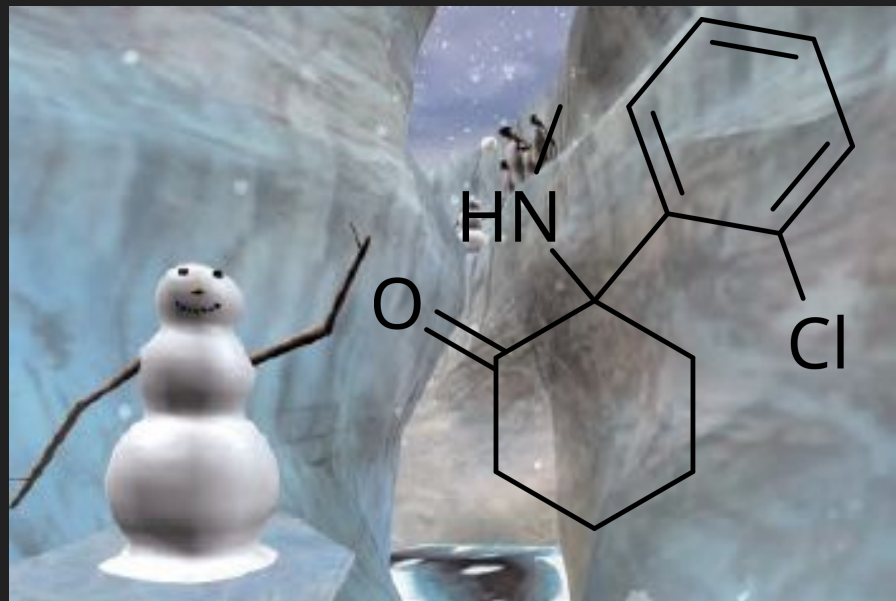
# WHAT IS KETAMINE

- Induces dissociative anesthesia, a trance-like state providing pain relief, sedation, and amnesia
- Developed in the 60s
- Not just a horse tranquilizer
- The WHO lists it as an essential medicine
- Schedule 3 in the US
- A powerful antidepressant
- Only J&J's expensive esketamine is approved for depression
- Most prescribing for depression is off label
- Typically protocol is 5-6 infusions over 2-3 weeks



# WHY KETAMINE

- Safe and legal
- Ketamine and VR has been involved in prior studies (Snow World, Hoffman, U of Washington, vrpain.com)
- Subjectively, they synergize





# THE STUDY

- Patients received 3 infusions in a week
  - First, with just ketamine
  - Second, used VR and ketamine
  - Third, patients had a choice
- $\frac{2}{3}$  patients preferred their experience with Visitations
- Forthcoming paper by Dr. Tim Canty and Dr. Melissa Selinger



# PATIENT FEEDBACK

"The most amazing medical procedure I've ever experienced."

"Kind of mind blowing"; "I wasn't concentrating on the effects of the drug or anxious...more immersed into the VR", "distracted me from everything going on", "a lot more pleasant."

"Really enjoyable", "makes you aware of the important things."

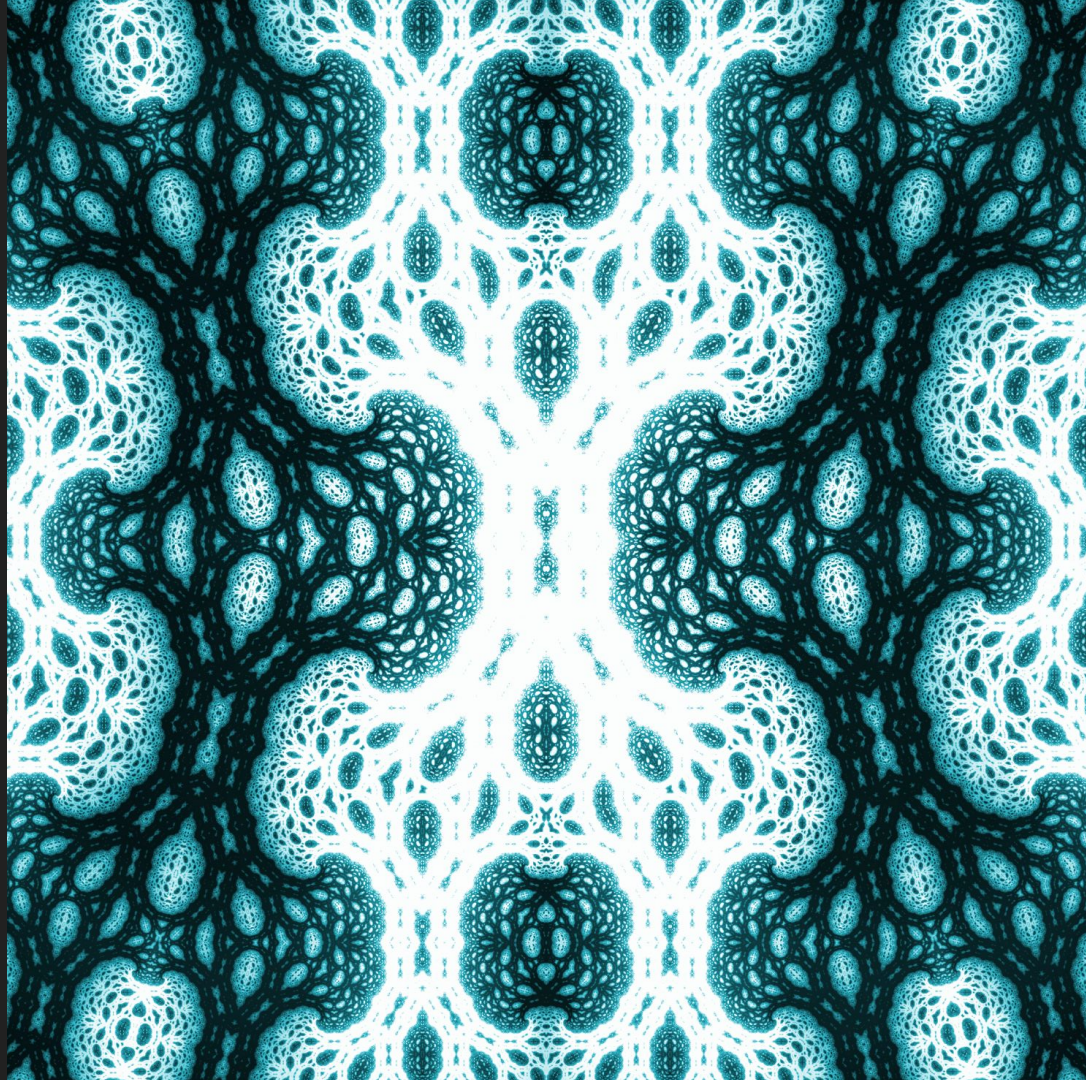
"The VR gave images to go back to during times of pain to help meditate through at home."

"VR took [the] edge of anxiety away."



# THERAPEUTIC ART

- Not about an artistic POV
- A way to elicit the body's natural healing abilities
- The placebo effect





# DESIGNING FOR INCAPACITATED PATIENTS

## Patient Considerations

- Suffer from chronic pain and comorbid depression
- Little or no experience with VR
- Unable to manage complicated tasks
- May be oriented in different ways



# DESIGNING FOR INCAPACITATED PATIENTS

## Design Solutions

- No interaction, or simple interaction
- Automatic reorientation
- Eliminate confusion or uncertainty
- Gaze Based Menu (or no menu)
- Customize the experience beforehand



# HEALING MODALITIES

- Awe <sup>\*</sup><sub>—</sub>
- Meditation
- Catharsis
- Distraction
- Entrainment
- Framing/Context
- Nature <sup>\*</sup><sub>—</sub>





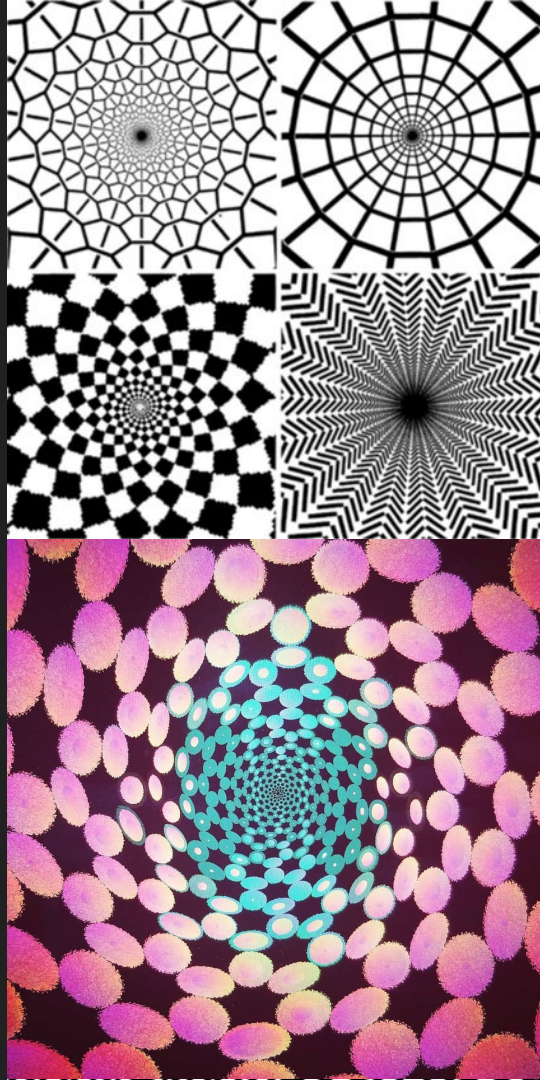
# VISUAL TECHNIQUES IN VISITATIONS

- **Visual Strobing**
- Tunnels/Spirals
- Symmetry
- Central Focus
- Environments that “Breathe”
- Procedural Generation
- Fractals



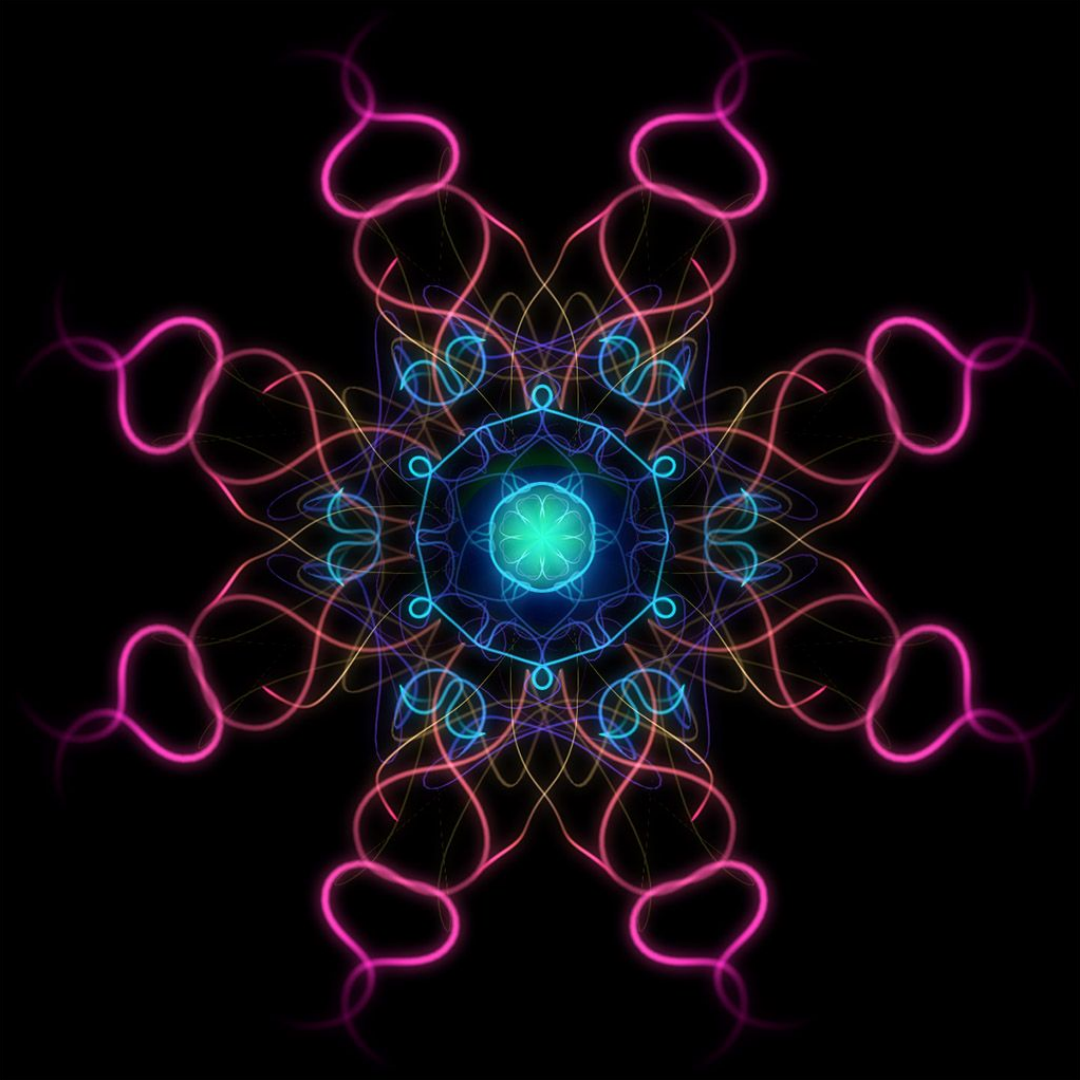
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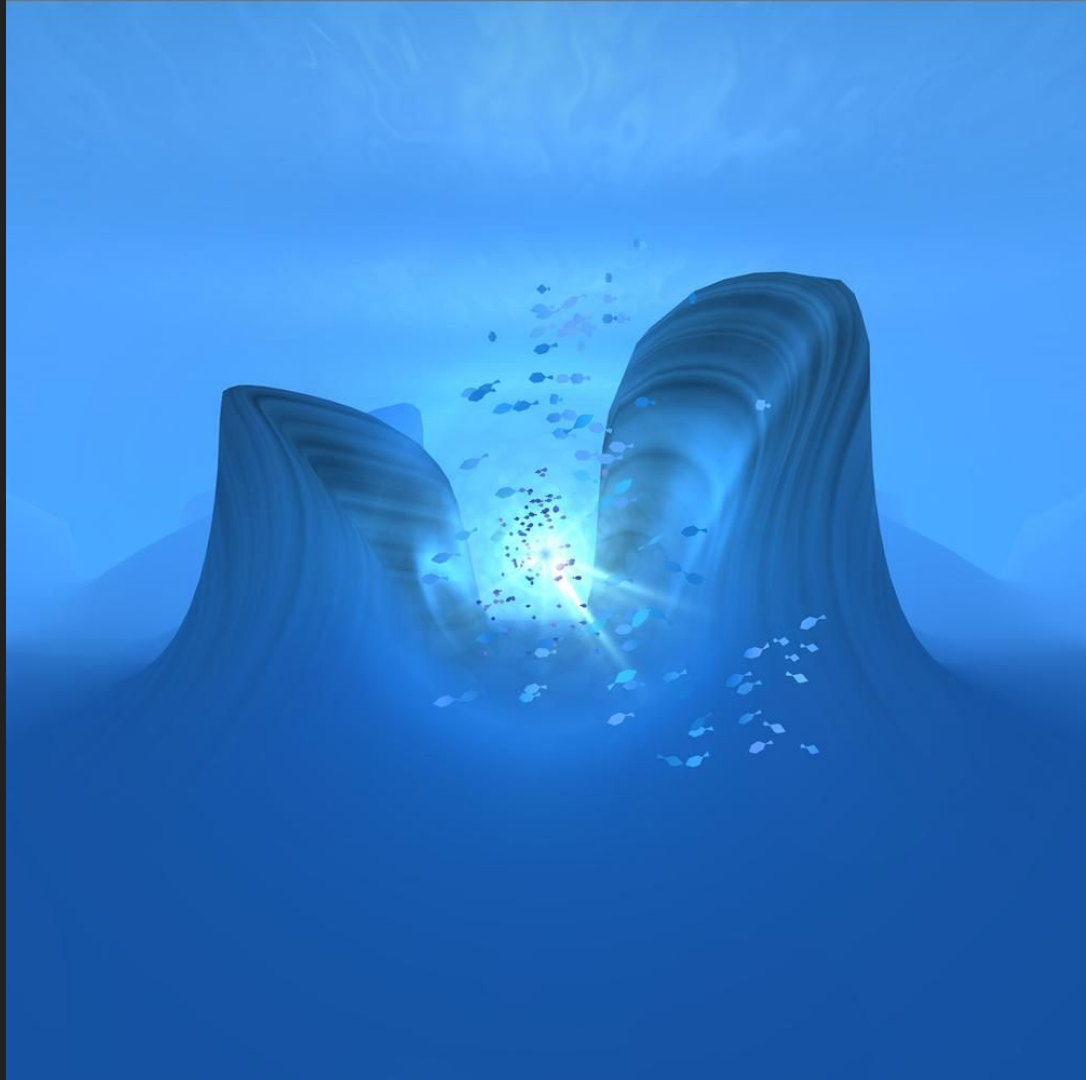
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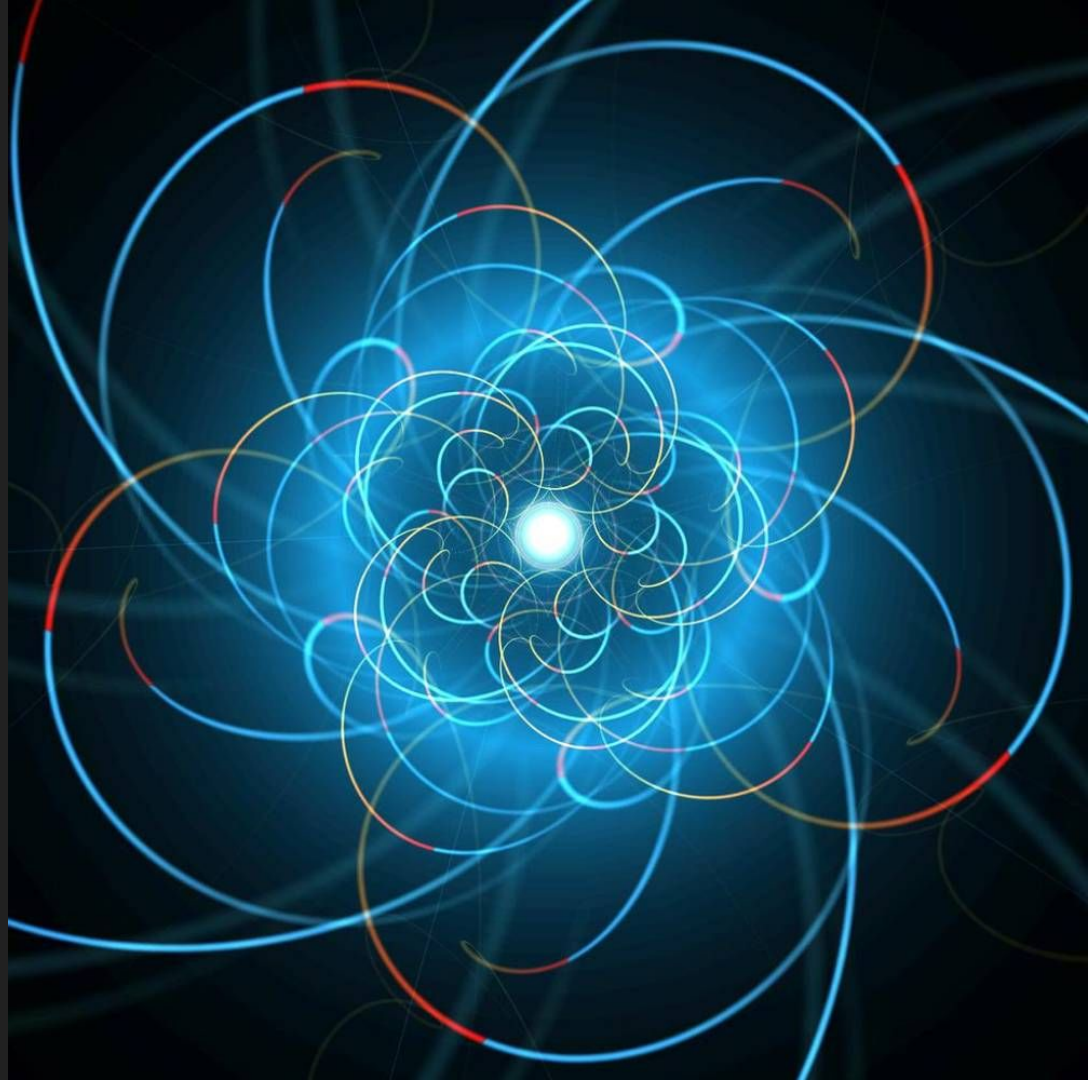
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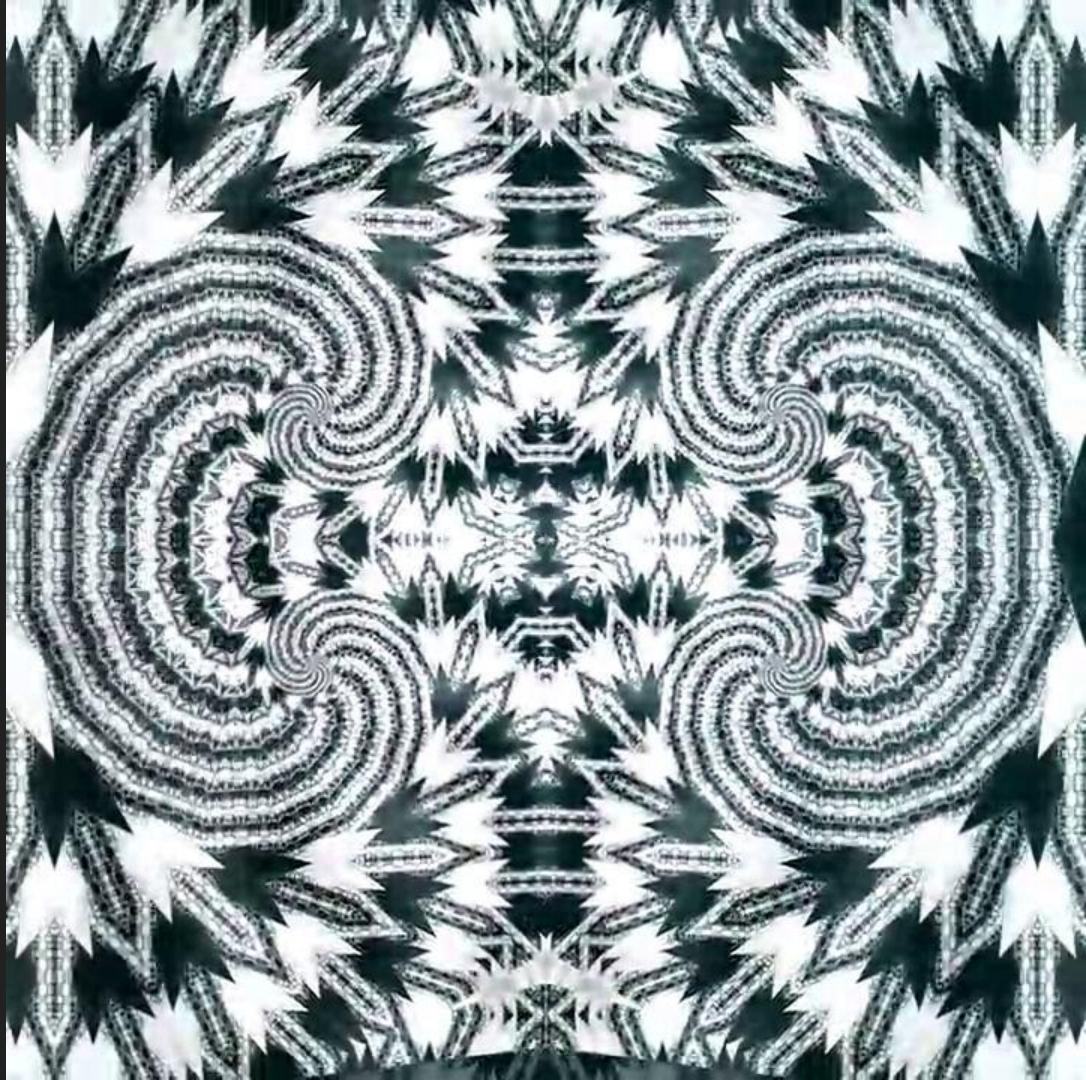
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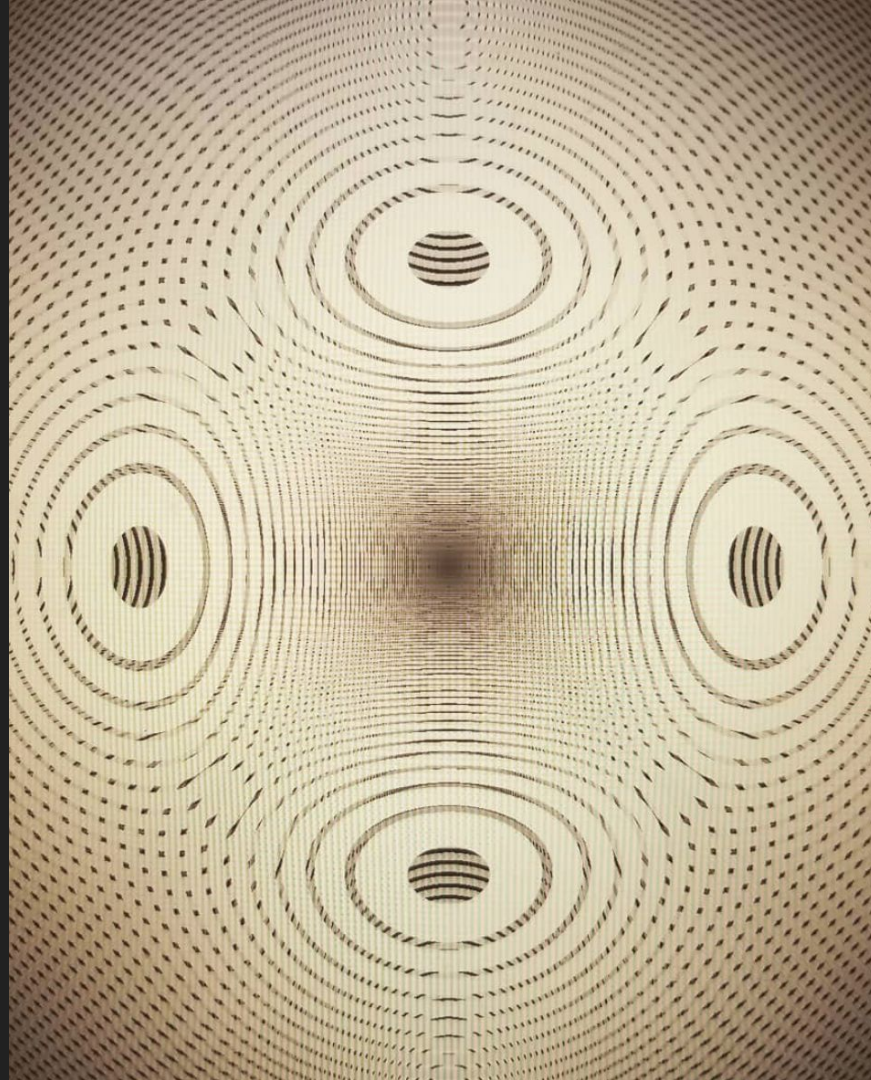
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# AURAL TECHNIQUES

- Binaural beats
- Music composed by an expert
  - Krishna Oswalt aka East Forest
- Voice-over
  - Dream Induction
    - Deirdre Barrett
  - Body Scan Meditation
    - Christopher Magill
  - PMR & Body Scan
    - Radha Weppner
- “Diegetic” Audio





# THE POWER OF VR

- Isolates you from your body
- Captures your attention
- Pairs well with other devices
  - Scent
  - Vibroacoustics
  - Temperature
  - Wind
- See **VRx** by Brennan Spiegel

But it's not perfect

- May cause motion sickness
- Requires careful onboarding and setup
- Finicky equipment
- Challenging to get feedback





# THE ROLE OF THE ARTIST

- Elicit Mental States
- Create a Narrative
- Intuitive Problem Solving



# COLLABORATORS



**East Forest  
Music**



**Deirdre Barrett  
Dream Induction**

# OTHER APPLICATIONS

- Other medicines
- Distraction
  - Dentistry
  - Infusions (chemo, etc)
  - Painful procedures (dressing changes for burns)
- Teletherapy
- Meditation “training wheels”
- At home, therapeutic support between in-person sessions





# DESIGNING FOR SOBER PEOPLE

- Hypnosis vs Hypnotic
- Mental Imagery vs Imagery
- Meditation vs Meditative
- Noticing vs Engaging
- Mindfulness vs Mindfultainment
- Conjuring Sense Memories
- Cultural Signifiers
- Flow
- Novelty



# STYLE & FORM

- 360 video vs real time graphics
- The uncanny valley of photorealism
- Easygoing or challenging
- Illustrative vs realistic
- Abstract vs figurative
- 360 vs 180
- Exploration or stillness



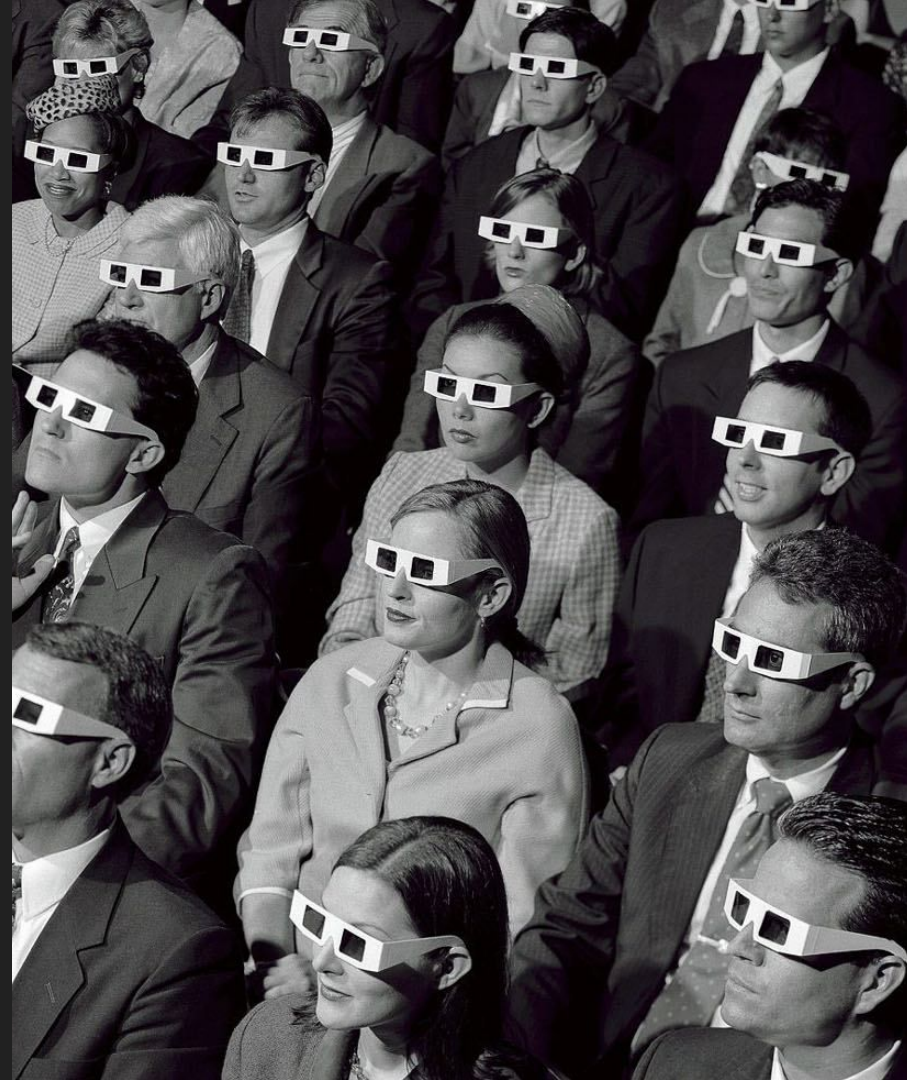
# FUTURE DEVELOPMENT

- Collaborate
  - With therapists for voice overs etc.
  - Study effectiveness (not just satisfaction)
  - Artists with different intuitions
- Record intentions and reflections
- Networked
  - Live performances
  - Recorded 'master' therapists with live 'sitters'
  - Location based and/or remote
- Input
  - Biofeedback, ekg, eeg, etc
  - Pressure sensing
  - Orientation sensing
  - Voice (see Soundself)
  - HP Reverb Omnicept Edition
  - Voice activation
- Alternatives to VR
  - Domes
  - Custom displays
- Multi-session, unfolding narratives



# MENTAL HEALTH IN THE METAVERSE

- Good
  - Scalability
  - Access
- Bad
  - Privacy concerns



# CURRENT PROJECTS

**HTC** - Vive Dreaming

**Psyber/Atai** - Pre Trip Meditations

**Rocket VR** - VR for Radiation Therapy

**Johns Hopkins** - Pre/post trip settings

Visitations is in use at:

- Manhattan Restorative Health Sciences
- HMS (Healthy Mind Solutions)
- Penn Medicine (upcoming)



# LIGHT CLINIC



Digital, Therapeutic Art  
[info@light.clinic](mailto:info@light.clinic)