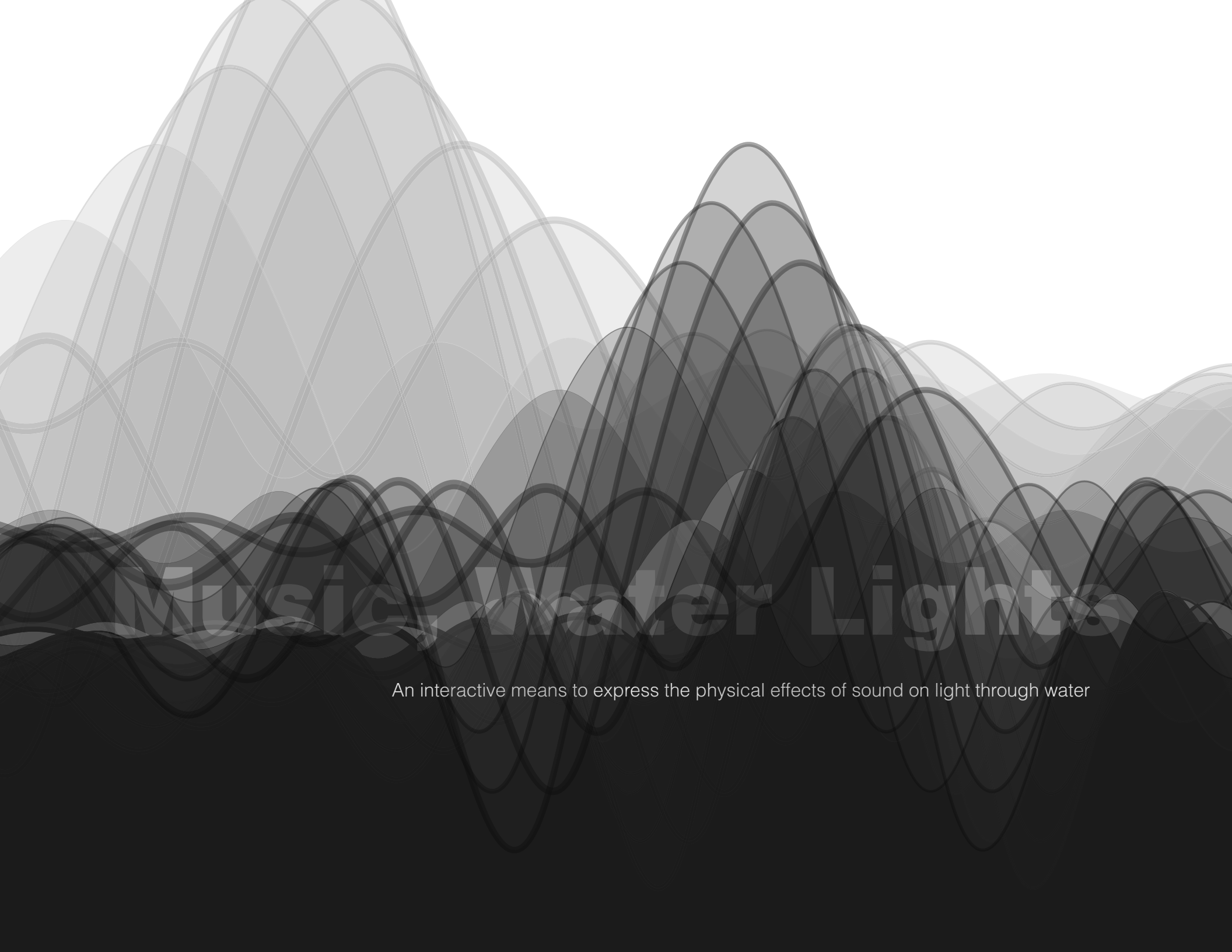
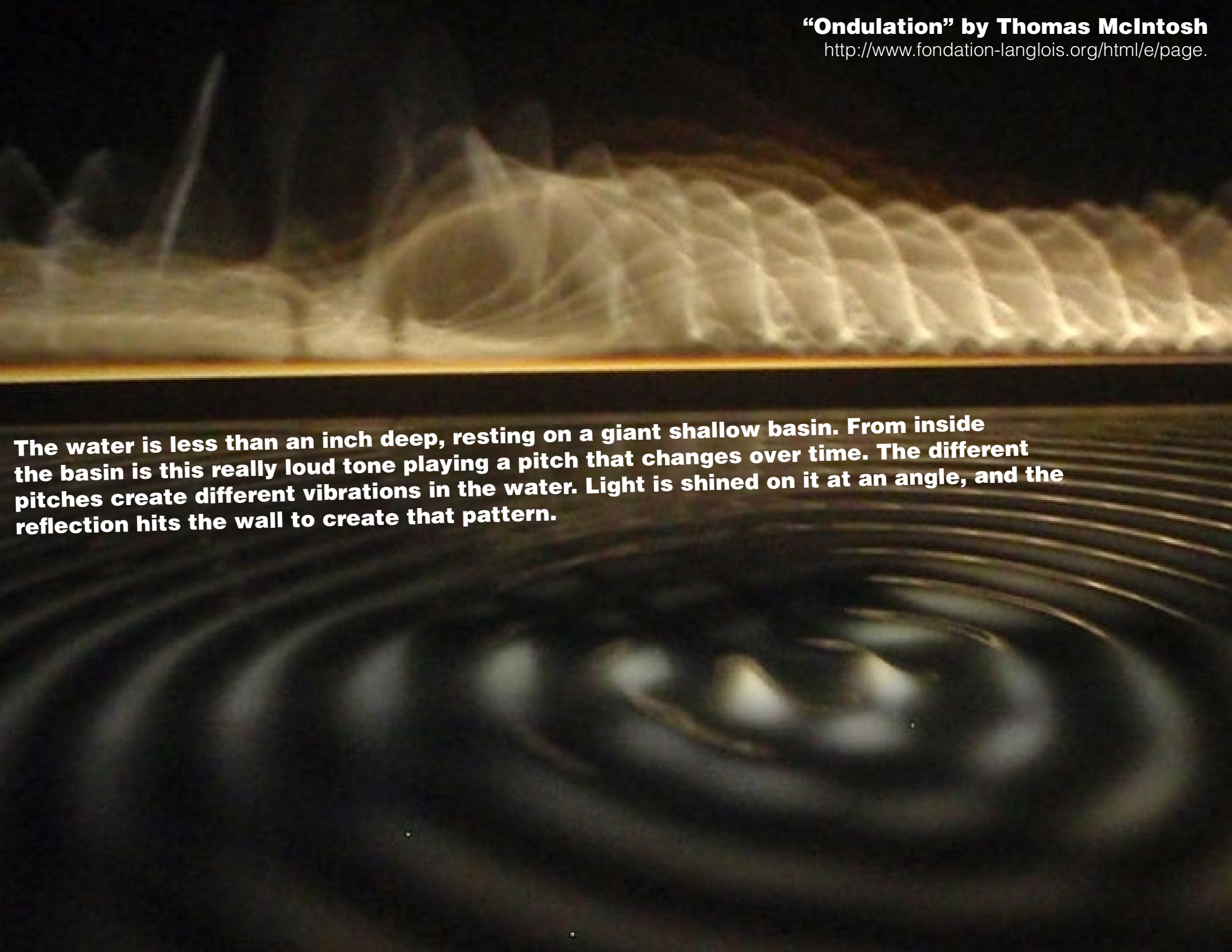


An interactive means to express the physical effects of sound on light through water

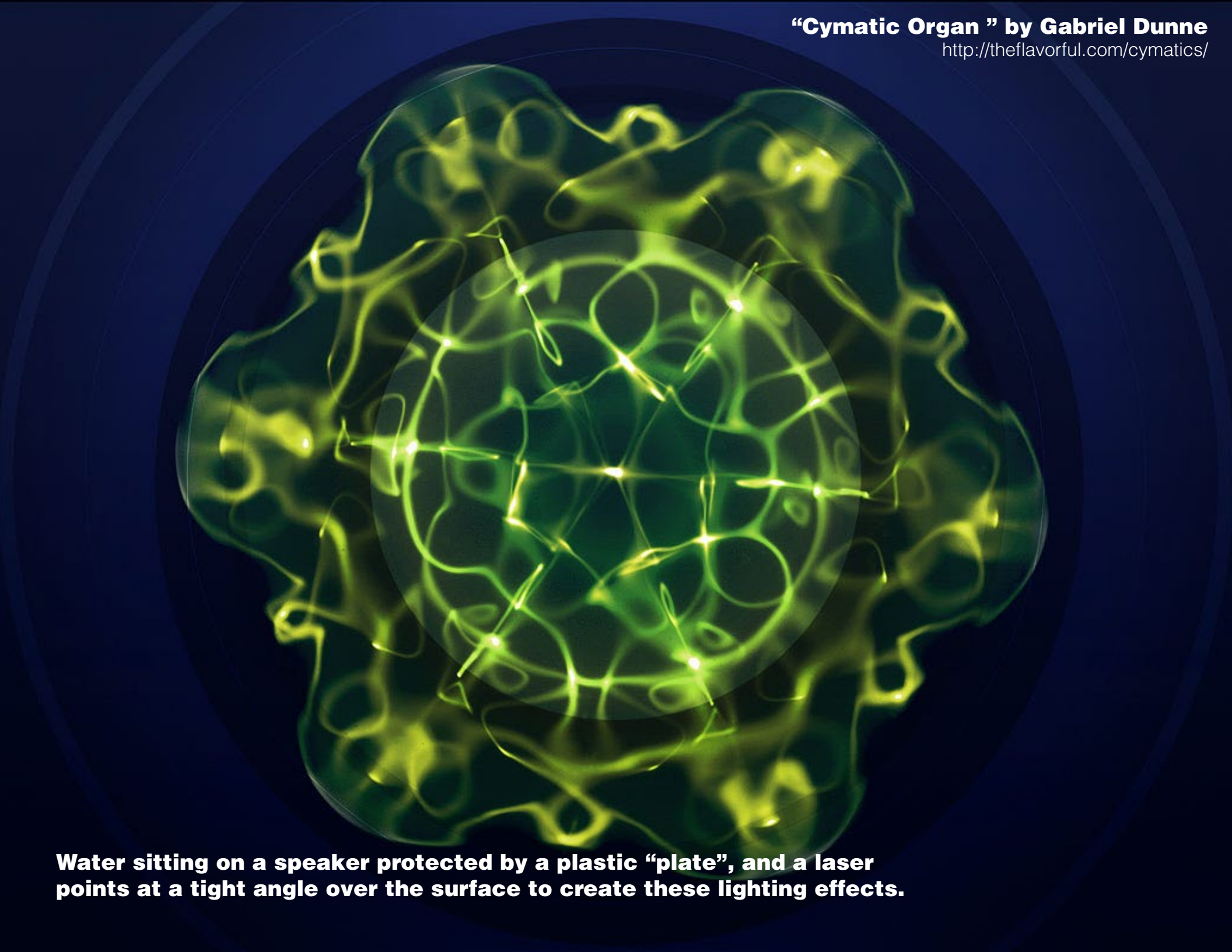
“Ondulation” by Thomas McIntosh
http://www.ondulation.net/index.html



“Ondulation” by Thomas McIntosh
http://www.fondation-langlois.org/html/e/page.

The water is less than an inch deep, resting on a giant shallow basin. From inside the basin is this really loud tone playing a pitch that changes over time. The different pitches create different vibrations in the water. Light is shined on it at an angle, and the reflection hits the wall to create that pattern.

“Cymatic Organ ” by Gabriel Dunne
http://theflavorful.com/cymatics/



Water sitting on a speaker protected by a plastic “plate”, and a laser points at a tight angle over the surface to create these lighting effects.

Intrigue

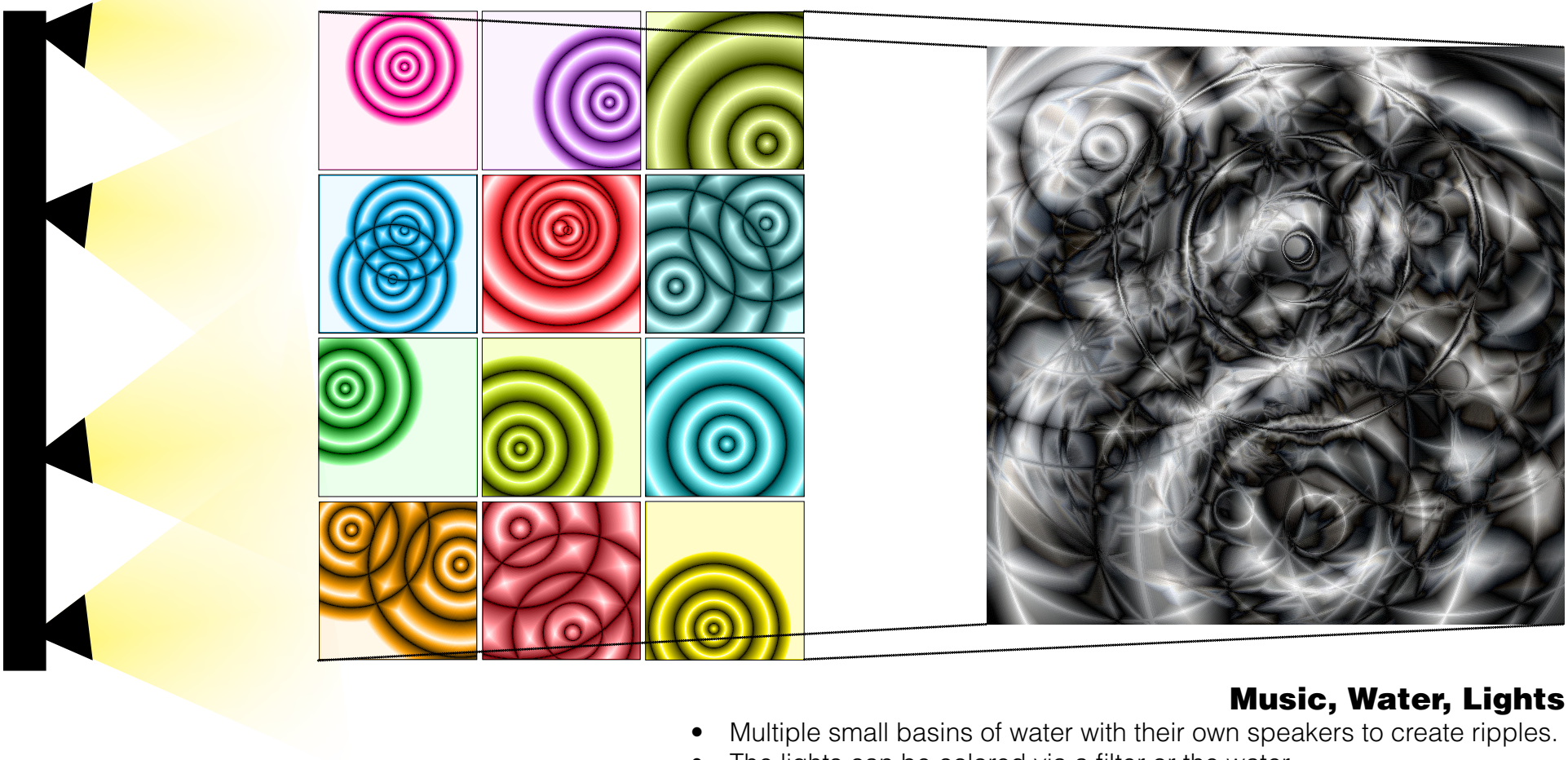
Predictable-Unpredictable

- You can determine what patterns might occur
- It is not immediately clear
- Overlaying these can add a layer of complexity and beauty

Naturally Immersive

- Humans are primarily visual creatures. Light and water are popular visuals for people.
- Water allows for a haptic interaction with a a visual outcome. Water stays with you (phsyically) so evidence of an interaction with is not forgotten the instant it ended.
- Sound invokes emotional reaction.
- These precedents have potential to integrate touch, hearing, and sight in a way that is performative and invites participation through sensory intrigue.

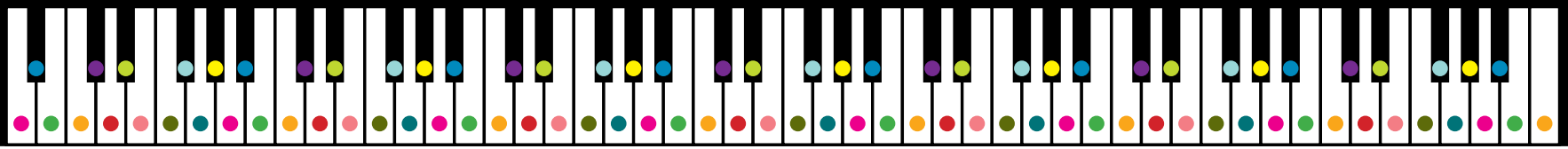
Proposal



Music, Water, Lights

- Multiple small basins of water with their own speakers to create ripples.
- The lights can be colored via a filter or the water.
- The resulting patterns can be combined on the wall that the lights project the ripple patterns onto

Is it going to be a piano? Can I design a different control?



Reasons

What is the project?

- The controlled effects of light refration on water.
- The rippled effects are controlled by sound.
- This project will create a visual effect to accompany your music through a natural effect.

Why This?

- There is an physical disconnect between the audience and the performer
- This is an instrument that the audience can physically interact with and participate

Why Me?

- Why not? I never really understood this question.
- I play music, I think there is a disconnect, I have the chance to try to mitigate that.
- I'd like to experiment with the effects of water on light
- I'd like to experiment with the effects of sound on the physical world

Why You? (Who are you?)

- You are looking to connect with people. You go to a bar, a venue, a festival.
- You can hardly hear your friends when you talk. You are immersed in a crowd of people divided into smaller groups. It's rare to have a genuine conversation with a stranger sober.
- You see a room immersed in refracted light, emanating music. People here are participating. People here are interacting with each other to co-experience this performance.

Why Now?

- People are struggling to connect. People have confused the digital social network with real relationships.
- People are going to concerts looking for a connection, and yet are inable to provide observable input for the essence they came for. How can they connect when they have no means to do so?
- Is it possible to invite an audience to be more involved, change the way everyone in the room will experience the performance?
- Technology today is said to be distancing people. Let's try to get it bring us together.

Timeline

Connect Controlling Instrument

- Electric Keyboard
- Buttons
- Voice

Resolve Speaker and Water Configuration

- Boxes With Thin Surfaces, Speakers Rest Below Thin Surface
- Water In the Speaker
- Speaker Volume, Capabilities
- Construction, Water Containment
- Actuation of Vibration

Resolve Lighting

- Lighting types: Laser, Spotlights
- Reflection/Refraction Angles
- Projected Upon Wall: Plain White Wall

Final Project Completion

- Packaging

Goal

- Ideas For Actuation
  - What To Consider

Budget

Connect Controlling Instrument

- Instrument - $60?

Resolve Speaker and Water Configuration

- Speakers - $100? $200?
- Water Container - $20? $50?

Resolve Lighting

- Lights - $50?

Final Project Completion

- $50?