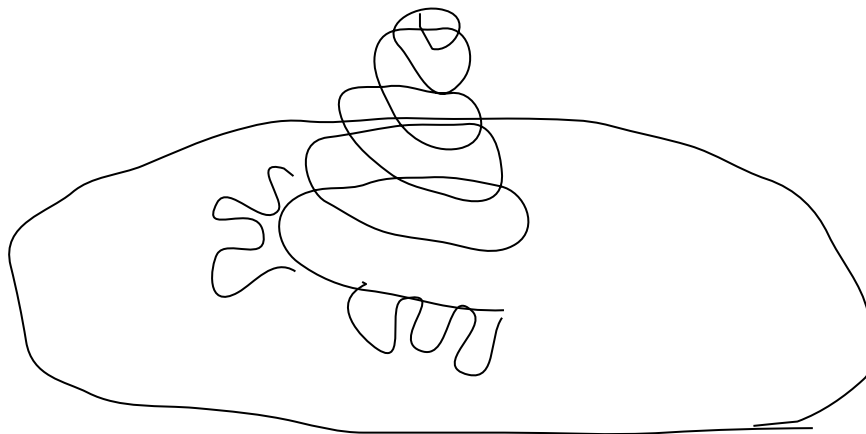


Zac Rice  
March 31, 2014  
Film 4200  
Hertzberg  
Group project 2

The purpose of the video was to explore the way that a pool of ferrofluid behaves after magnetic field is exerted upon it. We attempted to create ferrofluid as a group to use with our own magnet. However, this was unsuccessful in being able to produce spikes along the magnetic field and instead created a ball of ferrofluid on the magnet. So the ferrofluid exhibit in the ITLL was used instead.

The ferrofluid exhibit is encased in a glass cube so no precise measurements of the apparatus were possible. The ferrofluid was contained in a bowl, and at the center, a tree that spiraled clockwise. Enough ferrofluid was used to fill the bowl to the base of the tree. The fluid would travel up the tree along the edge of the spiral, outwards following the magnetic field that was created by the electromagnet contained within the tree. The flow would continue up the tree until the entire tree was covered in spikes. Once the tree's entire magnetic field was filled with ferrofluid spikes they would begin to oscillate around the edges of the spiral.



The visualization technique used involved the glares that were produced by the florescent lights on the surface of the ferrofluid. Since the apparatus was contained within a glass box few camera angles were possible, since it was very difficult to ensure as few glares off the glass as possible. Aiming straight at the box seemed to eliminate the most glares.

A telephoto focal length was used at a distance of 1.2 meters creating a small field of view less than 5 inches across (again no precise measurement was take since the apparatus was contained in a box). The focal length used was 52mm, the range of the focal lengths are 5.2mm to 52mm. This resulted in a very shallow focus which was set to the side edge of the spiraling tree. The image was filmed on a mini dv camcorder (Sony HVR-A1U). The footage was 16x9 in 1080i.60 before rendering in editing software to 720i.60, in editing the footage was slowed to half speed as well. The exposure was set to one notch below the zebra striping at 100% exposure.

The video demonstrates tides that are created by the magnetic field pulling in and attracting ferrofluid in the pool of ferrofluid below the spiral tree. The videos of course also demonstrates the magnetic field lines that the ferrofluid forms in creating the spikes. I like the highlights within the pool of ferrofluid. While I don't like how some of the shadows in the background have artifacts in them as a result of under exposure. If I were to improve the video I would have brought four black back drops to cover the box. The black back drop that I would place on top would also have a hole in it to allow for a light to be placed directly onto the glass and turn off all other lights in the room.