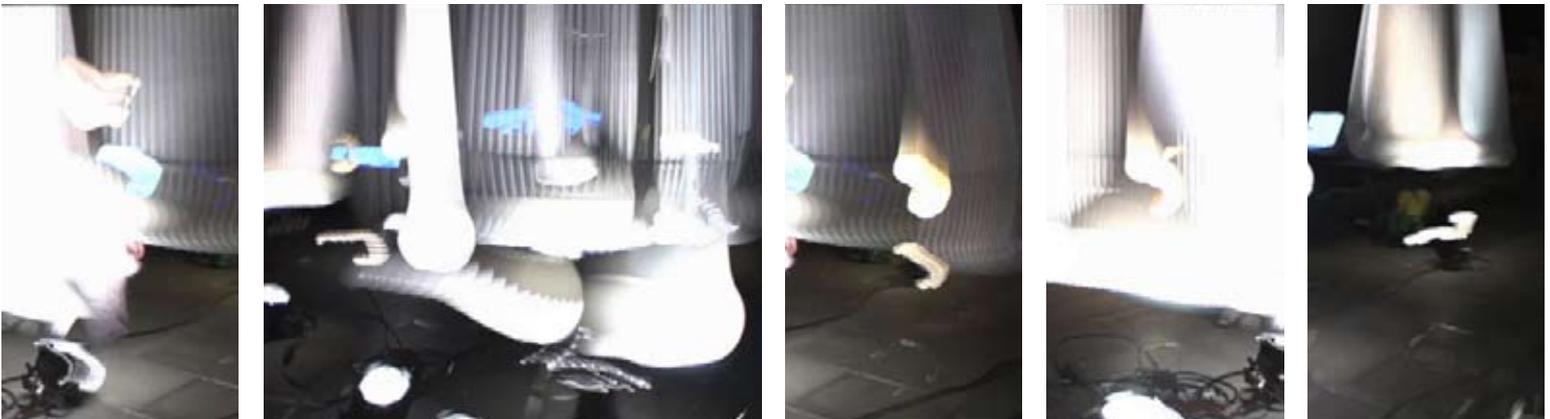


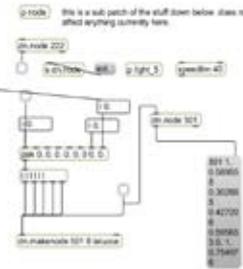
Pendule is an interactive installation consisting of a series of suspended globes that are in continuous states of oscillation. The piece is an experiential environment in movement, light and sound. Pendule is comprised of a field of oscillating luminous pendulums that are in a continuous state of attracted motion to the participant experiencing the piece. Where an observer would enter the field, the pendulum movement will slowly orient itself in their direction giving a sense that the system is aware of an intervention.

Each oscillatory movement is paralleled in both the light intensity of the globe and the amplitude of the wave modulated sound. Each swing will consist of a oscillation of intensity with the nadir as the most intense amplification of both mediums.

This project was developed in conjunction with Chris Salter's (Concordia University, Hexagram researcher) sense stage wireless sensing platform. Based on the X bee wireless protocol. Each pendulum contains a wireless node that is part of an expandable (scalable) and open network. Within each node, data streams of light, sound, temperature and acceleration can be posted to a network and made available to a variety of actuation protocols for sound, light and movement.

The intent is to create an networked interactive system based on feedback loops and self determining behaviors rather than programmed microcontroller scripts. Each pendulum carried a set of eight photosensors that would send data streams of both ambient and direct light from floor mounted par lights. The intensity of this light would do several things: modulate sound waves derived from the data streams through MAX / MSP as well as controlling the intensity of light using DMX (theatre) and MAX protocols. The system is designed to be an





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name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55
name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55
name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55
name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55
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name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55

p-2: 115

name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55
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name	23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	23:55

interdependent and autopoietic structure, hence it expresses an networked hive behavior as opposed to a controllable rhythm. The piece tends to have waves of intensity as a network in activity with periods of relative calmed activity only to be revived again from an external perturbation. While each pendulum may seem to follow a pattern of prescriptive and predictable geometric behavior, each is unique in the data stream that is reproduced. Both the sound and light are modulated by a dense layering of phasing and beats due to the subtle difference of each photo sensor.

This work is currently in development as an outcome of the sense stage workshop held in May of 2009 with Patrick Harrop, Shannon Collis and Andreia Oliveira. It is currently being developed as a collaboration between Pneuma (Peter Hasdell and Patrick Harrop) + Shannon Collis.

