
Designed Experiments
Jeff Doering MFA
Doering Arts and Science
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Bronze Foundry Craftsman

Monumental and Fine Art

Waxwork

Pour team

Ceramic Shell

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Public Schoolteacher

Algebra

English

Science

Art

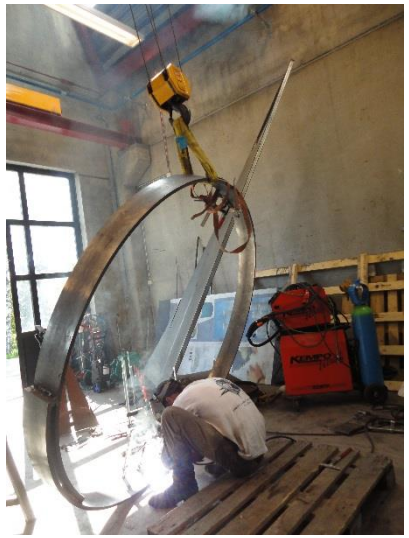
USA +Sweden

1997-2009

HDK Steneby, Göteborgs Universitet

MFA

Iron and Steel in Public Space



Brilliant workshop

Excellent instruction

Freedom to pursue

Art and Science

Solar Sail - 2011
Steel. 4m x 2.5m x 2.5m
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How can we bring science to public space?

- Scientific Instruments:
  - Scale
  - Insight
  - Design
- New Materials
  - Rewards
  - Challenges
- Experiment / Experience
  - Genuine vs. Meta
  - Designing a moment
- Partnerships
- Looking Ahead
  - Collaborations
  - Possibilities

Scientific Instruments: Scale

Solar Sail - 2011
Steel. 4m x 2.5m x 2.5m
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Measuring Energy - 2011

R.O.M.P. 2012

Randomly Oscillating Magnetic Pendulum

15 Meters

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Looking inside and out: Open Telescope – 2013

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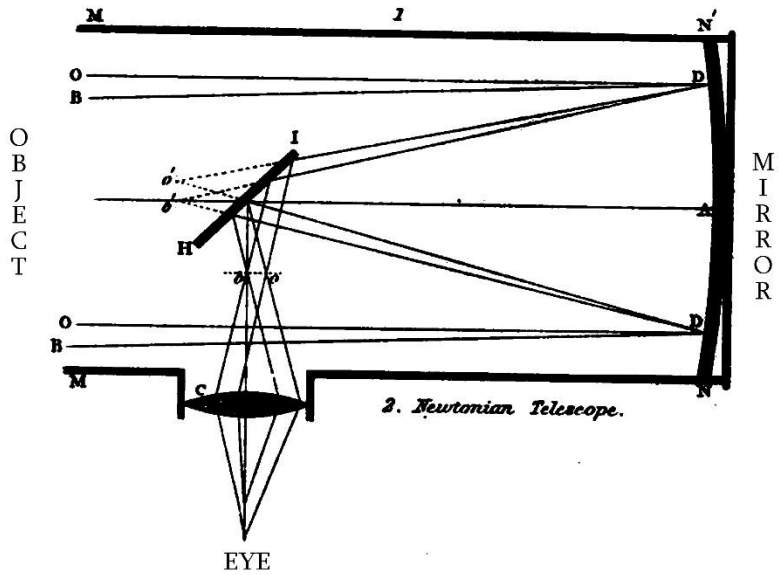
interact

OPEN

Telescope

Look, focus
understand



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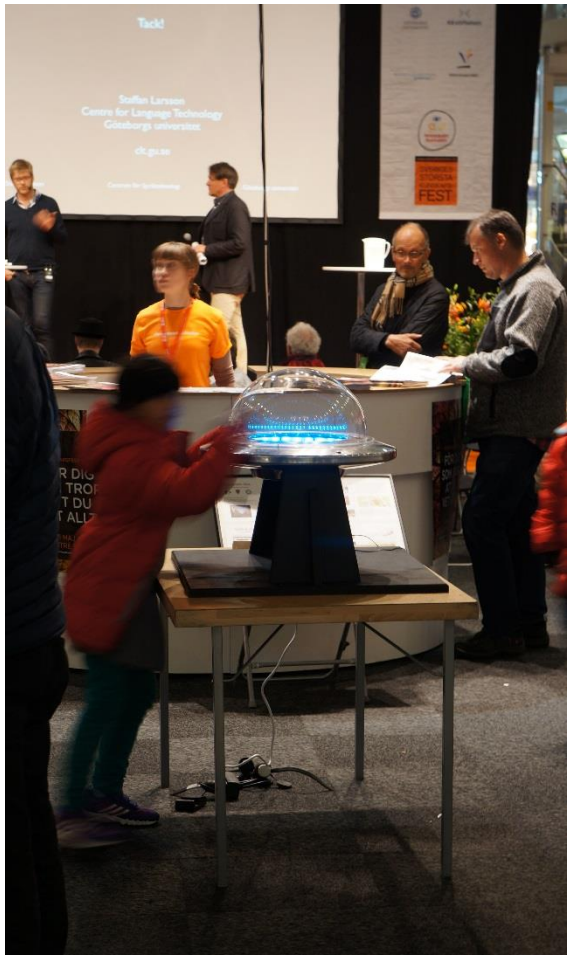
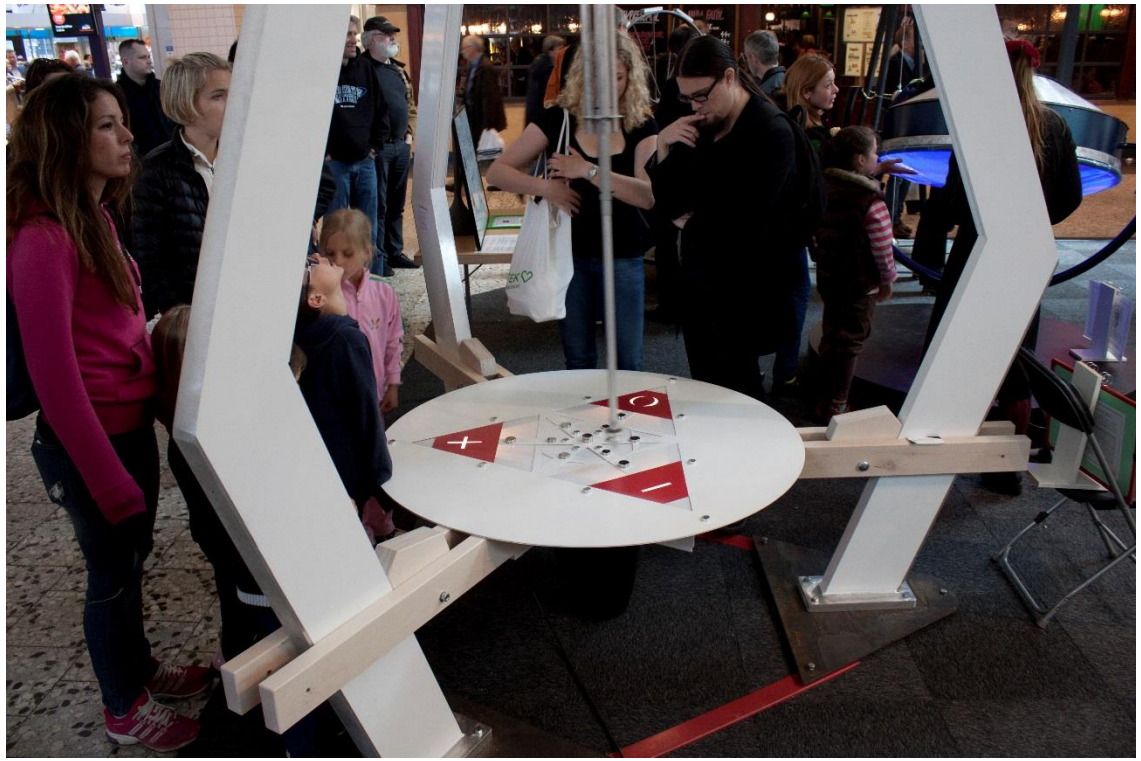
seeing the world

Design Elements



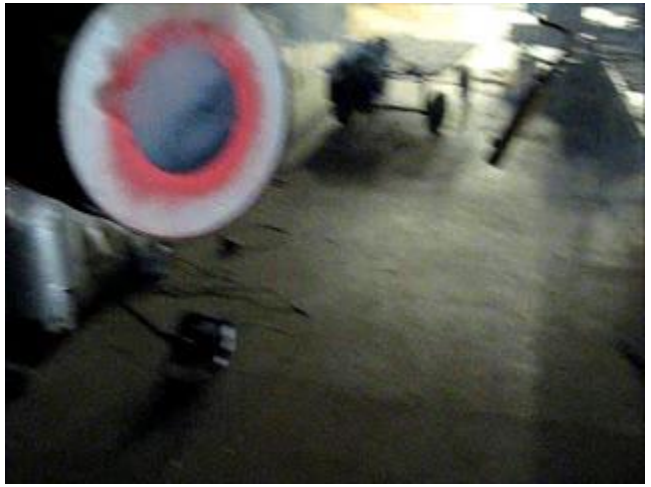
- Aesthetic
- Adjustability
- Safety
- Portable/stationary
- Symbolic

Communication



Experimentation

- Open mind
- Unexpected results welcome
- Many variables
- Feedback/evaluation
- Lifelong learning



New Materials

- To build with: ex. Ceramic bearings, plastics, carbon fiber, exotic metals, illumination – led, argon
- To demonstrate: ex. Magnets, Ferrofluid, and...?
- Requires access – expensive, hard to find, hazardous, etc.
- Experimentation – must establish protocols, observation, dialogue with material

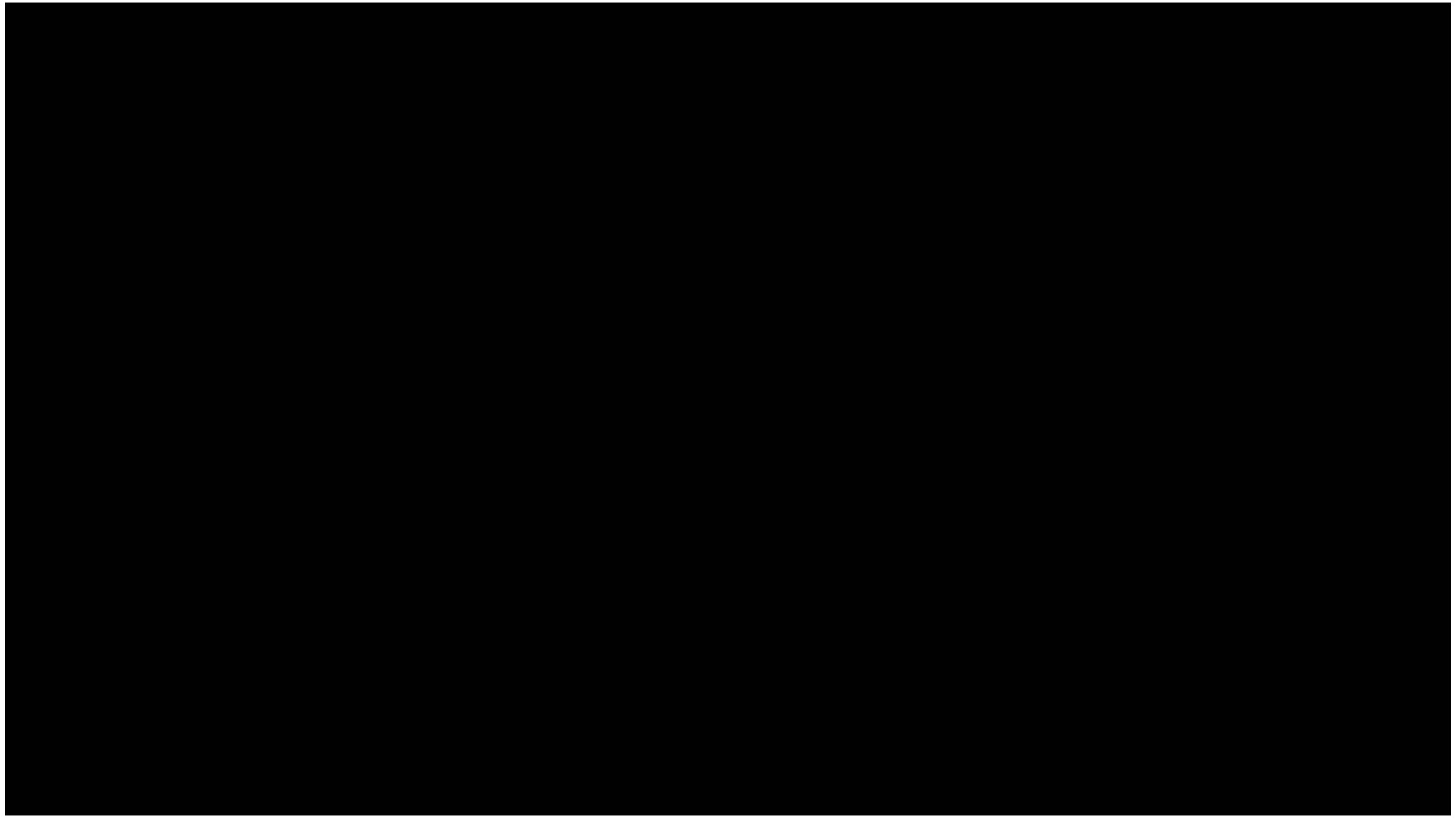
Ferrofluid

- Suspension of iron nanoparticles in oil
- Developed by NASA
- Common uses – Brake systems, loudspeakers, fun

Designing a Moment

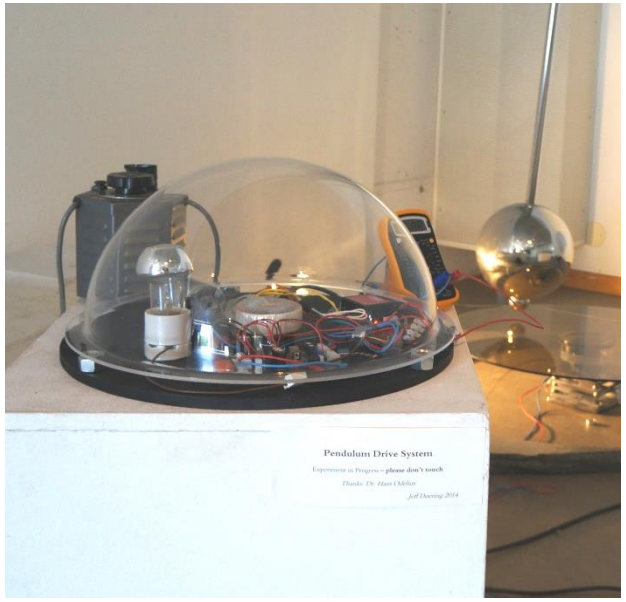
Interactivity

- Educational advantages:
  - Gardner, Dale
- Play
- Co-operative experience
- Real experience (not meta) most powerful



Partnerships : examples

- Private Sector - CZ Ferro
- Industry – Thyssenkrupp Materials Sverige
- University
- HDK - Joachim Harryson



Chalmers – Dr Hans Odelius

Chalmers – Professor Per-Olof Nilsson

Looking Ahead

- Collaborations
  - Scientific Community
  - Education
  - Public Space
- Possibilities
  - Chalmers
  - Göteborg
  - Developing open understanding – bridging gaps
  - How can we bring science into public space?