SP Weather Station

Cross Current Resonance Transducer knows which way the wind is blowin’

At SP Weather Station last Sunday, LoVid (Tali Hinkis and Kyle Lapidus) and Douglas Repetto spoke about their collaborative project **Cross Current Resonance Transducer**.

As one of the founders of SPWS, I thought the talk was particularly well-timed: we are wrestling with some of the same issues that drive the CCRT investigations. As SPWS begins to invite Guest Interpreters to create weather reports using chunks of its data, we become increasingly aware of the infinite possibilities for the formal interpretation of data, and some of the problems this presents. As Douglas pointed out, “once it’s digital, you can make it into anything” – what you do with data becomes completely arbitrary (why not, he said, show wind speed measurements as a little animated dancing dog).

Maybe homemade weather investigations are by their nature both nerdy and lackadaisical: the weather is always around, and all around us; monitoring devices can be as sophisticated or as rudimentary as we need them, in that moment, to be. Anyone can access consistent, scientifically acquired weather

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This is the project website for the artist-run **SP Weather Station** in Long Island City, Queens, New York.

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data – through a regional doppler radar or the **National Oceanic & Atmospheric Administration**. Taking one's own weather data implies an interest in the system itself, regardless of its accuracy; it means valuing the system's internal logic and following its leads. (see more notes on the talk…)

CCRT embodies this ethos: the inspiration for the project is the story of Jocelyn Bell Burnell, who in 1967, as a postdoctoral fellow at Cambridge, discovered unusual pulses in radio telescope data. The regularity of the pulses suggested to Bell Burnell that these were perhaps signs of extraterrestrial intelligence; she referred to them as LGMs (Little Green Men). Later, her research was used (by her advisers, who won a Nobel prize in part thanks to her work) to prove the discovery of pulsars. CCRT devises ways to take data related to natural phenomena; yet the collaborators' interest is not in the phenomena themselves, but in "the often flawed but revealing interpretations of those phenomena that ultimately lead to greater human understanding and scientific progress."

Jocelyn Bell Burnell

Where do these interpretations start? For CCRT, the first step was to measure an immediate, pervasive phenomenon with the most available means. The first step was showing that the wind blows. With a wind sock.

At SPWS, Douglas, Kyle, and Tali talked through the evolution of their work from their first windsock to a rough anemometer to a wind direction sensor and data logger. In most of the CCRT devices, measurements are not empirically accurate. The subjectivity of the measuring system launches other projects: for example, the artists used wind speed data taken by their early system to determine lengths of balsa wood. Shortish and longish lengths of balsa wood were chosen to represent values for minimum and maximum wind speed. These size decisions are arbitrary, yet related to the human scale of many CCRT projects. The artists hand-cut the planks and assembled them into a sideways stack, which reads as a kind of graph.

CCRT

- SP Weather Reports
- Uncategorized
- Weather Control
- Weather History
- Weather Resources
- Weird Weather
- workshop

Links on weather

- Air Now gateway
- Cloud Appreciation Society
- cumul.us
- Mike's Weather Station, Roosevelt Island
- The Old Farmer's Almanac
- time-temperature site
- Weather Underground
- weatherbonk

Other weather work

- 'out of the blue' exhbition
- 'Weather Report' exhibition
- Andrea Polli
- David Lynch
- Extreme Instability
- Germaine Koh
- Olafur Eliasson
- Simon Heijdens
- Spencer Finch
- StrangeWeather.info
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collaborators are interested in taking the data interpretation from one project and putting it to use in the next iteration. Because of their habit of making data physical, this process of digestion often means building or translating data into the design of a later instrument. The balsa stack was integrated into the design of a later anemometer (Thor's Mountain: it became the post that elevated the instruments off the ground. The tail of the same anemometer was created by translating weather data into sound, then translating the sound into a video, capturing a still from the video, etching a rendering of the still image onto an aluminum plate (I'm glossing over the hackery deployed in each step – partly because I don't understand it and partly to give an overview of process—but it is an important component in the collaborators' interest).

CCRT

employs a growing range of fabrication techniques and data types. In doing so, they move fluidly between the drawn approximation and the digital rendering, digitally logged data and hand-recorded instrument readings.They made these hand-traced digital drawings of wind direction during a residency at Alfred University:

They used a CNC mill to created drilled-out 3D circular models of weather data from their 1st anemometer that were incorporated into a later anemometer design* (When I went to look up what a CNC mill is, I found a corporate website which advertises the range of applications for which the mill is used, which I somehow feel is relevant to post here) They milled 3D models of wind-speed data that are roughly the size of an ashtray.

Douglas likened creating a single object that represents a day's wind speed to buying a newspaper from the day of someone's birth: both are objects that profess to somehow neatly encapsulate a day's time.CCRT projects have taken a growing interest in monitoring environmental signals that are also potential energy sources, with an eye to making the instruments both homegrown and self-sustaining. They turned their attention from the clunkier, more friction-ridden wind energy problem to the potentials of solar power in works such as **Bonding Energy**, currently on view at turbulence.org.

The collaborators’ most involved project to date, Bonding Energy concatenates data from 7 homemade “Sunsmile” sensors which measure light levels at 7 locations throughout New York State. As with previous projects, the structure of the measuring devices is based on previous light data measurements, yet also is based on decisions which are visual and intuitive. The sensors themselves–as well as the graphical readout on the turbulence.org site–resemble little suns with radiating designs and warm, translucent colors. Calling attention to their own subjectivity, the sensors are placed in locations that minimize the likelihood of scientifically consistent data readings – some are indoors, almost entirely without exposure to natural light; others are practically completely exposed to the elements.

In effortlessly combining the handmade and the technological, the intuitive and the scientific, the CCRT collaborators raise many questions about what they are measuring, how they measure, and what it means to measure. They suggest some reasons why we might continue to devise ways of measuring natural phenomena and find new forms and uses for the physical representation of data.

Artists & Weather, **SP Guest Lecturer Series** | **Natalie** | March 10, 2008 6:50 pm

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