

Public Laboratory BOD Updates: September and October

General Organization

Pro bono lawyer talks: We have signed an agreement with Foley and Hoag to do pro bono work for us, specifically with Intellectual Property law. We are currently looking for a lawyer that can work with us on chain of custody issues.

Sara and Mathew teaching: Sara is teaching a course called Art/Lab: Artistic investigations into the biological sciences at Rhode Island School of Design. The class teaches critical theory of science, primarily laboratory studies to art and designers. We develop many themes related to PLOTS work for instance critiques of how laboratory based science and notions of expertise are linked to environmental health problems. Concretely the students develop art work that express critiques of science in media other than the written word. We are also holding a Public Lab workshop developing the our thermal camera design as part of the class. Sara also leads a research group at RISD which is a public lab research and development site. Connections made teaching this class have also lead to hosting our Estrogen Sensing research in a laboratory at Brown with Professor Gary Wessel.

Mathew teaches the course at the Pacific Northwest College of Art, *Art & Science*, where students engage in studio art around scientific themes and engage in scientific investigations of artistic techniques. Although not directly related to Public Laboratory, Mathew's curriculum development around mapmaking contribute to PLOTS theoretical backing. Currently, students are developing methods of painting in 3D, analyzing pigments and polarized glasses to develop rubrics for picking polarization filters and color palettes in tandem that allow color fields to be pulled and pushed out of and into the image plane.

1023s: In the last week of October we received a full BOD and staff approval to submit the 1023s. They will be submitted during the week of November 14th.

Retail:

Sales & Distribution: Mathew has negotiated a sales relationship with Breadpig for doing promotions and handling our online store. Amplifier fulfilment in Austin, TX will be handling kit assembly, warehousing, and fulfillment of orders.

Promotional Merchandise: We have designed two t-shirts and identified a completely phthalate-free print shop, Zoo City in Missoula, MO, to handle t-shirt printing. T-shirts should be available for pre-order by 11/21, printing & shipping the first week in December.

Balloon Mapping Kits: we are almost ready to go on sale with a balloon kit, and have verified the assembly with Amplifier. We hope to have them available for pre-order the 1st week of December, and shipped to arrive before Christmas.

Spectrometers: The spectrometer kit is almost ready to be posted for sale at an at-cost price of either \$15 or \$30 depending on the final choice of camera. This will be in partnership with Parts and Crafts from Somerville, a past partner on shipping kits, with a developed base of youth and families interested in DIY science. Costs and profits will be shared pending final agreement. A website and desktop application are being finalized in preparation for the Ethnographic Terminalia exhibition in Montreal in mid-November; the show will feature a working spectrometer of this design.

Books: We are working to link on-demand printing to our archive, so that posters and books of our maps can be ordered directly from our website.

Fundraising

NEH: PLOTS submitted a proposal in partnership with Sprout and Parts and Crafts to the National Endowment for the Humanities Digital Start-Up grant program in late September. We have not yet heard back about the success of this grant.

Ashoka Changemakers: In September, Public Lab submitted a small grant to the Ashoka Changemakers program, we have not heard back about the success of this grant yet.

Environmental Defense Fund challenge: The proposal that Public Laboratory submitted to EDF was declined, but they were interested in our project and thus decided to fund us with a \$2,500 donation. Adam is currently negotiating terms around this grant. The EDF and PLOTS are aligned in our views of open licensing and are working to try to get InnoCentive to budge on their policies.

Lindbergh: The Lindbergh Foundation responded to a grant submission from PLOTS that they would not be giving out any funding this year, but strongly encouraged us to apply for next year.

Working on two NSF grants: We are currently working on submitted two NSF grants for January 2012. We submitted a pre-proposal to the NSF informal science education RFP in August and received three encouragements from the reviewing committee to submit a full-proposal. We are aiming to have this grant complete by mid-December. We are also in the beginning stages of putting together a proposal for the NSF RFP Virtual Organizations as Sociotechnical Systems, also with an internal PLOTS deadline of December 15.

AAA A&E grant: PLOTS submitted a grant to the American Anthropological Association, Anthropology and Environment section small grants for developing the Public Lab hydrogen sulfide sensor and received \$2,000. More information on the project can be found below under Tool Development and Website.

Fieldwork and Site Updates

Rifle, Colorado: During the time that PLOTS staff were in Colorado for the staff meeting, we met with residents from the Battlement Mesa bucket brigade to hear about issues they are facing with fracking that is happening in their area, to talk about the development of a hydrogen sulfide sensing device and to do some initial mapping work. The AAA A&E grant will help to support future work at this site.

Butte, MT Site Coordinator: The site Mathew started in Butte, MT has a funded site coordinator, through a MOU with NAHN, the National Affordable Housing Network. PLOTS has been working with NAHN since June on mapping and fulfilling community development outcomes in the Centerville neighborhood. Volunteer Olivia Everett has taken the position, and is currently coordinating the distribution of a local paper newsletter and a dedicated team of 5-7 volunteers who map regularly with kites and balloons.

Czech Republic: Please read the following post to hear more about how activists have been using Grassroots Mapping techniques to map logging activities in Sumava:
<http://grassrootsmapping.org/2011/09/trees-chainsaws-protest-and-balloons/>.

Asheville, NC: Asheville was the site of the October gathering dubbed the Barnraising (see below). A map stitching session at RiverLink is coming up to use the images collected at the Barnraising and Adam is meeting with interns from the organic farm that was mapped to stitch images. Warren Wilson College has expressed interest in mapping its campus to identify plant resources or cultural significance to the

Eastern Band of Cherokee Indians. Adam has met with local film producers in Asheville about possible collaborations.

Sunol Ag Park: We have started doing some field work with a group known as SAGE (Sustainable Agriculture Education). The park is an urban-edge farm in Sunol, CA. The site is leased from the San Francisco Public Utilities Commission. A preliminary aerial image map and hyper-spectral coverage was just completed. We are now in a analysis and return to the site stage.

Occupy Protests: We had a member from the mailing list, Oscar Brett, who had previously attended our NYC workshops and mapped various public spaces, do a balloon flight at occupy wall street. His imagery is on mapknitter.org

Occupy Oakland: We put out a general invite to all Bay Area mappers to balloon map at the planned mass gatherings in downtown Oakland on 11/2/11. The activity was well received among the participants. The imagery was published that night, and then a larger map two days later available on the PLOTS website as public domain.

Collaborations

Spectrometry: as outlined above, we've focused on getting a consistent and easy-to-build kit which we can get into peoples' hands as soon as possible. The code development has been helped by Sam Neubardt, a community researcher, at <http://github.com/jywarren/spectral-workbench>. A soil scientist at Wash. State Univ. named Lucas Patzek has been shipped the first kit, and will use it to develop a spectral library of the "strip rust" wheat disease. Other contributors on the mailing list and via Sprout have committed to calibrating, contributing spectral matching code, and other tasks, and the online documentation and build instructions are now posted in near-final form at <http://publiclaboratory.org/wiki/video-spectrometer>. Specs are available there.

Recent and Upcoming Events

Barnraising update: Over the weekend of October 21-23, the Public Lab community convened in Asheville, NC for the first barn raising that was developed around infrared camera tool development. We also did aerial mapping and infrared rig testing with local partners, RiverLink and Thatchmore Farms. Participants are contributing information to the barn raising website in terms of research notes, links for R&D and outcomes suggestions: <http://publiclaboratory.org/wiki/barnraising>. Shannon is currently working on developing a report from the evaluations which will be complete in late November and circulated.

Mexico workshop: Adam and Stewart travelled to Mexico in September and spoke to The Society of Mexican Architects and The Directors of Urban Planning and mapped the pyramids at Teotihuacan. Adam spoke at a Puebla TelMex hub event in August. Adam worked with 30 university students in October mapping in downtown Mexico City. 4 kits without cameras were distributed and students from across the country were trained in balloon mapping and stitching. Adam is optimistic that the relationships established will flourish into an autonomous chapter of PLOTS. He also spoke at a Geolocalization conference on the same trip.

Participation in Knight workshop: Shannon attended a Knight sponsored workshop in Ann Arbor, Michigan on Project Management with other Knight award recipients for two days in mid-October.

Conference participation: Shannon attended the Patagonia Tools for Grassroots Activists conference in South Lake Tahoe in mid-September after the staff meeting. Shannon has a prior long-term relationship

with Patagonia through a project she ran on the Gulf Coast and Public Lab will pursue them as sponsors once our 501 has been approved. Sara and Shannon (and Christine!) recently attended the Society for the Social Study of Science conference in Cleveland, OH where Shannon presented Public Lab on a panel organized by Sara. Sara also presented a paper on previous work of hers from MIT- ExtrAct. Shannon attended the American Public Health Association annual meeting in Washington DC and gave a paper on civic science in the Gulf Coast during the BP oil spill. Jeff and Shannon presented on Grassroots Mapping at the OSM State of the Map gathering in Denver, CO. Eymund Diegel gave a presentation at PICNIC in Amsterdam, NL on behalf of Public Laboratory. A link to an article about his presentation is listed at the bottom of this update under the Miscellaneous section. Mathew and Liz presented at MobilityShifts in New York City.

South By Southwest: PLOTS community member, Jennifer Hudon, contacted PLOTS staff about creating a panel on Public Laboratory for the March 2012 SXSW Interactive Media conference. Mathew, Shannon, Jen and Greg Foster will be presenting on various forms of Public Laboratory related work they have been involved in.

Colorado staff meeting: In Mid- September, Public Lab staff convened in Boulder, Colorado for their fall meeting. We discussed five year goals, budget planning and fundraising planning. Staff also participated in the Mapping Democracy gathering at the University of Colorado where Jeff gave a presentation on Grassroots Mapping. Notes still to come.

Miscellaneous

IdeaLab PBS blogs: PLOTS staff have written two posts for three posts for IdeaLab in September and October, they can be found here:

With Public Lab, a camera flies in Brooklyn to monitor pollution
<http://www.pbs.org/idealab/2011/10/with-public-lab-a-camera-flies-in-brooklyn-to-monitor-pollution273.html>

Taking steps towards DIY spectrometry, so citizens can test for pollutants
<http://www.pbs.org/idealab/2011/09/taking-steps-toward-diy-spectrometry-so-citizens-can-test-for-pollutants249.html>

Public Lab aims for affordable Hydrogen Sulfide gas sensors:
<http://www.pbs.org/idealab/2011/10/public-lab-aims-for-affordable-hydrogen-sulfide-gas-sensors294.html>

Articles, shows and media coverage:

We are currently in the process of publishing (both online and in print) an article on Grassroots Mapping with the Journal of Aesthetics and Protest. Both issues will be available late November/early December. Shannon, Jeff and Adam are planning on collaborating on an article with Louisiana Universities Marine Consortium professor, Dr. Alex Kolker. This article will concentrate on the joint work that PLOTS has done with LUMCON in Barataria Bay and how PLOTS data can be integrated into research work of wetlands scientists.

Eymund Diegel was featured in this article at PICNIC in Amsterdam, NL:
<http://www.themobilecity.nl/2011/10/19/how-kite-photography-can-empower-local-communities/>

Currently, Public Laboratory is showing two prints of maps from the Gulf Coast at a show organized by Central Booking called "Mapping the Surface": http://centralbookingnyc.com/galleries/gallery-2-art_science/present-exhibitions/