

**Workshop Report
Arts and Humanities at LTER Sites**

**Long-Term Ecological Research All Scientists Meeting
Estes Park, CO. September 10, 2012.**

Conveners: Mary Beth Leigh (BNZ), Fred Swanson (AND)

Twenty six people representing 12 sites took part in four hours of workshop discussion at the 2012 LTER All Scientists Meeting (ASM). This is the third edition of this working group gathering at ASMs.

Review of progress. The workshop began with a brief rundown of the impressive progress since the 2009 ASM workshop of this group:

- The supplemental NSF funding to AND, BNZ, HFR, and NTL for engagement of arts/humanities in consideration of future scenarios of land change substantially ramped up the work at those sites, setting the stage for the NSF and ESA art exhibits, below.
- We held an LNO-sponsored workshop in May 2011 at Andrews with 12 LTER and 2 non-LTER sites to share efforts, outcomes, and ambitions.
- That workshop led to establishment of the www.ecologicalreflections.com WordPress webpage to share profiles of programs at nearly 20 sites/programs and provide links to site webpages. The purpose is to provide information that others may use to advance their own site programs.
- An art show at the NTL site review stimulated NSF headquarters to have an art show of works from NTL, BNZ, and HFR for four months, which was very well received. Terry Daulton, artist associated with NTL, led the team of Mary Beth, Fred and Clarisse Hart (HFR) in installation and other arrangements of the art exhibits at NSF, ESA, and ASM.
- Those works plus some from AND were displayed at ESA in Portland OR in Aug 2012, where over 400 people visited the showing. We also had a related Organized Oral Session of ten talks and a how-to-do-it workshop at ESA. Some of these pieces were then displayed at the ASM and a subset traveled on to the Organization of Biological Field Stations meeting in Florida in September.
- Interest in the art/humanities collaborations with environmental sciences is appearing from National Endowment for the Arts in conjunction with NSF and elsewhere, including National Park Service, Joint Fire Sciences Program, and several European organizations (for example, see the Sorlin. Sept 2012. Environmental Humanities: Why Should Biologists Interested in the Environment Take the Humanities Seriously? BioScience. 62(9):788-789).

Program objectives. We also discussed objectives for this work, including understanding ecosystems through new forms of inquiry, achieving outreach to previously unreached groups, stimulating creativity in individuals and teams, practicing site citizenship in our respective bioregions, providing leadership in societal transformations in human engagement with the land (including policy and management), and having fun.

Review of programs. We then had brief reviews of status of work involving music (Colby Leider), philosophy (Michael Nelson), and history (Adrian Howkins); and reports from sites with strong histories of this work: NTL, HFR, BNZ, AND, which include examples of visual, performance, and literary dimensions. Art Schwarzschild presented the VCR example of programs for art instructors who learned

about the ecosystem as they practiced *plein aire* painting, with funding as an education program rather than science or art per se.

Typology of programs. Looking across the diversity of site programs represented in these discussions and on the www.ecologicalreflections.com webpage we see a typology of site programs emerging along with overarching shared objectives. Existing programs give an impression of great diversity among sites engaging arts/humanities in terms of the media involved, funding sources, and proximal objectives. However, the common objective is outreach to the larger public and the common product is a body of visual and literary work about the current state of the landscape, our feelings about it, and the science to study it. This record can grow over time and be examined in the future to see how the land and our engagement with it have changed. Types of programs include: 1.) opportunistic collection of arts/humanities projects generally involving single artists/humanists (e.g., HFR); 2.) opportunistic, one-time projects involving groups of artists/humanists with significant engagement of scientists (e.g., In a Time of Change at BNZ and Paradise Lost? at NTL); 3.) education programs (e.g., teaching art teachers at VCR); and 4.) programs intending to gather a consistent, long-term, place-based record of works (e.g., Long-Term Ecological Reflections at AND).

Challenges. Another discussion topic concerned challenges of this work: finding funding for arts/humanities work; evaluation of outcomes; evaluating the fit of candidate artists and scientists; dealing with the politics of advocacy; displaying and archiving art collections; dealing with radical artists; engaging scientists without letting them take charge of the story; attracting scientists to participate; fostering collaboration rather than competition among sites.

Network activity and objectives. We have benefitted by having a working group; past ASM workshops and especially the May 2011 workshop and the follow up establishment of the ecologicalreflections.com webpage helped sites get going and advance. The LTER supplemental was a big boost to the four sites receiving it. The workshop discussion identified areas where more advanced networking could help: continuity, organizing the working group further, securing funding for network activities like maintaining the webpage, promoting cross-site synthesis products, developing formats for archiving/documenting/sharing the works, fostering new sites/programs,

Funding. Sources of funding already tapped to support this work include schoolyard LTER, LTER supplements, supplements to other existing NSF programs, EPSCOR; international years (e.g., International Polar Year); NEA; community art associations; universities; land management agencies (e.g., US Forest Service); state arts council (NV case); university art and education sources; institutes; state arts councils; and REU programs (at least one LTER-based REU program has had an arts component – we should try more). The group listed many funding rationales, including engaging different ways of knowing, achieving NSF's Broader Impacts grant proposal evaluation criterion, find new ways of connecting, education, outreach, changing public perception, science benefits, facilitate great art, facilitate great science, broaden participation (diversity). The latter point struck a chord with Penny Firth (NSF) who commented that years of work to broaden participation in the sciences have been only marginally successful and the arts/humanities channel may work well for some groups. Efforts with Native People at NTL and BNZ were mentioned as incipient success stories. Further funding thoughts: "start small, dream big", leverage track record, seek in-kind support, leverage LTER Network and sites.

Further steps:

- Bring more focus to this work. Find a common theme that can be a focal point for inter-site synthesis. One idea resonating with Michael Nelson’s plenary talk, would be “Sense of Place” – perhaps extended to “Sense of Place in Changing Places”, which resonates with topics with science currency such as land use legacies and global change manifest locally.
- Points that came up in the workshop and other discussions: begin to deal with assessing program effectiveness (including engaging education researchers), fold some of this work into site REU programs (check the Arizona example), prioritize/focus, get strategic about objectives, attend to the interests of the science community.
- Write a paper introducing the network of sites emerging now, perhaps playing off the recent exhibits and workshops. Candidate outlets: Science Perspectives piece, Frontiers in Ecology and Environment article; BioScience Viewpoint (see Sorlin Viewpoint in Sept issue). A ms. is in preparation.
- See if we can arrange one or two more exhibits of the works collected from the four sites – Long Beach Aquarium, USGS Reston, Burke Museum of Natural History and Culture (U Washington), Cranbrook Institute of Science (MI) have expressed interest.
- Pursue displaying a new collection of art and writings at NSF for the LTER mini-symposium in March 2013 and then on to ESA in Minneapolis. Terry Daulton and Clarisse Hart are working on this.
- Respond to the Request for Proposals sent out by Bob Waide for further synthesis activities from our working group. A proposal is in preparation for option 2) Individual Post-docs, for cross-site studies by individuals who have received their doctorate within the past three years. A proposal is in preparation for 3 mo. of support for post doc Lissy Goralnik who is coming to Oregon State U. to post doc with Michael Nelson (her PhD thesis advisor).

Recorders: Mary Beth Leigh, Fred Swanson. Sept. 17, 2012.

Workshop attendees (not all present at any one time):

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