To: Green Action Fund Review Committee

Attn: Kathryn Douglass and Ben Champion

Memorandum: Further information regarding ‘The Meadow’ Green Action Fund Proposal

Dear Review Committee:

Thank you for allowing us the opportunity to provide you further information on the proposal we submitted to the Green Action Fund, “The Meadow: Informal Learning through Experiences of Landscape and Art.”

We have organized this added information around two points: 1) further planting and continued establishment of the Meadow landscape and 2) Interpretation of The Meadow and the Flint Hills eco-region.

Further Planting and Establishment

To date, twenty-two species have been planted at The Meadow. This is approximately half of the intended plant species. Though the landscape may look complete, in fact the installation has only just begun and is in critical phase of development. Resources requested through the Green Action Fund would assist in the seed-gathering, growing of plugs (small seedlings grown in the greenhouse for planting in the field), and eventual planting of the plugs this spring. Plugs have the advantage that their success rates are very high, but they are also costly. These plugs will have a variety of impacts within the Meadow:

• Added species diversity for wildlife habitat and forage (examples: five added milkweed species which are the critical food for Monarch butterflies, Missouri evening primrose—a favorite of moth pollinators, and rough blazing star which is a beloved food of song birds are among more than twenty species to be grown as plugs).

• Denser native growth in areas that did not germinate well by seed: In some areas, the existing condition of crabgrass has complicated growth of the Meadow from seed. Adding more plants by plug in these areas will give the native species a further advantage over the difficult to remove turfgrass ‘weeds.’

• Restoration of bare earth left after erosion control ‘socks’ are removed: This spring, the measures used to protect the site from soil erosion will be removed, leaving ‘scars’ of highly erodible soil. These areas will be quickly plugged to restore the site aesthetically and to prevent erosion of the bare soil.

• Added species diversity for aesthetic and interpretive benefit: More than 600 plant species exist on the Konza Prairie, with as many as 60 to 80 species found in single acre. In order for the Meadow to be an effective microcosm that sparks interest in our Flint Hills eco-region,
greater species diversity (and the associated aesthetic benefits of varied flowers and plant forms) is needed.

If received, Green Action Fund resources will nearly double the species at the Meadow, for a total of more than 40 grass and wildflower plant species. Comparing this diversity to typical campus landscapes, which may contain at most six perennial species, reveals the significant increase in biodiversity the Green Action Fund could sponsor. The added plant density will also provide many ecosystem services, such as greater productivity, erosion control, and the resilience to drought conferred by diversity (Baer et al. 2002, Cardinale at al. 2012).

**Interpretation of The Meadow and the Flint Hills eco-region**

This team thanks the committee for a chance to reply to a concern regarding the cost of the proposed touch table for interactive exhibits on the Meadow. We would like to offer further information as you consider the value of this project component.

1) The Meadow-Museum connection has tremendous potential to reach a large and inclusive audience. Please see the visitor information for 2011-2012 provided by the Beach museum of art (Attachment 1). The Meadow as an interpretive landscape does not ‘speak for itself.’ A sign on site is desired and will be helpful. However, a sign can only communicate a small number of ideas and is static and unchanging by nature, whereas the Meadow is dynamic, requiring flexible media to keep pace.

2) Triangulation between the site (where plants and sign signal a different kind of campus landscape), the Museum interior (where interpretation is needed), and on-line information (the Meadow blog) can provide a rich, informal learning experience. To date, the project lacks interpretation within the Museum.

3) Interpretation within the Museum will expand environmental learning to more times of day (especially important during winter months when the sun sets early), all seasons (vital in our harsh summer and winter months), and will reach Museum visitors who may not otherwise know about the Meadow.

4) As an accredited museum, the Beach Museum of Art must carefully and professionally design all exhibits. The Museum director and staff have approved the touch table as the means to interpret the Meadow for a broad audience.

5) Whilst other units on campus may be able to utilize technology fees for such purchases, the Museum has no such revenue stream.

6) Research done in museum settings indicates that the engaging ‘fun’ of a touch table significantly increases visitors’ positive feelings toward the information of an exhibit. One study concluded:

“The observations showed that different aged visitors experienced ‘delight’ in interacting with different features of [the touch table exhibit]. Children, for example, appeared highly interested in the playful features of the table, zooming into images …. Adults, on the other
hand, were more inclined to expose, read and discuss content. These observations indicate that perhaps interfaces can evoke different kinds of 'delight' in users, which may be dependent on their age. Children seem to find delight in play and interactivity, while adults appear to be more interested in what they can learn” (Touw and Miller 2012).

Literature on science museums notes that positive emotional associations with an exhibit increase the visitor’s interest in learning more about the topic (Duschl et al 2007, EcSite 2006).

7) Without the interpretive interface of the touch table, the committee’s excellent recommendation that the project include an environmental history student becomes a moot point. The touch table could be a powerful tool for interpretation and outreach; without it, there is no visible, constant means for rich interpretation of the Meadow. This project team would like to include an environmental history student in the preparation of materials for the touch table and includes this change in the revised, proposed budget (Attachment 2). Dr. Lynn-Sherow has offered to help the team in selecting and advising a student.

8) Advantages of the touch table over other methods of outreach include: dynamic displays of information and images, visitor choice and interaction in using the touch table, its constant presence at the Museum, and the built in capacity to direct visitors to further, online resources.

In conclusion, the project team thanks the reviewers for feedback and questions. We hope we have clarified why further planting and the touch table interface are needed to make the Meadow high impact and high profile. The Meadow team would be most grateful for funding at any level and would be proud to be a Green Action Fund project.

Thank you,

Members of the Meadow Green Action Team

Zak Ratajczak
Caleb Melchior
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References:


Attachment 1

Potential Audience Reached through a Touch Table Interpreting the Meadow

During the 2011/2012 fiscal year, the Beach Museum hosted over 31,000 users (not including web visitors). The Museum is part of Kansas State University's land grant mission with a role of connecting the campus to the community. Of the approximately 31,000 visitors in the last fiscal year, the vast majority were attracted by programming, although a sizable number of people also “walked-in” to visit the museum spontaneously. The characteristics of the Museum's programming audience are more easily tracked, and are thus presented more specifically below:

Programmatic attendance: 24,565
- Children – 14,111
- Young adults – 5,037
- Seniors – 3,497

Non-programmatic (walk-in visitors) – 7,708

Documented user groups visiting the museum last year include:

- K-State students and faculty,
- Early childhood age visitors,
- Family audiences – these include Fort Riley families, and the families of graduate students at K-State, many of whom are international families.
- School and home school tours and outreach programs (served Manhattan, Junction City and surrounding rural area school districts)
- Youth summer programs – Parks and Recreation, Manhattan Public Library, Boys and Girls Club, and various day care providers.
- Teacher and pre-service education and resources (through K-State College of Education and Human Ecology)(454), Teachers Resource Center (3,433)
- Retirees
- Special/target audience – Fort Riley personnel and families (new partnership to serve this audience between the Museum, Fort Riley Warrior Transition Battalion, military's Parent to Parent program, and the Institute for the Health and Welfare of Military Families.)
Attachment 2

Revised, Proposed Budget for The Meadow

Item and Cost

1. **Mozayo M32 Premium Series Smart Touch Table**, 32 inch LCD for educational/interpretive use
   Cost: $5500 (reduced--have found alternate vendor)

2. **Touch Table Graphic Production**, Student Stipends
   Art student amount: $200
   Environmental history student amount: $200 (added)
   Landscape architecture student amount: $200
   Eco-physiology student amount: $100

3. **Touch Table consultation** with instructional technology specialist at K-State iTAC
   Consultation fee: $275

4. **Graphic Production Supplies**: color media, papers, test printing of graphics during development
   Lump sum: $100 (reduced, will seek in-kind donations)

5. **Signage Design**, Student Stipends
   Art student amount: $100
   Environmental history student amount: $100 (added)
   Landscape architecture student amount: $200

6. **Sign Fabrication and Installation**
   Lump sum: $1200

7. **Plant Selection/Growing/Planting Design**, Student Stipend
   Amount: $100

8. **Plant Selection/Growing Supplies**
   Lump sum: $200

9. Planning and hosting of live, informal learning event on grasslands at the Meadow and Museum, PhD Student Hours
   35 @ $15/hour moderate $525 (removed--to be accomplished by another initiative)

10. **Promotion of live event**, Student Hours 10 @ 10/Hour moderate $100

11. **Promotion of live event**, Supplies and Materials Lump sum moderate $100

**Total Proposed Funding $ 8475**