

Landscape Architecture Foundation – Landscape Performance Grant, Spring 2015

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BACKGROUND AND OVERVIEW

The Ecological Planning and Design Seminar is part of the core curriculum in the graduate Landscape Architecture program at RISD. It is a required course for all 3 year Master of Landscape Architecture students but is open to students from the whole school. This year we had 20 students enrolled in the course and all were graduate Landscape Architecture students except two undergraduate students; one from industrial design and one from interior architecture. The course met once a week for 3 hours. The overarching goal of the seminar was to introduce students to site from the regional to the site specific scale. Every week the course addressed a different topic relate to environmental landscape performance including water quality, biodiversity, urban habitat, soil quality, and landscape connectivity. Each session drew the connection of these systems from the regional to the site specific scale. The course was structured as a mix of lectures, reading discussions, and in class workshops.

This class is taught concurrently with the studio Site|Ecology|Design that explores the interaction between human and natural systems at the regional, city, and site scale. This year the Site|Ecology|Design studio focused on the design of a Providence Ferry Park at a coastal site in Providence, RI. In addition to being the point of embarkation to access the proposed Narraganset Bay Park System, the students were asked to investigate the potential for an urban ecology of layered habitats, reveled natural processes, and (re)emergent vegetation within the built environment of the city. The Ecological Planning and Design seminar was designed to complement and expand on the topics that are covered in the studio course. I was co- teaching the studio as well as the seminar and so I was able to modify each course so the schedules and assignments worked together.

Some of the specific components of the Ecological Planning and Design course were as follows:

1. During the semester students were introduced to the BACI (Before After Control Impact) technique of site inventory and monitoring. Two site monitoring workshops gave the students hands on experiences gathering site data. The first workshop had students gathering water samples from the Providence River to measure temperature, salinity, dissolved oxygen, nitrogen, phosphorous and to study the plankton under the microscopes. The second workshop introduced the students to vegetation transects and calculating percent cover of different plant species in a salt marsh. These techniques were discussed within the context of how to use site data to study landscape performance over time.
2. The course provided 2 week long workshops on GIS as a tool to visualize spatial data at different scales. Although it was a short and intensive introduction to GIS, the students were exposed to the range of capabilities of the program and asked to use GIS in their site analysis for the studio project. Weekend work sessions during the 2 weeks of the GIS tutorial provided the students the opportunity to ask questions and move forward with their projects.

3. Students worked in small groups to do case studies with the specific goal of understanding how site analysis informed design decisions. Students were asked to look at water strategies, planting strategies, grading, and other aspects of each project to explore the translation from analysis to design. The case studies were presented to the whole class.

REFLECTIONS ON TEACHING AND COURSE CONTENT

Parts of the course were very successful and some need to be further developed next year. The following is a summary of the strengths and areas for future development with a specific focus on landscape performance:

1. In order to understand landscape performance students need to understand how to measure performance benefits. The site monitoring workshops gave the students the skills to understand how environmental landscape performance is measured through introducing them to the tools and techniques for gathering empirical site data. Whether in the future the students are gathering the data themselves or working with allied professionals (hydrologists, engineers, ecologist), this course provided them with an understanding of the process of monitoring, the tolerances of the tools and techniques, and how to set up a scientific study. This background will help them incorporate performance benefits into their work and know what data needs to be collected during the initial site analysis to allow for comparison of landscape performance before and after construction.

2. For the site monitoring workshops we worked with the RISD Edna Lawrence Nature Lab. The goal of the Nature Lab is to “provide a forum, sustained by resources and guidance, for the exploration of connections among art, design, and nature”. This collaboration was very successful as the Nature Lab had scientists and staff that assisted during the site monitoring workshops. They also provided the tools (water quality kits, microscopes, seine, and transect) that we were able to use in this course.

3. Connecting the work in the seminar with the studio work helped strengthen and expand on what each course could cover individually. The Ecological Planning and Design Course gave the opportunity for lectures, seminar discussions, workshops and readings and the studio focused on the application of the topics in design. This was the first time coordinating between the classes and although it was generally successful it can use some refinement in the future to ensure that the objectives of each course compliment each other but remain independent.

4. Because of the broad scope of this class and the focus on ecological planning and design, in the end we were not able to cover the social and economic performance benefits. Although these are important components of landscape performance I would not change this in the future. This class is already trying to cover a lot of material and would benefit from going deeper into each topic rather than trying to cover more material.

5 . Although landscape performance was discussed throughout the course, we introduced the students to the Landscape Performance Series towards the end of the semester. In the future, I would introduce the students to the

landscape performance series earlier in the semester and use it as a way to frame each topic. Specific case studies from the series could be used in each lecture to highlight the performance benefit and discuss methodology.