Reflection on Teaching Landscape Performance in an Undergraduate *Seminar – Designed Landscape - Theory and Criticism*.

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Background

The course, *LAND 392_Seminar – Design Landscape – Theory and Criticism,* is the only discussion course within our undergraduate landscape architecture program. This two credit course is solely discussion based with intensive weekly readings and writings. The course topics were previously only on design theory. But given this opportunity, I was able to integrate the landscape performance series into the weekly readings, class discussions, student presentations, occasional guest lecturers, and various writing assignments. The academic objectives of this course are 1) Practice critical thinking to inform your design work, 2) Write and speak about design issues, 3) Understand design theory and criticism in the context of design, 4) Understand what landscape performance is and how it is measured. Students who take this fall course will continue with their final capstone studio project in the spring, where they will be required to integrate landscape performance within their studio designs.

This course is a 50 minute discussion class held twice a week for 16 weeks. There were 25 registered students for the undergraduate course. On our first day of class, students stated that no one had ever heard of the Landscape Performance Series (LPS) before. I ended the semester with a conclusive survey.

Process

The course began with introductory landscape theory readings and discussions. Students were introduced to landscape performance by the third week of the course. They began with online research of the LPS website for an overall initial introduction with focus on the Benefits Toolkit. Allyson Mendenhall, Principal and Director of DW Legacy Design at Design Workshop, met with my students and lectured on the introduction of landscape performance and demonstrated how Design Workshop utilizes the measurement of landscape performance within their office. It was instrumental for students to witness how they may take this knowledge into their professional experiences once they graduate. After the lecture, the students were assigned to submit follow-up questions for Allyson, with a one page written reflection of her lecture. Students were then led to study one of the benefits toolkit more closely. Students wrote a 3-page paper of their reflections on i-Tree.

Throughout the semester, we interconnected discussions from readings within *Theory in Landscape Architecture* and continued to intertwine the lessons and conversations on landscape performance. Students also focused on the case studies, with research, readings, and group presentations of several highlighted projects. Students were assigned to present the following projects to the class:

1. 63rd St Beach, Jackson Park
2. AT&T Performing Arts Center: Sammons Park
3. Cascade Garden
4. High Desert Community
5. Randall Children's Hospital
6. Renaissance Park
7. The Morton Arboretum: Meadow Lake & Permeable Main Parking Lot
8. University of Texas at Dallas Landscape Enhancements
9. Westerly Creek

The projects were selected to provide a range of landscape scales and project types, with variation in performance metrics.

After the Case Study research, students circled back to readings and discussions from *Theory in Landscape Architecture* and the connections to landscape performance. Some topics included the meaning of landscapes, landscape narratives, the balance of designing with metrics versus aesthetics, and the integration of landscape ecology within design.

Additionally, Adam Greenspan, the current President of the Landscape Architecture Foundation (LAF) and Partner at PWP Landscape Architecture, provided a live online presentation of how he designs and constructs landscapes with landscape performance in mind. Projects he presented included:

1. University of Texas at Dallas, Dallas, Texas
2. Barangaroo, Sydney, Australia
3. Glenstone, Potomac, Maryland
4. Transbay Transit Center, San Francisco, California
5. Newport Beach Civic Center Park, Newport Beach, California

Students also tested out the phone applications to measure the campus landscape performance on the Monfort Quad on CSU's campus. Students measured temperature, wind, noise, light, tree calipers and sun shadows.

We concluded the course readings and discussions on the topic of the *High Performance Landscape Guidelines: 21st Century Parks for NY* which allowed for deep conservation on how progressive NYC standards are for park planning.

Assignments

- This seminar discussion course required students to read weekly on topics of 1) The Nature of Theory in Landscape Architecture, 2) Design Process, 3)Form, Meaning, and Experience, 4) Society, Language, and the Representation of Landscape, and 5) Ecological Design and the Aesthetics of Sustainability. Additionally, Students researched the LAF LPS website, the Benefits Toolkit, and the Case Study Briefs.

- For every discussion, students were assigned to post a thorough discussion question on each author within the readings. Students would post the night before class on our Canvas course site and I would compile the questions for class discussion the following morning. Discussions were often in smaller groups of 4-5 students initially. After smaller discussions, students then shared the group's overall conversation and response to the proposed question. Within the last few weeks of the semester, I began to add photographs that related to the questions to provide a deeper conversation about the landscapes being viewed. Students gave great feedback on this addition. The additional visual connection to the written questions allowed for deeper conversation with project examples.

- Students wrote a one page weekly summary of the in-class discussions each week.

- The final assignment required students to write a 5-page paper. They had the opportunity to select their own paper topic that integrated the background and lessons on landscape performance with the ongoing readings and discussions with landscape theory.

Reflections

This was a fantastic opportunity to integrate landscape performance into the landscape theory discussions. The addition to this landscape performance topic to the theory course was very well received by students. At the end of the course, students took a voluntary anonymous survey of the course. Students favored the idea of being able to measure landscape performance so that they could improve their landscape designs within studio and take this knowledge to the profession once they graduate. 96% of students planned on utilizing these tools in their final capstone design studio. Students also wished they had studied this topic earlier in the curriculum and some felt it should be required to be integrated into studio projects. Some also felt that there should be a 'lesson's learned' section so that students would learn more from projects that were not as successful. Some students also commented on the clarity of the Benefits Toolkit. It seemed difficult for students to find how to measure and what was needed within designs to get results. Further description and more of a *how-to* would be helpful.

Lessons Learned

Overall, I think this was an excellent opportunity for students to learn about landscape performance and have ongoing reflections and discussions on the topic. The class sessions were very engaging and I really enjoyed the student conversations around the various topics. This course was not a project based or studio course so I couldn't assign them to utilize or test the metrics in one of their projects. I feel that it would've been more helpful for students to

physically test out parts of the Benefits Toolkit within a project. However, I feel like it was important for students to spend a semester learning about the capabilities of landscape performance before being asked to attach the concepts to a studio project. Fortunately, I will be teaching their spring capstone studio. They will be required to continue learning about LPS and will be required to use at least one of the Benefits Toolkits on their project. Students will also obtain a professional mentor who will assist them on their projects and designs. I think this will be a great tool to maybe get professionals educated about this in the process.

After learning more about the actual benefits of physically measuring the landscape, meaningful data really requires extensive time. Students were asked to physically measure the campus landscape. But for it to be meaningful, students would ideally measure the same locations morning, noon, and early evening, and during all four seasons. Given that this was only a two credit discussion course, I was unable to give such an assignment. Instead, students tested out the phone applications to perform those metrics. I believe extensive research on proper applications is needed for great accuracy. Many applications we used did not provide accurate temperature data when sampling sun and shade locations. I hope to purchase the equipment for the program in the future so students can test and create data for projects in other classes.

The Benefits Toolkit is very extensive and I wish students were given more time to do further research on each. I will incorporate this into my capstone studio with them. For this course, they only focused on i-Tree.

In the future, I would like to host a landscape performance workshop for all landscape architecture students that would include several local professionals who could present and provide a panel discussion on how they may using landscape performance in their firms. It was instrumental for students to hear how Allyson Mendenhall and Adam Greenspan utilize these strategies professionally.