

REFLECTION

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Overview

Environmental Design Seminar was developed to introduce graduate landscape architecture students to the principles and practice of landscape performance. While students are often trained to design landscapes, they receive relatively little exposure to evaluating whether built projects actually achieve their intended environmental, social, and economic outcomes. This course was designed to address that gap by introducing evidence-based methods for assessing landscape performance and demonstrating the value of landscape architecture through measurable outcomes.

The course was offered as a graduate seminar that combined lectures, discussions, guest speakers, software workshops, and a semester-long case study. The course exposed students to multiple evaluation frameworks, including ecosystem service modeling, social performance assessment, economic evaluation, and Landscape Architecture Foundation (LAF) methodologies. Students ultimately applied these concepts through a comprehensive assessment of Glass City Metropark in Toledo, Ohio.

Workflow Process

The course was intentionally organized into two complementary phases that moved students from conceptual understanding to applied practice.

During the first half of the semester, students developed a foundation in landscape performance by examining individual performance topics such as ecosystem services, stormwater management, urban heat mitigation, carbon sequestration, public life, health and wellbeing and economic performance. Each week focused on a specific performance category, allowing students to explore appropriate metrics, evaluation methods, and available analytical tools. Guest lectures from researchers and practitioners enriched these discussions by illustrating how these methods are applied in professional practice. Laboratory sessions introduced GIS and InVEST modeling to familiarize students with commonly used analytical tools.

The second half of the semester shifted from learning individual methods to integrating them within a real project. Glass City Metropark served as the semester-long case study, providing students with an opportunity to synthesize knowledge acquired earlier in the course. Working in teams, students interpreted project goals, selected appropriate performance metrics, collected and analyzed available data, and developed evidence-based conclusions similar to Landscape Architecture Foundation Case Study Investigations.

This progression from theory to application reflects my teaching philosophy. Landscape performance encompasses a wide range of environmental, social, and economic topics, making it unrealistic to teach every possible method in depth within a single semester. Instead, the course emphasized fundamental concepts while encouraging students to develop independent problem-solving skills. The seminar format, rotating topical themes, guest lectures, and collaborative discussions were intended to expose students to diverse perspectives while helping them build confidence in selecting appropriate metrics and evaluation methods for unique projects.

Student Outcomes and Feedback

Overall, student feedback suggests that the course successfully introduced an emerging area of landscape architecture that students found valuable and professionally relevant. Students consistently highlighted the guest lectures, Landscape Architecture Foundation resources, and the final case study as meaningful learning experiences. Many commented that the course broadened their understanding of post-occupancy evaluation and provided practical tools that would benefit their future professional careers.

The most consistent area for improvement concerned assignment expectations. Several students indicated that assignment instructions and grading rubrics were sometimes difficult to interpret, making it challenging to understand the level of detail expected. Additional feedback focused on software instruction. Students recommended slower demonstrations, additional guided tutorials for InVEST and GIS workflows, and more time for technical support during class.

Challenges

- **Building and maintaining industry partnerships.** The collaboration with SmithGroup and Toledo Metroparks was essential to the success of the course. Their willingness to share project goals, design documents, and operations and maintenance information enabled students to conduct an authentic landscape performance assessment. Coordinating external partners and project schedules, however, required significant planning.
- **Teaching advanced analytical methods.** Many students had limited prior experience with research methods, ArcGIS Pro, and InVEST modeling. These tools have a learning curve, making slow, step-by-step demonstrations and repeated practice essential for student success.
- **Developing creative evaluation strategies.** Landscape performance does not have a uniform solution. Students needed to translate project goals into measurable performance questions, identify appropriate metrics, and justify their evaluation methods. Encouraging students to think creatively while maintaining methodological rigor was one of the most challenging aspects of the course. Reviews of Landscape Architecture Foundation (LAF) case studies, peer discussions, desk critiques, and workshops were valuable in supporting this process.
- **Coordinating guest speakers.** Inviting practitioners and researchers greatly enriched the seminar but introduced scheduling challenges. Reaching out to speakers well in advance, incorporating Zoom presentations, and inviting Ph.D. students to share their research helped.

- **Designing appropriate assessment criteria.** Because landscape performance is an emerging and interdisciplinary topic, students entered the course with varying backgrounds and limited prior knowledge. Developing grading rubrics that rewarded critical thinking, methodological reasoning, and creativity—rather than simply obtaining answers—proved challenging.

Future Improvements

- **Clarify assignment expectations.** Revise assignment descriptions and grading rubrics to provide clearer expectations, examples of successful submissions, and more transparent evaluation criteria. This addresses the most consistent theme identified in student feedback.
- **Scaffold the semester-long project.** Restructure assignments so that each contributes directly to the final landscape performance assessment. This will provide multiple opportunities for formative feedback while reducing the workload concentrated at the end of the semester.
- **Strengthen technical instruction.** Expand GIS and InVEST training by incorporating slower demonstrations, step-by-step tutorials, recorded instructional videos, and optional workshop or office-hour sessions to better support students with limited technical backgrounds.
- **Continue expanding professional partnerships.** Build additional collaborations with landscape architecture firms, public agencies, and park organizations to provide students with access to diverse real-world case studies and project documentation.
- **Refine assessment methods.** Continue improving rubrics to place greater emphasis on the evaluation process, methodological justification, and critical thinking, recognizing that landscape performance assessments often involve multiple valid approaches.
- **Increase opportunities for peer review and iterative feedback.** Incorporate additional milestone presentations and in-class work sessions so students can receive feedback throughout the semester rather than primarily at the final presentation.

Acknowledgement

This course would not have been possible without the generous support of our professional collaborators and guest speakers. I would like to express my sincere appreciation to SmithGroup for partnering with the class through the Glass City Metropark case study and to Toledo Metroparks for providing project documentation, operations and maintenance information, and access to the site. Their willingness to share real project data allowed students to experience the complexities of conducting a landscape performance assessment beyond what can be learned from published case studies.

I am also grateful to the guest lecturers, Mr. Mel Vargas, Mr. Scott Whitcomb, Dr. Dingding Ren, and Dr. Zhihan Tao, who contributed their expertise in ecosystem restoration, carbon storage, urban heat mitigation, and economic performance. Their presentations exposed students to current research and professional practice.

Finally, this course builds upon teaching materials previously developed by Dr. Wonmin Sohn, whose contributions provided an important foundation for developing this seminar.

Recognition

The success of this seminar reflects not only the support of our professional partners but also the dedication, curiosity, and hard work of the students. Their thoughtful discussions, collaborative teamwork, and commitment to applying landscape performance concepts were instrumental in shaping the course and informing future improvements.

Students (Spring 2026)

- Ava Yon
- Samia Faiza
- Adam Hershner
- Jess Le
- Christopher Nosek
- Isaiah Ramsey
- Sydney Zachos