

INTERSECTING SELF-REFLECTION AND SKILL DEVELOPMENT IN LANDSCAPE ARCHITECTURE PEDAGOGY

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1 ABSTRACT

Current landscape architecture education seeks to equip students with know-how and confidence in designing landscapes with a primary focus to make students “work ready” (Dee, 2010; Steinitz, 1990). Although this pedagogical approach is important, it emphasizes an exterior world of form, function, aesthetics and environment with little attention towards enabling students to acquire abstract knowledge of “how best to design” (Murphy, 2005, 35). This paper investigates one approach towards synthesis and evaluation learning (Anderson, 2001) of personal values through cultural landscape theory and graphic design. To determine the lessons effectiveness, data were compiled from students’ surveys, in-class critiques and class evaluations. Results suggest students cultivated deeper self-awareness, gained greater sensitivity of classmate viewpoints, and expanded their theoretical and technical knowledge. These findings illustrate self-reflective pedagogic method has potential to enrich design courses with higher cognitive learning.

1.1 Keywords

social constructivism, values, cultural landscape, education

2 INTRODUCTION

2.1 Self-Reflective Design Practicum

“An unexamined life is not worth living.”

In the words attributed to Socrates in Plato's Apology (Baggini, 2005)

When considering the social, environmental and economic impacts design and planning have on our communities it is increasingly important ‘work-ready graduates’ enter employment equipped with a holistic skill set to successfully navigate society’s change. Recently scholars and practitioners in landscape architecture have suggested value exploration useful to develop more “reflective practitioners” (Chase, 2012; Gallo, 2012; Lawson, 2010). According to the 2004 Landscape Architecture Body of Knowledge Study Report 72.55% of respondents indicated social responsibility in design should be a part of the accredited undergraduate education and 39.2% of respondents thought students should have the ability to determine a user’s point of view or values (ASLA, 2004). Yet, as Terry Clements illustrated in her paper titled “What We Are Doing Today: A Snapshot of Scholarship In Design Education and Pedagogy,” only 10.9% of pedagogy research at the Council of Educators in Landscape Architecture 2010 conference touched on the theme “Cultural and Social Issues” with scant few assessing students’ personal values (Clements, 2010). Clearly our current pedagogy is directed more towards skill development in design studio instruction rather than philosophical self-awareness. This condition raises a question of our role as landscape architecture educators in universities, do we focus on providing knowledge and skill areas similar to vocational training or do we also have a responsibility to educate our society in humanistic knowledge?

Considering ethical theory stems from humanistic awareness and that by focusing education on the “common core of the profession” (ASLA, 2004, p.1) educators may inadvertently stifle students’ awareness of opportunities in a time when the average person expects to change careers “three times in their lifetimes” (Alboher, 2007), this study engages the pedagogical discussion by proposing an educational redirect towards a model incorporating philosophical self-awareness. This approach encourages students to evaluate their role as interpreter and synthesizer of place and helps them understand how personal and cultural motivations may ultimately effect landscape design and development decisions. Since past pedagogy scholarship recognizes the difficulty for landscape architectural education to “reconcile the conflicting demands of two bosses: professional practice and academic practice” (Clements, 2010; Lawson, 2010), this research is directed for betterment of landscape architecture education by developing an accretive instructional bridge, whereby students gain both self-awareness and design knowledge by converting their personal contemplation of theoretical reading (implicit knowledge) to physical visual design (explicit knowledge). This paper begins by describing the research methodology and instructional approach, then discusses the students’ surveys and concludes with an assessment of the teaching effectiveness.

3 METHODOLOGY

3.1 Framing the View

The class assignment’s accretive structure assumed the importance of a broader education and sought to assist students’ in “developing their own persona” (Clements, 2010, p.7) with the total interactions between students and teacher considered part of the learning process. This approach allowed students to internalize, construct and reconstruct ideas, beliefs, personal concepts, and generalizations within the broader social context of their classroom (Lawson, 2010) and also enabled students to move beyond subjective self-reflective aesthetics common in studio settings (Schön, 1987).

The learning objectives focused on students contextualizing their values (Walliss and Greig, 2009) in cultural landscape theory while engaging their cognitive process (Anderson, 2001) by encountering a new type of visual design problem, an interpretive graphic. Similar to collage, photomontage, or ideogram, an “interpretive graphic,” as defined for the purposes of this study, means a graphic that communicates personal values inscribed in a cultural landscape. To accomplish the learning objectives in an appropriate manner for various groups of learners, the assignment allowed for an adaptive process of alternative constructions (Daniels, 2001) with the goal upon completion students would 1) communicate a visual representation of their philosophical views of Montana’s cultural landscape, a place relevant to Montana

State University students, 2) gain awareness of alternative viewpoints, and 3) enhance their technical understanding of the design process.

3.2 Lesson Structure: Cultural Landscape Theory & Graphic

The studio assignment had two requirements: First, *The Cultural Landscape* component grounded the project in reflective theory. Lecture and reading centered on interpreting D.W. Meinig *The Beholding Eye: Ten Versions of the Same Scene* where he discusses the difficulty of communicating the meaning of "landscape" (Meinig, 1979). This literature introduced students to a common language used to describe the essence of a scene, in other words what we are likely to see when we "look out upon that variegated scene" (Meinig, 1979, p.33): *Nature, Habitat, Artifact, System, Problem, Wealth, Ideology, History, Place, and Aesthetic*. Students were required to select the "views" representing their values towards Montana's landscape.

Second, based on the reading, students created a visual and written interpretation of their personal views. For *The Presentation Graphic* students created a 6'x6' graphic, an appropriate scale for permanent installation in the studio classroom, printed at a scale of 3"=1'-0" to fit on an ARCH D plotted page for presentation purposes. This size conformity allowed for better cross-comparison of work during critiques and challenged students with design restrictions. Graphic expectation examples included environmental and signage graphics from Communication Arts magazines and students were free to work in a variety of media and/or computer programs. The assignment also required students include a separate written concept, *The Information Content*, in which they described the meaning of their graphic, thus creating a reasoning textual body.

The assignment was one week in duration and designed as a competition with the strongest submission installed as a permanent wall-wrap in the students' studio space. At the presentation critique guests were provided with the assignments learning objectives and requirements. Presentations and critiques were limited to ten minutes per student. Discussions were open-ended format, but in general conversation focused on development of visual voice, design elements and principles. Upon completion of presentation students posted their work for a vote of the three strongest conceptual and technical designs. Important to note grades and in-class critiques were not meant as a judgment upon students' belief system rather the focus was on effective graphic representations of readings and self-reflection.

3.3 The Survey Assessment: Design, Collection and Analysis

Methods to assess validity in the pedagogical approach include three data collection techniques: (1) An IRB reviewed survey administered through SurveyMonkey, (2) written recording of in-class jury critiques, and 3) end of the semester students' in-class evaluation feedback.

Students were asked to participate in an anonymous, voluntary survey consisting of 18 questions with the opportunity to write additional information. The questionnaire assessment recorded a purposive sampling representing landscape design students enrolled in three required studio courses in an unaccredited landscape design program at Montana State University: two upper-division classes, senior design (HORT 432) and planting design (HORT 331), and one lower division landscape graphics class (HORT 226). The sample consisted of 24 undergraduate students, with a 75% response rate (n=21.) This sample size was determined adequate as participants represented a stratified sample of Montana State University landscape design students, based on year in school and gender (LeCompte, Millroy and Preissle, 1992). In all courses, students were primarily landscape design majors.

Survey questions were design to evaluate the assignments applicability in a class setting and its effectiveness in building students' theoretical and technical skills. These evaluations were essential to position the assignments success in meeting learning goals as well as incidental learning and skill development. The survey data results were summed and compared with cross tabulations to uncover similarities and differences among participants' responses (Merriam, 1998). Findings were organized into statistical tables based on students' answers and the resulting information was then correlated with jury feedback and class evaluations.

4 RESULTS & DISCUSSION

A large majority of students responded the assignment offered an opportunity to learn and synthesize new information while communicating their knowledge to peers, suggesting the assignment

accomplished the goal of integrated learning (Figure 1 & 2). As one student commented, "I thought it made you think abstractly, which is good." The results also showed the lesson helped students consider alternative viewpoints in critique, while strengthening their skills in design process. Critique participants remarked the students' work communicated thoughtful, self-reflective compositions, and that the reading improved students' articulation.

Results indicated a large majority of students reported a meaningful and enjoyable learning experience from the assignment (Table 1 and 4). Although this assignment was incorporated into different types of studio classes most students responded the reading and lecture relevant and understandable in their class subject (Table 1), indicating this pedagogical approach would be useful in a variety of landscape architecture classes. The majority of students answered they did not have previous exposure to cultural landscape theory, yet upon assignment completion a majority responded an increase in their theoretical knowledge (Table 1). A majority of students (47.6%) identified Montana's landscape with *Nature, Wealth, History and Place* and selected to a lesser extent *Habitat, System, Problem, Aesthetic and Ideology*, only one student selected *Artifact* (Table 2). This suggests students were clear in their self-reflective selection of personal values manifested in landscape. A minority of students responded they thought the assigned reading stereotyped views (Table 4); however only one student commented an additional possible viewpoint. Although this study did not correlate students' personal values relative to their permanent resident state, the research raises an interesting consideration worthy of future investigation: how students' values differ between University settings. For example since Montana State University is a rural campus within a large natural setting, how might regionalism influence students' values towards landscape? In this study 52.4% of students were non-resident with a majority from the Northeast, West Coast, and Colorado; and a majority of students chose *Nature* as a value. Furthermore a significant majority of students did not think their viewpoint of Montana's landscape would change after completion of working through the project (Table 1), which may indicate students do not think their values change or evolve; however, 52.3% of students thought their viewpoints would change if they evaluated a landscape other than Montana's (Table 4), thus indicating some philosophical awareness of shifting perceptions in alternate landscapes.

Although the students were allowed a week to complete the assignment the majority indicated the allotted time still challenged their ability to synthesize personal viewpoint into design elements and principles (Table 1). Predominately students articulated the use of *Color* and *Balance* in their compositions, followed by *Line, Form, Rhythm* and *Texture* (Table 3), indicating they had absorbed additional design theory as a part of the assignment. A majority of students answered they thought the assignment helped their design and graphic ability, suggesting the balance between theory and skill challenged their development as designers. As one student responded it "helps launch your potential design concept, a jumping point for ideas." To accomplish the design students used a mixture of hand and Adobe Suite computer programs and as one student commented "The use of Photoshop and Illustrator was a great intro and really made me figure the programs out." Thus suggesting the effort to communicate their personal values compelled students to enhance their technical skill.

The results showed a significant majority of students preferred the *Graphic Project* and/or *Studio Project* as a method for exposure to theory; students responded as less desirable, yet acceptable alternatives *PowerPoint Presentation* and *Essay*, and a large majority indicated *Quizzes* and *Tests* as least preferred pedagogical approach (Table 5). This is unsurprising as students today are particularly keen to internalize/personalize their learning experience with hands-on activity typical in constructivist methodology. A large majority of students indicated *Design & Planning* as most important in their education, followed by *Plant Knowledge*, and *Computer/Hand Graphics*. The desire for strong plant knowledge may be an anomaly to Montana State's University Landscape Design program, since it resides within an Environmental Horticulture degree and many students enter and remain in the program due to strong interest in Horticulture and Plant Sciences. Students responded as least important in their design education *Presentation Skills, Construction Techniques, and Theoretical/Historical*. This suggests that although students indicated enjoyment in the interpretive graphic lesson they still did not deem or connect *Theoretical/Historical* knowledge as important in their educational development, even upon completion of the project. This may be due to this project representing their first encounter with cultural landscape theory and may further indicate the need for repetition through subsequent projects to establish the worth and weight of value exploration and theory. For example, results clearly indicated students have a strong desire for "hands-on application," which may suggest reapplying cultural landscape theory and self-

awareness throughout experienced based, service learning curriculum may positively influence students' interest in humanism.

Finally, a large majority of students responded they enjoyed the wall-wrap competition (Table 1) or as one student commented "working towards a goal," indicating students felt competition an additional motivator beyond project grade. However, this approach could prove difficult in a large lecture class due to class size and individual graphic ability. One possible remedy may be to negate the wall wrap installation and allow students to explore alternative communicative means such as hand-construction, film, 3-dimension modeling or photography. This approach would in-turn address one student comment that the assignment could be improved if left "more open-ended."

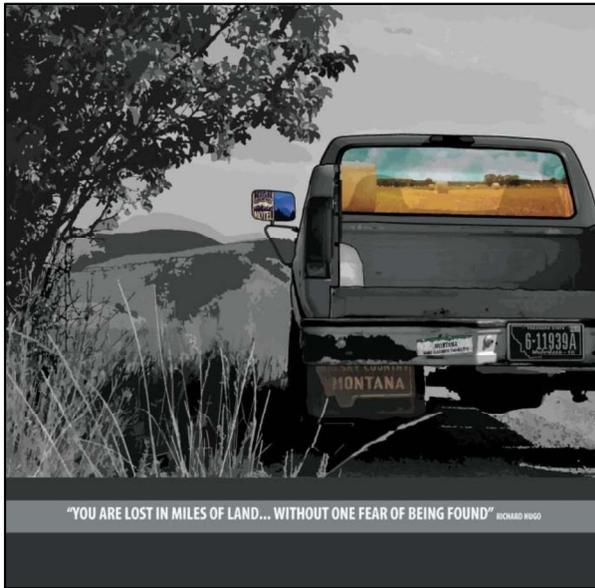


Figure 1. Landscape Graphics, Spring 2013.
Tyler O'Leary. "Habitat & Place."
Created in Adobe Illustrator.
Reproduced by permission of student



Figure 2. Senior Design, Fall 2011.
Cassie Peters "History & Place."
Created in Adobe Photoshop.
Reproduced by permission of student

Table 1. Student Responses: Yes/No question quantitative results

		Yes	Neutral	No
Q1: Consent Form	N	21	n/a	0
	%	100.0	n/a	0.0
Q2: Prior to this assignment, did you have previous experience in cultural landscape theory?	N	8	n/a	13
	%	38.1	n/a	61.9
Q3: Did you find the "placemaking" project relevant to the class subject?	N	21	n/a	0
	%	100.0	n/a	0.0
Q4a: Was the reading material relevant?	N	21	0	0
	%	100.0	0.0	0.0
Q4b: Was the reading material understandable?	N	15	6	0
	%	71.4	28.6	0.0
Q5a: Was the lecture relevant?	N	21	0	0
	%	100.0	0.0	0.0
Q5b: Was the lecture understandable?	N	21	0	0
	%	100.0	0.0	0.0
Q7: If you re-created your project today would your "viewpoint" choices change?	N	2	19	0
	%	9.5	90.5	0.0
Q11: Did the assignment allow enough time to complete the requirements?	N	21	n/a	0
	%	100.0	n/a	0.0
Q12: Is 50 possible points appropriate for this project?	N	21	n/a	0
	%	100.0	n/a	0.0
Q14: Did the "placemaking" assignment increase your knowledge in theory.	N	21	n/a	0
	%	100.0	n/a	0.0
Q16: Did you like the wall-wrap installation as a project goal?	N	21	n/a	0
	%	100.0	n/a	0.0

**Table 2. Student Responses: :
Viewpoint question quantitative results**

	Nature	Habitat	Artifact	System	Problem	Wealth	Ideology	History	Place	Aesthetic
Q6: Which "viewpoints" from D.W. Meinig's "Beholding Eye" did you use in your composition to describe Montana's cultural landscape? Please select all options that apply to you.										
N	10	3	1	3	4	7	5	5	6	4
%	47.6	14.3	4.8	14.3	19.0	33.3	23.8	23.8	28.6	19.0

**Table 3. Student Responses:
Design theory question quantitative results**

	Line	Color	Texture	Form	Space	Balance	Repetition	Rhythm	All of the above	I don't know
Q9: Which design elements and principles were most important in your final composition? Please select all options that apply to you.										
N	8	18	9	5	10	14	2	0	0	0
%	38.1	85.7	42.9	23.8	47.6	66.7	9.5	0.0	0.0	0.0

Table 4. Student Responses: preference scale quantitative results

		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Q8: Would your "viewpoint" choices change if the landscape was someplace other than Montana?	N	0	1	9	7	4
	%	0.0	4.8	42.9	33.3	19.0
Q10: Please answer the following about the "placemaking" assignment.						
<i>It was fun</i>	N	0	0	0	8	13
	%	0.0	0.0	0.0	38.1	61.9
<i>It was technically challenging</i>	N	0	0	2	12	7
	%	0.0	0.0	9.5	57.2	33.3
<i>I learned about myself</i>	N	0	0	1	13	7
	%	0.0	0.0	4.8	61.9	33.3
<i>I learned about other students in class</i>	N	0	0	4	12	5
	%	0.0	0.0	19.0	57.2	23.8
<i>It stereotyped my viewpoint</i>	N	1	2	12	5	1
	%	4.8	9.5	57.2	23.8	4.8
<i>I think there are more "viewpoints" than listed in the reading</i>	N	0	0	11	8	2
	%	0.0	0.0	52.4	38.1	9.5
Q13: After completing the "placemaking" assignment do you feel...						
<i>more confident in your conceptual design skills</i>	N	0	0	2	15	4
	%	0.0	0.0	9.5	71.4	19.0
<i>more confident in your graphics skills</i>	N	0	0	5	8	8
	%	0.0	0.0	23.8	38.1	38.1
<i>more confident in presenting your designs</i>	N	0	0	10	8	3
	%	0.0	0.0	47.6	38.1	14.3
<i>more aware of others viewpoint</i>	N	0	0	2	15	4
	%	0.0	0.0	9.5	71.4	19.0

Table 5. Student Responses: ranked preference quantitative results

	Most favorable ↔ Least favorable						
	1	2	3	4	5	6	
Q15: To learn theory which assignment type would you prefer? Please rank the items from 1 to 6, with 1 being most desirable.							
<i>Included in a studio project</i>	N	3	14	2	2	0	0
	%	14.3	66.7	9.5	9.5	0.0	0.0
<i>Graphic project (our assignment)</i>	N	18	2	1	0	0	0
	%	85.7	9.5	4.8	0.0	0.0	0.0
<i>Test</i>	N	0	0	0	1	2	18
	%	0.0	0.0	0.0	4.8	9.5	85.7
<i>Series of quizzes</i>	N	0	1	1	4	15	0
	%	0.0	4.8	4.8	19.0	71.4	0.0
<i>Essay</i>	N	0	3	5	8	3	2
	%	0.0	14.3	23.8	38.1	14.3	9.5
<i>PowerPoint Presentation</i>	N	0	1	12	6	1	1
	%	0.0	4.8	57.2	28.6	4.8	4.8
Q17: What is most important to you in your design education? Please rank the items from 1 to 6, with 1 being most important.							
Most important ↔ Least important							
		1	2	3	4	5	6
<i>design & planning</i>	N	16	3	1	1	0	0
	%	76.2	14.3	4.8	4.8	0.0	0.0
<i>plant knowledge</i>	N	2	5	8	3	2	1
	%	9.5	23.8	38.1	14.3	9.5	4.8
<i>presentation skills</i>	N	0	1	2	4	4	10
	%	0.0	4.8	9.5	19.0	19.0	47.6
<i>theoretical/historical knowledge</i>	N	1	4	2	5	7	2
	%	4.8	19.0	9.5	23.8	33.3	9.5
<i>computer/hand graphics</i>	N	1	6	7	4	3	0
	%	4.8	28.6	33.3	19.0	14.3	0.0
<i>construction techniques</i>	N	1	2	1	4	5	8
	%	4.8	9.5	4.8	19.0	23.8	38.1

5 CONCLUSIONS

The results of this study confirm the positive aspects of teaching a hybrid of theory and professional skill development; and the instructional method provides a transformative framework for students to develop their theoretical and technical ability in a more nuanced, self-reflective application. Similar to medicine prescribed with candy the interpretive graphic provides a means for students to metabolize theory in a self-revelatory experience with a concrete visual result. Furthermore, the research findings suggest value investigation in landscape architecture education is worthy of additional academic attention. Teaching students to critically examine and reflect upon their fundamental beliefs will help progress landscape architecture education to a balance of competencies and knowledge while also educating our society in philosophical awareness.

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