

Title: Site in Architecture: Transforming a Lecture Course

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Summary: An architecture professor restructures a large, upper-level lecture course to help students think critically and better synthesize course materials.

Background

Site Design (ARCH 560) is a large (approximately 75 students) lecture, core curriculum course in the architecture department. As a required course, the range of student experience is very broad. Most students are in their second year of the five-year M. Arch. program (track I, for undergraduate students who wish to obtain a professional degree). The remaining third are in their first year of the three-year M. Arch. program (track III, for graduate students with a non-architecture bachelor's degree); there is also a smattering of track II students, who came to the graduate program with a bachelor's in architecture.

Historically ARCH 560 was titled "Site Planning for Architects," which in many ways biased the course towards planning concerns. Students coming through the program also typically struggled to understand site's importance to architecture. When I was asked to rethink and teach the new Site Design in Fall 2011, my primary goal was to imbue students with an understanding of site's importance, giving them both pragmatic skills and ways of conceptualizing site and its relation to architecture.

Rather than using traditional exams to assess student learning, I implemented a series of five mapping assignments centering on five different sites. These assignments were iterative, comprehensive, and were meant to synthesize the readings through field study.

However, there were several problems with this approach. I spent far too much time giving individual feedback, both in writing on assignments and in my office hours, and later being asked to defend the assigned grade. It also seemed that, rather than take their own position on the site using the readings to frame their thinking, many students were still convinced that I was after something specific. They inevitably came to me wanting me to tell them the best way to graphically represent their work without experimenting or thinking critically on their own about what the best approach might be.

Therefore, before teaching the course again in Fall 2012, I wanted to rethink several aspects, including the course structure and my assessment strategy. My hope in making these changes was two-fold: first, I hoped to see students making more connections among their work, readings, and the lectures; and second, I hoped to see student learning more closely tied to the course objectives.

Implementation

1. Course Structure

In Fall 2011, ARCH 560 met for lecture twice a week and in small lab sections once a week. I felt that this structure divorced the lab work (i.e. field studies and discussion) from the material covered in lecture. To better integrate the class pieces and close gaps between the lectures, readings, and assignments, for the Fall 2012 iteration I eliminated the lab section and created a more lop-sided course, with lectures on Tuesday and the opportunity to break up the class into various functions over a longer period of time on Thursdays. These Thursday sessions incorporated field studies, discussions, gallery reviews, and other learning activities. Both my TAs and I led the Thursday sessions, rotating to different groups after each mapping assignment.

In addition to teaching fewer lectures, I also altered both my lecture style and the material covered. Previously I would cover the readings very directly, discussing my own take on the topic. I found, however, that the students would then regurgitate my ideas in their own assignments rather than synthesizing material for themselves. In an attempt to curb this tendency, in the second iteration I decided to cover the material more obliquely: instead of discussing the readings themselves, I would talk about a case study and use the day's author to explain the specific case.

During the small Thursday discussions, students still completed field studies and small exercises. I implemented basic rubrics for the small group discussions/exercises and provided outlines to the TAs, so that each group would cover the same basic information. The small activities were designed to prepare students for their large mapping assignments.

2. Assessment Strategy

Rather than using traditional exams to assess student work, in Fall 2011 I implemented mapping assignments. For these assignments, as a class we would go on a field study and then, individually, students had to create a thesis statement (300-word max), taking a position on the readings and an attitude about the site. These assignments were meant to be iterative and to encourage students to synthesize the readings and lecture material through their own position on a specific site. I used a somewhat intuitive, loose rubric to assess each assignment.

To combat problems that arose, such as time needed for feedback, in Fall 2012 I tweaked these assessments. While I retained the mapping assignment in general, I did make some changes to the parameters. First, I altered the timeline, pushing back the due dates; this meant that the final assignment was due during finals week. I also altered the focus for the final assignment. In the past, the fifth map assignment was to look at a system of students' own choice; this led to a large number of Facebook mappings. In order to add structure and to help students think critically about their own processes, for the second iteration students had to use a site from one of the first four maps, but they had to take a

different approach than they previously used. Finally, I also attempted to build in more guidance; I provided a key question or method for each assignment as well as a template. The small in-class exercises were also meant to serve as small steps toward the field study and map.

In the past, as part of each of the five assignments, we would have a review where students would circulate the room and post comments on each other's work. While peer feedback is a very important part of the architectural process, the large number of students made this method somewhat unwieldy and the quality of the student comments also tended to devolve towards, "Great" and "Nice graphic work," which, while encouraging, is not very productive. Therefore, in the second iteration, these reviews occurred during the Thursday discussions in the hope that reviewing work in small groups would produce more productive feedback.

a. Rubric Use

In addition to the changes described above, I employed a structured rubric. While I had some concerns about providing the rubric early, in the end I decided to include it with the syllabus at the beginning of the semester. By making this choice, my plan was to not comment on maps themselves but simply to upload each assignment's grade onto Blackboard; students could then refer to the rubric in-hand to understand their grade's meaning. I also used my TAs as my frontline go-tos; only after a student talked to a TA could they approach me if they were still confused.

At the mid-term point I sent the students a survey about the course; through a combination of the feedback I received and the confusion I saw during the second assignment, I thought the students (especially in the middle and lower tiers of the class) were not making the connections necessary to succeed on the remaining maps. Therefore I modified the rubric, specifically reworking the graphics components. Originally, points were distributed evenly between what I called the thesis, graphic analysis, and synthesis. For the final three maps, I reworked the synthesis and graphic analysis elements. Students had to employ the graphic strategies introduced in class as its own component of their analysis. Students were then required to produce two iterations of the same analysis: the first to understand how the graphic strategies worked and the second to innovate or alter these strategies. The first analysis iteration was graded as the graphic analysis and evaluated according to the accuracy and skill of their implementation; the second was graded as the new "innovation" part of the rubric, evaluating the visual connection to the thesis, the execution of the graphics, and the innovativeness of the idea. This was not intended to increase students' workload, but instead would have a two-fold positive outcome. First, it would give students the opportunity to work together to produce the more literal interpretation, increasing the likelihood of some level of transference of understanding between students instead of relying on the TAs or myself. Second, it would take some measure of burden off the students who were overwhelmed by the graphic choices they faced.

Student work

High-level work typically included a firm understanding of the readings, demonstrated through a strong thesis, and a strong synthesis between that thesis and the graphics. The graphics themselves illustrated well-developed analyses and compelling insights into the site. By late in the semester, when students were creating their fourth map, high performing students were also becoming more adventurous in their graphics and were augmenting their analyses with more depth. For example, Student 3 chose to pull away from the analysis and constructed a radically different, yet comprehensive, graphic strategy. Student 4 built on his graphic analysis and moved a step further from a direct interpretation of the *Made in Tokyo* readings. Both also understood and accurately interpreted the graphic strategies introduced.

Generally mid-level work showcased graphics and a synthesis that were noticeably weaker than the thesis. Students 5 and 6 strayed a little from this norm, with a weaker thesis and synthesis but well developed graphics. Later examples of mid-level work also showed a weaker thesis and synthesis and, generally, well developed innovation graphics. Particularly with Map 4, students struggled to understand the comparative analyses shown in class and provided in the readings. They appeared to use the strategies introduced in class more as a ground zero starting point with each assignment, rather than building on iteration. However, they did generally excel at generating their own graphic comparisons, such as in the work of Students 7 and 8, and there was development in the overall graphics execution.

Lower level work on Map 1 indicated some confusion about the readings through a weak thesis and synthesis between the readings and the graphics. The graphics also tended to include "rookie" mistakes, such as redundancy in the analysis and demarcating items on the map without graphically revealing the analysis leading to those demarcations. Student 10's graphics also showed little connection to the thesis.

By Map 4, low-level work still contained weak theses and syntheses and only moderate improvement in the innovation graphics from Map 1. Overall, though, the lower level Map 4 work is at a higher bar than the lower level Map 1 work. These students grasped the purpose of the assignments and the readings better, but continued to struggle when visualizing their analysis. Shifting the emphasis from synthesis to application of the given graphic strategies could be a double-edged sword. In Map 3 the students largely improved their grades because the figure grounds were competent and well executed; however, their innovations were less original. In Map 4 many students struggled with the graphic strategies introduced, despite the finite nature of the parameters, but their independent comparative analyses were more innovative.

That said, some students did show steady improvement over the course of the map assignments. Student 13, for example, began as a solidly mid-level student; she was not affected by the rubric change and was in fact helped by the changes, particularly being able to work with colleagues on a portion of the assignment. She steadily improved and,

by the fifth map, was producing high-level work. She had clearly absorbed the strategies learned over the semester and could apply them to different sites.

Reflections

Overall, students' reaction to the modified ARCH 560 course was more positive than it had been in previous iterations. In particular, the response to the course structural changes was positive. Having Thursday discussions helped the students better engage with and think critically about the course readings. The altered lectures also went better, with students afterwards telling me they liked the lectures.

As mentioned in this portfolio's Implementation section, there were some problems with the rubric I originally introduced. Contradictorily, while having a rubric did answer some student questions, it also seemed to create questions and cause some confusion about expectations. There was also some student pushback when it came to quantifying a more interpretive assignment. While the rubric was effective in trimming the time I spent grading, I still saw a number of students wanting me to defend the assigned grades. I am not sure that the revised rubric eliminated these problems and, in fact, feel that it somewhat negatively impacted the remaining assignments. I think it was helpful for those students who had struggled the most with the first two maps; making the assignments more "black and white" seemed to help them better understand the fundamental techniques, even though they still struggled with connecting those techniques with their own interpretations. Shifting emphasis away from innovation meant that there was less variation in students' work. I also feel that it reduced or even removed the expectation that students would think critically and bring their own ideas to the remaining maps.

However, I still think that the maps are a good approach. I think that, in the future, there are several options for improving both the assignment and student understanding without losing the critical thinking element. First, I want to rethink the in-class exercises. While in the Fall 2012 iteration they were good experiences, these exercises were not always as fruitful as they could have been. I viewed them as another way to connect with those students who were struggling and to help reinforce course material. Looking back I can see that greater structure would have increased the exercises' impact; therefore, I want to rethink their timing and placement, and, perhaps, the overall number. For the exercises to really build toward the mapping assignments, I also need to rethink the course readings. To free up the necessary class time, I would need to strip out approximately a quarter to a third of the readings, which I do feel is completely feasible without losing content.

I might also reconsider the mapping assignments' structure. With the altered rubric the Fall 2012 maps progressed from being largely interpretive to being more regimented. To reduce the number of students who get lost, I may want to arrange the maps so that they progress from having more specific, black and white guidelines to becoming increasingly more interpretive.

When I look at the modifications I made to the Fall 2012 iteration of ARCH 560, I think that, overall, I saw a huge improvement with the class. Although the overhaul took time in planning and setting up the changes, it cost me less time once the semester was underway. It also felt much easier to teach the course than it had previously. Even though not all of the changes went smoothly, overall I was happy with the results.