

**RE: THESIS**

TO: Architecture Faculty

FR: Kai Gutschow, 4/03/07

Colleagues,

I wanted to continue discussion on the important issue of "Thesis" started by the faculty discussion and Omer's email last week, and some discussions with Mark Wigley and Anthony Vidler in the last week about the role of thesis in undergraduate architecture education. I personally am very much in favor of introducing a thesis, and eager for the independent and comprehensive thinking it may inspire our students to engage in. I hope it could both create community, and allow for a great spectrum of individual ways each student could engage in making architecture, as Vidler also inspired us to do last night. Although my own reasons are slightly different, I agree with Omer's proposal of establishing a thesis program in a phased process, constantly seeking to re-evaluate our goals, the process/progress, and the actual results. The committee Omer led on Admissions last year set in motion a similar process. It made some bold initial moves, but started on an "optional basis," and has a built-in re-evaluation process that is being developed. I outline below some of my thoughts about starting a thesis:

1) I feel the Thesis will be most successful if students have their entire career at CMU to "get ready" and build up to it. They should be aware that their education, the courses they take, the studio projects they do, the questions they ask, MAY bring them to a thesis. So, the best work may come only in 5 years, when incoming freshman get to 5th year. That gives us plenty of time to create and ramp up a good program. The presence of a thesis is also a "statement" about what we value at CMU, even if not everyone is required to do it, and may change who applies or gets admitted. So perhaps we'll even have to wait until the first class of students admitted with the knowledge they will do thesis.

2) As coordinator in the 2nd year, especially at this time of year (mid-spring), I see such a wide range of students, with so many divergent interests, and such different "drives." Motivating an entire class to do great, truly "independent" work immediately would be a tall order. It seems to require at least a partially "systematic" approach at first. Would this counter the "independent" spirit of theses? Inevitably, some students will be more willing, ready, or able than others. If we implement a thesis, it will be important to create a proper evaluation system that can inspire independent projects, accept great diversity of results and knowledge bases at graduation, yet maintain high standards and perhaps tolerate the fact that not all students will finish their studies in 5 years. This seems particularly true in the early stages of developing a thesis, before there is a real "tradition" of thesis and everyone knows the threshold they have to meet. If we make thesis optional at first, we may/will start out with a higher-level of thesis for others to build on and look up to.

3) From my own experience, everyone learns a different way: some learn well independently, some learn well from their peers, some learn best from Professors. Architecture school, and studio culture in particular, promotes a wonderful mix of these. However, instead of "forcing" all students to explore ideas through the independent thesis, I wonder if the school can set up "parallel" tracks that don't necessarily imply hierarchy in

a bad way to allow different students to explore in different ways? Thesis could be like studying abroad, which is an "option", a statement about resources, perhaps about personality, but often also a clear vision about what the student wants from CMU. It should not be a statement about the quality of student, no matter how much we want our students to go abroad, or do thesis. Vertical studios in the 4<sup>th</sup> and 5<sup>th</sup> year could begin that process: hopefully all tracks will be seen as equal. I'm for freedom to choose the topics and mode of study, rather than more requirements! NAAB might agree as well.

4) In an opposing scenario, perhaps thesis could become like an "honors college" within our school. It could even be part of a transition to a different degree nomenclature: those people who write a thesis get an M.Arch? It could be used to motivate students: "I want to work to get into that Thesis program, just like I worked hard to get into CMU." If only a few students were admitted to thesis, and carefully supervised, the best students coming out of CMU would surely be better: the best of the best. Perhaps it's a difference of educational philosophy (broad levels vs. "tracks"), but perhaps it's also about pragmatics given our resources. Do we "force" everyone into a "system" where guidance is "systematic", and risk creating the "sort-of-like-studio" thesis, because it's the only way we can "afford" it? Or do we see if we can create a situation where a few students can excel beyond our wildest expectations? Can we really have it both ways?

5) I support fully the desire to create community and high-energy for the whole graduating class. But I agree that thesis is no "magic bullet," and urge us to confront what else we need to change about the curriculum, facilities, advising, and push towards more interdisciplinary work. How do we find the right balance between a unified class, and independent thinking? Vertical studios could help create stable themes and "stem-like" groups that will continue year-to-year, in a different way than the "waves" of students that pass through the required thematic studios now. I also question how much 5th years demand unity/community: are they not like to be more "independent" by nature, older, more mature, more focused in individual directions, thinking about life beyond college? I wonder whether the beaux-arts "atelier" method that a required design thesis is based on, may be an overly romantic scenario, particularly for this generation who "swim on their own," and prefer a "supermarket of ideas," as Mark Wigley said.

I don't want to take more of your (or my) time, but I do think the conversation we started is important, and exciting, and needs to keep going. It would be a tragedy if we let it wither, or drag out for years and years because of some (minor?) disagreements. I append below some student comments that I solicited from 2nd & 3rd year students about thesis.

Kai Gutschow, PhD

## (Some) STUDENT FEEDBACK / INTERESTS IN THESIS

Questions posed to students (by Kai Gutschow):

1. What KIND of thesis might you consider doing? (Design Project? Theory Paper? Service Project? ...)
2. What kind of course-work would help you prepare?
3. How many in your class would do a thesis, if allowed or encouraged?
4. Should it be a graduation requirement eventually?
5. Other issues?

STUDENT RESPONSES:

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I have thought about a thesis as a way to incorporate different strands of thought and various methods together into a comprehensive project. I'd like to do a thesis in stages: research, design, and critical analysis. This would likely take more than a semester, and could like begin through independent studies or studio projects or other various research opportunities. I would prepare an outline and set of goals for what would happen over the course of study. I would like to be involved with a group of faculty who could periodically critique the work and suggest new strands of exploration. I think that the thesis should explore critical discourses involved in a general interest of a student.

I think that maybe 30% of my year would like to do a thesis, but I think that it should be an eventual goal for it to be a requirement for graduating fifth years. This would give a comprehensive opportunity to culminate our education, it would eliminate the drop off in work that currently occurs in fifth year, and would help the school become a stronger player among its peers. It would be interesting to use the thesis projects to publish and push our school's identity to the architectural community. You asked about the current fifth year studio, and I have never seen or been aware of their work, and I think it would be exciting to see work that as an underclassmen you are excited about and make you look forward to fifth year.

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In terms of thoughts for a thesis project, I can obviously only speak from my own position, so I will attempt to answer in terms of what I would like my eventual product to be. My inclination would be to start with a pilot period so that students can do the type of projects they want, but involving both research and application, whether it is based on traditional architectural theory, history, or other disciplines' intellectual underpinning, no matter what it may be. There is also the possibility of more technical projects, but that would probably have to follow a slightly modified model, at the very least with different faculty advisors. The coursework that I would find useful would be an almost filtered approach: that is, in my case for example, I would begin by taking school and university electives that are generally geared towards my interests, such as your History of Theory class, computer classes, philosophy classes, etc., which would lead to independently-driven courses with faculty advisors, probably beginning in fourth year. This is the model I envision, with research topics being focused in second semester of third year. Obviously this model would require immense faculty guidance, as well as student input. However I would imagine that as the program is instituted the process would involve less busy work, with inventories of bibliographies. I would like to think that it would eventually become a prerequisite for graduation, but it would have to be tried first, with an alternative being that those students who do this type of project would receive some acknowledgment accordingly.

Ideally, no student would ever do the same topic, because there would eventually be an entire library of theses; I'm taking this class on Friedrich Nietzsche, and we're talking about perspectives as "value systems," which are never exactly the same for different people, the right one being the one that allows people to elevate themselves to the status of übermensch. Analogically, no two peoples' interests ever exactly match, so while bibliographies may be similar, a database would grow and projects would be able to be built off each other, with eventual publication as a possibility. This may be a wholly optimistic, utopian idea, and there are probably huge amounts of specifics that I have not thought about. Regardless, the above would be my ideal; I can just imagine a whole section of the library devoted to student projects.

Thank you very much, and I really appreciate your request for student input on the thesis issue.

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I'll have to admit I haven't put a significant amount of thought into the idea of a thesis. I can't say I'm familiar with the thesis institution as a whole either, but I'm glad to be invited into your discussion. The questions you ask provide a good framework to help serious consideration along, so I'll do my best to dig in:

1. My inklings gravitate toward a design project for a thesis. The setup of our educational process ties everything directly into the studio. The ideas we garner from history, science, lectures/theory, trips, random doodles, other classes, everything contributes to a method of thinking about and designing architecture (while also wondering about what it may be in the first place, naturally). The two other example alternatives you mentioned, theory paper and service project, should be integrated into a thoroughly considered project. To offer a truly holistic architectural solution, theory must be an element of the process and presentation; methods related to the physical manifestation of materials and assemblage should correspond with a built work (be it detail or component or tested adaptation as miniature alternative use). Political/ethical issues such as sustainability, which I think is what you're getting at with the service mention, might be more important than limiting oneself to a particular small-scale situation literally. I mean, of course every project no matter how small should reflect core values across the board, but for a thesis I think it's valuable to start thinking larger-scale as a participatory agent on the global level, especially from the context of Carnegie Mellon. I suppose a well-conceived small-scale service project would be able to channel those thoughts, but it's also too easy to get caught up with the details and forgetting to make a significant impact, which I feel should be the emphasis for a final thesis.

2. Regarding coursework, I don't think I know nearly enough yet about what's taught come fifth year at CMU. Clearly direct application of knowledge about codes and standards (including more recent environmental ones) as well as construction techniques are important, and if that's what's already being covered, then it's likely fine. Depending on the presentation/conception format for the thesis, it'd also be beneficial for students to receive an "official" primer on specific methods (such as the more exotic media of Macromedia Flash or Adobe Premiere). By "official" I mean adult faculty going over the content, not self-taught students, however motivated. Those students need someone too. After first year a lot less attention is paid to teaching the use of tools. It may be nice to get a refresher or supplementary course in covering that in preparation for the thesis - something with an ambiguously broad title like "48-XXX: Architectural Presentation". More likely than not this will lead to much nicer-looking (read: professional) projects and presentations. No way should the inklings we do in first year be the most beautiful documents we produce before graduation.

3. This is an interesting question. I'd say give or take 40 students in my year, a good majority, would produce quality thesis projects given the opportunity. Truly exceptional within the field of CMU architecture itself, though? Honestly it's a crap shoot.

4. The question of requirement is dependent entirely on the magnitude and nature of the thesis. Are we talking the equivalent of two semesters of work or one? It's probably not a good idea to really think deeply on how to fit it into the existing curriculum before understanding what it needs for itself. I see it this way: when we leave here, if we've done a thesis in our time at CMU, it should be the most significant work in our portfolio second to none. It should cover and excel above everything put into consideration throughout our architectural education. The quality of a student/potential architect is judged better by a specific project than an understanding of his or her capability, and a single work speaks on its own toward this end much better than a smattering of them. If the curriculum should then be retooled and worked around this single project, then maybe it should, if only to result in the generation of a truly noteworthy example of who we are as architects. A good thesis should challenge the architect to continue beating it every time he designs something else - provide a standard, set the bar, etc. An attempt at a huge leap after eight or nine semesters of small ones. If the framework doesn't provide for -- maybe the word should be demand? -- something like this, I'm not sure how much different it would be from the final projects that are being designed right now.

5. I don't think I have anything unexpected to offer in broadening the topic... Group/partnered projects? Inter-student, inter-university, international competition? Making up a project vs. making an entry for something real? Firm sponsorship to help along their own R&D process? I guess those are some.

I wonder how the faculty discussion will turn out - we're always reminded there are splits in agreement but I'm always curious to know how the lines are specifically drawn by name. Understanding where our professors stand personally on issues such as this helps inform a lot about their way of teaching and potentially lets the student guide (narrow?) his or her own educational development. The fear of it getting ugly shouldn't stop a discussion from happening. The time you brought up my year's work ethic in lecture is a prime example of this. I'm pretty sure the students who disagreed with that assessment still made a note to bump up their game a little, even for the virtue of not getting hassled rather than their own benefit. Maybe after some time a library of "provenly good" thesis projects will set a good example for younger years, potentially no matter how they get shown.

Keep providing a venue for student engagement and I'll do my best to engage myself.