# Collaboration, Clients, and Construction: Professional and Social Awareness in the Design Studio

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The cry in architectural literature and symposia is by now familiar: architectural education is in crisis. Forever failing the profession, schools of architecture are viewed even by their own administrators as "dinosaurs," distanced from the realities of practice. Changes in the profession are not reflected in current methods of education. Recalcitrant design instructors perpetuate myths about practice through myopic selection of studio content. This criticism is often accurate and we would do well to heed it. That design is a social art as well as a marriage of building and fine arts is seldomrecognized in the studio. In her extensive study of the profession, Dana Cuff cites lapses in educational responsibility and suggests emphasizing in the studio the significance of design as a social process.

> "While architects know quite a bit about the crucial part of 'drawing board design,' there is wide spread ignorance about the social art of design....Collective aspects of designing receive virtually no pedagogic attention and generate little reflection, nor does the importanceofarchitecture's socialcontext, even though it plays a definitive role in the studio."[2]

Social issues have typically been pitted against formal ones; one cannot be learned except at the exclusion of the other. At the heart of the matter is the architect's ability to work collaboratively and the role that design education should play in developing such skill.

As an intuitive response to my own sense of inadequacy during my first architectural job, I conducted a design/build studio intended to confront this gap between solitary pursuit and team work. For eight weeks fourteen first year students designed and constructed the first and only accessible housing at the Penland School of Crafts[3] in the Appalachian Mountains of North Carolina. Students worked directly with a client (the school's director), with local building officials (the studio's guest lecturers), and resident experienced builders (on site critics). At Penland, common values of two educational institutions enabled comprehensive student participation.

My objectives at the outset of this project were three: 1) to redirect the significance of relational thinking from the sole consideration of spatial and architectural elements, toward the notion of ourselves in relation to others; 2) to discover the wide reaching roots that architectural ideas must have in order to survive, in construction, in habitability, in form, in economy, and quality of space, and 3) to provide a framework of experience within which other courses might find renewed meaning and importance.

My vision of an alternative studio model is clearer because of my experience at Penland. The design studio

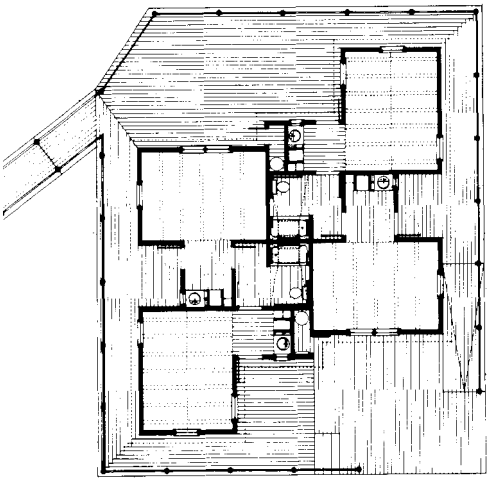


Fig. 1. The plan of the Arbor House, as it is called, consists of four double rooms connected by two bathrooms. Each room has a private entry, dressing alcove and sink. All circulation occurs on the outside porch.

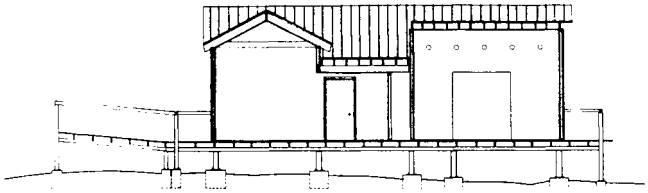


Fig. 2. In section, the shared core of toilets and bathtubs is distinguished from the sleeping areas in height and shape. Each of the rooms is intended to feel like a freestanding cabin.

Fig. 3. Diversity in backgrounds and abilities of these students fosters an atmosphere of mutual respect.

presents a critical forum for addressing issues in architectural education that are routinely criticized. I suggest that each student should have one and only one direct experience involving three combined aspects of architectural practice: working as a team, working with a client, and constructing a final building. How this is accomplished is as critical as acknowledging the call for curricular revision. Students can be told or they can discover the value of negotiation and cooperation through direct experience. Only discovery offers a viable vehicle for imparting true understanding of architecture's inherent complexities.

Just as triangulation reinforces a structure, this three pointed approach can also strengthen the curriculum by addressing the unnecessary discord between education and practice. It provides students a broader experience before entering the work place. Each of these three intertwined issues may singularly find other models in the design studio, but their confluence in an academic setting offers unique developmental potential for students. From this foundation students may better negotiate the shifting tides of both their education and future practice.

There are both advantages and dangers associated with such a revision of the standard design studio. Failure to recognize these may reduce the broadening potential of such experiences or worse, repel students from entering the profession.

## COLLABORATION

Teamwork for its own sake is rather useless, and often needlessly destructive. The actual project must require the combined efforts of many different people in order for the experience not to seem contrived. Otherwise the possible lessons concerning the value of personal openness to and effectiveness in team design will not only be diminished, but the collaborative experience will have been onerous. The full-scale building component of the studio insures the necessity of collaboration.

If we subscribe to the means of direct experience — assuming that events reach their full significance when they become personally meaningful — then it follows that students should be left to act alone. If one is not left alone in this search, to feel and experience a struggle directly, can he or she understand the difficulty of acting at all? The changing reality of the practice of architecture points out this complication. Collaborative and negotiative skills are increasingly important. Can one learn these? Is school the appropriate place? And if so, how are they to be taught?

In teamwork obstacles emerge continuously, not the least of which is human nature itself. Perhaps the most demanding aspect of working in a group is maintaining a balance between effort and ownership that is personally productive for the student as an individual. It is a constant battle with our instinctive desire to shine the brightest. As individual fingerprints fade into the print of a hand, so too may the intensity of personal effort. Much of past student experience sets collaborative projects up for failure. The student view of negotiation is most often pejorative based upon past design studios. The student has not been given the opportunity to experience compromise as an intelligent, responsible, and even exhilarating method of solving a problem. To them, compromise, an often necessary aspect of negotiation, equals artistic death. We go into any endeavor thinking it will be the best of our lives at that point, a culmination of all we have learned and garnered from experience and current inspiration. Why should the beginning of negotiation signal the end of artistic integrity? Students think of it as the difference between taking a stand and pleasing a client. "My greatest fear," said Liz, one of the Penland students, "is that I will die a hollow man who has never taken a stand or not fought and accepted defeat, as a true artist forced to compromise."[4] As teachers, and as professionals, we have not told our students the truth — that compromise is essential to every harmonious relationship, and that compromise in its fullest sense can be intensely fulfilling for a single human being.

## CLIENT

Certainly most students have a general understanding that the role of client exists in architecture. But they do not understand the degree to which a client's opinion affects the daily life of the contracted architect. They may presuppose a parallelism of vision which often does not exist. Encountering this mystery for the first time is a loss of innocence.

Working with a client is a constraint uniquely resistant to classroom simulation. The necessity of communication and collaboration must be real in order to be taken seriously. A client's presence alone, however, does not justify a position

in the triangular configuration of this studio model. Students must engage directly and regularly with the client to ensure effectiveness. In many versions of the design/build studio, decisions are made between the professor and the client without students present. The academic setting should guarantee this client exposure, as it is fundamental in determining the final form of the building.

With a client involved, power shifts and students no longer make final design decisions. The client does. In contrast to the solitude of a traditional studio, client interaction can break the spirit of an unprepared student. To cross the line between working for oneself and working for someone else is difficult and accounts for much of the disillusionment students report feeling during the first year of employment. How students draw and respect the lines defining negotiation, cooperation, and compromise determines the success of collaboration. Much of this revolves around client involvement. Can the "art" of architecture exist within the service world they begin to wonder? Through this questioning students become acutely aware of the necessity for decisions to be interdependent. **A** design concept cannot be divorced from the reality of construction or from a limited budget or from a need to function. **A** suggested solution will have to solve several problems simultaneously. Communication, a subject usually discussed with respect to an instructor/student relationship, becomes the essential key to progress. No matter how elegant a proposal, if the client cannot understand it, its value remains unclear.

If an instructor is not mindful, however, the voice of a client may provide the ultimate hiding place for student indecision and lack of action. Though the Penland experience does not represent an ideal model, students had regular and extended interaction with the client, Ken Botnick, the school's director. Two diverging reactions polarized the studio group. One group accepted the client as another constraint and the reason that they were there, (though people guarantee an unpredictability unlike any from prior experience - those of a material or an idea) while others students felt irrelevant, voiceless and, worse, exploited. "Don't you feel like a whore here?" one student asked another[5]. This view, which tended to equate compromise with the collapse of professional integrity eroded the collaborative spirit. But in Penland the students did not have enough opportunity to discuss their schemes with the client. The time table restricted us greatly, and in hindsight I realize that this is something in which each student should participate.

## FULL SCALE CONSTRUCTION

Another shift currently defining the profession is the split between designing and building. Not only are architects far from the master builders they once were, the contracts that establish conditions of their work and define the extent of responsibility are shrinking in scope. If the distinction between architects and builders remains, then architects must be intimately knowledgeable about the real process of building. At what point in one's education should an immersion into the actual construction of a building exist? Can one navigate without first learning prerequisite skills, or does the immersion itself compel the development of such skills, imprinting their significance more permanently? If the comprehensive design/build model is introduced early in a student's educational path, then its lessons can be applied and understood in the context of other core courses.

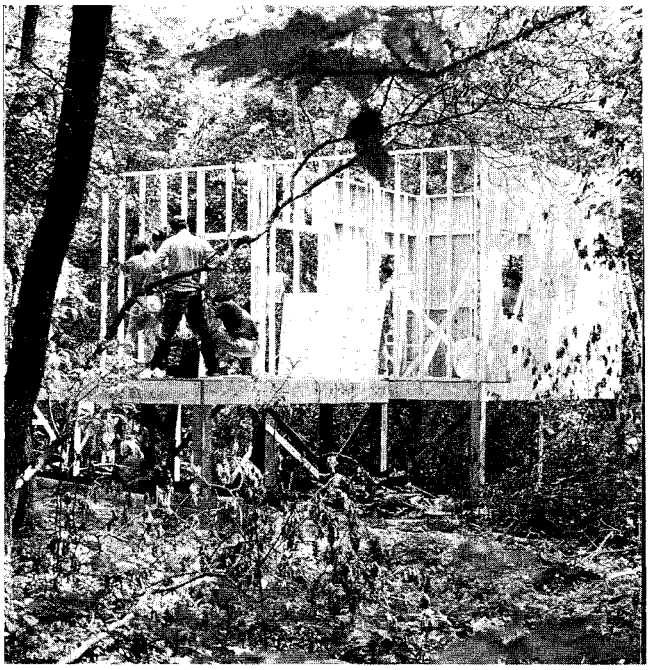


Fig. 5. Students who initially "sketched" on the site with string and stakes reduced the struggle of translation between projective speculation and actual construction. Like someone becoming fluent in another language, they began to "think" with framing members rather than graphite lines.

Invention is born of necessity and necessity is situational. One must know not only the medium, but also the regulating constraints affecting that medium. To know then, all aspects of architecture requires an immense amount of time. Students at Penland began to understand this.

> "An average builder often lacks artistic training but offers something equally important - something architects seem to be loosing - the sensation of touching and feeling, molding and connecting. How can an architect design a building with a material they have never worked with or touched?
>
> If the profession is going to change it has to begin with education and how we are taught. Architecture is a hands-on profession and I feel it should be taught as such. I've been criticized in a review that my design was impractical; how am I supposed to know what is practical if I've never had an opportunity to build? I can't understand why most architects don't know a sixteen penny nail from a four penny nail or what a piece of steel feels like when you touch it."[6]

Despite extensive preparation, things are never quite as we anticipate. If students have no experience with the involvement of other people as users, as builders, or as clients in the progress of a project, then there can be no basis for intuitive judgment. To build trust in the intuitive response is our only recourse. And this must come as Josef Albers[7] says of learning to draw, through a synthesis of the physical and mental.

## RECOMMENDATIONS AND WARNINGS

The bonds to tradition are strong and usually for good reason. The educational model of the design studio which emphasizes tacit learning is virtually unshakable. If the premise is that one learns only what one believes to be truly essential to the fulfilling of a task or performance, then he or she must assume a starring role. Edward Larabbee Barnes advises students and teachers, "in school you should all take the view that you are going to be the principal architect. Probably eighty percent of architects will end up being members of a team, or working in a team. Even so, I think the way to organize a school, and the way to study in a school, is to assume that you are going to be THE architect; that's the way to learn architecture."[8] Though they would certainly not choose to promote egoism, a significant majority of both practitioners and professors still advocate the dominance, if not exclusive domain, of the individually pursued project.

Barnes' comments can be regarded from two vantage points: one, from the educator's view, dealing pedagogically with the structure of education; and the other from the student's view, suggesting a core attitude which permeates all study. Though his advice may serve the majority of students, the well timed insertion of a strikingly divergent studio into the curriculum seems not only desirable, but also necessary, for the larger model to function at all. Who would understand what the term "principal architect" means (and the associated types of behavior necessary to progress and succeed) if no context of supporting team players ever entered the educational playing field?

The philosophical stance that the only true education is self education reveals at first glance a potential contradiction in this studio model. If students learn best when they bear sole responsibility for their actions, then group dynamics and the strong voice assigned to any client, offer a possible camouflage for halfheartedness. But this depends upon what one is hoping to teach. What the students learn individually is the value of collaboration and the skills required to ensure its success. The teacher's job is different — the teacher must talk honestly about the more difficult job of being a responsible, effective team member and challenge students to perform in a different relationship to the project. Perhaps it is the professors who are "halfhearted" by virtue of being unwilling to work so hard with often less tangible results. To understand that architectural concepts must be rooted in more than a formal ideology and that their realization is dependent upon collaborative effort requires direct experience in such a design/build studio. However, design has many facets. Much of formal invention is learned best when work is solitary. This is why no student should be allowed to enroll in more than one of these studios.

Organizing this type of studio raises logistical questions particularly with regard to the relationship between participating institutions and clients. Aside from the more mundane issues of insurance (where models may range from total coverage by the client as was the case at Penland to complete abdication of responsibility by both school and client as in Auburn where the students sign a "death release" before enrolling), students should seek certain guarantees when considering a program.

There are and will continue to be professors whose every action is determined by a desire to secure his or her own personal work. Student time and labor may be a bargaining tool, used not to the most educational end, but to foster future connections with potential clients. Still other instructors may simply see the students as an affordable way to get their own designs built. Students considering such an experience may well ask, " why not simply work construction and get paid?" Any worthy program should ensure student participation in designing the building and working directly with the client.

If the fundamental structure of the studio is amended, then so must our means of evaluation. How does this demand sit within a new context where emphasis falls upon group performance rather than the solo? Evaluation presents an ironic twist to the entire notion of collaboration for both students and faculty. Lines of individual identity which were blurred, if not erased, in the collective effort to create a single product, must later be restored for individual assessment. The contradiction seems enormous yet necessary if measuring individual performance is essential. For some faculty this often results in a devaluing of the entire effort since no one can truly know "who did what." It is easier to simply discount the experience rather than to engage in the intense work demanded to search for fingerprints that have vanished like thieves in the night.

## CONCLUSION

Aside from the obvious need to recognize a crisis when it is upon you, a more pressing urge to examine the quality of human beings we graduate arises. What are the messages sent to students both implicitly and explicitly through studio work about seeing themselves in relation to a larger society? As teachers we are shaping this environment most by the affect we have upon the formation of values, not by the things our students will build. Transmission of knowledge and preparation for employment is important. But the cultivation of curiosity, humility, and empathy reaches more deeply than any single skill that may reinforce an armor of economic viability, poised for immediate contribution to the service sector. Perhaps one cannot teach wisdom, but certain experiences seem to encourage its emergence. In the end,

people form the most critical aspects of the quality of our lives in a given environment, not the places themselves.

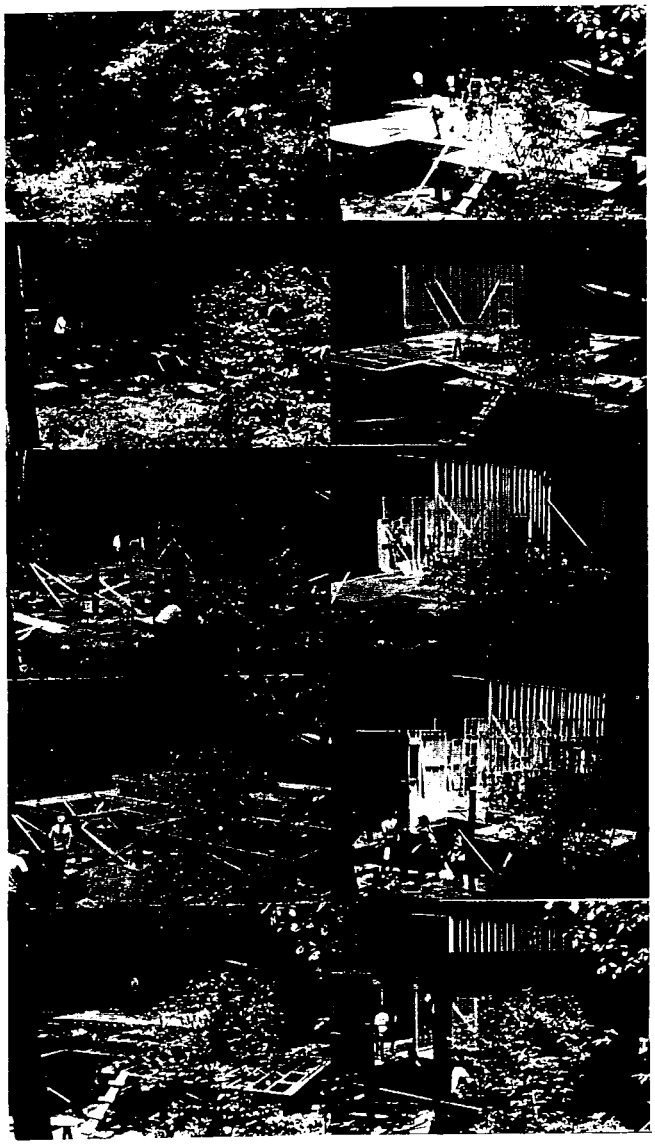
In a recent introduction to Gwendolyn Wright's lecture at the University of Michigan, Dean Robert Beckley summarized four essential abilities sought in prospective student hires cited by practicing alumni: problem solving, ability to communicate both graphically and verbally, capacity for teamwork, and leadership. Specific skills like electronic fluency, which may too easily be taken for a magic elixir, went noticeably unmentioned. In other words, alumni in the field place a premium upon experience that cultivates not only design ability but also professional socialization. Participation in a collaborative design/build studio fosters this development. It is short-sighted to think that precise aim at specific skills will either adequately prepare or narrow the gap between theory and practice. These skills may become obsolete within months. We need instead to redirect attention toward relational thinking as it applies not only to form, structure, construction, and function, but also to individuals within a society.

The writings of two men, Bertrand Russell and Walter Pater, imply that there is reason to search for more fundamental lessons embedded within the technical specifics of learning to be an architect. Russell makes a short but striking argument for a broadening of specialized education when he concludes that wisdom should be incorporated beyond the discussion of morals.

> "I do not think that knowledge and morals ought to be too much separated. It is true that the kind of specialized knowledge which is required for various kinds of skill has little to do with wisdom. But it should be supplemented in education by wider surveys calculated to put it in its place in the total of human activities. Even the best technicians should also be good citizens; and when I say 'citizens,' I mean citizens of the world and not of this or that sect or nation."[9]

Regardless of the subject, education fosters the formation of human values. In the end, it is not the ability of my students to become outstanding designers with bursting desire to improve our environment that concerns me most. It is who they are as people and how they see themselves among others. All the skills that we assume to be launching pads for more theoretical pursuits — a capacity to listen and to converse — cannot continue to be tragically ignored. These more fundamental aspects of who we are determine our capacity to contribute in any meaningful manner.

Equally compelling reasons for turning to this triangular arrangement consider not the immediate effectiveness in



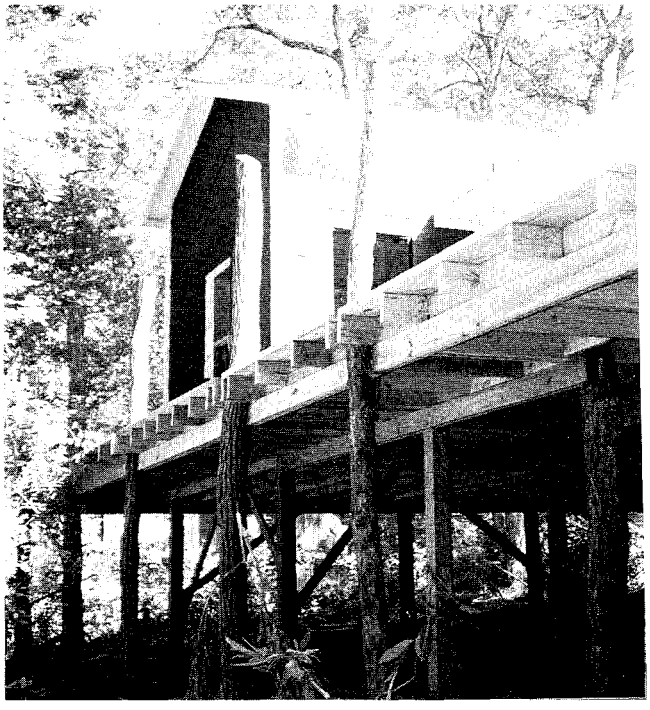


Fig. 6 & 7. The Arbor House, as it is being framed and then complete, remains most viable not as a unique product, but as a collection of stories to which participating students continue to refer.

graduates, but rather their long term potential for sustained growth as designers and human beings. School time is limited time, precious, and perhaps the last time where discussion may center around a student's development exclusively. The great fear of securing a job after graduation has for many collapsed onto this precious time robbing it of the wonders of reveling in the moment, living an immediate experience rather than always in anticipation of the next. Walter Pater conveys a timeless urgency to maximize the short experience of life in his conclusion of *The Renaissance*.

> "Every moment some form grows perfect in hand or face; some tone on the hills or the sea is choicer than the rest; some mood of passion or insight or intellectual excitement is irresistibly real and attractive for us, — for that moment only. Not the fruit of experience, but experience itself, is the end. A counted number of pulses only is given to us of a variegated, dramatic life. How may we see in them all that is to be seen in them by the finest senses?"[10]

Architectural education should not model itself solely upon the needs of the profession. Students deserve to be prepared, but not in a limiting manner which discourages other educational experiences. Immersed in the struggle to strike a balance between the art of architecture and the business of staying alive, Michigan alumni still seek four abilities that any professional would covet: problem-solving, communication, teamwork, and leadership. If current studio models of architectural education are too abstract, then a dose of "reality" seems an appropriate remedy. The beauty in this remedy, however, is that the most significant lessons learned are perhaps only tangentially architectural and instead more broadly applicable to life's infinite complexity.

## NOTES

1 Robert Beckley in *Progressive Architecture* October 1995
2 Dana Cuff, *Architecture: The Story of Practice* (Cambridge: MIT Press, 1991), 248-250.
3 The Penland School offers year round intensive courses taught by internationally renowned experts in crafts including forging, glass blowing, textile arts, book arts, ceramics, drawing, metal working, and wood working. Though the Michigan students were not enrolled in any of these classes, they participated in the nightly lectures and displays of work, and could visit the studios and classes of all sessions. The fourteen students who participated in this studio include Nathaniel Finley, Ryan Giblin, Teresa Go, Heather Hyatt, Fay Hsu, Shannon Kile, Peter Liao, Kemba Mazloomian, Daniel Moss, Brian Selkow, Elizabeth Swanson, Ferdie Williams, Tonya Willis, and Whitney Wood.
4 Liz Swanson a University of Michigan student participating in the studio at Penland.
5 Peter Liao, also a University of Michigan student inquiring of Liz Swanson.
6 Dan Moss, University of Michigan student
7 Josef Albers, *Search versus Re Search* (Hartford: Trinity College Press, 1969), 26.
8 Edward Larabbee Barnes, Harvard GSD *News*, Summer 1993, 47.
9 Bertrand Russell, "Knowledge and Wisdom," *Essays in Philosophy* , ed. Houston Peterson (New York: Pocket Library, 1959) 502.
10 Walter Pater, *The Renaissance Studies in Art and Poetry* (New York: The McMillan Company, 1904) 249.