



COMMUNITY COLLABORATION AND COMMUNICATION IN THE DESIGN STUDIO

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Abstract

Based on the authors teaching experience, this essay presents an example of how the traditional design studio might be modified so as to foster democratic participation and egalitarian communication between the participating students and instructors. Open communication in the studio is seen as the key to incorporating important values such as collaboration, community and respect for the every day environment into the studio's hidden curriculum. The essay begins by discussing the potentials for and obstacles to meaningful communication in the studio. This discussion is followed by a description of a modified studio project that included continuous role-playing on the part of the students. The final discussion outlines and evaluates how these modifications enabled students to use previous knowledge and everyday language and permitted the discussion of topics not usually debated in the studio. The students, in their assumed roles, became critics, clients and members of a team of designers. Hence these changes influenced the distribution of power in the studio and the students gained more control over their learning experience.

Keywords: Design Studio, Collaboration, Communication, Power, Everyday Environment.

INTRODUCTION

Jeremy Till and N. John Habraken's critiques of architecture and architecture education succinctly voice concerns with which we have grappled in the past few years in first year design studio (HABRAKEN, 2003; TILL, 2005). As studio instructors, however, we put special emphasis on the impact that the self-referential practices of the architecture profession have had on the design studio and the relationships between the individuals, the instructors and the students, in this learning environment. When reading Till and Habraken's essays we were reminded especially of an experimental studio we conducted together in which we modified the studio project so that it would address many of the inter-related issues they discuss. Based on our practical experience, this essay presents an example of how the design studio might be transformed to encourage democratic participation and egalitarian ways of communication.

The design studio is an opportunity not only to teach architecture students skills and practical knowledge but also to expose them to professional attitudes and values. This is especially true in the early years of design education, which are the focus of this essay. Not all relevant topics can be dis-

cussed explicitly in these years. For the first year student the combined issues of interdisciplinary collaboration, social aspects and the everyday environment are beyond their grasp. Good collaboration, however, begins with good communication, and good communication, particularly the art of giving and receiving constructive criticism, needs practice and guidance. As studio instructors we focused, therefore, in the studio and in this essay, on practicing communication and fostering the exchange of ideas. Communication, as we will discuss further, is deeply embedded in the issues discussed by Till and Habraken. But, "communication" is a deceptively simple formulation; as we also discuss it is one of the most difficult goals to achieve in the studio. Ashraf Salama (SALAMA, 1995) has distinguished between conventional and revolutionary studio, pointing out that while the conventional studio is rooted in the traditions of architecture education, revolutionary studio can be used to introduce other aspects, particularly social and cultural dimensions of design. The studio we describe here is not, in our opinion, revolutionary. On the contrary, while we agree with Habraken that "(s)tudio can no longer be the only format for teaching design. Other ways must be invented," (HABRAKEN, 2003) the studio, in its conventional form, is

here to stay. The challenge we set ourselves, therefore, was to modify a conventional studio project and incorporate important values and issues without overhauling the entire studio structure. Since the opportunities for complete revision of the design studio are relatively few, in our experience, we believe that a modified project is an especially relevant and valuable example.

This essay begins with a discussion of communication as a core issue that is connected to the interrelated subjects addressed in this competition. We continue by identifying the potentials for and obstacles to meaningful communication in the studio and describe a particular studio project and the modifications we introduced to it. In the final discussion we outline and evaluate how these changes reflect the questions with which we began this essay.

COMMUNICATION AS A CORE ISSUE

Communication can be understood as a core issue in the design studio only if design is seen as a the product of social interaction and negotiation. As Tomes et. al. state clearly: "The questions of the role of verbal work in the production of visual design makes little sense so long as design is thought of as an individual act of creation. It makes every sense, however, if it is viewed as the outcome of a series of negotiations between designers and between designers and clients" (TOMES, OATES et al., 1998). The social aspects of design have been discussed from many perspectives (for example: LIFCHEZ, 1977; FORESTER, 1985; BUCCIARELLI, 1988; SALAMA, 1995; DORST, 1996; SANCAR and EYIKAN, 1998; LAWRENCE, 2000), but as these authors stress, their impact is usually ignored in the design studio in favor of a focus on individual creativity. Understanding the social dimension of design is only the first step in making the design process socially meaningful. In order to fulfill the social potential of the process the participants must be able to communicate their ideas clearly and concisely and, no less importantly, hear and respond to concerns raised by other members. This is not merely a technical issue. Good communication depends not only on skills and habits, but also on personal attitudes and values. To communicate well architects must see themselves as members of

a community and must recognize the contribution of good communication to their own design. The design studio is an opportunity for novice designers to develop the attitude and skills needed for good communication since in this setting they not only practice design but also learn what is accepted as 'architecture,' 'design' and the 'role of the architect' (CUFF, 1991). The studio project must therefore deal with all of these subjects. As Michael Crosbie suggests "studios should encourage the verbal and written communication of design ideas, with a minimum of architectural jargon" (CROSBIE, 1995). As studio instructors, however, we felt that explicit encouragement on our part or even careful guidance was not sufficient. Several researchers have pointed out that much of what is learnt in the studio is hidden by the its structure, but is still tacitly understood by the students (WARD, 1990; DUTTON, 1991; CRYSLER, 1995). Our object, therefore, was not only to encourage communication but, more importantly, to demand it: To modify the studio so that it became a situation in which the students had to communicate as part of their design process, realize that design and collaboration are interlocking skills and perceive themselves as collaborating designers from the outset.

LOCI FOR COMMUNICATION IN THE STUDIO

The studio is not only the central course and a crucial experience in architecture education, but also a learning situation that is potentially rich in opportunities for communication. In devising the studio project described in this essay we focused our attention on three of the loci for communication in the conventional studio: the desk-crits (the opportunities for private communication between the students and instructors), the public platforms of the pin-ups and reviews and the myriad of opportunities for discussion between members of the studio as they creatively develop their projects in the studio. Design studio desk-crits and reviews are the most studied aspects of the design studio. These studies attest to the importance and complexity of these situations (ARGYRIS, 1981; SIMMONDS, 1981; SCHON, 1983; SCHON, 1985; SCHON, 1988; DINHAM, 1989; WILLENBROCK, 1991;

WENDLER and ROGERS, 1995; DOIGE, SARA et al., 2000). In the desk-crits in conventional studio instructors take on the composite role of critic, guide, client and partial collaborator, and challenge the students with a multitude of comments and suggestions for the development of the design project. For the students these are opportunities to discuss the project in detail, ask specific questions and see their design from new perspectives.

Pin-ups and reviews have been studied in detail as well (ANTHONY, 1987; FREDRICKSON, 1990; ANTHONY, 1991; ANTHONY, 1991; FREDRICKSON, 1993; WILKIN, 2000). Reviews are important occasions in the course of a design studio because they provide the impetus for the summation and presentation of the design project. In the reviews the students also practice explaining their concepts and project development to an audience unfamiliar with the project and must often face public grilling of their design. For the instructors reviews are occasions to make general comments that may not have been discussed in the desk-crits and to direct the students' attention to what they consider significant and central in architecture and design.

Less studied (ASHTON, 2000) but no less important are the conversations between the students in the studio. In these interactions the students learn from their peers, hear advice and ideas (sometimes as much as in the desk-crits), and make social contacts that might serve them throughout their professional careers. These conversations can also provide emotional relief and support in dealing with the demands of the studio.

In devising the studio described in this essay we recognized the importance of these three loci and their role in the design studio. As we discuss in the next section, however, this is an idealized description of the studio. The potential for meaningful communication, inherent in the pedagogical structure of the design studio, is not often realized. Though the design studio offers many opportunities for meaningful and fruitful communication, these are only occasionally taken advantage of. In discussing the design reviews, for example, Anthony and Frederickson describe repeated instances of defensiveness and hostility, rivalry and boredom. Instead of opportunities for free and open discussion desk-crits and reviews often become tense situations in which students are reluctant to express

themselves and repeatedly underestimate their own opinions and ideas.

WHY ARE THERE PROBLEMS WITH COMMUNICATION IN THE DESIGN STUDIO?

Based on our conviction that communication and the practice of communication skills are a core issue in the studio and a key to a more social approach to design and on our recognition that meaningful communication is one of the most difficult goals to achieve in the design studio we set out to design a project that would attend to and if possible remove some of the obstacles to this goal. To do so we first had to identify what we saw as the source of the problem. If communication was so important to the design process why was it so difficult to achieve in the studio? Why did so few students naturally ask questions, discuss their projects with their fellow students and challenge our opinions in the desk-crits? A comprehensive answer to this question is beyond the scope of this essay, but in this section we outline four of the problems we identified and how they tie into the concerns expressed by Till and Habraken.

To understand the patterns of communication between instructors and students in the studio one must first recognize that any teaching/learning situation is inherently unequal (BURBULES, 1986). The instructor, as the one in charge of the timetable, content and grades in the course, has significantly more control over the situation than do the students. This imbalance is intensified by the learning-through-doing pedagogy of the design studio. As Argyris has pointed out (ARGYRIS, 1981), the students usually perceive the studio instructor as a master of design, but how to emulate her/him remains a mystery. The studio instructor thus becomes the ultimate authority and main source of knowledge, rather than a collaborator or coach with whom the students can discuss their projects and with whom they might disagree. When developing the studio project we therefore tried to create a situation that would challenge the usual power structure and force both ourselves as instructors and our students to rethink the usual assumptions about who has knowledge and information perti-

nent to the design process. The imbalance of power in the studio is exacerbated by the impact of the self-referential practices that architecture has adopted. As Till explains: "Architecture, as a profession, promotes a series of self-referential and autonomous values. Architectural education explicitly inculcates these values through its processes and rituals" (TILL, 2005). The emphasis on self-validation and the detachment from the language and values of the "normal" and the "everyday" (HABRAKEN, 2003) also creates a studio of "strange values, specialized codes and distinct language" (TILL, 2005). This detachment impacts on the studio in at least two ways. First, the specialized language creates a barrier to the communication between experts and novices (teachers and students). Secondly, everyday knowledge is usually frowned upon in the studio in order to glorify professional jargon and expertise.

For the students the emphasis on professional language has profound consequences. As intelligent adults they have a deep understanding of everyday life and architecture, but in the studio they find that much of their knowledge is considered irrelevant and inappropriate (GHIRARDO, 1998). This realization often entails a sense of inadequacy, creating problems that include the students communication in the studio: Rather than seeing themselves as equal and important contributors to the design process the students put almost exclusive emphasis on the instructor's views and expend much effort in attempting to make out their preferences and opinions. For us as studio instructors the challenge was to counteract this tendency and validate the use of everyday language and the importance of everyday knowledge in the studio.

The tendency in conventional studio to focus on form rather than on the social, cultural and technical aspects of design creates further barriers to communication. This emphasis is also part of the self-referential and restricted professional practices. While few students are able to discuss or manipulate form with the ease and flair of their instructors many can and do have relevant opinions on social and cultural issues and a vocabulary with which to express them. But emphasis on form discourages from developing these sensibilities and using their knowledge in the studio. While the creation of form is a crucial part of the role of the architect, the

imbalance in the topics of discussion hinders the students from contributing freely and significantly in the early years of their studies. We attempted to create more of a balance in our studio as another aspect of our overall goal.

The loss of self confidence resulting from the imbalance of power in the studio, the focus on self-referential language and the emphasis on form, is detrimental not only to the interaction between the students and the instructors but also to that among themselves. The students, underestimating their own knowledge and by extension that of their peers do not realize the importance of collaboration and communication within the studio and the contribution it can have to their design work. These habits are often carried over from the studio into professional life and contribute to the self-referential practices Till outlines. In devising the modified project it was therefore crucial to us as studio instructors to boost the students self confidence in their own knowledge and to make interaction with their peers an inherent part of the project. This meant that we wanted to create a situation in which the students depended on the communication with other students so as to complete the design task and had to develop both the attitude and skills needed for this interaction.

THE PROJECT

Sancar and Eyikan (SANCAR and EYIKAN, 1998), citing Boyer and Mitgang (BOYER and MITGANG, 1996), suggest that studio teachers should see themselves as negotiators and not only as design masters so that their students can adopt a collaborative attitude in their own design work. This is not enough, however. To learn the importance of collaboration students must not only conceive their instructors and themselves as negotiators but must actually negotiate as part of their design process. For us this meant that the format of our studio had to be changed to include a social context (even if imaginary) so that the students' design process would include communication and negotiation. More specifically we wanted to create a situation in which the students felt comfortable in voicing their opinions, so that the entire group could benefit from hearing different and sometimes opposing

points of view. We found that introducing role playing into the studio promoted this goal.

The project we chose to modify has been used repeatedly in first year studios at the school in which we taught. The original brief called for the design of a single family home, part of a row of attached houses. Each student was assigned a specific 25X8 meter lot and knew who the "neighboring" architects were. The site proposed for the design does not yet exist, but its characteristics were described in detail based on development plans for the city where our school is located, and the students were able to imagine its physical characteristics, such as its slope, location relative to the sea, transportation routes etc. The students were free, however, to develop their own understanding of the future inhabitants of this neighborhood and the relationships between the houses, thus making housing and dwelling the focus of the project. In the original unmodified project each student designed a house for what was called a 'generic' family with 'normal' needs: a living room, a kitchen, etc. The family was often assumed to consist of parents and 2-3 children. Although this is a likely scenario for this location and building type, it is by no means the only possible group of inhabitants. The question 'who were to live here and how?' was, therefore, the starting point of our modification.

Our initial change was to ask the students to define the future inhabitants of the houses and through these descriptions to determine the social scope of the project. In the first studio meeting each student was asked to describe, in a short essay, a "inhabitant family" that included at least two age groups and four individuals (so as to make the families complex enough for the size of the house). The students were asked to specify names, professions, hobbies, family relations and preferences for the house. These descriptions were then randomly distributed among the students, so that each received a family described by another student who then became the representative of the "user family" and was thereafter responsible for providing the designer with information and participating in their peer's design process. Thus the design process in the studio began with the development of specific programs for each of the "user families" that were based on the generic program but were modified to suit the 'future inhabitants's' needs and requests.

This was an important exercise for the students. As Salama points out, developing programs is unusual in design studio, especially with the added input of another person who has much say in the process (SALAMA, 1995). When the students had developed their initial designs and had an idea of the form and facades of the houses, we introduced a second modification: The collaborative design of the street. For one session the studio assumed the role of the municipal design committee and created design guidelines for the streets in the project. As the design committee they had the power, for example, to decide on a fixed location for parking spaces on the lots, and to resolve the connections between adjoining houses. Working with a street façade composed of drawings of the individual houses they discussed the character of the streets and the relation of the houses to it. This discussion forced them to grapple with both general and specific questions: They had to understand together what they expected of the everyday environment and what they perceived of as a successful street and how they wanted to implement these intentions in their design. Though this part of the project was less extensive than the user-designer role playing, it did force the students to think of their project in relation to the neighboring designs and to recognize that design codes are part of the social context of design and not just restrictions imposed by municipalities and governments.

The students thus played several roles throughout the course of the studio: They were designers of their own project and future inhabitants of another house, neighboring architects, neighboring future inhabitants, and members of a design committee with responsibility for making design decisions about the street as a whole. This role playing subtly changed the studio, which otherwise continued as a conventional studio. As instructors we held desk-crits and reviews, but in many cases we not only could but had to send students to the "user family" representative for the information they needed. Each review began with the comments of the "future inhabitant", who was asked to remark on the design from the perspective of the "user family". We also discussed the products of the group negotiations and compared the design decisions made on different "streets." In the course of the project the entire studio became familiar with the future inhabitants of

their designs who, though imaginary, were also real and vocal participants in the studio. Their presence was obvious in the final products of the studio, the houses, which were tailored to their needs.

DISCUSSION AND EVALUATION

The modified project achieved its most important goal: Introducing role playing into the studio forced the students to take part in dialogue that they could avoid in other projects. As designers they were obliged to discuss the house with the "family representative" and therefore had to engage at least one other student in their work. As "future inhabitants" the students were responsible for input and comments into at least one other project and had to become familiar with its premises and development. Students also felt comfortable in expressing their tacit knowledge in everyday language and bringing their own experiences to the studio. In several instances this perceptibly contributed to the student's self-confidence. At the same time the studio was not devoted primarily to communication. We spent much of the time in the studio discussing core issues such as form, circulation and the techniques of building and the products of the studio were comparable to those designed in parallel wholly conventional studio.

A critical evaluation of this project raises several points. First, the success of the project was based on the students' relative inexperience in architecture school. It is only as novices that they could represent the future inhabitants so naturally and with such detail. Indeed, the role playing of future inhabitants was richer and more varied than the decisions the very same students made as "members of the design committee." This type of project is most important in the early stages of the architecture education, however, since it is then that students develop an initial appreciation for the profession and for design. Another important factor in the success of this project was the topic of the studio-housing. Since all the students had experience with various forms of housing, they began with a similar though not necessarily equal starting point when working on the project. Building projects such as museums and airports can create disparity between the students who have different levels of acquaint-

tance with the relevant spaces, and are therefore inappropriate for this type of studio experiment.

Secondly, since the "user families" were imagined/invented by the students, the students themselves essentially outlined the scope of the questions about housing that were considered in the studio. This had many positive consequences. The students were very creative and the variety of imagined future inhabitants was significantly wider than it would have been had we outlined the program ourselves. Moreover, the family descriptions, taken together, challenged both the notion of "a family" and that of "a house for a family" and required the students to debate 'What constitutes a family?' 'How do people interact within families?' 'What and who do we design for?' At the same time, the scope of the social challenge in the studio was limited. Most of the students did not yet have the ability to raise political questions and did not test the status quo of the society of which they are members. Most obviously, the students did not raise doubts about the idea of private house, a relevant question in the social context in which these students were studying. Thus, though the studio was designed to include a social context it was not a revolutionary political studio (SALAMA, 1995). The studio also did not challenge the professional relationship between architect and client. Though we were careful to denote the "user family" representative as "future inhabitants", the students were, in essence, role playing as clients for their fellow students. As studio instructors cognizant of first-year students' abilities, however, we felt that these drawbacks were more than compensated for by the issues that the studio did raise.

For us as instructors it was interesting to see the influence that both our modifications and the interaction between the students had on the final designs. Many of the neighboring houses were designed to accommodate the needs of adjacent families and included additions such as a joint atrium that provided air and light. These changes were created spontaneously through discussion and not in response to direct instruction on our part. The designs were indeed row houses and not a row of houses; a total everyday environment rather than a series of separate designs. At the same time, many of the projects, though extremely complex were not sophisticated as formal designs. The community created by the role playing was so vibrant that for

many of the students, inexperienced as they were in formal manipulation, it was easy to be swept into the game and focus on it. This put the burden of maintaining a balance between form and social aspects on us as instructors, and counteracted, to some extent, our intention of distributing power in the studio.

One unexpected outcome of our modifications was the extent to which the studio mirrored other courses that take the students into actual communities to design with real users. For many of the students the role playing went beyond the one-on-one interaction between client and architects. They were well acquainted with the projects and the designs that surrounded their own, including with intimate details about the fictional inhabitants, and related to them both as designers and as neighbors. For us as instructors this was a great advantage. We had much of the feeling of working with a real-life community, yet the project remained at the level of first year students, few of whom could offer a real community adequate advice. The modified project thus became a good introduction to real-life projects. More importantly we were delighted to see that working in a studio populated by a lively and insistent community forced the students to focus not only on their own creative process but also on the needs and concerns of others.

CONCLUSION

The design studio is not only a place for practicing architectural skills and habits but also the locus for inculcating students, both explicitly and implicitly, with professional attitudes and values. It is, therefore, important that studio instructors outline the values and qualities that they want to encourage in the students. In this essay we focused on the modifications we introduced into a studio project in order to make it include communication between the students as an inherent and indispensable part of the design process. We see communication as a key to several issues: Design as a social act, the importance of the everyday environment and the distribution of power in the architecture profession. In the modified project described in this essay role playing introduced the needs and personalities of

the future inhabitants and of municipal design committee members. These modifications enabled students to use everyday knowledge and language and permitted the discussion of topics not usually debated in the studio. These changes also influenced the distribution of power in the studio. They encouraged ideas and voices other than those of the studio instructors and, to a significant extent, provided for "democratic participation and sharing of values between students."¹

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¹ From the Open House competition statement.

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Note: This article was the SECOND prize winner in the INTERNATIONAL ARCHITECTURAL EDUCATION COMPETITION 2005/2006 Alternative Educational Ways for Teaching & Learning Architectural Design held at the Eastern Mediterranean University, Gazimagusa, N. Cyprus, on April 14th 2006.

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