Lessons from Practice
Analytical Approaches and Synthetic Strategies in Second-Year Studio

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COURSE DESCRIPTION

Relationship Between the Course and the Curriculum

The design studio described here is a required component of the studio sequence in a 5-year Bachelor of Architecture (B.Arch) program. Offered during the spring semester of 2003, the studio was the second course in a two-semester sequence that introduces students to issues related to the design and construction of the built environment. Concurrently with the studio, students take courses focusing on the history of modern architecture, materials and practices of construction and structures. Prior to entering the second year, students are exposed to basic design and drawing in an interdisciplinary foundations program.

ANALYTICAL APPROACHES

While the first semester of the second year focused on a single dwelling unit, the second semester examined ways in which small individual units can be combined. In order to initiate a discussion of the range of issues that an architect must consider in these cases, the Middleton Inn (1982-1985) designed by Clark and Menefee was selected for analysis. Recipient of a National AIA Honor Award, this project was chosen as a result of its conceptual clarity and formal resolution.

Students relied on published drawings and photographs to "reconstruct" the project. Re-drawing site drawings / plans / sections / elevations resulted in initial "discoveries" related to ordering systems and scale. The drawings served as a base for analyzing approaches to the following aspects of the project:

- relationship of part to whole (individual unit to building complex)
- relationship between servant and served space
- circulation
- massing
- structure/construction
- parti/ordering systems (geometry, proportion, etc.)
- views/light
- response to climate (orientation, exposure, shading, etc.)
- response to site (approach, response to topography, response to site features, etc.)

The analyses equipped students with the tools to look beyond the photographs and drawings and to uncover the strategies employed by "real" architects. Not only did this empower students and establish actual connections between a studio project and "real" buildings, it also provided a set of diagramming tools that students could use in order to critically assess their own work.

SYNTHETIC STRATEGIES

As students were completing the analyses, they received a request for proposals from an individual wishing to build a small writing retreat on a local site. This provided the opportunity to begin to think about basic programming issues based on a narrative statement from a client. After two weeks of development, a new communication arrived notifying students that what was initially planned as an individual retreat should now be considered as a 12-unit complex that could accommodate participants in workshops lasting for up to 18 days. This sudden change was intended to simulate the often unpredict-

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Examples of analyses carried out in the studio

able pattern of actual projects; it also fulfilled a pedagogical aim of developing the confidence to fundamentally reconsider an approach to a project when new discoveries are made (or new challenges are imposed).

Throughout the design process, the Middleton Inn provided a point of reference for discussions. Of course the design problem was structured in a way that prohibited the students from adopting the same strategies employed by Clark and Menefee; however, we always returned to the analyses to examine the way that the architects adressed particular challenges (from large-scale site issues to the placement of a sink). On a basic practical (and practice-related) level, the analyses informed the design process of students by providing them with information which practitioners may take for granted as a result of familiarity (the size of a tub or the clearance necessary for a toilet). But more significantly, the Middleton Inn fostered an awareness that even the placement of toilets can raise critical questions regarding servant/served spaces and can inform an overall design strategy.

While the students developed a variety of solutions to the problems associated with a multi-unit scheme, they all shared a
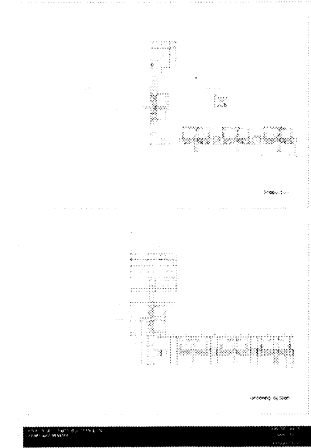
confidence resulting from understanding that "real" architects deal with the same problems they face in the studio. The diagramming tools attained through the analytical process were subsequently applied to their own work and provided the basis for self-reflection.

REFLECTIONS ON TEACHING METHODS

The processes involved in learning about architecture are fundamentally different from processes associated with practice. Simulating so-called "office environments" often results in superficial approaches to design problems; in contrast, employing exemplary built projects for analytical exercises can provide an immediate connection to both practical concerns and conceptual design strategies. It also allows students to develop tools and methodologies for attaining an understanding of architecture that transcends glossy magazine photographs and the jargon-laden text that often accompanies them. Selecting projects that have direct relevance to studio work provides a frame of reference and encourages discussions regarding the
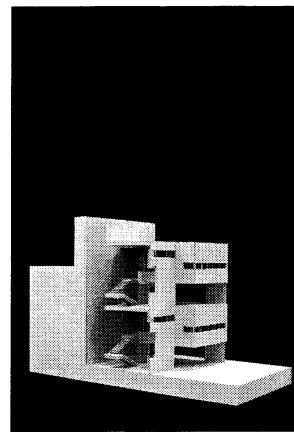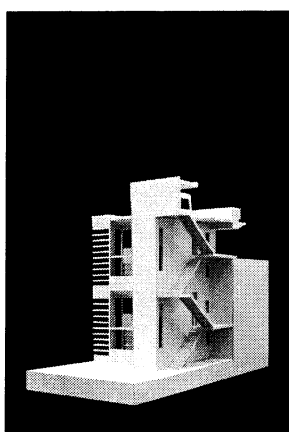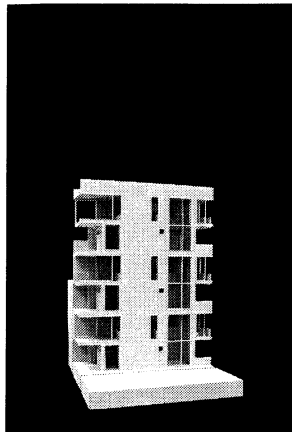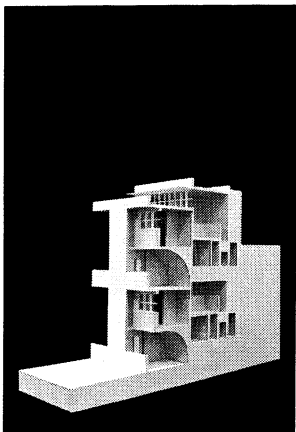
Mohammed Al-Ustad   *Maryam Haghighat Kashani*   *Danuta Dias*   *Sara Marie*
Models of final design projects

range of concerns that define a project. The analyses build confidence as students develop the necessary tools to deal with the challenges that a practitioner faces. And, perhaps more importantly, the analyses allow them to see how a critical approach to practice results from a synthesis of practical concerns and conceptual design strategies.

The *a la maniére* method that characterized architectural education at the *École des Beaux Arts* and the pattern books which served as sources for 19th and early 20th century practice in North America provided definitive models that were subject to limited interpretation. In contrast, the analyses projects do not provide "answers" to questions regarding style, but rather focus questions on a range of concerns that are fundamental to architectural practice. Employing exemplary

projects in beginning-level studios assists in demonstrating that highly regarded practitioners aspire to a synthesis of program/use requirements, conceptual ideas, structural solutions and constructional systems. It also provides a foundation for making connections between future design studios and courses in the areas of building technology, professional practice and history/theory.

The greatest successes of this approach included the immediate engagement with practice-related issues and the range and consistency of individual project strategies informed by the analyses. The fact that the students were able to make concrete connections between their activities and the profession resulted in an intensity and sense of purpose that is evident in both the process and products of the studio.