Chapter 5
The Design Studio

ABSTRACT

The design studio is the prototype of design education, particularly for architects but more and more for engineers too – though engineers prefer the word "lab" to "studio." Although the design studio is known today mainly through the "reflection in action" theory of Donald Schön (1984, 1988), this manner of education first developed at the École des Beaux-Arts in Paris in the seventeenth century for the promotion of neoclassical aesthetic values, and it has continued ever since to be used, even by the Bauhaus in Germany in the early twentieth century after function had replaced form as the primary architectural value. The principal value of the design studio for Schön is that it properly emphasizes creativity for designers, instead of analysis and criticism, as preferred by the "technical rationality" of university culture as a whole. The university has responded by criticizing the design studio for being too subjective and therefore isolated within the academic world. In recent years the design studio has also been criticized for being elitist by focusing too much on aesthetic concerns, instead of promoting cultural sensitivity to social justice and environmental sustainability. Other critics complain that the design studio still relies on paper and hand drawings too much, instead of committing fully to ICTs and the virtual reality (VR) of cyberspace. Such criticisms, however, tend to be overstated, and the design studio is likely to continue in its present form for some time to come, because that is where most designing students learn the culture of design and develop a lifelong identification with their instructors and their fellow students.

INTRODUCTION

This chapter will examine the architectural design studio as a prototype for design education in general. Mark Gross and Ellen Du (1997) have already used such an assumption, pointing out

that "In architecture, design is the primary focus of university education; therefore, architecture is a model for design education in other disciplines" (p. 1). In this chapter, then, we will regard the architectural design studio as the norm or *status quo* for design education practice. It is, of course,

recognized that architectural education also involves classes in specific domains of knowledge in addition to studio work. "But," as Gross and Do observe, "in architecture, the studio is king: it is where the knowledge about buildings is applied, and it is where the act of designing – generalizing, evaluating, and developing alternatives – is learned and practised" (p. 2).

A DESCRIPTION OF THE DESIGN STUDIO

As we have already seen in the earlier chapters of this book, Donald Schön defines the architectural studio as "a reflective practicum in designing" (1988, p. 4), and his principal (1984) pedagogical concept of "reflection-in action" is evident in this definition. According to this concept, students learn not by assimilation of established knowledge through instruction but by the procedure of heuristics or trial-and-error practice. Thus, design is not problem solving but "a reflective conversation with the materials of the situation" (1988, p. 4). Schön repeatedly uses the term "reflective" to characterize the kind of active learning and tacit knowledge that happens in the architectural studio, but he also returns, again and again, to the concept of reflective education as a "conversation" in which the students and coaching instructors gradually come to understand each other so well that they can "finish each other's sentences."

This calls to mind John Dewey's (1938) insistence that learning is experiential, more a matter of exploration than of attainment, but it should be remembered that the tradition of the architectural studio is derived from an even earlier source than Dewey, namely, the *ætelier* system of the education of architects at the École des Beaux-Arts in eighteenth and nineteenth century France. In fact, the design studio has provided the normal method for training architects at universities for approximately one hundred and fifty years now,

but it still seems to be somewhat revolutionary to some people within the academic community, probably because it is not based on the positivist paradigm that is so firmly established at the core of the university education model. The essential theoretical characteristic of the Beaux-Arts tradition is that it focused on the transmission of a Renaissance-based knowledge of architectural form, but this theoretical emphasis was criticized and replaced in the early twentieth century by the modernist insistence on the primary importance of function, best exemplified in the development of the German Bauhaus model of architectural education with its promotion of a technological response to the industrial revolution. Nevertheless, whether the theoretical assumption was formalist or functionalist, the pedagogy of the Beaux-Arts model has always been located in the design studio.

It is important to note that a method does seem to exist within the apparent madness of the architectural studio, because there is – or at least there can be – a "culture of systems," in the words of Ayse Senturer and Cihangir Istek (2000, p. 72) that is given shape and force under the direction of the architect-educator who is responsible for the operation of the studio. The term "systems" here implies complex interactivities involving multiple variables and agents – the apparent chaos of the architectural studio to those viewing it from outside. Nevertheless, as we have seen in Chapter 4, complexity itself may serve as a fundamental pedagogical paradigm for the designing process. What, then, are the characteristics of this seemingly confusing culture? Here, again, Schön is instructive. He identifies creativity as the essential activity of the architectural studio, in sharp contrast to analysis and criticism, the two principal intellectual activities of the university education model as a whole. Instead of careful empiricism and strict rationality, imaginative intuition of knowledge relevant to the problem at hand is what is most valuable in the architectural studio. This is not to say that creativity is not important to the

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