

Architecture and Human Behavior: The Place of Environment-Behavior Studies in Architecture

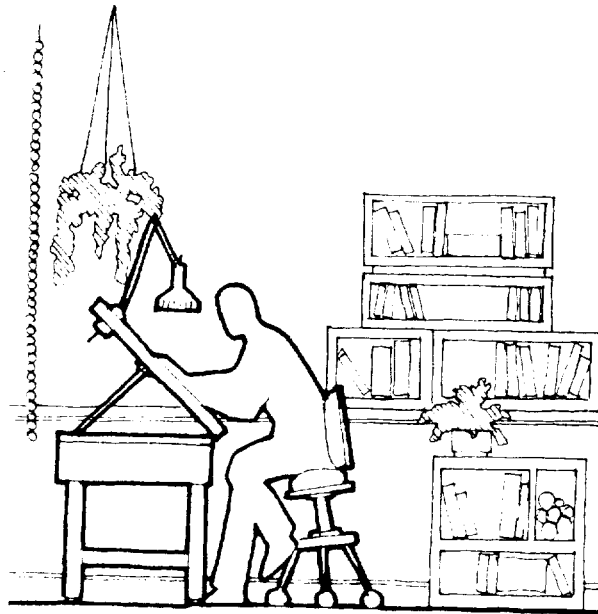
Gary T. Moore

Assistant Professor and Coordinator, Environment-Behavior Studies Option

Architecture is the art, which above all others, combines expression, technology, and the satisfaction of human needs. Its purpose is to make places where people feel more human, more alive, more fulfilled. It is, in Vitruvius' words, the art which combines **utilitas**, **firmitas**, and **venustas**, or human behavior, technology, and beauty.

It has long been recognized that architecture is influenced by many forces, among them those articulated by Vitruvius in the first century, B.C. But how often do we really pay serious attention to the needs of the user, to the behavioral, social and cultural determinants of design, and to the role of good design in affecting human behavior?

Let me give just two examples. One of the struggles encountered by the elderly person is to retain competency and dignity in the face of declining health and physiological abilities. To what degree can architecture influence the process of aging? Strange as it may seem, making the environment easier for the old person to get around in may encourage the elderly to become more dependent and less self-assured. How are our designs for housing, recreation centers and health care clinics for the elderly affected by this issue of dependency, and by the myriad other considerations about the effect of the environment on aging? At the other end of the age spectrum, in what ways can the design of the environment support and stimulate the development of children? There are three major areas of child development: physical, social and intellectual growth. Why is it that most buildings in which children spend time respond only to the physical growth dimension? How can our architecture respond to all three areas of development and aid in the unfolding of more fully functioning individuals?



The last time the School put together a special issue of a magazine summarizing our philosophy (**The UWM Magazine**, Summer 1971, Vol. 5, Whole No. 3), the following was noted:

On the urban scale, we are more often than not dealing with anonymous users. We cannot identify specific people of whom we can ask pertinent questions and with whom we can develop sets of requirements. The anonymity of a group of people "in the neighborhood," or with "those characteristics" makes it easy for designers and planners to ignore unique needs and characteristics. Decisions tend to be made in response to more easily identifiable forces like "city hall," or "the market." The study of various large, anonymous human groups in the city forces the student designer to consider more broadly the impact of his decisions and to incorporate into his proposals policies and programs to alleviate the suffering even of those whom we do not hear suffering. (p. 6)

The National Development of the Environment-Behavior Field

Response to this situation has emerged in higher education in two ways. Most architecture schools now have at least one or two courses on architecture and human behavior and introduce problems in the design studio which encourage students to develop skills for incorporating behavioral and cultural factors in the design process. Such courses come under the label "user requirements," "behavioral determinants of design," or, more recently, "environment-behavior studies in architecture."

The social sciences have responded to the need for more knowledge about human behavior relative to architecture and urban planning, and to the interests of students working in this field. Psychology, sociology, anthropology, even geography departments now have courses on the role of the physical environment, i.e., courses on environmental psychology, environmental and urban sociology, behavioral or social geography, urban anthropology, and so on.

The number of students pursuing such courses in architecture and in the social sciences has grown so rapidly, and the number of people doing research and professional work in the interface between architecture and human behavior has grown so large, that there is now a viable interdisciplinary field called Environment-Behavior Studies (EBS). The formal founding of the field may be traced to 1968 when several of us formed the Environmental Design Research Association comprised of architects, planners and social scientists.

The field has two aspects. As pursued in the social sciences, environment-behavior studies is

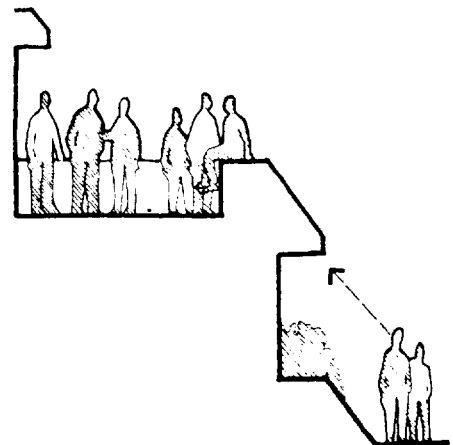
primarily research-oriented, though many students are moving immediately into consulting and professional jobs. Environment-behavior studies in architecture and urban planning deal more with applications, where students are interested in user requirements and applications of behavioral insights to the design process.

Seen from both sides, EBS may be defined as the systematic study of the relations between the physical environment and human behavior and applications to environmental problem-solving through architecture and urban planning.

Environment-Behavior Studies in the School

Since its inception in 1969, the School has been committed to contemporary approaches to insuring that future architects are sufficiently knowledgeable and skilled to create good architecture in response to human needs. In fact, it is fair to say that the School has been a national leader in this regard. The philosophy of the School has long recognized that architecture and related professions require informed, intelligent and sensitive designers — sensitive not only to buildings and facilities, but also to the people who will use them; sensitive not only to human behavior or any other single determinant of design, but to the interaction among technology, human behavior and beauty. The relationship between architecture and human behavior is introduced in the curriculum at two levels for two different types of students.

At one level, portions of the undergraduate curriculum are aimed at sensitizing all students to the relation between architecture and human behavior and to ways to design in response to environment-



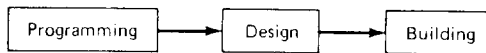
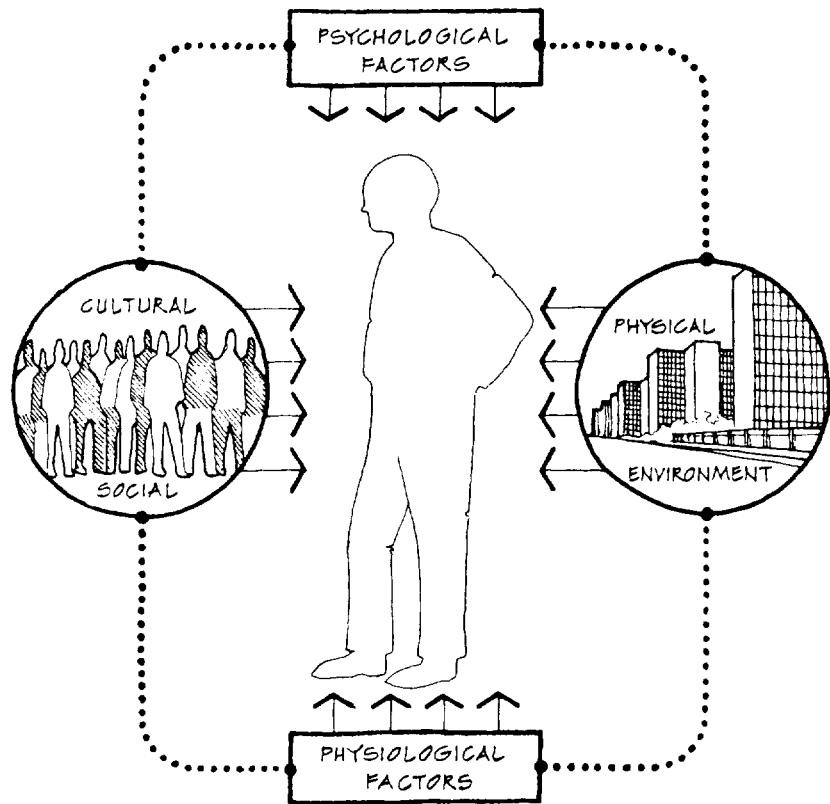
behavior information. An introductory lecture course, *Introduction to the Environment-Behavior Studies*, surveys information emerging from environment-behavior research centers around the country, ranging from anthropometrics to semiotics, that is, from data on human dimensions and the physiology of the body to considerations of meaning, image, and symbolism as the latter differ from one social group to another (see "Environment-Behavior Studies" in *An Introduction to Architecture*, J. C. Snyder and A. J. Catanese, eds., New York, McGraw-Hill, 1979, pp. 46-71). In undergraduate design studios, we take that information and show students how to apply it in the design process. Typical problems emphasize observing and interpreting spatial behavior, interviewing typical users, evaluating buildings as a way of discover-

ing how a particular building type could be designed better, and developing behaviorally based programs. The designs are then assessed not only in terms of the student designer's success in designing for human behavior, but also in terms of the richness of the data base from which he or she was working.

At a second level, the School is also committed to training those graduate students interested in the application of EBS to architecture. These students study research methods, user needs studies in office contexts, advanced techniques of architectural programming, and post-occupancy building evaluations. They develop new methods and their own personal style of incorporating behavioral, social and cultural information in the design process. This level of advanced training is accomplished through a concentration of courses, seminars, studios, independent work and theses.

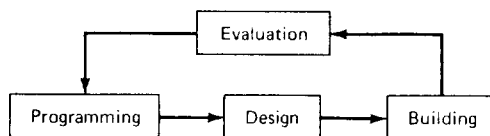
Courses in architecture and human behavior have been taught at the School since 1971. In 1975 the Department of Architecture reorganized the graduate curriculum around five areas of concentration, including the Environment-Behavior Studies Option. We now offer 13 lecture courses, seminars, and studios focusing on such topics as building design, urban design, programming, post-occupancy evaluation, research methods, and behavioral factors in health care settings, children's environments, housing, and environments for the elderly and the handicapped. There are eight faculty members teaching in the area, with backgrounds including advanced training in the social sciences as well as in architecture and urban planning.

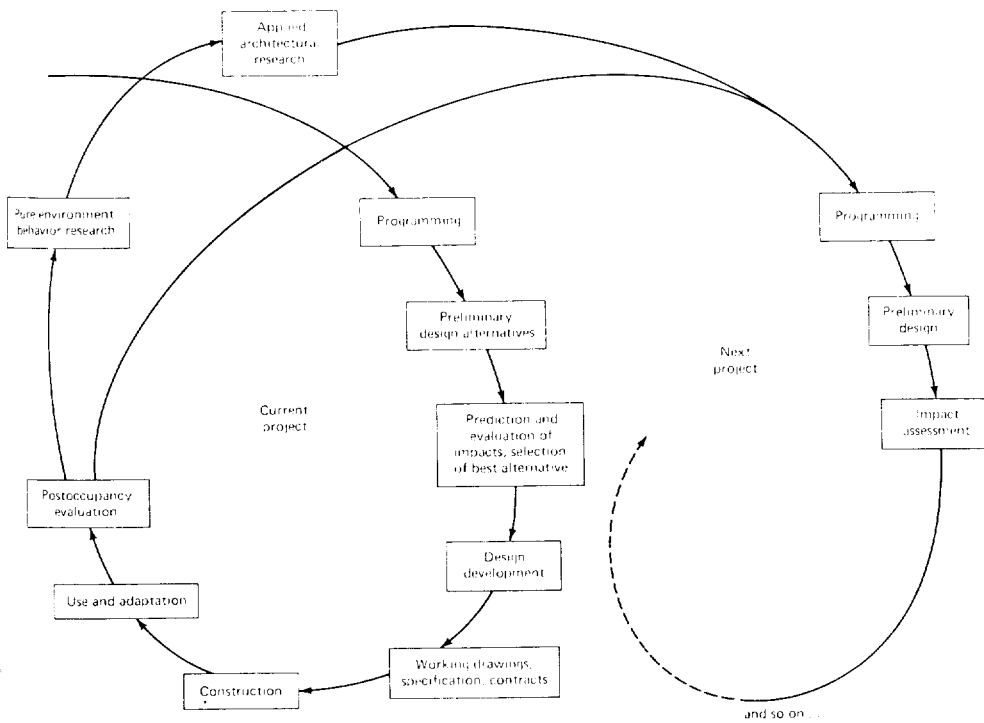
The EBS option focuses on the design process and the profes-



The building process.

The building process with evaluation.





Environment-behavior studies in the design process (based on the work of J. Ziesel, 1975).

sional concerns of architects, but the intention is to offer sufficient diversity to provide opportunity for development in other than traditional avenues. At the present time, there are 30 graduate students in the option. Most are interested in EBS/Design and are intending to become registered architects with a solid foundation in the study and application of behavioral factors. A smaller number (2 or 3 per year) are pursuing EBS/Research and are interested in other careers in programming, building evaluation, applied research, or consulting in professional offices, government, industry, or universities. Entering EBS students are characterized in halves — half entering with design and half with social science backgrounds, half women and half men, half from Wisconsin and half from various corners of the country and overseas, including Canada, Brazil, Israel, Sweden, South Africa and Japan.

Environment-behavior studies in architecture is a contemporary approach to the traditional humanistic purposes of architecture. It is a view of design and of the environment which places the values, needs and preferences of users at the forefront of the design process. It is a philosophy of design which has as its goal the satisfaction of human needs and the elimination of environmentally induced stress. And it is founded on the belief that good design and great buildings are always ultimately judged by how conducive they are to a human existence which is alive, more human, more capable and free.



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