

Planning for People

A group explores why good design does not always mean good living

THE subtle and unpredictable ways in which people change the world that architects and urban planners try to shape for them are now being explored at Princeton by a team of architects, sociologists and anthropologists. "There is a serious lack of useful, effective methods of looking at the built-environment from the viewpoint of the people who actually use it," explains Robert L. Geddes, one of the team members and dean of the School of Architecture and Urban Planning. "It is our hope that out of this project will come an improved understanding of how to design a desirable living environment. The technological, or even aesthetic, ideal may not be the true human ideal, and we would like to find out more about why this is so."

Working at two, contrasting field sites, both significant in contemporary society—one a planned community now rising in central New Jersey, the other a medical research facility designed by individual architects—the group will seek to establish methods of study and analysis which might shed light on the many ways in which people adapt to, modify, or reject elements of the man-made environment.

The sites to be studied are Twin Rivers, a pioneering venture in planned communities located about 10 miles southeast of Princeton, and two separate but closely related buildings at the University of Pennsylvania Medical School, the Richards Memorial Laboratory, designed by Louis Kahn, and the Johnson Pavilion, designed by Alexander Ewing Associates.

The multi-disciplinary study of use of the artificial environment is supported by a grant of \$187,000 from the National Science Foundation. Faculty and students from both Princeton and Rutgers will be involved in the project over the coming year. In carrying out the study, the group will make use of a wide variety of research techniques—from an individual anthropologist's reading on why people rearrange their basements to computer-aided studies of human traffic flow on the different floors of the laboratory.

"The tendency among architects," Geddes explains, "has been to think that there is a single kind of explanation for why a given housing project, or individual building, works well or goes wrong. What our colleagues in anthropology and sociology are suggesting is that there are many kinds of explanations. By working together, exchanging information, we would hope to develop improved methods for gathering and assessing human behavior in the built-environment."

Working with Geddes on the project will be two sociologists, Professor Suzanne Keller of Princeton and Professor Robert Gutman of Rutgers, as well as anthropologist Martin Silverman of Princeton. Other members of the team include two research architects associated with the School of Architecture and Urban Planning, Klaus Gartler and

Philip Steadman, and eight graduate students, two from Rutgers and six from Princeton.

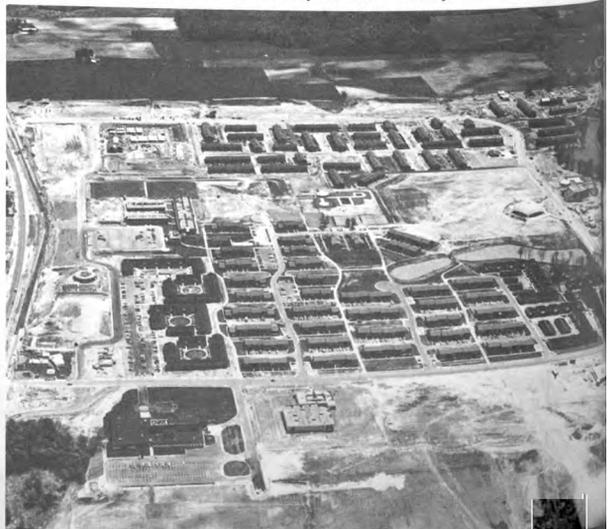
Professor Keller, whose interests are in the areas of urban planning, social stratification, and the family, stressed that "our assignment this year is not to *solve* problems we may encounter—no matter how fascinating or challenging a particular problem may seem to us—but rather to seek methods that might help us to better illuminate various aspects of the problem."

Her approach this year will be "to study the relationship between the planning done by the architects and the behavior that we observe when people live out the plan. This means a monitoring of the community, after life fills in the plan with real people and their real purposes."

Under Professor Keller's direction, several students this past summer began preliminary investigations at Twin Rivers, a town created by joint effort of community planners, state officials, and urban real estate developers. Being watched closely, its success or failure could sharply affect future planning at the state level (the community will eventually have 10,000 residents, of whom something over 1,000 are already settled).

As an example of the problem, Keller mentions the behavior patterns already observed in use of what was supposed to be a general-use swimming pool. The pool was constructed in one of the first sections of one model community to be erected and occupied, and people in that section began using the pool. When a second section of the community was opened for occupancy, and residents there started going to the community pool, they encountered social hostility from the initial users of the pool—the view that "this is *our* pool, and who are these *outsiders*." These feelings were so strong, in fact, that designers have now had to plan for a second swimming pool.

Twin Rivers, a planned community in New Jersey



Louis Kahn's Richards Memorial Laboratory at the University of Pennsylvania



A student at Twin Rivers has been observing the types of shopping patterns that are beginning to develop. Still another is attempting to keep track of transportation flow (one preliminary project this summer involved noting the frequency with which license plates showed up at various locations, a study method which—when computer-aided—might provide valuable data about use of various roads and parking lots).

Another area of Keller's concern deals with behavior when people actually move into a new community. She has been investigating "The First 100 Families of Twin Rivers." In pursuit of such objectives, members of the team might, for example, keep a record of the kinds of questions that prospective homeowners ask when they visit a Twin Rivers model home. Also of interest would be complaints made by new homeowners to the real estate developers, to see if definite patterns of dissatisfaction can be established.

Tied closely with Professor Keller's work in this area will be that of anthropologist Martin Silverman, who is concerned with social structures, cultural systems in societies, and relations between his discipline and architecture.

Professor Silverman's plans call for observation of different social groups, such as homeowners' associations, noting how they have developed, how they are structured, what their complaints are. He is also particularly interested in the modifications that people make in their homes after they move in—"What you might call the 'natural' history of the homes and the community," he said.

In contrast to examining the wider environment in the Twin Rivers project, the work at the Pennsylvania Medical School site will be evaluating two particular buildings in terms of the specific use for which they were designed. Research here—under the direction of Professor Gutman—will be directed at comparing the success of the two buildings as settings for specific human activities, and as suitable environments for the conduct of medical research.

KAHN'S Richards Memorial Laboratory has received numerous design awards and is regarded as a seminal work in the history of modern architecture. At the same time, it has been criticized for certain inadequacies which, it is claimed, actually impair its usefulness as a medical laboratory. Subsequent modifications have deliberately blotted out some of the original design features.

The nearby Johnson Pavilion, by Alexander Ewing Associates, incorporates many design features intended to overcome the practical difficulties attributed to the Richards building; it conforms more closely to the conventional design of a modern scientific laboratory.

In studying use of the two buildings, some assessment will be made of the relative inferiority or superiority of the architectural designs, insofar as they anticipated the professional needs of the users—roughly 200 workers in each building, chiefly scientists and technicians.

One of the first considerations, Professor Gutman says, should be the matter of who other than the direct users themselves get involved in evaluating a building and its possible uses. In the Pennsylvania case, for example, he points out that a great many people—university administrators, grounds and building personnel, fund-raisers, design review people, people in the architects' offices—were involved. "All of them, in some way, evaluate what they think is important about the building, and these are all inputs that affect the building's ultimate use," Gutman points out. "In that sense, we will be merely one more group of evaluators. We should recognize that in an evaluation of a building there are a lot of groups between the architectural journals and 'vox populi.'"

The Philadelphia group will be seeking to develop information about three broad areas: 1. users' response to the buildings, 2. physical properties of the environmental setting, and 3. the social and psychological characteristics of the users.

In the first area, researchers will try to measure degrees of satisfaction or dissatisfaction with the buildings, morale of the workers, efficiency records, and such questions as individual health as indicated by fatigue, attendance at the job, functional capacities and so on.

In the matter of physical properties, the team will assess such characteristics of the built-environment as temperature levels, square footage assigned to individuals, ease of communications, and sense of enclosed space. Recording social and psychological characteristics will involve study of such factors as the work activity, demographic backgrounds, and attitudes toward privacy of the users.

Dean Geddes and Professor Silverman plan to divide their time between the Gutman group in Philadelphia and the Keller group at Twin Rivers. Biweekly, all of the project members—faculty, research architects, and graduate students—will confer and report on the work in progress at a meeting back on campus at the School of Architecture and Urban Planning. Next spring, a graduate seminar is projected, designed to pull together still more cohesively the results of individual efforts at the two sites.

"It's been something of a tenet of contemporary architecture that forms derive from function," said Geddes. "But, actually, the lack of evaluation methods has made this a largely untested assumption. Our views about the ways in which buildings improve the environment are really sometimes only inspired 'hunches,' not based on any systematic gathering of information about the users. It's a major blank spot in the field. The work this year may help us to understand better something of the immensely complicated relationship between form and function. Then the methods we develop might well be incorporated into a more effective planning and design process for architects and urban planners in other parts of the country." □