Doing Sociology with the Design Professions

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ABSTRACT

This paper builds on twin assumptions that human behavior and physical places influence one another, and that design and planning should therefore be sensitive to the users of the built environment. Sociologists have a key role to play in shaping the built environment: they can bring the users' concerns to the design and planning process. Predesign research, research on the design process, and post-occupancy evaluation research are among the tools utilized by clinical sociologists working with environmental and design issues. Criteria to employ in selecting design research methods are identified and nine specific methods are ranked on those criteria and explained.

Introduction

Winston Churchill is reported to have said, “We shape our buildings, and then they shape us.” Sociologists have a vital role to play in that shaping process. This paper reviews the nature of and rationale for sociological practice with the design professions. Over the last two decades the design and planning professions have gone through an internal revolution as they introduced the systematic utilization of social and behavioral scientists into their work. Starting in the late 1960s, the author began consulting with designers and planners on such projects as comprehensive community plans, low-income housing developments, child-care facilities, educational facilities, and neighborhood parks.¹

Working as a consultant to architects, planners, and users requires the clinical sociologist to modify standard research methods and techniques because many of them do not work effectively in field settings. A diagnostic approach to the planning process, incorporating analysis of the consequences of specific design decisions, marks the contribution of the clinical sociologist
who is able to adapt research methods to the immediate needs of the situation, provide meaningful feedback to clients, and help facilitate constructive interaction among various participants in the process.

**Rationale**

As early as the 1920s, Park (1951) acknowledged that there is a rhyme and reason to the way people use the physical terrain of the city. The Chicago school of ecological sociology that emerged from his seminal work was very much attuned to the physical environment of the city. Significant early studies include McKenzie's (1923) observation of the urban milieu, Shaw's (1929) studies of delinquency in the city, and Wirth's (1928) classic study of the urban ghetto. Later, others moved to the micro level, studying how people interact with their immediate environment: Festinger, Schacter, and Back (1950), Hall (1966), Barker (1951, 1968; Barker and Gump 1964), and Fried (1972).

Interest in the interactive relationship between human behavior and physical settings is reflected in professional societies and journals devoted to the subject (e.g., the Environmental Design Research Association, *Environment and Behavior*) and courses on such topics as social factors in urban design. Practitioners in these areas, variously calling themselves environmental sociologists, environmental psychologists, social psychologists, or design researchers, concur that physical settings and our ideas about them affect social interaction, and vice versa.

A corollary aspect of this reciprocal relationship between behavior and environment is that all physical designs emerge from social processes. Decision-making activities involve intensive interaction among designers, planners, architects, and others engaged in the design/planning process. Figure 1 shows the scope of concerns associated with the various design professionals involved. In addition, government officials, lending institutions, building contractors, landowners, and users play a variety of significant roles in shaping the process. The multiplicity of roles involved in the process makes it particularly amenable to sociological practice informed by knowledge of role expectations, cultural and occupational values, theories of community and urban ecology, and social research techniques.

**The Sociological View of Design and Planning**

Basically, design is a value-added process. Borrowed from economics, this term means that as raw material becomes a shaped, finished product, its value increases each step of the way. At the same time, however, the range of final forms the raw material can take grows increasingly narrow as the process nears completion. The design process is similar. The architect or planner begins with
an idea; as design decisions are made about it, the idea becomes more real and more valuable, but the range of final designs contracts. Architects, for instance, start with a program, which is a verbal outline of needs the building or space should satisfy. During conceptual design, schematic or general design ideas are formulated, and the range of outcomes starts to narrow. Accepted conceptual designs are fleshed out during design development, further locking the designer into an evolving final form. During the construction documents phase, the final form is dictated in a set of instructions to the building contractor. Few significant changes are made during the last stage, construction supervision. Other designers and planners follow similar stages of work.

Figure 1
Concerns of the Design Professions

<table>
<thead>
<tr>
<th>Design Elements</th>
<th>Furniture Designer</th>
<th>Interior Designer</th>
<th>Architect</th>
<th>Landscape Architect</th>
<th>Urban Designer</th>
<th>Planner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Props</td>
<td>x</td>
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</table>

This aspect of design and planning holds import for the sociologist because it suggests that involvement of potential users of a facility in the design process must occur during the very first stage. Once the design process gets under way, the possibilities for alterations, based on human needs expressed either directly by the users or indirectly by a sociologist, quickly shrink. In addition, the further along the design process, the more specific and technical the work becomes, making it harder for the layperson to contribute meaningfully.

Another sociologically relevant perspective on the design/planning process concerns the degree of role specialization involved in it. The built environment has not always been the product of people called architects, planners, landscape architects, and the like. "Architecture without architects" has occurred throughout much of history (Rudofsky 1964). Rapoport (1969) discusses the way that people in earlier times were able to plan, design, and build living environments that were well suited to their needs. No one stood between the user and the final product, which enabled the user to make sure that the building reflected his or her personal needs and culture.
With industrialization, bureaucratization, and specialization, however, the proliferation and professionalization of roles in the design process has expanded significantly (see Figure 2). All the activities current specialists handle were once the responsibility of the one-person or one-family designer-builders of earlier times.

Figure 2
Specialization of Roles in the Design Process

Before: User's Needs → User → Product

Today: User's Needs
Architect
Planner
Engineer
Economist
Lending Institution
FHA
Local Government
Contractor
Sub-contractors
Labor Unions → Product

As the cast of characters grows, the role of the ultimate user is proportionately reduced. Furthermore, the technical skills of other participants easily overshadow user contributions. As the number and variety of roles in the design process multiply, concern for user needs diminishes in its centrality. Competing considerations include the traditions of each professional, profit motives, competition and friction between professions, government regulations, and funding problems. However important these considerations may be to the various participants, they are not necessarily related to meeting the user's unique needs through good design.

The Politics of Design and Planning

Perhaps the most significant tangential considerations are political ones. I am defining "political" in the broadest sociological sense of decision making and the use of power. Design process decisions about whether something should be
built, where it should be built, for whom it should be designed, are intensely political decisions often involving power struggles over such issues as zoning, land use, eminent domain, displacement, gentrification, accessibility to special populations, integration, segregation, social impact, and environmental protection.

If the design/planning process is political, entering into it constitutes taking sides, responding to an audience, and rendering oneself accountable to some party: playing the role of artist for a wealthy patron, methodologist for professional colleagues, or uncritical procurer for parties financing a project. Although all focus on an end product (judged in terms of cost effectiveness, artistic merit, or “monument value”), and all are to some extent accountable to a fee-paying client who has the power to make choices and pay for their realization, the products of these various roles differ. The artist may produce luxury homes; the methodologist “significant architectural statements”; and the procurer may produce oppressive, alienating office environments, prison-like public housing, or may threaten neighborhoods.

On the other hand, a designer may be equally concerned with the process of decision making and the impact of certain decisions on the social context of the site and its immediate environs. This approach emphasizes accountability to those who will be directly affected by the design outcome, as well as to those who pay the fee (they are not always synonymous). In this case, the designer may serve as a social change agent whose audience is composed of the potential users and/or those people most directly affected by the designs. The designer joins in a cooperative, working relationship with the audience to bring about some improvement defined positively by the community in question.

Depending on the self-image of the designer or planner, he or she will be involved either in demystifying and democratizing the process, or in perpetuating the mystery of design and preserving a monopolistic control over the built environment. The role of the clinical sociologist is in improving communication between user and professional specialists, democratizing the decision-making process, and in defining the impact of specific plans on the community surrounding a site.

**Approaches and Methods in Environmental Sociology**

*Varieties of Practice*

Practicing sociologists who refer to themselves as environmental sociologists or design researchers work at several levels, defined largely in terms of when during the design process they intervene. (I am excluding here pure research on person-environment relations, and focusing on applied work with design and planning professionals.)
1. **Predesign Research.** In general, the most frequently occurring form of design research obtains information about potential users that will aid the designer or planner in turning out a product sensitive to user needs. The sociologist plays a translator role, interpreting the language of layperson and design professional to one another. The sociological expertise called for is in locating and communicating with the potential users, asking appropriate questions about their needs, or observing their life styles, then translating that information into terms the designer/planner can comprehend and utilize. For instance, one of my projects involved articulating the child-rearing practices of a low-income population to the architect so that he could design a culturally sensitive neighborhood child-care center. Another contract entailed translating student and faculty ideas regarding a new community college to the architects. The challenge was to communicate to the professionals various design concerns shared by the users (size, shape, color, safety, style, spirit, function) regarding particular spaces, buildings, and landscape.

2. **Research on the Design Process.** Much less common is sociological research on the process itself. On the community college project, I was asked to monitor design team and user interactions, give the designers feedback about the effectiveness of their work, and identify the most productive interaction modes.

3. **Postoccupancy Evaluation.** An increasingly popular form of design research consists of evaluating a finished, occupied, and utilized facility or space. The object is to determine whether it is working from the perspective of users. This represents a significant shift in the profession of design in which evaluation has tended to be based on visual and aesthetic factors, awards are often given before structures are built, and user satisfaction has been an afterthought at best.

   In the postoccupancy evaluation of low-income housing, for example, I found residents’ concerns focused, first, on functional aspects of the project (why a certain feature was omitted, whether the paint was washable, etc.); second, on sociological implications of design (issues of privacy or the image of the project in the surrounding neighborhood); and, third, on aesthetics (shape, color, line, and form). This is in marked contrast to the criteria often used in making professional awards.

   The role of the clinical sociologist is in generating preoccupancy data, translating the needs of the user and the surrounding community to the design professionals and planners, facilitating interaction between them, democratizing the decision-making process, and evaluating the outcomes.
Specific Methods

When doing any kind of sociological research, the practitioner has to select carefully the methods best suited to the task. Determining the best methods for design process research depends on analyses of such factors as the ease of locating users, the ease of gaining access to them, their willingness to cooperate, educational level and life styles, frequency with which they have been previously studied, timing and costs of the study, and willingness of the designer/planner client to allow research and respond to findings as presented. Data gathering on such projects is most successful when the methods allow: (1) the greatest number of users to make some contribution; (2) stimulation of one person's thinking by another's to produce a rich flow of ideas; (3) open-ended discussion rather than forced, restrictive choices; (4) input from users before preliminary designs are completed, rather than reaction to designs already generated; (5) exploration of what should be and what could be, rather than rehashing of what is or has been; (6) continual participation throughout the design process, rather than a one-shot chance to make input; (7) direct input by users, rather than solely through the clinical sociologist.

Sociological research on design/planning projects, like other sociological research, takes one of two forms: asking people about their behavior or observing their behavior. Both Michelson (1975) and Zeisel (1981) describe various methods in detail and illustrate their use. The following are methods I have used, ranked roughly from the least effective to the most effective in terms of the criteria listed above.

1. **Reactor Panel.** In this method, a small but representative sample of intended users reacts to designs or plans in various stages of completion. This approach is inexpensive and quick but is limited by the small sample. In addition, even sketchy designs and plans rendered by professionals can intimidate the layperson into a reluctance to criticize. I have used this approach in gathering data from users of married student housing, but only in combination with other methods.

2. **Observation of Existing Facilities or Sites.** This method yields indirect data in the sense that the researcher observes users in a site similar to the one to be designed, but he or she does not interact with them directly. Although this method can be time efficient, the major drawback is that patterns of current usage and design dominate, as if culture were not dynamic. Direct observation can be done with the naked eye, or via photography, film, or videotape. An excellent example is Whyte's study of the use of urban open space (1980).

3. **Questionnaires.** While this time-honored social science tool allows the practitioner to tap a large sample of users, one cannot possibly anticipate every
design consideration; thus the one-shot nature of questionnaires becomes a serious drawback. An additional problem is the inability most people have to be very articulate about their design preferences. The method does have greater applicability for less design-oriented, more planning-oriented projects, where the task might be to establish general goals for a comprehensive community plan.

4. **Joint Tour of Existing or Proposed Facility or Site.** This involves users, the design team, and the sociologists all going through facilities or sites, conversing along the way. It is especially good for stimulating questions by the design team or the sociologist for the user. On a married student housing project, such a tour of several existing student housing developments generated helpful comparisons and the pinpointing of many good and bad design features.

5. **Individual Interviews.** Formal or conversational open-ended interviews with users start to yield good results, but lack the interrespondent stimulation that some other methods allow. I found this approach useful in some neighborhoods where residents could not be brought together easily, or at a community college where students' time was limited.

6. **Public Meetings.** A great deal of interrespondent stimulation occurs in large public meetings as ideas are bounced back and forth. However, the size of the group may intimidate the shy, retiring person and spur on the already vocal person. I concluded after using neighborhood meetings during an urban renewal planning study that they are better suited for the discussion of broad policy issues as opposed to specific design ideas.

7. **Small Meetings.** These meetings usually afford the same rich exchange of ideas as the larger ones, and have the added advantage of allowing more people to participate. In evaluating low-income housing, for example, I found small house meetings useful for producing lively discussion.

8. **Design Workshops.** An even better version of the small meeting, the design workshop allows design professionals and sociologists, using models, drawings, maps, floor plans, games of trade-off, and so on, to try to elicit ideas and put them into graphic form. Users can then see their ideas actualized, elaborate on them, and revise them. This affords an active role for the user. On the married student project, users arranged styrofoam blocks on a topographic map of the site to show their preferred site plan.

9. **Communications-Response Cafeteria.** Each of the data-gathering approaches outlined above has strengths and weaknesses; sometimes a combina-
tion of them can be used effectively. The combination approach is built on some assumptions about the social research process as a communications act. First, the burden of good communications rests upon the party wanting to communicate in the first place (for our purposes, the researcher). Second, that burden should also be upon the party with the greater resources for communications (again, the researcher). Third, and finally, good data cannot flow through a poor researcher/respondent relationship. I interpret these assumptions, then, to mean that the sociologist must ensure that no one who wants to give input is shut out simply by the choice of information-gathering methods. These assumptions lead to a basic hypothesis: the more heterogeneous the population of users, the more varied the types of data-gathering approaches will be necessary for greatest and most creative input.

For example, on a feasibility study for an urban renewal project, my team offered residents of the area a number of ways for participating and responding. A neighborhood storefront was established where residents could drop in, talk informally, review maps and drawings, and offer their ideas. Telephone inquiries were turned into semistructured interviews. Three field workers spent time in the neighborhood, frequenting natural congregating places and talking with people about the project. Short questionnaires were left at the counters of neighborhood shops; on several days tables were placed in large supermarkets, complete with staff, maps, photographs, and questionnaires. Two dozen community meetings of different sizes were held throughout the study area. Different demographic groups (young, old, renters, owners, etc.) gravitated to different channels of communication, thus confirming the team's implicit hypothesis.

In a second study utilizing this combined approach, the task was to obtain data from faculty and students at an existing community college about the design of a proposed new campus. The fact that only two weeks were allowed for research made a powerful argument for opening as many communication channels as possible. The team set up a space in the existing student lounge featuring a central table where informal conversations about the project were taped anonymously and with permission. A continuous slide show about the site, complete with music, stimulated ideas which could be recorded on long sheets of paper at the table or on large newsprint pads hung on the walls. A site planning game, consisting of a topographic map, various small objects to use as buildings, and appropriate labels, allowed users to visualize their ideas for the new campus. A sign-up list encouraged people to accompany us on a walking tour of the building site. Large sheets of paper asking "what would you like the new campus to be like?" were hung in conspicuous places throughout the existing campus.
Conclusion

The results of these approaches were summarized and used to generate a list of specific concerns and recommendations which were submitted for response to the architects and planners. This process stimulated an ongoing exchange of ideas beginning early enough in the design process to make a realistic and meaningful impact on the decision making. In some instances the clinical sociologist's role will end at the point of diagnostically evaluating the potential impact of the plan on users, and tailoring research methods to the characteristics of users. However, the role may continue throughout the planning and revising stage into evaluation. In either case, the clinical sociologist performs an important role in reducing the distance between user and design product.

NOTES

1. In the category of designers and planners I am including interior designers, architects, landscape architects, urban designers, and planners, each of whom deals with different but overlapping parts of the built environment.

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