

COMBINING ARCHITECTURE AND SOCIOLOGICAL RESEARCH METHODS

We have received many favorable comments from architects relating to our two previous newsletter articles. In fact, we have received only one quasi-negative comment from a person who suggested that we “drop” the words “research” and “theory” from our vocabularies because according to her, “Architects don’t do research and they don’t care about theory.”

Contrary to her beliefs, we think that architects do conduct valuable research during every phase of the design process and they definitely understand the varying theoretical approaches to solving complicated design problems. However, we do recognize that some design professionals and clients would argue that sociological research methods simply add more costs to architectural projects and with minimal return. The “business of design” is said to clash with the “social research, or humanist approach, to design.” However, we would argue that preventative research (especially during the planning or programming phases of a project) to avoid potential design problems would in almost every case be far cheaper than the costs involved in providing costly redesign services.

We would also contend that the research findings potentially provide long-term value for all concerned, including the organizational members and customers who live or work in the building on a daily basis, the clients who have put forth institutional, private, and public funding to support the project and who will inevitably need to justify to others their investment decisions, and the architectural and

construction firms which would like to see their professional reputations and future business prospects enhanced by a showcase project with satisfied users.

Social psychologist Robert Sommer (1983) argues that social science research methods can assist the architect in six major areas of design work: human use of space, awareness and environmental cognition, environmental preferences, user needs preferences, participatory design, and post-occupancy evaluation. His view, and one with which we agree, is that architecture and its related social research should serve the needs and enhance the lives of the people who live and work in designed physical environments. Architectural sociologists have developed many types of research designs, randomized and non-randomized sampling approaches, methods of gathering data, and statistical as well as qualitative approaches to analyzing data in order to answer questions that architects and their clients need to have answered – questions about preferences for and actual use of designed physical space.

We discuss below some of the data collection methods used by sociologists that are most applicable to architectural practice. As to which method is best, this decision depends on the research objective, but most often several are used in combination to achieve greater validity.

Survey Research: Three data collection methods are traditionally subsumed under the label of survey research.

(1) The “questionnaire or mail survey” is low cost, provides the respondent anonymity, and can cover wide geographical areas, but these instruments also normally contain only simple questions that do not allow much opportunity to express in-depth answers. Another concern is the low response rates of mail questionnaires, seldom over 50 percent and most frequently much lower. Architectural sociologists often increase these response rates with inducements (primarily financial or altruistic appeals found in introductory letters), follow-up reminders, and sponsorship by recognized and respected authorities (e.g., a highly respected client or the contracted architectural firm).

(2) The “personal interview” can vary from completely structured (i.e., fixed questions and response categories) to totally unstructured (i.e., complete interviewer freedom in asking questions and interpreting answers). The latter approach gives the interviewer opportunities for probing and in-depth responses. As compared to mail questionnaires, interviews are higher in cost, provide no assurance of respondent anonymity, and introduce the possibility of interviewer bias. The often used “focus group interview” is held at one place and time and with a small number of people; unstructured questions that focus on a given topic. This method is commonly used during the programming phase of design and some might argue that a “design charrette” is actually an example of a focus group interview.

(3) The “telephone interview” has gained much popularity because of its convenience, significant cost savings as compared to face-to-face

interviews, use with random sampling methods, and quick data analysis. As an example, a randomized telephone survey of citizens with library cards about their library use might yield information about what type of specialized programs patrons might like to see in a new library, and the number of library computer stations that would be required.

Internet Research: Internet surveys are relatively new and rapidly gaining in popularity. With this method the researcher can reach geographically dispersed populations and can reach under-represented populations often untapped in traditional surveys. Internet research is also inexpensive, quick in terms of achieving responses and recording data, and is convenient for the participant to complete and return with just a click of the button. Of the disadvantages, some people do not have internet access and there is also a possible problem of sampling bias with only interested people choosing to participate in the survey (the same is also true of all previously discussed surveys). Architects would find internet surveys as potentially valuable sources of information. As an example of this type of research, in a study of Chicago redevelopment areas, researchers combined internet survey techniques with GIS technology to plot specific locations with their existing physical conditions, public preferences for physical improvements, and the reasons for these preferences (Al-Kodmany, 2000:81-85).

Field Observation: Architectural sociologists often directly observe group members in their natural settings. These researchers inform the subjects of their role and purpose, talk directly with the subjects, and generally observe how group members adapt to their space and physical objects. Observing

where, when, and with whom people sit, eat, study, work, walk, meet, talk, and solve problems, just to name a few behaviors, can provide design clues for the architect on many decisions, such as lounges, meeting rooms, lunch rooms, office size and office configurations, access systems, and pedestrian circulation. The key research decisions to make are what behaviors to observe, who, where, and when to observe, and how much to infer based on the observations. The observer must also be concerned with the degree to which subject conduct may be altered by researcher presence and participation.

Unobtrusive Measures: In the previous methods the individuals studied are made aware of the researcher and that they are research subjects. However, with unobtrusive measures the researcher is essentially removed from the interactions and behaviors observed; thus, the natural setting is unlikely to be altered. Examples of unobtrusive measures include examining physical traces, such as analyzing worn pathways through lawn areas as indicators of where future sidewalks might be placed or recording the amount of copies made on photocopying machines as indicators of which common offices containing these machines are most often used by workers. Another unobtrusive example is behavioral mapping analysis, such as when a researcher records the frequency and timing of pedestrian traffic in way-finding systems. This information could assist the architect in the design of hallway or circulation patterns. The observer may use photographs, video taping, electronic sketch boards, 3D modeling and other such devices to illustrate that which has been observed.

Secondary Data Sources: Another important but often times underutilized research method is

referred to as secondary analysis research. This type of research relies on the use of data previously gathered by someone else. The researcher asks new questions and reexamines the data or combines the information in new ways to address a research question. For example, architects engaged in private school design might consider using data collected by the National Center for Education Statistics. The center collects information about schools, students, teachers, principals, organizational climate, goals, and outcomes.

REFERENCES:

- Somers, Robert. 1983. *Social Design: Creating Buildings With People in Mind*. Englewood Cliffs, NJ: Prentice-Hall.
- Al-Kodmany, Kheir. 2000. "Employing the World Wide Web (WWW) in Community Planning: Advancing Nasar's Work on Urban Likability and Dislikability," *EDRA, Building Bridges: Connecting People, Research and Design: Proceedings of the 31st Annual Conference*. Arthur E. Stamps (ed). Edmond, Oklahoma.

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