

Research Services

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Knowledge adds value to all human enterprise. Architects who can create new knowledge for their clients offer a valuable service that will be in increasing demand as the Information Age progresses.

Summary

RESEARCH SERVICES

Why a Client May Need These Services

- ▶ To obtain more detailed information related to core architectural services
- ▶ To obtain information to support or evaluate programs or policies
- ▶ For experienced professional support of a university research project
- ▶ To access specialized information about a construction- or design-related topic

Knowledge and Skills Required

- ▶ Understanding of research methodology
- ▶ Strong critical and analytical thinking skills
- ▶ Knowledge or expertise in the specific subject matter
- ▶ Project management skills
- ▶ Strong writing and communication skills

Representative Process Tasks

- ▶ Select examples of the subject matter for study
- ▶ Gather background information
- ▶ Develop research methods for subject matter
- ▶ Conduct user surveys
- ▶ Prepare research report
- ▶ Present research results

Research services can include many different types of applied research. The field offers opportunities for architecture firms to offer a more complete array of services to their existing clients, as well as to expand their client base by working on research projects funded through university-based research organizations or government agencies. This article is written for the traditional architecture firm that is considering the expansion of its professional services. Offering basic research services is well within the scope and potential of any firm.

CLIENT NEEDS

Clients may require research services that are or aren't project-specific. An example of a project-related research service would be a detailed occupant-use study as part of the programming phase of facility design.

In preliminary building design, a more rigorous analysis of some aspect of building performance may be required. For example, the architect might use an acoustic testing facility (in a university or a private sector research center) to evaluate the potential performance of an auditorium while it is still in the model stage. This would be a more extensive analysis than acoustic calculations done on paper, because the research facility would enable the testing of three-dimensional simulations of the proposed auditorium design. Other project factors and considerations that might give rise to research services could involve materials selection, lighting and energy design, environmental performance, seismic design, and community planning.

In some cases clients need research not aligned with a specific building project. Government agencies often require studies to

plan or evaluate their programs or policies. For example, an agency responsible for improving the safety of the built environment might fund an assessment of the performance of new seismic-safety building materials that are not yet on the market in order to determine which should be supported through government commercialization programs. Or an agency with responsibility for building safety regulations might fund a study of the relationship between blast injuries and the physical environment.

University-based research organizations often need the practical experience of professional architects to supplement their own staff for a particular research project. For example, a university-based group doing a study of Americans with Disabilities Act (ADA) requirements in hotel conference rooms might seek the participation of one or more architecture firms. The firms would provide professional advice on how the proposed ADA requirements might constrain the hotel's design solutions.

Because information gathering is often required within the context of delivering core architectural services, all architects do some research, whether or not they formalize it

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or identify it as such. Making clients aware of the value of such research can be an important marketing tool for the architect.

While many architects have their own ideas for research projects that they would like to do, architects are well advised to involve their clients in research initiatives. Clients who are involved in setting the research agenda are more likely to support the research. Architects in traditional practice are not likely to have the academic and research credentials necessary to qualify for research grants from scientific agencies such as the National Science Foundation. For architects, research funding most often comes from clients or building-industry-related agencies that have an interest in specific applied research problems.

Some firms offer research services as an adjunct to their design practices. Others specialize in research and develop expertise in specific areas. Building technology research and behavioral research are examples of broad areas of research specialization. Within the broad area of building technology, a firm might further specialize in such areas as lighting, energy efficiency, or hazard-resistant design. Social or behavioral research firms might specialize in community planning, environmental psychophysiology, or ergonomics.

Specialty firms classically evolve by successfully completing several smaller research projects for a client that is in a position to fund major, longer-term projects (such as the federal government). Eventually the firm wins funding for a larger, long-term (multiyear) research project, which enables it to gain prominence in a particular area. Since funding for large, long-term research projects is limited, specialty markets are small markets, and competition is intense. On the other hand, once a firm achieves dominance in a specialty research market, it is difficult for fledgling firms to challenge its relationships with key clients in that market. One way to break into research is to identify an emerging field in which there is little established competition.

SKILLS

There are certain basic skills required for research:

- Formulating critical questions
- Gathering information effectively as a skilled observer, listener, and library researcher
- Formulating theories
- Analyzing information completely and systematically
- Writing concisely and accurately
- Speaking in public, simplifying and synthesizing research findings

Research project managers need an understanding of research methodology, strong critical and analytical thinking skills, expertise in the subject matter involved, and project management skills. The project team must include good data gatherers, data analysts, and writers.

A critical question when staffing for research projects is whether to hire or subcontract for interdisciplinary staff. Firms that do not specialize in research often subcontract to an expert consultant for a short-term project. Specialty firms, on the other hand, often prefer to retain a competitive edge by developing full in-house capability rather than hiring subcontractors who may become competitors or subsequently work for competitors.

When an architect's research results in noteworthy findings, the firm should take the lead in disseminating research results at conferences and through professional and research journals. Most architects will need to work with editorial and research consultants in order to write an article that would be considered appropriate for a true research journal.

PROCESS

The following describes an actual project that illustrates the research process.

A government agency, with responsibility for issuing design guidance for courthouses, wanted to learn more about the effects of the architectural setting on those who visit and work in courthouses, so that it could improve its design guidance and refine its long-range plan.

An architectural research organization studied several actual courthouses to identify the kinds of experiences the public and court workers have as a result of the architectural

setting and to test the utilization of ethnographic survey methods in understanding the nature of experiences for people who use public spaces.

The work plan included the following steps:

- Selecting courthouses for study
- Gathering background information
- Developing research methods for ethnographic studies of the subject courthouses
- Conducting user surveys
- Reviewing preliminary survey results
- Preparing research reports
- Presenting research results

Selecting courthouses for study. An advisory committee of people experienced with various aspects of the relevant issues was formed. With the advisory committee's participation, the client agency chose a number of courthouses for inclusion in the study.

Gathering background information. The architectural research team assembled information about each of the selected buildings, including architectural programs, plans, and specifications, and produced a report on each.

Developing research methods for ethnographic studies of the subject courthouses. A subcontractor identified research methods for ethnographic studies for the subject courthouses. The subcontractor developed an ethnographic procedure for each courthouse, including user survey forms and photographs of specific spaces in each building to be studied.

Conducting user surveys. Interviews with senior officials at each of the courthouses were scheduled to prepare for user surveys. The architectural research team conducted user surveys. Preliminary survey results were compiled.

Reviewing preliminary survey results. The advisory committee met to review the preliminary survey results for the client agency, suggested additional work to be done, and formulated preliminary findings for the client agency.

Preparing research reports. The research team wrote reports on each courthouse studied, as well as a final summary report. The advisory committee reviewed the reports.

Presenting research results. The architectural research organization briefed officials of the client agency on the research results.

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The AIA provides a contract document designed especially for alternative architectural services.

B102–2007, Standard Form of Agreement Between Owner and Architect without a Predefined Scope of Architect’s Services.

AIA Document B102–2007 is a standard form of agreement between owner and architect that contains terms and conditions and compensation details. B102–2007 does not include a scope of architect’s services, which must be inserted in Article 1 or attached as an exhibit. Special terms and conditions that modify the agreement may be included in Article 8.

The separation of the scope of services from the owner/architect agreement allows users the freedom to append alternative scopes of services.

AIA Document B102–2007 replaces and serves the same purpose as AIA Document B141–1997 Part 1.

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