



Linda Groat and David Wang
Architectural Research Methods

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Reviewed by Kerry London and Michael Ostwald

In 2002, Linda Groat and David Wang published a text on research methods specifically aimed at architectural scholars and practitioners. With the growth in pressure on academic staff in architectural schools around the world to improve research performance this text is timely. Also, the increasing importance of research postgraduate qualifications across the architectural profession and in related specialist areas (heritage conservation, architectural science, architectural computing, etc.) means that more and more people with architectural training are seeking research skills. For these reasons a text like Groat and Wang's *Architectural Research Methods* is not only useful for people who are learning research skills, but also for people who have already developed research skills and are interested in developing a wider understanding of the hermeneutical and epistemological dimension of architecture.

Groat and Wang's text is separated into two parts: Part 1: The Domain of Architectural Research; and Part 2: Seven Research Strategies. In Part 1 there are 5 chapters which aim to introduce the reader to architectural research and the methods used to undertake this research. This background is then developed in the following section, which argues that the methodology of a research study develops from the underlying ontological and epistemological assumptions that are found in the study. This symbiotic relationship between the methodology and the study's epistemology is woven through the remainder of the text and is a central message of the work.

Part 1 describes various approaches to the literature review and develops diagrams to assist in providing an explanation of the relationship of all the components of a study; i.e., the topic of inquiry, topic literature and methodology literature, strategies and tactics, the researcher and intended audience. Importantly, in the chapter entitled "Design in Relation to Research," the debate over whether design is research or not is approached. Groat and Wang, much to their credit, clearly make the distinction without discrediting either worldview. Chapter 4, "Theory in Relation to Method," provides an outline of seven research strategies that are then explained in detail in Part 2. In this section readers are invited to seek out more information on particular strategies if their interest is piqued and if their current research question demands a specific approach. Ultimately Part 1 provides new researchers with a broad understanding of different methods of inquiry which are appropriate for different topics of investigation.

The second part describes seven research strategies or methodologies that are widely used in architectural research. These include interpretive-historical, qualitative, correlational, experimental and quasi-experimental, simulation and modelling, logical argumentation and case study, and

combined strategies. One may not agree with this classification system; however, this does not seriously detract from the text. The methodologies defined do differ from Ruedi and Bordon's *The Dissertation: An Architectural Student's Handbook*, which, although not as exhaustive as Groat and Wang, still offers some valuable insights. Logical argumentation is explained particularly well by Groat and Wang and undergraduate students would be able to grasp these concepts within a couple of readings. The early postgraduate student or talented undergraduate could attempt to develop their own primary logic systems. At the end of this section readers should also understand enough to know and critique the assumptions that they make as researchers.

Groat and Wang's text has much to offer the architectural researcher and in particular it is written in relatively plain English. The key concepts are described in such a way that they can be grasped even by novice readers. The claim that this text would be useful for practitioners is more debatable but it admittedly may provide interested practitioners with a grounding in research skills that could be useful. The research in post occupancy evaluation methods of the 1960s through to the late 1980s probably had much more to offer the practitioner than many research approaches today. However, this does not detract from the usefulness of this text as a valuable reference document for students and researchers working from an architectural perspective.

One of the major criticisms of this text is the US-oriented worldview of architectural research. For example, in qualitative research methodologies there are numerous studies in the UK, Europe, and Australia that could have been used to explain the concepts. Architectural practice has progressed greatly since Dana Cuff wrote *Architecture: The Story of A Practice*, yet it is used by Groat and Wang as a kind of benchmark. Since the time that work was published, various researchers have investigated the relationship between clients and architects. There are numerous more recent studies in various delineated fields of research including design management, architectural management, construction management, and project management which explore a wide variety of topics, methodologies and research questions that could be drawn upon. It might also have been useful for the average reader to describe ethnographic research in some detail, as strictly speaking Cuff's study could be classed in this genre. However, Denzin, Lincoln and Strauss are authorities in qualitative research in the social sciences and they are well referenced by Groat and Wang.

Similarly, while social sciences methods, and soft humanities methods are well handled by Groat and Wang, the architectural sciences and the harder-edged humanities are less detailed in their coverage. Indeed, it is common for texts on such topics to divide methods into one of two categories—qualitative and quantitative—and to split the focus evenly, yet Groat and Wang focus primarily on the former. One exception to this observation is the strategy known as Correlational Research, which seems to partially encompass some numerical methods (including statistical analysis). The usual approach to statistical methods is to begin by introducing descriptive and inferential statistics and then place techniques within these categories. The approach taken by Groat and Wang may not be particularly distracting to an experienced researcher who knows this background, but it may confuse people who are new to the field. This lack of quantitative research is particularly noticeable for architectural historians and geometers who are interested in measuring modern and historic structures, materials, and documents. While it is possible to argue that such methods are well covered in standard books on quantitative research, there are peculiarities in architectural research which should be addressed in such a work. How should a historic building be measured? Is the technique (or merely the degree of accuracy) different when considering a modern structure? Are there “degrees of error” for such methods and how do they

take account of the construction methods being employed? While this area of research is not covered by Groat and Wang they do examine some cases where experimental techniques have been used to replicate historic building forms. These cases are helpful benchmarks for researchers with a particular interest in architecture and mathematics.

Ultimately Groat and Wang's *Architectural Research Methods* will provide novice researchers with a useful text for their bookshelves that will find heightened use throughout their academic careers. This text is certainly recommended to anyone responsible for teaching research skills in undergraduate or postgraduate courses. It was given a trial by one of the reviewers and was found to be an extremely useful guide for teaching new architectural researchers who had little prior formal training in scholarly and academic research.

Related Literature

Dana Cuff. *Architecture: The Story of a Practice*. MIT Press, 1992.

Katerina Ruedi and Iain Bordon. *The Dissertation: An Architecture Student's Handbook*. Architectural Press, 2000.

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