Reading Buildings Instead of Books: Historic Structure Reports as Learning Tools

DAVID G. WOODCOCK

A disciplined building investigation involving research, field study, and analysis introduces student teams to the process and content of a historic structure report.

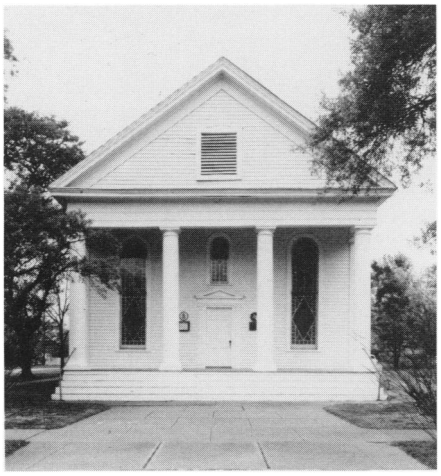

Fig. 1. The First Presbyterian Church in Calvert, Texas, at its second location in the town, stripped of the tower that appears on an 1877 photograph of the building on its original site near the railroad tracks, and adorned with a Greek Revival facade after the move in 1913. Lumberyard and deed records confirmed the original date of construction of a new church in Calvert.

Students engaged in professional studies in architecture, construction, engineering, landscape architecture, and planning are showing an increasing recognition of the value of our cultural and built heritage and the advantages of resource conservation.

The discipline of building investigation provides a unique challenge involving physical and historical investigation through field work and documentary search, followed by analytical consideration of the findings and by an assessment of the probable causes of observed problems. The investigation is even more meaningful if it is carried out by a group with varied disciplines, skills, and experiences. Such projects have the advantage noted by the French educator Jean Piaget of "learning by doing," a concept more recently identified by Donald Schon and others as "reflective practice." Team projects also support the principle of historic preservation as a collaborative effort among diverse specialists.

The historic structure report provides a valuable vehicle for such activity. After studying the seminal work of Charles Peterson at the Moore House, the National Park Service's Fort Johnson study, and other professional precedents, students in a preservation philosophy and practice class at Texas A&M University are asked to identify a simple, readily accessible structure for study and to form teams across the disciplines represented in the class to undertake a building-analysis report.

The basic ground rules for building investigation are provided from a variety of sources, notably Frederick Stahl's *Guide to the Maintenance, Repair and Alteration of Historic Buildings* (1984). After the owner's approvals are obtained and safety during investigative procedures is stressed, the team embarks on its examination. While the process is significantly shorter than a full professional analysis, the students gain an appreciation of field observation, sketch documentation, and measuring, as well as an understanding of the major aspects of the building, its components, and systems. Historical research at courthouses and local libraries and the opportunity to recognize the difficulty of using oral history provide additional data. Traditional and digital cameras are used for both general and specific documentation. Some teams have used a video camera, often with graphic verbal descriptions and alarming gyrations of the images, sometimes, but not always, reflecting distortions in the subject structure!

The analysis that follows the field study makes full use of the National Park Service *Preservation Briefs* and other published material on building treatments. The major purpose here is not a specification for repair but a common-sense appreciation of the stresses to which buildings are subjected and a general understanding of structural stability and sound construction principles. While most students tend to have some background in architecture and design, students from other disciplines have gained from these field-related activities. Many have subsequently completed internships with Main Street

and similar programs, where their ability to provide an initial assessment and recognize the need to call upon seasoned professionals has proved valuable.

Since the building analysis report is a four-week homework exercise, the requirements are limited to a basic description of the structure, identification of four or five major problems, and suggestions on their probable cause and remedy. Frequently the teams are eager to emulate the professional case studies discussed in class, and the results in these cases have made significant contributions to the understanding of these resources and provided additional material for class discussion. The assignment has received excellent responses from students, and the results have produced a range of important information.

The official state marker at the First Presbyterian Church in Calvert, Texas, notes that the building was moved from an adjacent community. However, a study of nineteenth-century lumberyard records and identification of several historical photographs indicate that the present church was built in Calvert but later moved across town to its present location. The evidence was clear, and the student team received an invitation to present its findings to the members of the church.

The Sealy Mansion in Galveston is the only McKim, Mead, White building in Texas. During its conversion to a medical conference center the original elevator was to be removed. The student's analysis of this building component provides a permanent record of this important feature. In addition to drawings and descriptions of the cage, shaft, and workings, the study included a brief history of the residential elevator and the manufacturer of the elevator, the Sedgwick Machine Works of New York. Prior to this study it had been assumed that the Sedgwick elevator was the original, but the physical evidence suggested an earlier elevator had been installed, perhaps hydraulic rather than electric, so this case study offered proof of the value of careful observation and documentation.

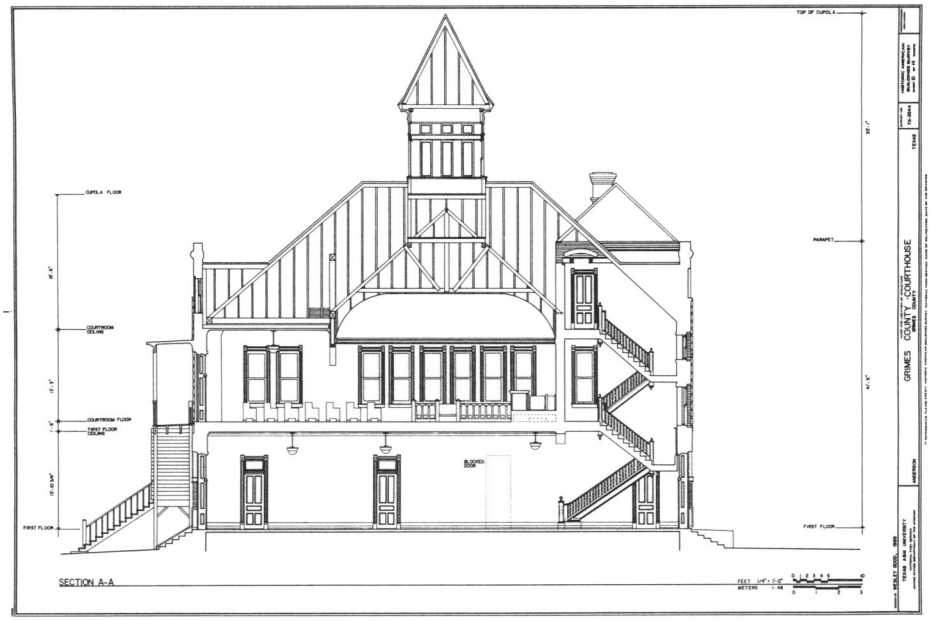

Fig. 2. The Grimes County Courthouse was constructed in 1894, after fire had damaged earlier structures on the site. Placing the courtroom on the second floor allowed for clear spans, since there are no rooms above. The Victorian builders provided only one stair in the building, though an external wooden stair was added to the south side in the 1920s. Concern for life safety and accessibility is a major challenge that can only be addressed by the addition of a sprinkler system and an elevator, the latter causing a significant reduction in usable space. Documentation by Texas A & M University student team, summer 1989. HABS Collection, Library of Congress.

Occasionally such analyses provide the basis for physical change. One of the issues noted in a study of the Grimes County Courthouse in Anderson, Texas, was that the second-floor courtroom did not meet accessibility standards. The student's analysis and proposal suggested a solution that, with some modifications, is likely to be realized in the near future.

While such studies must be recognized as academic exercises, there is overwhelming evidence that the introduction to a systematic procedure and the basics of observation and analysis are an invaluable preparation for the professional. The process also demonstrates the value of the preservation professional to the broader public.

DAVID G. WOODCOCK, FAIA, RIBA, is a professor of architecture at Texas A&M University and directs the interdisciplinary Certificate in Historic Preservation graduate program.

Acknowledgments are due to all my students in historic preservation, especially to those whose work is described in this article: First Presbyterian Church study: Geoffrey Brune, Anat Geva, and Emma Hocker; elevator in the George Sealy Mansion: Charles John; Grimes County Courthouse accessibility study: Melissa Paul.