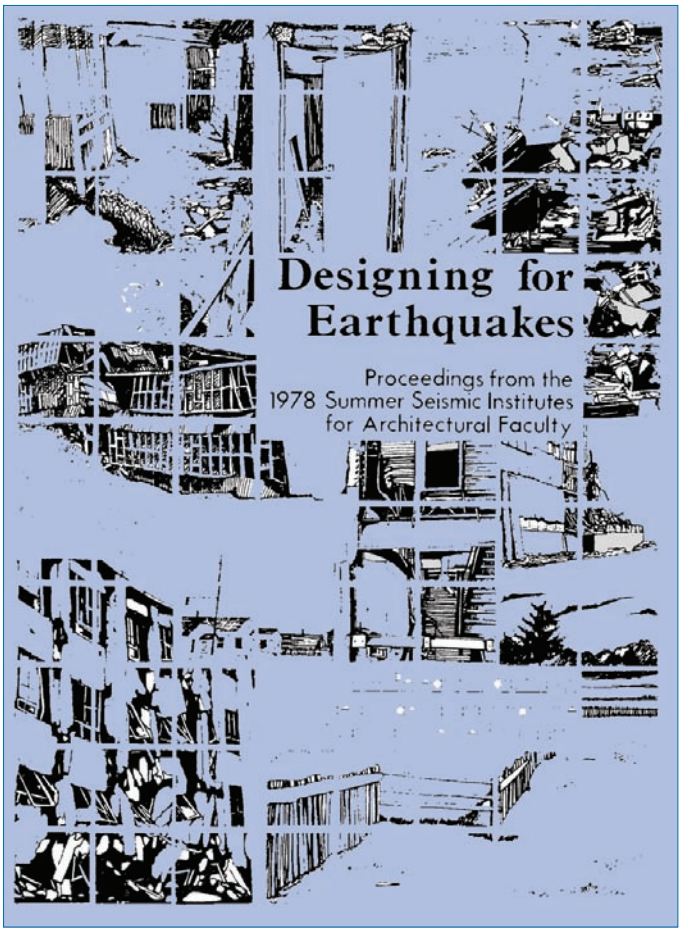
BACKGROUND AND PURPOSE

In 1978, the National Science Foundation supported the American Institute of Architects in the preparation of a document entitled *Designing for Earthquakes*. This document, which has long been out of print, was a compendium of papers presented at the 1978 Summer Seismic Institutes for Architectural Faculty, held at the University of Illinois and Stanford University.

FEMA has long fostered a strong relationship with the architectural community. It was decided that *Designing for Earthquakes*, which had remained for many years a major reference for architects and related professions, should to be updated to reflect advances in technology and understanding that had occurred since the original document was published.



The need for updating this publication was prompted by the fact that literature on natural hazard mitigation directed towards the architectural profession is scarce, in spite of the fact that architects can make a significant contribution to hazard risk reduction. While many textbooks exist on the design of structures and the nature of earthquakes, they are of a specialist nature, directed to their own disciplines, and written in their own special language.

Currently no single publication exists that provides up-to-date information necessary to architects, presented in a form that is attractive, readable, and intelligible to a non-specialist audience. This revised publication will fill that gap.

The present publication, under the same title as the original document, is a completely new work. It follows the general approach of the original in that it consists of a series of chapters that provide the foundation for an understanding of seismic design, each authored by an expert in the field. The authors were given freedom to decide the scope of their chapters; and thus this publication represents expert opinion rather than consensus. An outside expert review panel has reviewed two drafts of the publication to ensure that the selected topics are covered in an accurate, interesting, and useful way.

Designing for Earthquakes: a Manual for Architects is intended to explain the principles of seismic design for those without a technical background in engineering and seismology. The primary intended audience is that of architects and includes practicing architects, architectural students, and faculty in architectural schools who teach structures and seismic design. For this reason, the text and graphics are focused on those aspects of seismic design that are important for the architect to know.

Earthquakes in the United States are regional in their occurrence. While California is famous for its earthquake,, other states, such as Texas, have much less concern for the threat of temblors. However, architectural practice is becoming increasingly national and global, and the architect in Texas may find that the next project is in California. Thus it has become necessary for the professional architect to have some knowledge of the earthquake problem and how design seeks to control it.

Because of its non technical approach, this publication will also be useful to anyone who has an interest and concern for the seismic protection of buildings, including facility managers, building owners and tenants, building committee participants, emergency service personnel, and building officials. Engineers and engineering students will also gain from this discussion of seismic design from an architectural viewpoint.

The principles discussed are applicable to a wide range of building types, both new and existing. The focus is on buildings that are designed by a team that includes architects, engineers and other consultants.

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