

Peter Yanev, *Peace of Mind in Earthquake Country*. San Francisco: Chronicle, 1974. 304 pp. \$9.95.

This unique book provides several recipes conducive to seismic peace of mind for the individual owner of property in that one-fourth of the United States that is subject to destructive earthquakes. The first of these recipes, knowing one's seismic hazard, is elaborated in an Appendix of fifty-three pages on the seismic history and active fault locations in seven western states, particularly in California.

The treatment begins with a brief primer on earthquakes. The book unfolds with how to recognize and avoid geological hazards and how to avoid or correct structural hazards. Practical advice on earthquake insurance comes next. The closing accent is on "how to behave before, during and after an earthquake to protect your family, yourself and your property". The brief foreword by Charles Richter is required reading because it gives perspective to seismic risk: "After all, the long-term risk to life and limb in our earthquakes is far less than the daily hazards that we all take on our streets and highways."

The hazards of fault ruptures affecting the site of a home and the hazards of building foundations are discussed in appropriate detail and illustrated with many examples from past earthquakes. These hazards include the invasion of seacoast communities by tsunamis (tidal waves), the problem of being far enough from an active fault, the hazards of earthquake induced landslides, and the failure of foundation soil due to intense ground vibrations. Man-made hazards such as dams, power lines and neighboring buildings are also described and illustrated.

It seems appropriate to note here that dam failure hazard in California exists basically for the hydraulic fill dams built prior to approximately 1920. State and federal agencies are evaluating these dams and are requiring that they either be brought up to acceptable safety

standards or else taken out of service. The individual property owner can determine through inquiry of the dam owner whether the dam in question has been modernized, as well as what area could be flooded in event of a failure.

One-third of the book deals with architectural and structural hazards to individual homes, and how to avoid or correct these hazards. This is the area of the author's education and experience. It is very lucid, thorough and interesting. It goes into considerable detail on how and whether to strengthen existing homes so as to effect reasonable earthquake resistance, and what to provide for in new construction.

Many cities and counties in seismic areas have sound antiseismic provisions in their building codes, applicable to new construction, but many communities that should have such provisions either do not, or lack adequate enforcement. Included in the deficient category are some cities in the southern and eastern United States, i.e., Memphis, Boston, St. Louis and Charleston (S.C.). As to types of construction, "of all of the most common types of buildings, those constructed of brick that has not been reinforced by steel and poured concrete framing have consistently suffered the most severe damage during earthquakes".

The reader can find a lot of peace of mind if he conscientiously follows the book's advice. He may find more seismic peace of mind than is appropriate, or than he wants to pay for, recognizing that he should also consider other risks such as fire, flood and traffic.

Peter Yanev has made a valuable and special contribution through this book, meeting a need of long standing and broad scope. It should be brought to the attention of everyone unfamiliar with earthquakes who lives or plans to live in the seismically active parts of the United States.

C. Martin Duke
School of Engineering,
University of California at Los Angeles