The volume can be warmly recommended as a source of fair, well-balanced summaries of the principal physical features and dynamic processes of oceans and shorelines. Controversial questions are still abundant, such as the eustatic/tectonic relations of former coasts, as are just plain gaps in our knowledge which leave white spaces on many distribution maps. The author does not try to gloss over the imperfections, but leaves rather the impression of the wonderful variety and endless challenges that remain.

Rhodes W. Fairbridge
Columbia University
New York

**Sea Levels, Land Levels, and Tide Gauges.** K. O. Emery and D. G. Aubrey, 1991. Springer-Verlag, New York, Berlin, *etc.*, 237p., 113 figs. ISBN 0-387-97449-0 (NY); 3-540-97449-0 (Berlin).

This is a remarkable volume that will find a welcome place on the desk of almost every coastal scientist. It is a comprehensive review and analysis of the world's tide-gauge data. Ideally we would like to use long runs of measurements (like Amsterdam, which started in 1682), but unfortunately only five records exist in the over-100 yr class. Some 65% of the 664 tide stations examined have records of <30 yr, which is not long enough to span major climatic fluctuations. In the end the authors decided to analyze 98 records that were adequately long and complete. Even then a serious bias exists; only two are from the southern hemisphere and none are from high latitudes. Furthermore, outside of the glacio-isostatic uplift areas, most of the stations are sited on subsiding coasts; thus a strong bias suggests local sea-level rise. The authors carefully review all the different processes that may affect the values.

In their Figures 96 and 97, graphic representations show the patterns for those 98 records with regression means indicating rising or falling relative sea level around the world. The geological reader will notice immediately that most of the rising coasts are in the glacio-isostatic regions of Scandinavia and Canada. Plate margin tectonics account for the others. The most stable coastal sectors are *all* along the mature, passive plate margins, specifically those part of the former megacontinent of Gondwanaland.

The volume is replete with helpful tables and interesting figures. It has over 800 references, half of them published since 1979. The work is "user-friendly" to the point of having extensive summaries in no less than eight languages. The authors evidently hope it will be useful world-wide. I'm sure they are right.

Rhodes W. Fairbridge
Columbia University
New York