Industrialized Building in the Soviet Union (A Report of the U.S. Delegation to the USSR), James R. Wright, Editor, *National Bureau of Standards Special Publication 334*, 81 pp., December 1970.

The report describes building practices in the USSR, particularly the construction of mass-produced apartment buildings. It contains, however, some statistics on the damage to the city of Tashkent by the earthquake of April 26, 1966: "Tashkent, fourth largest of the Soviet cities, demonstrates Russian resolve and the potential for the industrialization of housing. In 1966, an earthquake nearly demolished this city of 1,100,000 in Uzbek Republic. One-third of the total living area was destroyed and another one-sixth was damaged to an extent requiring demolition. The earthquake destroyed 96,000 apartments, 225 nurseries, 181 schools, and 118 medical facilities. Out of this rubble, Tashkent has rebult 23,000,000 square feet of housing and 15 schools in the last two years."

Only fragmentary information is available on the effects of this earthquake and successive reports have monotonically increasing numbers. The foregoing numbers are presumably the "official" statistics as of 1970. The "official" casuality list has 8 deaths and over 1,000 injured. Rumor in the USSR speaks of 1000 to 2000 deaths from heart failure. The shock apparently had a magnitude between 5 and 6 and originated directly under the city with consequent destruction of many old one- and two-story unburned brick and adobe buildings.

In the article "Tashkent Earthquakes," *Central Asian Review* **14**, No. 3, 1966 (London), A. Sheehy quotes an Uzbek Central Committee Report that 85,000 dwellings were damaged or destroyed, 2,000,000 square meters of housing destroyed, and 68,000 families homeless.

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BOOK REVIEWS

Dynamic Waves in Civil Engineering. Howells, D. A., Haigh, I. P., and Taylor, C., Editors. Proceedings of a Conference organized by the Society for Earthquake and Civil Engineering Dynamics held at University College of Swansea on July 7–9, 1970, Wiley-Interscience, John Wiley & Sons, Ltd., London, New York, Sydney, Toronto, 1971. $28.50.

These proceedings of a conference organized by the Society for Earthquake and Civil Engineering Dynamics, which is the British National Section of the International Association for Earthquake Engineering, bring together 19 papers from England, 6 from the United States, 3 from the USSR, and single contributions from Australia, South Africa, and India. About half of the papers are of direct interest to earthquake engineers; of the others, 6 involve mainly ocean waves and their effects on coastal structures, 5 treat of soil and structural dynamics problems of general interest, 2 are concerned with design for wind loads, and the remaining involve background material of a theoretical or mathematical nature, including an introductory paper on the historical background of the applied mathematics of waves by M.J. Lighthill. Of the papers that will be of direct interest to many readers of the *Bulletin*, that by R. Burridge summarizes recent work on source mechanisms and fracture produced wave sources; P. L. Willmore reviews briefly the problems of modern observational seismology and comments on the relation between strong-motion and weak-motion seismology; P. Grootenhuis discusses the dynamics of foundation blocks; K. Hodgson and N. G. W. Cook summarize recent studies of seismic waves generated by rock bursts; B. O. Skipp and J. W. Tayton discuss ground and structure response to blasting vibrations; S. Prakash and M. K. Gupta report on experimental studies on liquefaction and settlement of loose sands under vibrations; F. H. Grover discusses some cases of vibration-induced damage of dock structures; H. T. Halverson presents information on currently available instrumentation for measuring strong ground motion; R. Dungar and R. T. Severn report on experimental dynamic tests of models of dams; B. Nath presents an analysis of structural and hydrodynamic coupling for a gravity dam considering vertical earthquake motions; M. P. White discusses analytically the seismic behavior of a floating structure; C. A. Cornell summarizes recent studies on a probabilistic analysis of damage to structures under seismic loads; A. K. Malhotra and J. Penzien analyze a tall, open structure subjected to stochastic excitation as of water waves or earthquakes; R. N. Swamy discusses experiments on damping in cementitious systems; and B. Rawlings presents a study of steel structures subjected to impulsive overload. Several papers from groups in the USSR indicate that earthquake engineering studies there are concerned with problems, methods, and general conclusions very similar to those that are currently exercising their Western colleagues. Several of the papers involved

in ocean waves contain information such as wave run-up, which is of direct relevance to the tsunami problem. Other topics touched on include several interesting examples of dynamic tests of full-scale structures, the effects of waves in soils on underground structures, and dynamic stresses in an offshore mobile drilling unit. Most of the papers are of a brief summary type aimed at an overall view of the present state of knowledge and an indication of the outstanding problems of current interest. In this, they are mostly successful and the volume presents in an interesting way a good picture of the increasing role dynamics problems are playing in the Civil Engineering field.

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ERRATUM

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SURFACE MOTION OF A SEMI-CYLINDRICAL ALLUVIAL VALLEY FOR INCIDENT PLANE *SH* WAVES

BY M. D. TRIFUNAC

P. 1762, Figure 6. 50° in the upper right-hand portion of the figure should be replaced by 60°.
P. 1762, equation (23). $\pi/2$ should be replaced by π.
P. 1762, equation (24). $(n/2 + \frac{1}{4})$ should be replaced by $(n + \frac{1}{2})$.
P. 1763, line 3. $\frac{1}{12}, \frac{3}{12}, \frac{5}{12}$ should be replaced by $\frac{1}{6}, \frac{3}{6}, \frac{5}{6}$.
P. 1763, line 4. The line should read "find that $\eta \approx \frac{7}{6}$ and $\frac{13}{6}$ indeed give high amplifications, whereas $\eta = \frac{9}{6}$ and $\frac{11}{6}$, which."