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Cement and Concrete Research 34 (2004) 2169

CEMENT AND CONCRETE RESEARCH

# Book review

**Water Transport in Brick, Stone and Concrete**
By Christopher Hall and William D. Hoff, Spon Press, 11 New Petter Lane, London EC4P 4EE (2002) 318 pp.

Hall and Hoff have completed a comprehensive treatise on the interplay of water with building materials, including brick, stone, and concrete. Because many processes in building construction and performance are mediated by water, including processes of degradation and decay, an understanding of the mechanisms by which porous materials absorb and transmit water is highly important to predicting their durability. The authors have elaborated a theory of water movement in building materials and structures. They begin with a basic general treatment of porosity, including methods of measurement of porosity and its properties, followed by a discussion of water in porous materials and its quantitative measurement. Next, flow in porous materials, its measurement, unsaturated flow, two-phase flow, and sorptivity of construction materials are discussed, then, composite materials are treated, multilayer materials, the science of evaporation and drying, and salt crystallization and efflorescence. Finally, other topics in water transport are examined, such as water retention and transfer in slurries, rain absorption, drying of buildings, and frost damage.

The book is well documented and indexed, including 798 references, and many examples of data are given to substantiate the theory. The authors draw from various fields, including soil science and petroleum and chemical engineering, in addition to building and civil engineering. Extensive notes and discussion to each chapter augment the text, while a glossary of terms is included at the end to reduce any ambiguities. This reader would recommend the book as a ‘‘must’’ reference for those dealing with water transport in building materials.

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24 March 2004

doi:10.1016/j.cemconres.2004.04.003