

BOOKS

A COMPILATION OF MICROGRAPHS ON WOOD AND WOOD PRODUCTS, by Norman P. Kutscha. 79 pp., illustrations, with additional CD-ROM, 2007. Forest Products Society Publication No. 7225; ISBN 1-892529-49-1. Price US \$49.95 (\$39.95 for members of the Forest Products Society).

This compilation is in fact a beautiful atlas of micro- and macrophotographs of wood structure arranged in chronological order in which the author, Norman Kutscha, emeritus advisor on Microstructure and Wood Science of the Weyerhaeuser Company in the US, made during his long and distinguished career. In the preface, Kutscha states his threefold aim: 1) to present the more interesting micrographs that resulted from research by his coworkers and himself; 2) to illustrate how the microscopic examination of wood can help to diagnose and solve problems; and finally 3) to provide a selected bibliography of use for the visual and microscopic examination of wood.

Kutscha started his training and career at the SUNY College of Environmental Science and Forestry and was trained by Wilfred A. Côté (IAWA Executive Secretary in the early 1970s), one of the great pioneers of wood ultrastructure. The high standards of micrography set by his teachers such as Côté, Core, de Zeeuw, and Timell at the SUNY College is maintained in this personal selection of illustrations which not only shows wood microstructure in all its native beauty, but also gluelines in plywood

and fingerjoints, softrot cavities in fiber walls, slip planes in softwood, wood coatings, fire retardants in tracheid lumina, bordered pit pairs in scanning electron and light microscope views to show penetration or lack thereof by CCA preservative, variously sanded and machined or resin-coated wood surfaces, wood fiber composites, particleboard, kraft liner paper, etc. To me it was a revelation that all these wood-derived products also show great microstructural beauty, not in the least thanks to the clever use of various optical filters. Some of the finest micrographs are from free-hand sections. An 11-page bibliography gives selected references by subject headings: microtechnique, staining (subdivided into helpful categories like adhesives, coatings, decay, penetration, lignin, fluorescence, etc), and photomicro- and macrography. These selected references will be very useful for technicians and advanced students of wood research.

The illustrations, which also include some diagrams and models of compression wood cell wall ultrastructure and bordered pits, are also given in a high-resolution Powerpoint presentation on CD-ROM, making them readily available as a teaching aid at both elementary and advanced levels of wood science. In summary, this atlas is a joy to read and consult and a very useful tool to get acquainted with the structure of wood and wood products.

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