



Using Drywall

Using Gypsum Board for Walls and Ceilings. The Gypsum Association. Evanston, Ill., 1985. 37 pages. Single copies free from the Association at 1603 Orrington Ave., Evanston, Ill. 60201.

by Paul Hanke

An excellent short compendium, this booklet contains technical information and practical instruction on the use of gypsum board for walls and ceilings. It opens with a brief introduction to the manufacture and characteristics of gypsum board, plus a definition of terms, such as the difference between an "end" and an "edge."

The different types (moisture-resistant, fire code, foil-backed, backer board, and pre-decorated) are briefly presented, along with thicknesses, sizes, and edge conditions. The bulk of the booklet is devoted to using the material: site storage, cutting, single- and multilayer application, applying over masonry walls, taping and finishing—did you know there's a difference between "bedding" and "finishing" compound?—and troubleshooting. The booklet tells not only how but when to repair

ridges, cracks, and other defects.

Useful tips and techniques include nailing schedules; use of strongbacks in ceilings; floating corners to reduce cracking; dealing with uneven surfaces left by the framers; and the important advice that M/R backer board should not be applied over a vapor barrier.

Special sections cover sound-control techniques and ratings, application over rigid foam boards, electric radiant-heating systems, and metal studs.

The new, self-adhesive mesh tape is not mentioned at all, which may be a simple oversight or may reflect a bias of the gypsum association toward selling more joint compound. In any case, this is a minor shortcoming in an otherwise good manual.

It ends with a short glossary and a list of association members. The booklet is pithy and informative, and the price is right. ■

Building Materials Evaluation Handbook

Building Materials Evaluation Handbook, by Forrest Wilson. New York: Van Nostrand Reinhold, 1984. 358 pages. \$34.50 hardcover.

Last week I visited a nice, young couple to talk about putting an addition on their 130-year-old farmhouse. I found a collapsing foundation wall, rotten sills, joists, and beams—caused by a dirt cellar floor and a dryer vented into the basement—and severe leaks caused by corrugated metal roofing on dormer roofs that were too shallow for this material. It's a shame this family didn't get an evaluation before buying this, their first house. But they are not alone in having such woes.

Rehabilitation accounted for 77 percent of all construction activity in 1981, according to F.W. Dodge figures cited by Forrest Wilson in *Building Materials Evaluation Handbook*. In addition to straight rehab work, interest in historic preservation has been on the rise in the last few decades.

The reasons for the growing interest in old buildings are no doubt numerous but, as Wilson points out, failures occur—in spite of our best intentions as designers and builders. Even modern structures suffer distress that often needs repair—a phenomenon that Wilson calls "technical building obsolescence." Today's buildings are complex. New materials appear on the market constantly. The environment is becoming, to use Wilson's phrase, "increasingly malignant."

The major reasons for building deterioration, however, are faulty

construction and improper maintenance. Wilson's *Handbook* provides a tool that will enable rehab workers to understand and analyze building distress and take corrective action.

Wilson opens with a minicourse on construction materials: stress, strain, and structural properties. He follows with specific chapters on the qualities and foibles of masonry, wood, metals, and concrete. For each material, he provides a summary of its physical properties (e.g., the effects of moisture content on the stability, strength, and decay of wood), and then describes how to identify damage by visual inspection and by mechanical, electrical, and other sorts of destructive and nondestructive testing. Finally, Wilson offers a chapter that summarizes his general procedure for assessing buildings.

Along the way, he goes into detail on categorizing material problems and controlling moisture penetration (particularly through good joint design). We also learn about all types of material-testing procedures. The writing is clear, despite its technical nature. Illustrations, in the form of photos and cartoon-like drawings, are generous. Case studies and anecdotes from the field complete the picture.

Do you know the difference between "elastic" (reversible) and "plastic" (permanent) deformation of a material? Or that the kind of splinters formed when probing a distressed piece of wood will tell you which has deteriorated—its hardness

or toughness? Or why clapboards should be nailed at the bottom and not through the upper edge of the piece underneath? Or that hemlock (despite a common misconception) is not a rot-resistant species?

Perhaps you'd just enjoy reading some of Wilson's examples: the wet rugs on the first floor caused by a leak at a parapet—18 stories up; the installation of a fan to pressurize a tightly sealed "buffer" room to prevent water from leaking into a below-grade computer center; the unscrupulous contractor who bought back a severely distressed house only

to resell it to a new victim after doing some cosmetic repairs.

Or maybe you'd like some of Wilson's dry quips, such as: "It should always be kept in mind...that it is rare to find any plans or specifications that accurately reflect the actual construction of a building."

I learned a lot from this book, and I'm sure it would be of even greater value to people more involved in rehab work. But whatever your interest in the subject, you'll find Wilson's book informative and enjoyable. ■

Plastering: A Craftsman's Encyclopedia

Plastering: A Craftsman's Encyclopedia, by William D. Stagg and Brian F. Pegg. New York: Crown Publishers, 1985. 276 pages, \$8.95 paperback.

From two English authors comes a book that is literally an encyclopedia of plastering—from *Abacus* (not the primitive calculator with beads, but "the top member of a classical capital") to *Zinc Profile* ("see profile metal"). It definitely is not a how-to manual in the sense of being a step-by-step textbook on the ancient and dying craft of hand plastering.

This exhaustive book provides a treasury of both practical and arcane information on modern and ancient plastering methods and materials for anyone who believes that gypsum board is not the ultimate interior finish. It's also of interest to those in the restoration trade, and it's reasonably priced, too. ■

Free or Cheap

Asbestos Removal: A manual developed by the Environmental Protection Agency on the best way to handle asbestos-containing waste materials encountered on construction jobs is available for \$1. To order, request GPO No. 055-000-00248-7 from the U.S. Government Printing Office, Washington, D.C. 20402.

Plaster Dos & Don'ts: A detailed bulletin on transporting, handling, and storing plastering materials is available from U.S. Gypsum, Dept. 122-ZZ, 101 S. Wacker Dr., Chicago, Ill. 60606.

A related publication, *Recommended Specifications for the Application and Finishing of Gypsum Board*, has just been updated by the Gypsum Association. The illustrated, 16-page

document (GA-216-85) costs \$1 and can be ordered from the Gypsum Association, 1603 Orrington Ave., Evanston, Ill. 60201. The association also distributes several other publications related to drywall installation.

APA Home Plans: The American Plywood Association has revised and expanded its *Build A Better Home* portfolio, a booklet describing 21 architect-designed home plans. The plans emphasize energy-saving features and cost-effective construction systems. Many of the designs are for houses of less than 1,500 square feet. Single copies of the portfolio are free of charge from the APA, P.O. Box 11700, Tacoma, Wash. 98411. Request Form No. L400. ■

—NEB Staff